Stormwater Pollution Prevention Plan (SWPPP)

Prepared for Construction Activities At:

Champlain Hudson Power Express South Bronx, Randall's Island, Astoria, New York

SWPPP Prepared For:

Transmission Developers, Inc. 1301 Avenue of the Americas, 26th Floor New York, NY 10019-6022



SWPPP Prepared By:

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SWPPP Preparation Date:

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Estimated Project Start and End Dates:

November 2023 – April 2025



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SECTION 1: CONTACT INFORMATION/ RESPONSIBILITIES

1.1 Construction Stormwater Team

Construction Stormwater Team					
Name, company/organization, position, and contact information	Responsibilities	I Have Read and Understand the Applicable Requirements of Title 15, Chapter 19.1 NYC Rules and Regulations			
Transmission Developers, Inc.		□ Yes Date:			
Primary Contractor Name					
		□ Yes Date:			
Sub-Contractor Name					
		□ Yes Date:			
Emergency 24-hour Name		□ Yes Date:			

1.2 Design Stormwater Team

Design Stormwater Team					
Name, company/organization, position, and contact information	Responsibilities	I Have Read and Understand the Applicable Requirements of Title 15, Chapter 19.1 NYC Rules and Regulations			
Transmission Developers, Inc.	Owner/Developer	□ Yes Date:			
Nathaniel Havener KC Engineer and Land Surveying, P.C. Associate 646-795-5064 nhavener@kcepc.com	SWPPP Preparer	□ Yes Date:			
Kiewit Engineering Group Inc.	Primary Consultant	□ Yes Date:			

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING 2.1 Project Site Information

Project Name and Address

Maximum Area Expected to be Disturbed at

Any One Time

Project/ Site Name: Champlain Hudson Power E	Express Segment 13, 14, and 15 – Package 8
Project Street/ Location: South Bronx, Randall's	Island, Astoria
City: New York	
State: New York	
Zip Code: 10454, 10035, 11105	
Borough: Bronx, Manhattan, Queens	
Block(s) and Lot(s): N/A (Large Transmission Line	e Installation Project)
DEC Region: 2	
Business Days and hours for the project: Monda	y – Friday / 7:00am to 5:00pm
Project Latitude/ Longitude (from GIS)	
Start Point	
Latitude: 40.804542 ° N (Decimal degrees)	Longitude: -73.928802 ° W (Decimal degrees)
End Point	
Latitude: 40.787500 ° N (Decimal degrees)	Longitude: -73.899868 ° W (Decimal degree)
Latitude/longitude data source:	
□ MAP □ GPS	specify): Google Map
Horizontal Reference Datum:	
□ NAD 27 ⊠ NAD 83 □ WGS 85	
Type of Construction Site (check all that apply):	
□ Single-Family Residential □ Multi-Family Re □ Institutional □ Highway or Road ⊠	sidential 🗆 Commercial 🗆 Industria Utility 🔹 Other:
Size of Construction Site	
Size of Property	12.69 Acres
Total Area Expected to be Disturbed by Construction Activities	2.82 Acres

2.82 Acres

2.2 Nature of the Construction Activity

General Description of Project

The proposed Champlain Hudson Power Express (CHPE) project involves the construction of ±339 miles of high voltage direct current underground and underwater transmission line from Montreal, Canada to Queens, New York. It will bring 1,250 megawatts of hydropower to replace the use of fossil fuel, reduce carbon emission, and to help achieve clean renewable energy by the year 2025. The proposed project will provide enough power for more than 1 million homes, along with numerous environmental and economic benefits to millions of residents in New York State communities.

The first ±105.5 miles segment of the CHPE installation work from Montreal, Canada to Putnam, New York will be covered under a different SWPPP and design plans by others. This SWPPP has been prepared to cover Package 8, segments 13-15, which includes the ±2.13 miles of upland cable installation of a High Voltage Direct Current (HVDC) transmission cable via direct burial in conduit or installed using trenchless horizontal directional drilling (HDD). The portion of the transmission line being installed underwater through the Bronx Kill and East River will be covered under another SWPPP by others.

The proposed ±2.13 miles of upland cable installation for Phase 8 work in New York City begins in the Bronx and runs through Randell's Island before ending at a new converter station in Astoria, Queens. Proposed work consists of installing two 8-inch-diameter PVC casings. All trenching activities and directional drilling work will be located within public roadway and Right-Of-Ways (ROWs). Two laydown areas will also be established during construction operations for staging purposes. One will be located in the Bronx near splice vault location 263 and the other will be located in Astoria near splice vault location 266. Refer to sheets C-201 and C-202 in Appendix J for the site plans for both laydown areas. All temporary construction storage and staging areas will also be accomplished within the grounds of the existing ROWs and on existing parking in Astoria adjacent to the intersection of 31st Street and 16th Avenue.

Design Phase	Segment	Design Package	Location Description	Length (Mi)
1	1	1A, 1B	Putnam / Dresden / Whitehall	±17.61
I	2	1C	Whitehall / Fort Ann	±5.80
	3	2	Fort Ann / Kingsbury	±14.51
	4, 5	3	Ft. Edward / Moreau / Wilton / Saratoga / Milton	±26.50
	6	4A	Ballston Spa / Clifton Park / Glenville	±10.20
	7	4B	Schenectady	±9.60
	8, 9	5A, 5B	Rotterdam / Selkirk Rail Yard Bypass	±22.30
2	10	6	Selkirk / Catskill	±20.90
	11	7A	Catskill	±16.29
	12	7B	Rockland	±7.55
	13, 14, 15	8	Bronx / Astoria, Queens, New York City	±2.13

Table 1 - Information for Each Design Packages

Site restoration of disturbed areas such as pavements and lawn areas are addressed on the plan sheets, detail sheets and erosion and sediment control plans. Limits of proposed disturbances and restoration areas are identified on the plans and reference site specific details regarding the required restoration. Once construction activity is completed, disturbed soils will generally be topsoiled, seeded, and stabilized. Existing paved areas will be restored to their paved condition. Special restoration steps taken for wetlands, agricultural, and other areas are described in Section 14.0 of the Environmental Management and Construction Plan (EM&CP) Narrative. The proposed grading of the roads and side slopes on site will have minimal ground disturbance to the greatest extent practical while maintaining existing drainage patterns.

Land disturbance for this project will be limited to trenching activities, laydown areas, horizontal directional drilling (HDD), and vegetation clearing. Work will be located within public roadway and ROWs to facilitate the cable installation. Existing site drainage patterns will be maintained. Construction and temporary stabilization of each site will be sequenced to avoid disturbing 5 acres or more at one time within the project segment. Land disturbance will be limited to the areas of each segment of trench and directional drilling work such that initiation of within any one place will be contingent on the completion and stabilization of a previous land disturbance. The cable installation will be phased such that no more than five acres will be disturbed at one time within one individual watershed. It is assumed that multiple crews will be performing installation across the limit of the project. Due to the linear nature of the project, sections of the disturbed areas will be stabilized as the cable installation work progresses along the alignment. As such a 5-acre waiver for disturbance will not be required.

The proposed project contains no increase in impervious area, and it is not anticipated to contribute a significant pollutant load within the watershed or to downstream waterbodies. As such, peak flow mitigation and water quality treatment are not required by the State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities (GP-0-20-001) and are not included as a part of this project, and post construction stormwater management practices are not proposed. Based on the Appendix B Table 1 of the SPDES General Permit GP-0-20-001, any construction activities that involves only installation of underground, linear utilities, such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains, will require a SWPPP that only includes ESC and daily field inspections during construction. Erosion and sediment control plans and details have been developed and will be implemented during construction in order to stabilize disturbed areas.

This SWPPP has been prepared in accordance with the criteria presented in the SPDES General Permit GP-0-20-001, the New York State Stormwater Management Design Manual (January 2015), the New York State Standards and Specifications for Erosion and Sediment Control (July 2016), and the New York City Stormwater Manual (February, 2022). This SWPPP was prepared to cover Package 8 (segments 13-15) of a multi-phase project. Work for Package 8 of the project is scheduled to take place from November 2023 through April 2025.

CHA will coordinate and obtain permits for the various State and local entities including the New York State Department of Transportation (NYSDOT), and both County and local municipalities for the various road and highway crossings, or general work in the ROW.

The total land disturbance acreage is calculated based on the length and width (±10 feet) for trenching activities, the laydown area, and directional drilling work located within public roadway and utility ROWs. Detailed disturbance and limit of work limits are depicted on the Erosion and Sediment Control plan sheets.

Design Packages	Construction Land Segment	Location Description	Total Disturbed Area	Existing Impervious Area within Disturbed Area*	Proposed Impervious Area within Disturbed Area*
8	13	Bronx	± 0.32 acres	± 0.26 acres	± 0.26 acres
8	13	New York County	± 0.64 acres	± 0.51 acres	± 0.51 acres
8	14/15	Queens County	± 0.26 acres	± 0.21 acres	± 0.21 acres
8	Bronx Laydown	Bronx County	± 0.66 acres	± 0.00 acres	$\pm 0.00 \text{ acres}$
8	Astoria Laydown	Queens County	± 0.94 acres	± 0.00 acres	$\pm 0.00 \text{ acres}$

Table 2 – Segments 13, 14, and 15 Land Disturbed Table

*Note: Assumed ±80% total disturbed area is impervious. This project involves restoration / replacement of existing impervious surfaces impacted during construction. No increase in impervious area is proposed.

Site Limitations/Assessment

Within Randall's Island working area, there was tidal wetlands area identified that the proposed alignment is anticipated to impact. As a result, ECL Article 25 Tidal Wetlands permit will be required to execute the project. According to the NYS Department of Conversation, there are no records of any rare plants, animals or significant communities that will be disturbed by the proposed disturbance. A letter from the department has been included in Appendix G.

The soil disturbance for the proposed work is limited to the total land disturbance acreage listed for each design phase. Based on a review of the USDA Soil Survey for the project area, the original soils on the project site are listed and described in Appendix H for USDA Soils Maps. A summary of the soil composition is shown in Table 1.

Table 3 - Soils	Tab	e :	3 -	Soils	
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Soil Unit Symbol	Soil Unit Name, % Slope Range	HSG	Acres in AOI	Percent of AOI		
Bronx County						
LUB	LaGuardia-Urban land complex, 3 to 8 percent slopes	С	6.4	21.2%		
W Water			0.6	2.0%		
Subtotals for Soil Survey Area			7.0	23.2%		
New York County						

		T T		
LUA	LaGuardia-Urban land complex, 0 to 3 percent slopes	С	9.3	30.8%
ULA	Urban land-LaGuardia complex, 0 to 3 percent slopes	С	1.7	5.6%
W	Water		2.5	8.3%
Subtotals for	⁻ Soil Survey Area		13.5	44.7%
Queens Cou	unty			
LUA	LaGuardia-Urban land complex, 0 to 3 percent slopes	С	5.3	17.5%
UrA	Urban land, reclaimed substratum, 0 to 3 percent slopes	С	0.2	0.7%
W	Water		4.2	13.9%
Subtotals for Soil Survey Area			9.7	32.1%
Totals for Area of Interest			30.2	100.0%

See Appendix H for the NRCS soils map for the Project.

A cultural resources management plan will be prepared by Hartgen Archeological Associates, Inc, and a copy of the plan will be included in Appendix O and in the Environmental Management and Construction Plan (EM&CP) upon approval from the New York State Office of Parks, Recreation, and Historic Preservation.

2.3 Surface Waters

Based on the existing topography on the project site, runoff is generally conveyed overland towards existing ditches, culverts, catch basins, and rivers onsite and offsite. The Harlem River is listed as an impaired waterbody.

The water quality of surface waters in New York State is classified by the New York State Department of Environmental Conservation as A, B, C, or D, with special classifications for water supply sources (AA). A "T" used with the classification indicates the stream supports, or may support, a trout population. Water quality standards are also provided. The standards apply the same classification system but, in some cases, are more stringent in an effort to eventually improve the water quality. The higher standard is most often used to reflect the existence or the potential for breeding trout (designation of (T) as discussed above). All surfaces waters with a Classification and/or a Standard of C (T) or better are regulated by the State. A summary of the stream classifications is shown in Table 2. Locations of the receiving waters are shown on figures and maps in Appendix G.

Table 4 - Summary of Receiving Waters and Stream Classifications

For each point of discharge, provide a point of discharge ID (a unique 3-digit ID, e.g., 001, 002), the name of the first water of the State that receives stormwater from the MS4 outfall. If the receiving water is on Table 1-2 of the NYC SWDM, identify the pollutant of concern and the practices used to meet no net increase (NNI) requirement by the practice number indicated in Section 5.1 of this template.

Point of Discharge ID	Name of receiving water:	Stream Classification	Is the receiving water impaired (on the CWA 303(d) list)?	If yes, list the pollutants that are causing the impairment:	Identify possible pollutant source on site based on location and intended use:	SMP/BMP used to meet NNI
001	Harlem River (Class I)	N/A	⊠ Yes □ No	Floatables	Garbage & Refuse	No net increase is required for post construction practices only. The project is being submitted as an erosion and sediment control SWPPP.
002	Bronx Kill (Class I)	N/A	🗆 Yes 🛛 No			
003	East River (Class I)	1/1	🗆 Yes 🖾 No			

2.4 Other SPDES discharges:

Site Plan Map Location	Discharge Type	Pollutants or Pollutant Constituents	NYSDEC SPDES Permit Number
Staging area to be provided within the construction area. Concrete trucks shall be allowed to wash out within project areas provided that it is within this staging area so that concrete/slurry material washed from the trucks can be collected, contained, and disposed at a later time. No concrete/slurry shall be discharged from the property at any time of construction. If such washing is anticipated, the contractor shall submit a plan detailing the control of concrete/slurry to the engineer for approval	Concrete Truck Washout	Sediment	
Foreign waste materials shall be collected and stored in a secured area until removal and disposal by a licensed solid waste management company. All trash and construction debris from the project area shall be disposed of in a portable container unit. No foreign waste materials shall be buried within the project area. All personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the project trailer and the individual who manages day-to-day project operations will be responsible for seeing that these procedures are followed.	Waste disposal	Fuels, paints	

Construction Support Activities

Contact information for construction support activity (to be filled in by contractor that pulls the permit):

Name: Tel: Email: Address:

2.5 Allowable Non-Stormwater Discharges

List of Authorized Non-Stormwater Discharges Present at the Site

Type of Authorized Non-Stormwater Discharge	Likely to be Present at Your Site?
Landscape irrigation	🛛 Yes 🗆 No
Waters used to wash vehicles and equipment (cleansers are not used) ¹	🛛 Yes 🗆 No
Water used to control dust	🛛 Yes 🗆 No
Potable water including uncontaminated water line flushing's	🗆 Yes 🛛 No
External building wash down (soaps/solvents are not used, and external surfaces do not contain hazardous substances)	🗆 Yes 🛛 No
Pavement wash waters (spills or leaks have not occurred)	🗆 Yes 🛛 No
Uncontaminated air conditioning or compressor condensate*	🗆 Yes 🛛 No
Uncontaminated, non-turbid discharges of ground water or spring water*	🗆 Yes 🛛 No
Foundation or footing drains*	🗆 Yes 🛛 No
Discharges from construction de-watering operations*2	🛛 Yes 🗆 No

*Require permits from DEP's Bureau of Water and Sewer Operations, DEP's Bureau of Waste Water Treatment, Department of Buildings and/or NYSDEC.

¹Details in Section 3.1 and Section 3.3

²Sediment laden water shall be collected in a sediment dewatering bag

SECTION 3: EROSION AND SEDIMENT CONTROLS

3.1 Practices

3.1.1 General ESC Practices

Soil erosion and sediment control plans have been developed in accordance with the Department's technical standards in compliance with the "New York Standards and Specifications for Erosion and Sediment Control". The soil erosion and sediment control plans will mitigate soil erosion and discharge of sediment offsite relating to activities from construction by using various sediment control methods such as seeding, silt fence and or composite filter sock, inlet protection, and stockpile covers. All temporary erosion and sediment controls are to be inspected and maintained in accordance with New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), in compliance with this SWPPP, and as ordered by the NYCDPR.

Silt Fence	
Reference Detail	C-603
Reference Standard	NYS BLUE BOOK Page 5.54, Project Contract Documents (Project
Design Specifications	drawings and specifications) and NYC Parks Design Standards
How does this practice	This practice will be used as a temporary barrier of geotextile fabric
meet the standards and	installed on the contours across a slope used to intercept sediment
requirements?	laden runoff from small drainage areas of disturbed soil by
	temporarily ponding the sediment laden runoff allowing settling to
	occur.

Specific Erosion and Sediment Controls

Dust Control	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 2.25
Design Specifications	
How does this practice	Dust control will be controlled as needed based on site conditions.
meet the standards and	Only plain water will be used for dust suppression. Stabilized
requirements?	construction entrances for dust control will be consistent with
	NYSDEC stabilized construction entrance requirements.

Inlet Protection	
Reference Detail	C-604
Reference Standard	NYS BLUE BOOK Page 5.57
Design Specifications	
How does this practice	A temporary sediment sack with low permeability, installed around
meet the standards and	inlets in the form of a fence, berm or excavation around an
requirements?	opening, detaining water and thereby reducing the sediment
	content of sediment laden water by settling thus preventing heavily
	sediment laden water from entering a storm drain system.

Stockpile Management	
Reference Detail	N/A
Reference Standard	Project Contract Documents (Project drawings and specifications)
Design Specifications	
How does this practice	Soil stockpiles and exposed soil shall be stabilized by seed, mulch,
meet the standards and	or other appropriate measures, when activities temporarily cease
requirements?	during construction for 7 days or more in accordance with NYSDEC
	requirements

Soil Restoration	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 4.52
Design Specifications	
How does this practice	The decompaction of areas of development site or construction
meet the standards and	project where soils have been disturbed to recover the original
requirements?	properties and porosity of the soil; thus, providing a sustainable
	growth medium for vegetation, reduction of runoff and filtering of
	pollutants from stormwater runoff.

Vegetative Protection	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 2.26
Design Specifications	
How does this practice	Protect post-construction practice areas during construction to
meet the standards and	Preserve native soil permeability, install SMP's only after site is
requirements?	Stabilized. Clearing and grubbing as necessary for the installation
	Of perimeter controls.

Concrete Truck Washout	
Reference Detail	C-604
Reference Standard	NYS BLUE BOOK Page 2.24
Design Specifications	
How does this practice	A temporary excavated or above ground lined constructed pit
meet the standards and	where concrete truck mixers and equipment can be washed after
requirements?	their loads have been discharged, to prevent highly alkaline runoff
	from entering storm drainage systems or leaching into soil.

Sediment Dewatering Bag (Geotextile Filter Bag)	
Reference Detail	C-604
Reference Standard	NYS BLUE BOOK Page 5.16
Design Specifications	
How does this practice	A temporary portable device through which sediment laden water
meet the standards and	is pumped to trap and retain sediment prior to its dis-charge to
requirements?	drainageways or off-site.

Stabilized Construction Access	
Reference Detail	C-604
Reference Standard	NYS BLUE BOOK Page 2.30
Design Specifications	
How does this practice	A stabilized pad of aggregate underlain with geotextile located
meet the standards and	at any point where traffic will be entering or leaving a construction
requirements?	site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or
	streets.

Compost Filter Sock	
Reference Detail	C-603
Reference Standard	NYS BLUE BOOK Page 5.7
Design Specifications	
How does this practice	A temporary sediment control practice composed of a degradable
meet the standards and	geotextile mesh tube filled with compost filter media to filter
requirements?	sediment and other pollutants associated with construction activity
	to prevent their migration offsite.

Tree Protection	
Reference Detail	C-601 and C-602
Reference Standard	NYC Parks Design Standards
Design Specifications	
How does this practice	See Park Standard Details for Protective Fencing & Tree
meet the standards and	Decompaction in Appendix G
requirements?	

Grass Drainage Swale	
Reference Detail	C-603
Reference Standard	NYS BLUE BOOK Page 3.35
Design Specifications	
How does this practice	This practice is constructed to divert flows from entering a disturbed
meet the standards and	area, or along tops of slope to prevent flows from eroding the slope,
requirements?	or along base of slopes to direct sediment laden flows to a trapping
	device.

Wetland Protection Fence		
Reference Detail	C-604	
Reference Standard	Freshwater Wetlands Program	
Design Specifications		
How does this practice	This practice with sign will be used as a barrier and a warning sign to	
meet the standards and	filter and safe keep water within the designated area.	
requirements?		

Erosion Control Bank Stabilization		
Reference Detail	C-604	
Reference Standard	North American Green ECB	
Design Specifications		
How does this practice	This practice will be used to controlling erosion by absorbing rain	
meet the standards and	splash energy and withstand overland flow as well as provide a	
requirements?	microclimate to protect and promote seed establishment.	

Check Dam	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 3.2
Design Specifications	
How does this practice	This practice is used as a temporary and, in some cases, a
meet the standards and	permanent measure to limit erosion by reducing velocities in open
requirements?	channels that are degrading or subject to erosion or where
	permanent stabilization is impractical due to short period of
	usefulness and time constraints of construction.

Topsoiling	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 4.59
Design Specifications	
How does this practice	Topsoil is applied to subsoils that are droughty (low available
meet the standards and	moisture for plants), stony, slowly permeable, salty or extremely acid.
requirements?	It is also used to backfill around shrub and tree transplants.

Land Grading	
Reference Detail	N/A
Reference Standard	NYS BLUE BOOK Page 4.24
Design Specifications	
How does this practice	Permanent reshaping of the existing land surface by grading in
meet the standards and	accordance with an engineering topographic plan and
requirements?	specification to provide for erosion control and vegetative
	establishment on disturbed, reshaped areas.

3.1.2 Nonstandard ESC Practices

N/A

3.2 Construction (Phasing and) Sequence of Operations

Pre-Construction ESC Activities

This SWPPP presents erosion and sediment controls, both temporary and permanent, to assist the operator in compliance with the project's SPDES General Permit for construction activity. To the degree practicable, all temporary erosion and sediment control mitigation measures shall be installed immediately before associated project areas are disturbed in anticipation of all soil disturbing activities to follow. Based upon NYSDEC regulations, 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 MS4 (provided the MS4 is not the owner or operator of the construction activity). Per DEP's MS4 Area Map, most of Randalls Island is an MS4 regulated area. MS4 area map attached.

It is the responsibility of the Contractor to ensure that all soils removed from the project site are spoiled in a manner consistent with all local, state, and federal regulations. Appropriate erosion and sediment controls shall be installed at all spoil sites. Additionally, the Contractor is responsible for coordinating the application for a GP-0-20-001 permit (and development of an associated SWPPP) if disturbance associated with any soil spoils area is greater than 0.4 hectares (1 acre). GP-0-20-001 applications must be signed by the owner of the lands on which soils are spoiled. Disturbances associated with onsite activities.

Construction activities shall be scheduled by the Contractor with the intent to minimize the amount of disturbed soil exposed at any one time by area and length of time. In general, once work has been started on a particular phase or structure, this work shall be completed to the extent possible, before work on another phase or structure is started. The Contractor must submit a schedule of construction activities for approval by the Engineer prior to any disturbance to the site.

The project will be carried out as outlined as follow, while maintaining the amount of disturbed soil in compliance with the NYSDEC limit.

CABLE INSTALLATION			
Activity (In order of construction)	Erosion and sediment control practice	When will practice be installed	Maintenance, replacement and removal of ESCs
Establish work area and contractor staging area. Install stabilized construction entrance and temporary erosion and sediment control measures.	Stabilized Construction Entrance	Before	Inspected daily. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.
Perform initial clearing to remove vegetation (where required). Build gravel access Roads and place temporary timber mattings through accessible wetland areas (where required.)	Protecting Vegetation	Before and during	Land disturbance for this project will be limited to trenching activities and directional drilling work to minimize the amount of vegetation being impacted. Vegetated protective measures shall be maintained throughout the duration of the project.
Perform trench	Silt Fence	Before	Inspected daily replaced when damaged or no longer effective. The Maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).
excavation to facilitate conduit placement or splice pits. Perform conduit, splice box, handhole, etc. installation.	Compost Sock Storm Drain Inlet	Before Before	Inspected daily and after each runoff event. Remove sediment when 50% capacity is reached. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer's recommendations. Inspected daily replaced when
Backfill trench in accordance with project details and specifications.	Protection Silt Fence	Before and after	damaged or no longer effective Inspected daily replaced when damaged or no longer effective. The Maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

Construction Sequence

	Compost Sock	Before and after	Inspected daily and after each runoff event. Remove sediment when 50% capacity is reached. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer's recommendations.
Within HDD areas set up laydown, staging and excavate pits. Perform HDD.	Compost Sock	Before and after	Inspected daily and after each runoff event. Remove sediment when 50% capacity is reached. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer's recommendations.
Restore HDD disturbed areas in accordance with the plans.	Soil Restoration	After	Restore site to pre-construction conditions
Within pavement areas, restore pavement to pre-construction grade, mill and overlay areas as depicted on the plans. Pull and/or splice cable.	Storm Drain Inlet Protection	Before and after	Inspected daily replaced when damaged or no longer effective
Restore signage, guiderail, mailboxes etc. and staging/access roads impacted by construction to pre- construction condition.	Construction Road Stabilization	After Activity	Restore site to pre-construction conditions
Remove temporary timber mattings through wetland areas and apply appropriate seed mixture where necessary. When all disturbed areas have been stabilized, remove all temporary sediment	Soil Restoration	After Activity	Final stabilization occurs when all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover has been established or equivalent permanent stabilization measures have been employed with a density of eighty percent of the previously existing, background cover for

and erosion control	unpaved areas and area not
measures.	covered by permanent structures.
	Upon soil stabilizing, operators on
	construction activities can formally
	submit an NOT.

3.3 Pollution Prevention and Good Housekeeping Practices

3.3.1 General Requirements

- A copy of the SPDES General Permit (GP-0-20-001), the signed Notice of Intent (NOI), NOI acknowledgement letter, SWPPP, MS4 SWPPP Acceptance Form, and inspection reports shall be maintained onsite until the site has achieved final stabilization.
- During construction it may be necessary to remove surface or subsurface water from work areas. Where dewatering of the trench is necessary, the discharges of water from the excavated trench will be pumped into a portable sediment tank. The intakes of the hoses used to withdraw the water from the trench will be elevated and screened to minimize pumping of the deposited sediments. Soil excavated from the hole shall be stockpiled separately within a straw bale/ silt fence barrier to prevent siltation into surrounding areas.
- Where there is not sufficient room in the right-of-way to utilize a portable sediment tank, commercial sediment filter bags may be used to remove sediments from dewatering effluent. The dewatering hose will be connected to a filter bag placed on the ground surface within a stabilized areas (e.g., vegetated, or permeable surface such as aggregate). Once passed through that filter bag, the dewatering effluent will be discharged onto a vegetated area. Additional erosion and sedimentation controls may be installed as determined by the Environmental Inspector. Sediment filter bags will be inspected regularly. The filter bag and accumulated sediment shall be disposed of in an upland location at least 100 feet from a wetland or waterbody or disposed of offsite in a state approved solid waste disposal facility.
- Trapped sediment collected during dewatering activities shall be graded on the right-of-way in areas where it cannot be washed into the adjacent stream, wetland, or other sensitive resource. Dewatering structures will be removed as soon as possible following the completion of dewatering activities.
- Any contaminated waters removed from a work site may not be discharged without a SPDES permit or must be discharged at a wastewater treatment plant following chemical analysis.
- Built up sediment shall be removed from any silt fence when it has reached one-third the height of the fence / dike.
- Sediment fencing shall be inspected for depth of sediment, and tears, to see if fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- The construction entrance shall be cleaned of sediment and redressed when voids in the crushed stone become filled and vehicular tracking of sediment is occurring.
- Dust shall be controlled on access points and other disturbed areas subject to surface dust movement and blowing.
- Inspection must verify that all practices are adequately operational, maintained properly and that sediment is removed from all control structures.
- Inspection must look for evidence of soil erosion on the site, potential of pollutants entering drainage systems, problems at the discharge points, and signs of soil and mud transport from the site to the public road.

3.3.2 Dewatering Methods

3.3.2.1 Governing Standards Criteria and Guidance

The procedures set forth here are informed by following laws, ordinances, codes, rules, and regulations of the federal, state, and local authorities having jurisdiction over any of the work.

Any required pretreatment system shall meet New State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (EPA) limitations for discharge into any surface water bodies, federal EPA, and State Department of Transportation regulations for shipping of regulated substances to off-Site disposal facilities, and meet all regulatory requirements imposed by the Treatment, Storage and Disposal Facility.

Regulations pertaining to the transport and disposal of regulated materials / fluid include, but are not limited to the most recent version of the following:

- Department of Transportation 49 CFR 172 through 179
- Department of Transportation 49 CFR 387 (46 FR 30974)
- Department of Transportation DOT-E 8876
- Environmental Protection Agency 40 CFR 136 (41 FR 52779)
- Environmental Protection Agency 40 CFR 262 and 761
- Resource Conservation and Recovery Act (RCRA)
- NYSDEC, Environmental Conservation Law Article 15, Title 15
- NYSDEC, 6 NYCRR Part 601 Water Withdrawal Program
- NYSDEC, 6 NYCRR Part 602 Long Island Well Program
- NYSDEC, 6 NYCCR Part 750 State Pollutant Discharge Elimination System (SPDES) Permits

Any transporter of contaminated or hazardous materials / fluids shall be licensed in the state in which the handling and transportation will take place in accordance with all applicable regulations.

- Comply with Occupational Health and Safety Administration Standards (OSHA) and regulations contained within Title 29 CFR Part 1910.120 Hazardous Waste and Operations Emergency Response.
- Construction activities will comply with New York Stare, New York City, and federal (including OSHA and DOT) laws, codes, rules, and regulations.
- NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Aqueous Water Quality Standards (AWQS).

3.3.2.2 Known or Suspected Contamination Evaluation

The proposed Champlain Hudson Power Express transmission line construction will only commence upon completion of the Consent Order and baseline groundwater data may not be available until access agreements are in effect. Although the construction will have limited excavation areas that are expected to extend below the groundwater table, the groundwater will be evaluated prior to treatment and disposal. Baseline groundwater sampling will be sampled in a manner required by a receiving disposal facility, and in compliance with applicable laws and regulations.

Baseline groundwater sampling will be performed by a Qualified Environmental Professional (QEP) prior to the start of construction at representative locations where operations are anticipated to extend below the groundwater table to identify potential groundwater contamination that may require testing, treatment, or disposal. A minimum of two (2) discrete (grab) samples will be collected from the proposed dewatering areas in accordance with 40 CFR Part 136. Location, depth, and date of collection will be provided for each sample.

Groundwater samples will be tested for each parameter listed in the table below using the EPA methods identified below.

Parameter	Туре	EPA Method	Detection Limit
рН	Grab	150.1	
Temperature (°F)	Instantaneous	After pumping	
Oil & Grease	Grab	1664A or 1664B	
Total Suspended Solids	Grab	160.2	
Volatile Organic Compounds (VOCs)	Grab	624	EPA MDL
Semi-VOCs / Base Neutral Compounds	Grab	625	EPA MDL
Nitrate/Nitrite	Grab	300 or 353.3	EPA MDL
Metals – Total and Dissolved (13 Priority Pollutant non-Hg metals)	Grab	200.7 Rev. 4.4 200.2, 200.8	EPA MDL
Mercury – Total and Dissolved	Grab	1669 -Sampling 1631 - Analytical	EPA MDL
PCBs	Grab	608	EPA MDL

Note: The Method Detection Limit (MDL) is the level at which the analytical procedure referenced is capable of determining with a 99% probability that the substance is present. This value is determined in distilled water with no interfering substances present.

Additional parameters may be required by the disposal facility which may include the following:

Parameter	Туре	EPA Method	Acceptance Limit
Flash Point	Instantaneous		>100 °F
Halogens	Grab		< 1,000 ppm
RCRA 8 Metals	Grab	6000 /7010	< RCRA Regulatory level
Herbicides and Pesticides	Grab	8081	< RCRA Regulatory level

Laboratory analyses will be performed by an Environmental Laboratory Approval Program (ELAP) laboratory certified by the NYS Department of Health.

Groundwater sampling results including complete sampling data, test results, lab records (i.e., data sheets and chain of custodies), and sampling summary report will be provided to NYSDPS and NYSDEC a minimum of two weeks prior to conducting dewatering activities. Groundwater sampling results will be compared to: New York State Ambient Water Quality Standards and Guidance Values. This data will be used to determine disposal facility acceptance. The NYSDEC and NYSDPS will be notified of disposal facilities once the project has been accepted. The following is a possible disposal facility for water, dependent on groundwater quality.

 Clean Water of New York, Inc. 3249 Richmond Terrace Staten Island, NY 10303 Phone – (718) 981-4600

Uncontaminated groundwater discharge is not anticipated at this time. Discharge of uncontaminated

groundwater will not proceed without prior approval of a SPDES Permit from the NYSDEC for the project. Discharge of water generated during construction to surface waters (i.e., a stream or river) is prohibited without a NYSDEC SPDES permit. If discharges are required, the Certificate Holder will notify NYSDEC and NYSDPS prior to dewatering and a discharge plan will be provided which will include, at a minimum, the following:

- Dewatering system information including pump specifications, and estimates of pumping rate, and duration of dewatering;
- a map showing proposed discharge location points;
- if discharging to a storm drain or recharge basin, verify these systems are designed to handle the proposed rate for the duration of the discharge and the substantive requirements for all State, county, and town approvals are being met for such discharges;
- if discharging to a storm drain, identify the ultimate surface water outfall location;
- if discharging to an existing recharge basin or creating a new recharge basin, evaluate mounding effects to ensure that mounding does not adversely affect any surrounding properties and underground structures; and
- best management practices to prevent erosion and sedimentation from dewatering operations.

3.3.2.3 Dewatering Method

Since offsite disposal of dewatering discharges is anticipated, the Contractor will make every effort to minimize the volume of water generated during construction.

Because the proposed dewatering will be limited to the excavations that will extend below the water table, the Contractor will contain fluids that collect in open excavations in order to prevent uncontrolled migration. The Contractor will be prepared to pump fluids into appropriately sized containers and transport containerized water off-site for disposal at a disposal facility to permitted facilities.

For the excavations that extend below the water table, the Contractor will use groundwater cut-off methods (such as steel sheeting) driven into a silt organic layer to reduce groundwater withdrawal volumes and pumping rates. If additional cut-off is required, then the bottom of the sheeted excavation will be sealed by placing tremie grouted to reduce infiltration through bottom of the excavation. If necessary, other ground improvement techniques (grouting) will be implemented by the Contractor in order to reduce the volume of groundwater withdrawals to manageable volumes. The dewatering will be performed through sumps within the sheeted excavation. No use of deep wells or wellpoints are anticipated during dewatering at this time. The Contractor shall perform the work to minimize dewatering discharges to keep dewatering withdrawal volumes less than 100,000 (GPD) in any thirty-day consecutive period.

3.3.2.4 Dewatering Contingency Measures

Although not anticipated, in the event that dewatering withdrawal exceeds a volume of 64,800 gallons per day (GPD) total capacity (i.e., 45 gallons per minute [gpm]), and well points or dewatering wells are needed for the dewatering program to maintain dry, stable excavations, then the project will trigger that need to enter into the Long Island Well Program (6 NYCRR Part 602). Capacity is defined as the total withdrawal of all sources for a facility, independent of how they are plumbed or their designation. Capacity is determined by summing the maximum potential withdrawal of all the water

sources, not by the typical or actual withdrawal. As mentioned above, the Contractor does not anticipate that dewatering means and methods will require a Long Island Well Permit.

Similarly, in the event that dewatering withdrawal exceeds a volume of 100,000 GPD in any thirty-day consecutive period (i.e., 3 million gallons during a 30-day period), the project will trigger the need to enter into the Water Withdrawal Program (6 NYCRR Part 601). The Certificate Holder will notify NYSDEC and NYSDPS to discuss authorization of the water withdrawal activities. The process for processing water withdrawal applications is available in the NYSDEC Technical and Operational Guidance Series 3.2.1 Processing Water Withdrawal Permit Applications.

3.3.3 Construction Site Pollutants

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (that could be discharged if exposed to stormwater)	Location on Site (or reference SWPPP site map where this is shown)
Saw Cutting	Concrete sediment	Roadway areas along cable alignment
Horizontal Directional Drilling (HDD)	Soil/fill sediment	Under the Bronx Kill, East river, and portions of Randell's Island
Trenching/Excavation	Soil/fill sediment	Throughout the entire cable alignment except areas that will be installed utilizing HDD
Concrete Placement	Concrete sediment	Roadway areas along cable alignment
Fuel Deliveries	Diesel fuel	At equipment locations
Backfilling Operations	Soil/fill sediment	Along entire cable alignment except areas that will be installed utilizing HDD
Asphalt/Roadway Pavement	Asphalt/concrete sediment	Roadway areas along cable alignment

3.3.4 Contaminated Groundwater

Responses to contaminated groundwater shall address all exposure pathways that pose an actual or potential risk to human health and the environment. Response actions shall address the actual or potential direct contact risk posed by contaminated groundwater (i.e. human consumption, dermal contact, or inhalation), and shall also consider the potential for the contaminated groundwater to serve as a source of contamination into other media (i.e. sediment, surface water, or wetlands. Common methodologies for cleaning up groundwater contamination include pump and treat, in situ treatment, containment, monitored natural attenuation or alternative water supplies.

If evidence of contamination such as a sediment plume, suspended solids, unusual color, odor, decreased clarity, or foam are observed in or on the dewatering discharge:

• If ongoing construction activity is identified as the pollutant source, install or maintain stormwater control measures between active construction areas and the dewatering

operation to minimize the transport of sediment and other pollutants into the dewatering operation.

- If the dewatering control is not operating properly, maintain the dewatering treatment control to remove accumulated sediment and other pollutants. Sediment is typically removed before storage volume is reduced by one-third.
- If a distinct color or odor is observed, look for raw materials, chemicals, or other materials used or stored near the area being dewatered. Move these materials away from the dewatering operation if determined to be the source of color, odor, foam, or sheen.
- If foam is observed, check for and clean up any leaks or spills near the dewatering operation.
- Stop dewatering and evaluate whether the installed dewatering treatment control is the correct treatment control for the site. Visual turbidity may indicate that installed dewatering controls are ineffective for the soil composition or site conditions, are undersized, or were incorrectly installed. Sediment filtration practices, dewatering bag filters, silt fence enclosures, sediment traps, basins are effective at removing larger sediment particles, but fine particles need advanced treatment technology. An undersized or incorrectly installed treatment control may result in the discharge of untreated or partially treated dewatering water. An undersized treatment control will also need more frequent maintenance than a correctly sized one.

If the water surface has a visible sheen or the receiving water has visible oily deposits:

- Check upstream and downstream of the dewatering discharge location to see if a sheen or oily deposits may be coming from a different source such as a spill or other discharge from the site or neighboring property.
- Verify that the dewatering treatment control is equipped with an oil-water separator to remove oil, grease, and other hydrocarbons. If not, add an oil-water separator to the dewatering treatment control.
- If an oil-water separator is already in place, perform any necessary maintenance to ensure that it is operating properly.

3.3.5 Spill Prevention and Response

Spill response and mitigation procedures will be implemented in the case of any accidental spills of chemical, fuel, or other toxic materials, as identified in Section 5.0 of the Environmental Management and Construction Plan (EM&CP). The spill response and cleanup procedures are outlined and described in the Spill Prevention, Control and Countermeasures Plan (SPCC) in Appendix K of the EM&CP. In accordance with local and NYSDEC regulations, the SPCC includes procedures to:

- Reduce stormwater contact if there is a spill.
- Contain the spill.
- Dispose of contaminated material in accordance with manufacturer's procedures and NYSDEC regulations.
- Identify responsible and trained personnel.
- Ensure the spill area is well ventilated.

A Spill Prevention and Response Plan will be developed for the site by the Contractor. The plan will detail the steps needed to be followed in the event of an accidental spill, and shall identify contact

names and phone numbers of people and agencies that must be notified.

The Plan shall include Safety Data Sheets (SDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

The Certificate Holders shall notify DPS Staff and the New York State Department of Environmental Conservation ("NYSDEC") immediately of any petroleum product spills. The Certificate Holders shall also notify owners and operators of CI of any petroleum product spills within one hundred (100) feet of their CI, provided however that in the case of CI located within CNY, the Certificate Holders shall advise CI owners and operators of petroleum product spills within three hundred (300) feet of such facilities.

All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned for disposal at a local landfill. All personnel working on the site shall be instructed of the proper procedures for spill prevention and control. Any spill large enough to discharge to surface water will be immediately reported to the local fire / police departments, NYCDEP, NYSDEC Spill Hotline (1-800-457-7362), the National Response Center (1-800-424-8802), and the NYC DPR.

Specific Pollution Prevention Practices

Spill Kits Readily Available		
Description	Description When Fueling and Maintaining Vehicles, a spill kit will be readily available	
Installation	On site during mobilization. Spill kit to be stored near fueling and equipment maintenance areas	
Maintenance Spill kits will be checked regularly to ensure no damage has occurred to kit		
Requirements	contents	

3.3.6 Fueling and Maintenance of Equipment or Vehicles

Fueling of all equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed under the supervision of the general contractor. Only minor vehicle equipment cleaning and maintenance which does not produce discharge of liquids of any type onto the ground will be permissible to occur within the Project site. Drip pans will be used overnight and during fueling operations. All major maintenance and repairs shall be performed off-site. Vehicles and equipment shall be inspected on each day of use. Any sources of leakage discovered shall be addressed immediately and be brought to the attention of the NYC DPR. All leaking equipment unable to be repaired shall be immediately removed from the Project site.

3.3.7 Washing of Equipment and Vehicles

The Contractor shall designate areas for equipment cleaning, maintenance, and repair. The areas shall be protected and monitored to ensure all fluids are contained and are not discharged outside

the designated area.

3.3.7.1 Concrete Truck Washout

Concrete trucks shall be allowed to wash out within project areas provided that the contractor provides an area which collects and contains any concrete / slurry material washed from trucks for recovery and disposal at a later time. No concrete / slurry shall be discharged from the property at any time of construction. If such washing is anticipated, the contractor shall submit a plan detailing the control of concrete / slurry to the engineer for approval.

Construction operation will be conducted in such a manner as to prevent damage to watercourses from pollution of debris, sediment, or other foreign material, or from manipulation, from equipment and / or materials in or near the watercourse. The contractor will not return directly to the watercourse any water used for wash purposes or other similar operations which may cause the water to become polluted with sand, silt, cement, oil, or other impurities. If the contractor uses water from the watercourse, the contractor will construct an intake or temporary dam to protect and maintain watercourse water quality.

Concrete washouts shall be located in designated areas only and at a minimum of one hundred (100) feet from all wetlands, waterbodies, and drainage structures, as well as inspected after each use. Material in washout structures or containers will be removed when they reach seventy-five (75) percent capacity.

3.3.8 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

3.3.8.1 Building Products

Excavated soil stockpiles from trenching will remain on site. Stockpiles will be surrounded by silt fence when located on grass surfaces, and strawbales when located on hardscape surfaces, to limit any possible spread or overflow into any other material. Stockpiles will be covered with tarps or temporary seeding to limit the effects of erosion.

Specific Pollution Prevention Practices

Stockpile Containment			
Description	Temporary Seeding and Tarps		
Installation	Throughout the duration of the project		
Maintenance	Refer to Appendix G for Specifications		
Requirements			
Design	Project Contract Documents (Project drawings and specifications)		
Specifications			

3.3.8.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials General

All pesticides, herbicides, insecticides, fertilizers, and landscape materials must be handled in compliance with manufacturer specifications and all applicable New York State and Federal laws. Store, cover, and isolate construction materials to prevent runoff of pollutants and contamination of groundwater and surface waters. Distribute or post information material regarding proper handling, spill response, spill kit location, and emergency actions to be taken to all construction personnel.

3.3.8.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals General

All fuel, hydraulic fluids, petroleum products, and other chemicals shall be disposed of into designated containers and stored in accordance with the Project Health and Safety Plan (HASP). These materials will be removed from the site and disposed of in a legal manner in compliance with all applicable New York City, New York State, and Federal laws.

3.3.8.4 Hazardous or Toxic Waste

General

All hazardous or toxic waste materials shall be handled, stored, and disposed of in accordance with all applicable New York State and Federal laws, and in compliance with the Project Health and Safety Plan (HASP). No hazardous waste shall be disposed of on-site. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste handling and disposal.

3.3.8.5 Construction and Domestic Waste

General

All construction waste materials shall be collected and removed from the site regularly by the contractor. The contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal. All waste disposal shall be removed from the site and disposed of in a legal manner in compliance with all applicable New York State and Federal laws.

3.3.8.6 Sanitary Waste

General

Temporary sanitary facilities (portable toilets) shall be provided on site during the entire duration of construction. The portable toilets shall be provided with containment trays to provide extra barrier of protection against wash down water and spill. The portable toilets shall be regularly maintained and inspected weekly for evidence of leaking holding tanks. When servicing the portable toilets,

containment trays shall be pumped dry of any contaminates that may have been collected in the basin.

3.3.9 Washing of Applicators and Containers used for Paint, Concrete, or Other Materials

General

No applicators and containers will be washed or stored on site.

3.3.10 Other Pollution Prevention Practices

General

ALL ESC practices for the Project shall be in compliance with the contract documents, the SPDES General Permit, and all other applicable New York State and Federal laws. Should it be deemed that there are any discrepancies between this SWPPP and any other applicable rules or regulation, the more stringent measures shall apply for the Project.

3.3.11 Winter Shutdown

General

Site inspections (by the qualified inspector) may be decreased to a minimum of one (1) time every thirty (30) days for sites where soil disturbing activities have been temporarily suspended and all disturbed areas have been temporarily stabilized with an approved method. Inlet protection should be installed and/or repaired before shutdown of the site. The owner or operator shall provide written notification to the respective DEC regional office and impacted MS4 prior to reducing the frequency of any site inspections.

3.3.12 Winter Operation

General

If construction activities proceed through the winter season, access points should be enlarged and stabilized to provide for snow stockpiling. Drainage structures should be kept open and free of potential snow and ice dams. Inspection and maintenance are necessary to ensure the function of these practices during runoff events. For sites where construction activities temporarily cease, temporary and/or permanent soil stabilization measures shall be installed within three (3) days from the date the soil disturbing activity ceased. Disturbed areas should be stabilized with seed and mulch, or other approved methods, even if the ground is covered by significant amounts of snow.

SECTION 4: CONSTRUCTION INSPECTION

4.1 Owner/Operator Inspection Requirements

- Prior to construction activity, the Certificate Holders will have contractors and subcontractors identify a trained individual responsible for the implementation of the SWPPP. The trained individual must be on-site daily when soil disturbing activities are occurring.
- The Certificate Holders will inspect the ESC measures as identified in the SWPPP to ensure that they are always maintained in effective operating conditions. Where soil disturbing activities temporarily cease (i.e. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the owner / operator can stop conducting inspections. The owner/operator will resume inspections when soil disturbing activities begin again.
- Where soil disturbing activities have ceased with partial project completion, the owner / operator can stop conducting inspections when disturbed areas have reached final stabilization. All post construction stormwater management practices required for the completed areas will have been constructed in conformance with the SWPPP and be fully operational. Final stabilization means that all soil disturbance activities have ceased and a uniform, vegetative cover with a density of 80% over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock riprap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete, or pavement.
- The Certificate Holders will notify the NYSDEC Regional Office's stormwater contact person and Department of Public Service (DPS) Staff prior to any reduction in the frequency of site inspections.
- The Certificate Holders will retain copies of the NOI, NOI acknowledgement letter, SWPPP, MS4 SWPPP acceptance form, and any inspection reports submitted in conjunction with this permit and records, or all data used to complete the NOI to be covered by this permit for a period of at least five (5) years from the date that the site is finally stabilized. Copies of the NOI and NOI acknowledgement letter are included in Appendix F.

4.2 Qualified Inspector Inspection Requirements

- The qualified inspector will be knowledgeable in the principles and practices of ESC, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), licensed Landscape Architect, or other Department endorsed individual(s). It may mean someone working under the direct supervision of the licensed Professional Engineer or licensed Landscape Architect if the person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion control means the person has received four (4) hours of training endorsed by the Department and will receive four (4) hours of training every three (3) years after the initial training.
- A site inspection will be conducted daily by the qualified inspector when soil disturbing activities are occurring.
- If any repairs or corrective actions are necessary, it is the responsibility of the qualified inspector to notify the owner / operator and appropriate contractor within one business day. The contractor will begin implementing the corrective action within one business day of being notified.
- All inspection forms must be signed by a qualified inspector.
- For construction sites where soil disturbing activities are temporarily suspended, temporary stabilization measures will be applied, and the qualified inspector will conduct a site inspection at least once every thirty (30) calendar days.

- Where soil disturbing activities have ceased with partial project completion the qualified inspector can stop conducting inspections when disturbed areas have reached final stabilization and all post construction stormwater management practices required for the completed areas have been constructed in conformance with the SWPPP and are fully operational.
- Where soil disturbing activities are not resumed within two (2) years from the date of shut down of partial project completion, the qualified inspector will perform a final inspection and certify that all disturbed areas have achieved final stabilization, all temporary and permanent erosion control measures have been removed, and post-construction stormwater management practices have been constructed in conformance with the SWPPP. The qualified inspector will sign the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the Notice of Termination (NOT). A copy of the NOT is included in Appendix F.
- The MS4 is to be contacted on any notices the contractor receives if repairs or corrective action is necessary, as well as when the contractor is in violation of the SPDES permit.

4.3 Final Site Inspection

The qualified inspector will perform a final inspection of the site to certify that:

- All disturbed areas have achieved final stabilization.
- Temporary erosion and sediment control practices have been removed; and
- Post-construction stormwater management practices (if required) have been constructed in conformance with the SWPPP.

Upon satisfactory completion of the final site inspection, the qualified inspector will sign the appropriate sections of the Notice of Termination (NOT) form.

4.4 Trained Contractor List

Documentation for Completion of Training

Contractor	Name of Trained Contractor	NYS DEC Erosion and Sediment Control Training Certificate Number	Expiration Date

Inspection Report Forms Refer to Appendix B

SECTION 5: POST CONSTRUCTION STORMWATER CONTROLS

The proposed project has been designed in accordance with the New York City Stormwater Manual and the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (GP-0-20-001). Based on the Appendix B Table 1 of the SPDES General Permit GP-0-20-001, any construction activities that involves only installation of underground, linear utilities, and vegetated open space projects (i.e. recreational parks, lawns, meadows, fields) that do not alter hydrology from pre to post development conditions, will require a SWPPP that only includes ESC and daily field inspections during construction.

Hence, the proposed project contains no increase in impervious area, and it is not anticipated to contribute a significant pollutant load within the watershed or to downstream waterbodies. As such, peak flow mitigation and water quality treatment are not included as a part of this project, and post construction stormwater management practices are not proposed. Detailed erosion and sediment control measures have been developed and will be implemented during construction to stabilize disturbed areas.

5.1 Floodplains

Based on a review of the FEMA Flood Insurance Rate Maps for the boroughs within the project area, various portions of the proposed CHPE project Segment 13, 14, and 15 (Package 8) work are located within the 100- year flood plain (see FEMA FIRM maps in Appendix K). Due to the linear nature of the proposed project, the sections of work located within the 100-year flood plain are located at the existing crossings with streams and waterbodies. Temporary soil disturbance at these locations will be minimized with trenching activities and directional drilling work. The disturbed areas will be stabilized as the cable installation work progresses along the alignment and will have no impact to the flood plains.

SECTION 6: CERTIFICATION AND NOTIFICATION

- 1. The Pre-Construction Documents & Certifications provided in **Appendix A** shall be filled out by the owner/developer, preparer, and qualified professional, as appropriately shown in the section.
- 2. The site-specific Construction Duration Inspection form shall be provided in **Appendix B** and is to be filled out and signed by the qualified professional that performs site inspections and oversee installation of ESCs for this project.
- 3. The Monthly Summary of Site Inspection Activities form provided in **Appendix C** is to be filled out and signed by the owner, or the duly authorized representative of the owner.
- 4. The Contractor's Certification Statement provided in **Appendix D** is to be filled out and signed by the contractor with primary responsibility for the project site.
- 5. The Contractor's Certification Statement provided in **Appendix D** is to be filled out and signed by all subcontractors.
- 6. The Certificate of Issuance provided in **Appendix D** is to be filled out and signed by the contractor with primary responsibility for the project site prior to performing any site work.
- 7. The Erosion and Water Quality Control Identification form provided in **Appendix D** is to be filled out by the developer/contractor.
- 8. Records of site work and site stabilization are to be kept on the Construction Stabilization form provided in **Appendix D** and is to be filled out by the developer/contractor as necessary.
- 9. The Certificate of Change by the Contractor provided in **Appendix D** is to be filled out and signed by the operator upon implementation of any requested changes to the SWPPP by the owner, preparer, or any local authority having jurisdiction over the project site. Changes to the SWPPP are only to be made when the plan or contractor's implementation proves to be ineffective in eliminating or significantly minimizing pollutants from the construction activity.
- 10. The Final Stabilization and Retention of Records form provided in **Appendix E** is to be filled out and signed by the qualified professional that will perform site inspections and oversee installation of erosion control measures for this project.
- 11. The Certificate of Return provided in **Appendix E** is to be filled out and signed by the operator and owner after final stabilization of the site has been completed.
- 12. The NYC DEP Notice of Termination (NOT) will be filed by the owner or its representative upon completion of the site's final stabilization using the online form.

SECTION 7: RETENTION OF RECORDS

The following are to be retained by the owner at the site and for a period of five years from the date the site is finally stabilized:

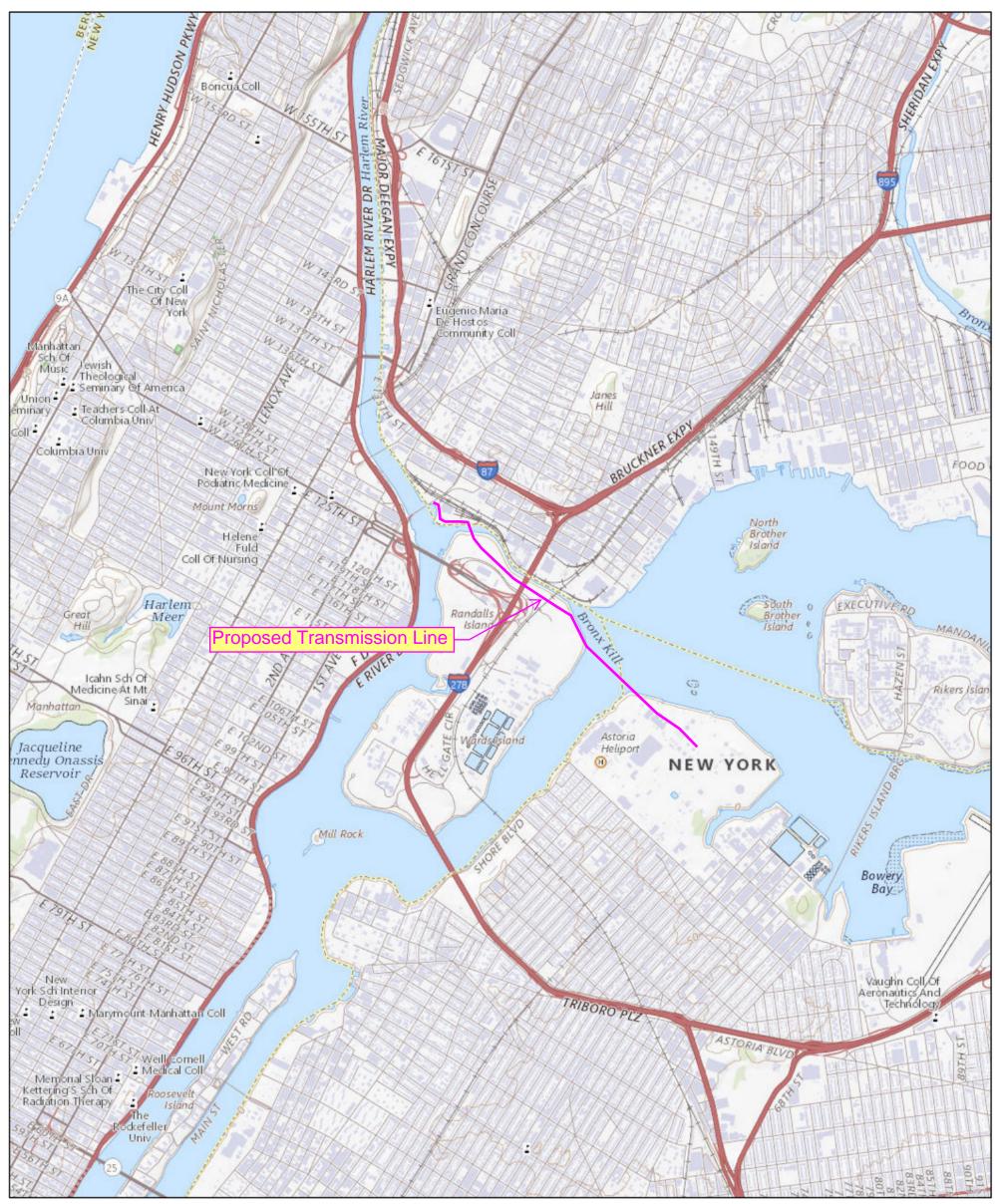
- 1. SWPPP
- 2. Contract Documents including contract drawings and technical specifications
- 3. Stormwater inspections and maintenance reports
- 4. Contractor Certification
- 5. SWPPP Certification Statement of Satisfactory Completion

SECTION 8: REQUIRED DRAWINGS

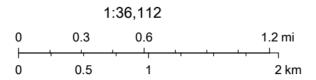
- 1. Sediment and Erosion Control Plan (Refer to Appendix J)
- 2. Plan and Profile (Refer to Appendix J)
- 3. Laydown Area Site Plans (Refer to Appendix J)

SECTION 9: VICINITY AND LOCATION MAP

The National Map Advanced Viewer



7/5/2022, 3:54:48 PM



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National

> USGS 2021 USGS

Appendix A - Certifications

Pre-Development

Project Name:	Champlain Hudson Power Express Segment 13, 14, and 15 – Package 8
Name of	
Owner/Developer:	CHPE LLC.
Name of Preparer:	KC Engineering and Land Surveying, P.C.

Preamble to Site Assessment and Inspections

The following information to be read by all person's involved in the construction of stormwater related activities:

A qualified professional shall conduct an assessment of the site prior to the development activity (1) and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Preparer shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days or within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections), except as otherwise required during "temporary shutdown". The developer shall maintain a record of all inspection reports in this **site logbook**. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The developer shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

A qualified professional shall perform a final site inspection. The qualified professional shall certify that the site had undergone final stabilization (2) using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, a qualified professional must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

The Owner, qualified inspector and qualified professional must submit a Notice of Termination Request to NYCDEP via the SWPTS. DEP may inspect the site to confirm that it meets the requirements of the NOT. If post construction practices are present an application for a Stormwater Maintenance Permit must also be submitted via SWPTS. (1) "Development activity" means soil disturbance on a site including but not limited to land contour work, clearing, grading, excavation, demolition, construction, reconstruction, new development, redevelopment, creation or replacement of impervious surface, stockpiling activities or placement of fill. Clearing activities include but are not limited to the cutting and skidding of trees, stump removal and brush root removal. Such term does not include routine maintenance (such as road resurfacing) that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

(2) "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

Certifications

Owner's Certification

I certify that I am the Owner of this property and have read or been advised of the applicable sections of the Rules of the City of New York (RCNY) Title 15, Chapter 19.1 and I believe that I understand them. I also understand that, under RCNY, I am responsible for submitting a fee to initiate review of the stormwater pollution prevention plan (SWPPP). I hereby certify that this SWPPP and all associated documentation provided were prepared under my direction or supervision. I understand that certifying false, incorrect or inaccurate information is a violation of the laws of the City of New York and could subject me to criminal or civil penalties and/or administrative proceedings. I also understand that, by submitting this application, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction.

Name: Travis Clyurch	Title: Droyet Director
Signature:	Date: 4/27/23
$\mathcal{O}\mathcal{O}$	

Developer's Certification

I have read or been advised of the applicable sections of RCNY Title 15 Chapter 19.1 and believe that I understand them. I also understand that, under the RCNY I am responsible for submitting a fee to initiate review of this application. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I understand that certifying false, incorrect or inaccurate information is a violation of the laws of the City of New York and could subject me to criminal or civil penalties and/or administrative proceedings. I also understand that, by submitting this application, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction.

Name: Javisklund	Title: Project Director
Signature:	Date: <u>4/27/23</u>

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project was prepared by me or under my direct supervision in accordance with the RCNY Title 15 Chapter 19.1 and terms and conditions of the most recent NYSDEC SPDES General Permit for Stormwater Discharges from Construction Sites. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the City New York and could subject me to criminal, civil and/or administrative proceedings.

Name: Nath	aniel Havener	Title:	Associate
Signature:	M		Date: 10/25/2022

Appendix B - Construction Duration Inspections

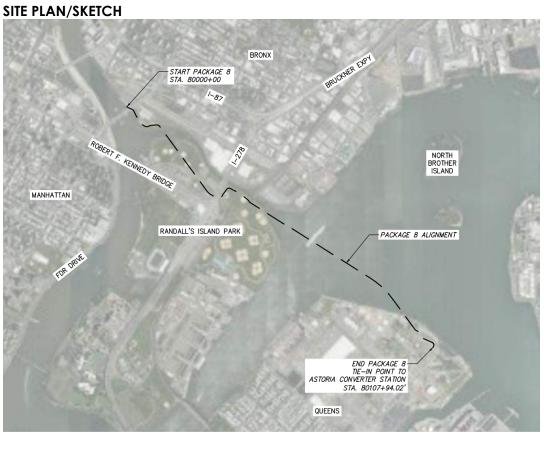
Construction Duration Inspection Form

a. Directions:

Inspection Form will be filled out during the entire construction phase of the project.

Required Elements:

- 1. On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work with the next 14-day period.
- 2. Indicate on site map all areas of the site that have undergone temporary or permanent stabilization.
- 3. Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period.
- 4. Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent).
- 5. Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earther berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 6. Immediately report to the Operator any deficiencies that are identified with the implementation of SWPPP.



Inspector (print name)	Date of Inspection
Qualified Inspector (print name)	Qualified Inspector Signature
The above signed acknowledges that, to the b provided on the forms is accurate and comple	0
Weather	Soil Description
Reason for Inspection: [] daily Inspection [] 30-day inspection (Temporary Shutdown) [] other	[] Twice every 7 days inspection [] Inspection after Rainfall

Stage of Construction: _____%

Maintaining Water Quality

Yes No N/A

- □ □ □ Is there an increase in turbidity causing or reasonably likely to cause a substantial visible contrast to natural conditions?
- □ □ □ Is there residue from oil and floating substances, visible oil film, or globules or grease?
- \Box \Box \Box All disturbance is within the limits of the approved plans.
- □ □ □ Have receiving lake/bay, stream, and/or wetland been impacted by silt from the project?

<u>Housekeeping</u>

1. General Site Conditions

- Yes No N/A
- □ □ □ Is construction site litter and debris appropriately managed?
- Are facilities and equipment necessary for implementation or erosion and sediment control in working order and/or properly maintained?
- □ □ □ Is construction impacting the adjacent property?
- \Box \Box \Box Is dust adequately controlled?

2. Stabilized Construction Entrance

Yes No N/A

- \Box \Box \Box Stone is clean enough to effectively remove mud from vehicles.
- □ □ □ Installed per standards and specifications?
- □ □ □ Does all traffic use the stabilized entrance to enter and leave site?
- □ □ □ Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

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

2. Temporary Sediment Trap

Yes No N/A

- \Box \Box \Box Trap and outlet structure constructed per the approved plan.
- □ □ □ Trap side slopes are stabilized with seed/mulch.
- □ □ □ Drainage structure flushed, and trap surface restored upon removal of sediment trap facility.
- □ □ □ Sediment trap dewatering pool is dewatering at appropriate rate. Sediment accumulation is ____% of design capacity.

3. Typical Culvert Outfall Riprap

Yes No N/A

- \Box \Box \Box Installed per plan.
- \Box \Box Installed concurrently with pipe installation.
- \square \square \square No evidence of scour beneath the riprap or dislodged rocks.
- \Box \Box Filter cloth is free of any tears, cuts, or punches.

Soil Stabilization Practices

1. Erosion Control Bank Stabilization

Yes No N/A

- \Box \Box \Box Installed on slopes 3:1 or greater.
- \Box \Box Key trench on the top of the slope is 2' minimum wide and 2' minimum deep.
- \Box \Box \Box Blanket is free of any tears, cuts, or punches.

Sediment Control Practices

1. Silt Fence

Yes No N/A

- □ □ □ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
- □ □ □ Joints constructed by wrapping the two ends together for continuous support.
- \Box \Box \Box Fabric buried 6 inches minimum.
- □ □ □ Posts are stable, fabric is tight and without rips or frayed areas. Sediment accumulation is ____% of design capacity.

2. Storm Drain Inlet Protection

(Use for Stone & Block, Filter Fabric, Curb, or Excavated practices)

- Yes No N/A
- □ □ □ Installed concrete blocks lengthwise so open ends face outward, not upward.
- □ □ □ Placed wire screen between No. 3 crushed stone and concrete blocks.
- □ □ □ Drainage area is 1 acre or less.
- □ □ □ Excavated area is 900 cubic feet.
- \Box \Box \Box Excavated side slopes should be 2:1.
- \Box \Box \Box 2" x 5" frame is constructed and structurally sound.
- □ □ □ Posts 3-foot maximum spacing between posts.
- □ □ □ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
- Posts are stable, fabric is tight and without rips or frayed areas.
 Sediments accumulation ___% of design capacity.

3. Concrete Washout Area

Yes No N/A

- \Box \Box \Box Washout Facility is free of damage and leaks.
- \Box \Box Excess rainwater is not present within concrete washout facility.
- □ □ □ Accumulated hardened material is below 75% of storage capacity.
- □ □ □ Plastic liner replaced at last cleaning of washout facility.
- □ □ All concrete discharges on site are deposited within designated concrete washout.

4. Compost Filter Sock Detail

Yes No N/A

- \Box \Box \Box Installed per plan.
- □ □ □ Installed on contour with both terminal ends of the sock extended 8 feet upslope at a 45-degree angle.
- \square \square Anchored in earth with 2"x2" wooden stakes driven 12" into the soil on 10-foot centers on the centerline of the sock.
- □ □ □ Accumulated sediment is below half the above ground height of the sock.
- \Box \Box \Box Socks free of damage after runoff event.

5. Light Stone-Lined Drainage Channel

Yes No N/A

- \Box \Box \Box Installed per plan.
- \square \square \square No abrupt deviations from design grade or horizontal alignment are evident.
- □ □ □ Sediment-laden runoff is directed to sediment trapping structures.
- □ □ □ Geotextile fabric is free of any tears, cuts, or punches.

6. Wetland Protection Fence

Yes No N/A

- \Box \Box \Box Installed per plan.
- □ □ □ Posts are stable, mesh is tight and without rips or frayed areas.
- \Box \Box \Box Post buried 2' minimum.
- \Box \Box \Box Bottom of fence flush with existing grade.
- \Box \Box \Box Warning signs spaced 48' on center.

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

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Developer shall amend the SWPPP whenever:

- 1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the State and which has not otherwise been addressed in the SWPPP; or
- 2. The SWPPP proves to be ineffective in;
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
- 3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

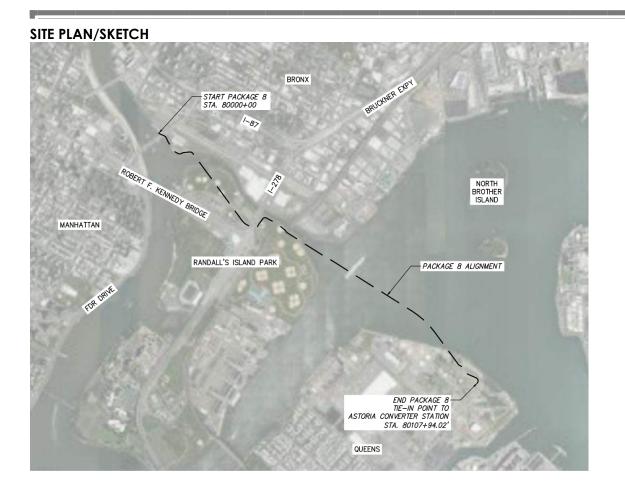
Construction Duration Inspections	
Detailed Description of Consistent Issues in the Construction and Techni	cal Standards of SMPs
Comments from the Previous Inspection on and Remar	ks
Other Comments	

a. Directions:

Inspection Form will be filled out during the entire construction phase of the project.

Required Elements:

- On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work with the next 14-day period.
- 8. Indicate on site map all areas of the site that have undergone temporary or permanent stabilization.
- 9. Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period.
- 10. Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent).
- 11. Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earther berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 12. Immediately report to the Operator any deficiencies that are identified with the implementation of SWPPP.



Inspector (print name)

Trained Contractor (print name)

Trained Contractor Signature

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

Weather

Soil Description

Date of Inspection

Reason for Inspection:
[] Daily Inspection
[] other _____

Stage of Construction: _____ %

Maintaining Water Quality

Yes No N/A

- □ □ □ Is there an increase in turbidity causing or reasonably likely to cause a substantial visible contrast to natural conditions?
- □ □ □ Is there residue from oil and floating substances, visible oil film, or globules or grease?
- \Box \Box \Box All disturbance is within the limits of the approved plans.
- □ □ □ Have receiving lake/bay, stream, and/or wetland been impacted by silt from the project?

<u>Housekeeping</u>

1. General Site Conditions

- Yes No N/A
- □ □ □ Is construction site litter and debris appropriately managed?
- Are facilities and equipment necessary for implementation or erosion and sediment control in working order and/or properly maintained?
- □ □ □ Is construction impacting the adjacent property?
- \Box \Box \Box Is dust adequately controlled?

2. Stabilized Construction Entrance

Yes No N/A

- \Box \Box \Box Stone is clean enough to effectively remove mud from vehicles.
- □ □ □ Installed per standards and specifications?
- □ □ □ Does all traffic use the stabilized entrance to enter and leave site?
- □ □ □ Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

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

2. Temporary Sediment Trap

Yes No N/A

- \Box \Box \Box Trap and outlet structure constructed per the approved plan.
- □ □ □ Trap side slopes are stabilized with seed/mulch.
- □ □ □ Drainage structure flushed, and trap surface restored upon removal of sediment trap facility.
- □ □ □ Sediment trap dewatering pool is dewatering at appropriate rate. Sediment accumulation is ____% of design capacity.

3. Typical Culvert Outfall Riprap

Yes No N/A

- \Box \Box \Box Installed per plan.
- \Box \Box Installed concurrently with pipe installation.
- \Box \Box \Box No evidence of scour beneath the riprap or dislodged rocks.
- \Box \Box Filter cloth is free of any tears, cuts, or punches.

Soil Stabilization Practices

1. Erosion Control Bank Stabilization

Yes No N/A

- \Box \Box \Box Installed on slopes 3:1 or greater.
- \Box \Box Key trench on the top of the slope is 2' minimum wide and 2' minimum deep.
- \Box \Box \Box Blanket is free of any tears, cuts, or punches.

Sediment Control Practices

1. Silt Fence

Yes No N/A

- □ □ □ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
- □ □ □ Joints constructed by wrapping the two ends together for continuous support.
- \Box \Box \Box Fabric buried 6 inches minimum.
- □ □ □ Posts are stable, fabric is tight and without rips or frayed areas. Sediment accumulation is ____% of design capacity.

2. Storm Drain Inlet Protection

(Use for Stone & Block, Filter Fabric, Curb, or Excavated practices)

- Yes No N/A
- □ □ □ Installed concrete blocks lengthwise so open ends face outward, not upward.
- □ □ □ Placed wire screen between No. 3 crushed stone and concrete blocks.
- □ □ □ Drainage area is 1 acre or less.
- □ □ □ Excavated area is 900 cubic feet.
- \Box \Box \Box Excavated side slopes should be 2:1.
- \Box \Box \Box 2" x 5" frame is constructed and structurally sound.
- □ □ □ Posts 3-foot maximum spacing between posts.
- □ □ □ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
- Posts are stable, fabric is tight and without rips or frayed areas.
 Sediments accumulation ___% of design capacity.

3. Concrete Washout Area

Yes No N/A

- \Box \Box \Box Washout Facility is free of damage and leaks.
- \Box \Box Excess rainwater is not present within concrete washout facility.
- □ □ □ Accumulated hardened material is below 75% of storage capacity.
- □ □ □ Plastic liner replaced at last cleaning of washout facility.
- □ □ All concrete discharges on site are deposited within designated concrete washout.

4. Compost Filter Sock Detail

Yes No N/A

- \Box \Box \Box Installed per plan.
- □ □ □ Installed on contour with both terminal ends of the sock extended 8 feet upslope at a 45-degree angle.
- \square \square Anchored in earth with 2"x2" wooden stakes driven 12" into the soil on 10-foot centers on the centerline of the sock.
- □ □ □ Accumulated sediment is below half the above ground height of the sock.
- \Box \Box \Box Socks free of damage after runoff event.

5. Light Stone-Lined Drainage Channel

Yes No N/A

- \Box \Box \Box Installed per plan.
- \square \square \square No abrupt deviations from design grade or horizontal alignment are evident.
- □ □ □ Sediment-laden runoff is directed to sediment trapping structures.
- □ □ □ Geotextile fabric is free of any tears, cuts, or punches.

6. Wetland Protection Fence

Yes No N/A

- \Box \Box \Box Installed per plan.
- □ □ □ Posts are stable, mesh is tight and without rips or frayed areas.
- \Box \Box \Box Post buried 2' minimum.
- \Box \Box \Box Bottom of fence flush with existing grade.
- \Box \Box \Box Warning signs spaced 48' on center.

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

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Developer shall amend the SWPPP whenever:

- 1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the State and which has not otherwise been addressed in the SWPPP; or
- 2. The SWPPP proves to be ineffective in;
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
- 3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

Detailed Description of Consistent Issues in the Construction and Technical Standards of SMPs:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Comments from the Previous Inspection on and Remarks:
Other Comments:

Appendix C - Monthly Summary Reports

Monthly Summary of Qualified Professional Site Inspection Activities

Name of Facility:	Today's Date:		Reporting Month:
Champlain Hudson Power			
Express Segment 13, 14, and			
15 – Package 8			
Location: South Bronx, Randall'	s Island, Astoria,	New York	
Name of Site Inspector:		Telephone # of	Site Inspector:

Regular/Rainfall Based Inspection	Name of Inspector	Items of Concern

Qualified Inspector's Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that certifying false, incorrect or inaccurate information is a violation of the laws of the City of New York and could subject me to criminal or civil penalties and/or administrative proceedings.

Monthly Summary of Daily Trained Contractor Site Inspection Activities

Name of Facility:	Today's Date:	Reporting Month:
Champlain Hudson Power		
Express Segment 13, 14, and		
15 – Package 8		
Location: South Bronx, Randall'	s Island, Astoria, New Yorl	k
Name of Site Inspector:	Telepho	one # of Site Inspector:

Date of Inspection	Regular/Rainfall Based Inspection	Name of Inspector	Items of Concern

Trained Contractor's Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that certifying false, incorrect or inaccurate information is a violation of the laws of the City of New York and could subject me to criminal or civil penalties and/or administrative proceedings.

Appendix D - Contractor's Certifications & Forms

CONTRACTOR'S CERTIFICATION STATEMENT

I. SITE INFORMATION

Construction Site Name:Champlain Hudson Power Express Segment 13, 14, and 15 –Package 8Site Location:South Bronx, Randall's Island, Astoria, New York

II. CONTRACTORS INFORMATION

Contracting Firm Name: Contracting Firm Address: Telephone Number(s): Contact(s): 1) 2)

III. CERTIFICATION

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the developer must comply with the terms and conditions of the NYC Stormwater Construction Permit, 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."

Contractor (print name)

Contractor Signature

Title

Date

SUBCONTRACTOR'S CERTIFICATION STATEMENT

I. SITE INFORMATION

Construction Site Name:Champlain Hudson Power Express Segment 13, 14, and 15 –Package 8Site Location:South Bronx, Randall's Island, Astoria, New York

II. CONTRACTORS INFORMATION

Contracting Firm Name: Contracting Firm Address: Telephone Number(s): Contact(s): 1) 2)

III. CERTIFICATION

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the developer must comply with the terms and conditions of the NYC Stormwater Construction Permit, 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."

Subcontractor (print name)

Subcontractor Signature

Title

Date

CERTIFICATE OF ISSUANCE

As directed by the developer, a copy of the SWPPP will be retained at the site, along with all signed statements, reports and schedules contained herein for completion by the contractor. Upon completion, the SWPPP and all records shall be returned to the developer.

Date of issuance: Name: Title: Firm:

Signature: _____

Received from:

Name: Title: Address: Tel. Number(s):

Signature: _____

(**Note:** Inquiries in regard to copies of SWPPP by either the State Director or any local agency having jurisdiction to be directed to owner's project representative.)

EROSION AND WATER QUALITY CONTROL IDENTIFICATION

The contractor and/or subcontractors that will implement each erosion control measure must be identified:

IDENTIFICATION

Measure to be Implemented

(**Note:** Each contractor and subcontractor identified must sign a copy of the certification statement. Those copies must be filed with the SWPPP, kept on-site, and kept up to date.

This identification does not reassign or remove responsibility for all measures as agreed to the contract documents. The contractor is responsible for all subcontractors.)

CONSTRUCTION STABILIZATION

The contractor shall initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. When construction activity is precluded by snow cover, stabilization measures shall be initiated as soon as practicable. When construction activity will resume within 21 days from when activity ceased, then stabilization measures do not have to be initiated on that portion of the site by the 14th day after construction activity temporarily ceased.

Major Work Activity	Portion of the Site	Date Commenced	Date Ceased (Permanently/Temporarily)	Date Stabilization Measures Initiated

*THESE MUST BE KEPT UP TO DATE AND ON-SITE FOR INSPECTION AT ANYTIME.

CERTIFICATE OF CHANGE BY THE CONTRACTOR

To:

Project:

Site Address:

Enclosed, please find your written notification of the following provision(s) of the SWPPP not being met:

Provisions of the plan requiring modification:

Action taken to modify plan to bring project into compliance:

Date Completed:

Received By: Name: Title: Contracting Firm:

Address: Tel. Number:

Signature:

Received By: Name: Title: Contracting Firm:

Address: Tel. Number:

Signature:

(**Note:** Plan amendments – major and minor need to be filed on-line. Major amendments include changes to structural components that would require design review. All others shall be filed as a minor amendment, but will not require review.)

Appendix E - End of Construction Documents

FINAL STABILIZATION AND RETENTION OF RECORDS

A. Qualified Professional Certification: A qualified professional shall perform a final site inspection.

Yes No N/A

- □ □ □ Final site drainage will prevent erosion, concentrated flows to adjacent properties, uncontrolled overflow, and ponding.
- □ □ □ Conveyance systems are stabilized.
- □ □ □ Channels and stream banks are seeded at the outlet points.

"I hereby certify that the site has undergone final stabilization. Final stabilization means that all soil disturbing activities have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures. Further, all temporary erosion and sediment controls (such as silt fence) not specified for permanent erosion control have been removed. I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the City and State of New York and could subject me to criminal, civil and/or administrative proceedings."

Qualified Professional (print name)

Qualified Professional Signature

Date

- B. Retention of Records: The developer shall retain copies of SWPPPs, all reports, and records of all data for a period of at least five years from the date that the site is finally stabilized.
- C. Maintenance of SWPPP and Reports at the Construction Site: The operator shall retain a copy of the SWPPP at the construction site from the data of initiation of construction activities to the date of final stabilization.

CERTIFICATE OF RETURN

As directed by the owner's representative, the copy of the storm water pollution prevention plan retained at the site, along with all signed statements, reports and schedules contained herein for completion by the contractor are to be returned to the owner. The owner shall retain the plan, reports and records of all data for a period of five years from the date that the site is stabilized. This period may be extended by the City director at any time upon written notification.

Date of issuance: Name:	
Title:	
Firm:	
Signature:	
Received from: Name: Title: Address: Tel. Number(s):	
Sianature:	

(**Note:** Inquiries in regard to copies of pollution prevention plan by either the State Director or any local agency having jurisdiction to be directed to owner's project representative.)

Appendix F – NYSDEC Notice of Intent Form & NOTICE OF TERMINATION

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.35

(Submission #: HPH-D5QV-94X5T, version 1)

Details

Originally Started By SEAN LENAHAN

Alternate Identifier Champlain Hudson Power Express Segment 13, 14, and 15 - Package 8

Submission ID HPH-D5QV-94X5T

Submission Reason New

Status Draft

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.) CHPE LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT) NONE PROVIDED

Owner/Operator Contact Person First Name NONE PROVIDED

Owner/Operator Mailing Address 1301 6th Avenue

City New York

State NY

Zip

10019

Phone NONE PROVIDED

Email NONE PROVIDED Federal Tax ID NONE PROVIDED

Project Location

Project/Site Name Champlain Hudson Power Express Segment 13, 14, and 15 - Package 8

Street Address (Not P.O. Box) LINCOLN AVENUE

Side of Street NONE PROVIDED

City/Town/Village (THAT ISSUES BUILDING PERMIT) NEW YORK

State

NY

Zip 10454

DEC Region

County BRONX QUEENS NEW YORK

Name of Nearest Cross Street WILLIS AVENUE BRIDGE

Distance to Nearest Cross Street (Feet) 0

Project In Relation to Cross Street NONE PROVIDED

Tax Map Numbers Section-Block-Parcel NONE PROVIDED

Tax Map Numbers NONE PROVIDED

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.

- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates 40.79159913978481,-73.91044230211867

Project Details

2. What is the nature of this project?

Redevelopment with no increase in impervious area

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

Pre-Development Existing Landuse Linear Utility

Post-Development Future Land Use

Linear Utility (wqter/sewer/gas, etc.)

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

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

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

Total Site Area (acres) 12.69

Total Area to be Disturbed (acres) 2.82

Existing Impervious Area to be Disturbed (acres) 0.98

Future Impervious Area Within Disturbed Area (acres) 0.98

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

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

A (%)

B (%)

0

C (%) 100

D (%) 0

7. Is this a phased project? Yes

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

Start Date

10/01/2023

End Date

09/30/2025

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge. Harlem River, Bronx Kill, East River

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

Other Waterbody Type Off Site Description NONE PROVIDED

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

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? Yes

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

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

If No, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey? NONE PROVIDED

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

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

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?

Yes

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

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

No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?

No

19. Is this property owned by a state authority, state agency, federal government or local government? Yes

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

Required SWPPP Components

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

22. Does this construction activity require the development of a SWPPP that includes the postconstruction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? No

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

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? NONE PROVIDED

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

SWPPP Preparer KC Engineering and Land Surveying, PC

Contact Name (Last, Space, First)

Havener Nathaniel

Mailing Address 7 Penn Plaza. Suite 1604

City New York

State

NY

Zip 10001-3976

Phone 6467955064

Email nhavener@kcepc.com

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form

2) The certified SWPPP preparer should sign this form

3) Scan the signed form4) Upload the scanned document<u>Download SWPPP Preparer Certification Form</u>

Please upload the SWPPP Preparer Certification NONE PROVIDED Comment NONE PROVIDED

Erosion & Sediment Control Criteria

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

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

Temporary Structural

Construction Road Stabilization Dust Control Silt Fence Stabilized Construction Entrance Storm Drain Inlet Protection Check Dams

Biotechnical

None

Vegetative Measures

Protecting Vegetation Grassed Waterway Topsoiling

Permanent Structural

Land Grading

Other

Concrete Truck Washout, Sediment Dewatering Bag, Stockpile Management, Soil Restoration, Compost Filter Sock, Tree Protection, Erosion Control Bank Stabilization, Wetland Protection Fence

Post-Construction Criteria

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

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project. NONE PROVIDED

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). NONE PROVIDED

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet) NONE PROVIDED

29. Post-construction SMP Identification

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

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

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

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet) NONE PROVIDED

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)? NONE PROVIDED

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

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

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

If Yes, go to question 33.

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

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

33. SMPs

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

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

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

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

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

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

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

If Yes, go to question 36.

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

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

CPv Required (acre-feet) NONE PROVIDED

CPv Provided (acre-feet) NONE PROVIDED

36a. The need to provide channel protection has been waived because: NONE PROVIDED

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

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

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

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? NONE PROVIDED

If Yes, Identify the entity responsible for the long term Operation and Maintenance NONE PROVIDED

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

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs

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

RR Techniques (Area Reduction)

Round to the nearest tenth

- **Total Contributing Acres for Conservation of Natural Area (RR-1)** NONE PROVIDED
- **Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)** NONE PROVIDED

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2) NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2) NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4) NONE PROVIDED

RR Techniques (Volume Reduction)

- **Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)** NONE PROVIDED
- **Total Contributing Impervious Acres for Vegetated Swale (RR-5)** NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6) NONE PROVIDED

- **Total Contributing Impervious Acres for Stormwater Planter (RR-7)** NONE PROVIDED
- **Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)** NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9) NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10) NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1) NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2) NONE PROVIDED

Total Contributing Impervious Acres for Dry Well (I-3) NONE PROVIDED

Total Contributing Impervious Acres for Underground Infiltration System (I-4) NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5) NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1) NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1) NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2) NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3) NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4) NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5) NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1) NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2) NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3) NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4) NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1) NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2) NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3) NONE PROVIDED **Total Contributing Impervious Acres for Pocket Wetland (W-4)** NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2) NONE PROVIDED

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

Total Contributing Impervious Area for Hydrodynamic NONE PROVIDED

Total Contributing Impervious Area for Wet Vault NONE PROVIDED

Total Contributing Impervious Area for Media Filter NONE PROVIDED

"Other" Alternative SMP? NONE PROVIDED

Total Contributing Impervious Area for "Other" NONE PROVIDED

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

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

Manufacturer of Alternative SMP NONE PROVIDED

Name of Alternative SMP NONE PROVIDED

Other Permits

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

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

If Other, then identify NONE PROVIDED

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

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

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

MS4 SWPPP Acceptance

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

If No, skip question 44

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

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

MS4 Acceptance Form Upload

swpppaccept.pdf - 04/26/2023 02:00 PM Comment NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download

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

Upload Owner/Operator Certification Form

<u>constnoioocert.pdf - 04/26/2023 11:04 AM</u> **Comment** NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/26/2023 2:00 PM	swpppaccept.pdf	Attachment	SEAN LENAHAN
4/26/2023 11:04 AM	constnoioocert.pdf	Attachment	SEAN LENAHAN



Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater **Discharges From Construction** Activity (GP-0-20-001)

Project/Site Name:	Champla	Champlain Hudson Power Express Segment 13, 14, and 15 - Package 8								
eNOI Submission N	umber:	HPH-D5QV-9	4X5T							
eNOI Submitted by:		Owner/Operator	SWPPP Preparer	Other						

Certification Statement - Owner/Operator

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.

M.I.

T.

Last Name

Church

Owner/Operator First Name

Travis

Signature

	Water 4th Floor
MS4 Stormwater Pollution Prevention Form	
Construction Activities Seeking Authoriza *(NOTE: Attach Completed Form to Notice Of	
I. Project Owner/Operator Information	
1. Owner/Operator Name:	
2. Contact Person:	
3. Street Address:	
4. City/State/Zip:	
II. Project Site Information	
5. Project/Site Name:	
6. Street Address:	
7. City/State/Zip:	
III. Stormwater Pollution Prevention Plan (SWPPP) I	Review and Acceptance Information
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Contact Person:	
14. Street Address:	
15. City/State/Zip:	
16. Telephone Number:	

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

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? $\hfill\square$ yes $\hfill\square$ 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:

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: NY	R				
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 accord SWPPP. *Date final stabilization completed (month/year):	ordance with the general permit and				
9b. □ Permit coverage has been transferred to new owner/opera permit identification number: NYR					
9c. □ Other (Explain on Page 2)					
IV. Final Site Information:					
10a. Did this construction activity require the development of a S stormwater management practices? □ yes □ no (If no	SWPPP that includes post-construction , go to question 10f.)				
10b. Have all post-construction stormwater management practic constructed? □ yes □ no (If no, explain on Page 2)					
10c. Identify the entity responsible for long-term operation and m	naintenance of practice(s)?				

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 of the general permit, and that all temporary, structural erosion and sedim been removed. Furthermore, I understand that certifying false, incorrect of violation of the referenced permit and the laws of the State of New York a criminal, civil and/or administrative proceedings.	nent control measures have or inaccurate information is a				
Printed Name:					
Title/Position:					
Signature:	Date:				
VIII. Qualified Inspector Certification - Post-construction Stormwat	er 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 direct determination, based upon my inquiry of the person(s) who managed the persons directly responsible for gathering the information, is that the infor document is true, accurate and complete. Furthermore, I understand that inaccurate information is a violation of the referenced permit and the laws could subject me to criminal, civil and/or administrative proceedings.	construction activity, or those mation provided in this certifying false, incorrect or				
Printed Name:					
Title/Position:					

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

Appendix G - Water Quality Product Data

N/A Per the New York City Stormwater Manual, work that disturbs more than one acre of land and only includes the installation of underground utilities does not require post construction stormwater controls.

ITEM NO. «#» CATCH BASIN SILT SACK

WORK: Under this Item, the Contractor shall furnish and install a **CATCH BASIN SILT SACK** in accordance with the plans and specifications, as directed by the Engineer.

INTENT: The intent of this item is to facilitate an erosion and sediment control plan, which may be required by NYS Department of Environmental Conservation (DEC) in accordance with the State Pollutant Discharge Elimination System (SPDES) and The Code of Federal Regulations, 40 CFR Part 122.

For a storm water management plan and best management practice (BMP), a catch basin silt sack shall be installed where it is desirable or required to filter sediment laden storm water.

MATERIALS: Unless otherwise herein specified, all materials and methods of construction shall conform to requirements of Section B "Materials and Methods of Construction".

<u>Silt Sack:</u> The silt sack shall be an open-top, geotextile bag that can be suspended from a catch basin grate. The suspended solids are allowed to settle out of the slowed flow and are captured by the sack prior to entering the inlet. There shall be two dump straps attached at the bottom of the sack to facilitate the emptying and cleaning of sack and there shall be two lifting hoops as an integral part of the system to be used to lift the sack from the catch basin.

The geotextile sack shall be constructed with high-tenacity, monofilament, polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. The geotextile shall be resistant to ultraviolet degradation and to biological and chemical environments normally found in soils. The silt sack shall be the "Dandy Sack[™]" as manufactured by Dandy Products Inc., Westerville, OH, or the "SiltSack[®] - Type A High Flow" as manufactured by ACF Environmental, Richmond, VA, or "StormSok" as manufactured by Fabco Industries, Jericho, NY, or approved equal.

Property	ASTM	Units	Results (Min.)**	
1. I.	Test Methods		MD*	CD#
Grab Tensile Strength	D4632	lbs. (kN)	255 (1.13)	200 (0.89)
Grab Tensile Elongation	D4632	%	15	10
Trapezoid Tear Strength	– D4533	lbs. (kN)	40 (0.175)	50 (0.22)
CBR Puncture Strength	D6241	lbs. (kN)	750	(3.3)
UV Resistance (at 500 hours)	D4355	%	7	0
Apparent Size Opening	D4751	U.S. sieve (mm)	40 (0	.425)
Flow Rate	D4491	gal/min/ft ²	4	0
		$(l/min/m^2)$	(16	29)
Permittivity	D4491	sec ⁻¹	0.:	55

Geotextile used for the silt sack shall meet the following minimum properties:

* MD = Machine Direction, the direction in the plane of the fabric parallel to the direction of manufacture.

* CD= Cross Machine Direction, the direction in the plane of the fabric perpendicular to the direction of manufacture.

** All properties are Minimum Average Roll Values (MARV).

INSTALLATION: Silt sacks shall be installed prior to start of construction activity on site and shall not be removed until final acceptance of work, unless otherwise directed by the Engineer. The Contractor shall remove the grate of the catch basin and install the sack in accordance with the Manufacturer's written instruction. The grate shall be set back into place after the sack is installed with the lifting straps outside or on top of the grate.

MAINTENANCE: The Contractor shall remove all accumulated sediment and debris from the vicinity of the catch basin after each storm event and as directed by the Resident Engineer. Where the sack is more than one-third (1/3) full of sediment, the sack shall be cleaned by lifting the unit out of the catch basin and emptying the contents to an area within the Contract limit line as directed by the Engineer.

<u>REPLACEMENT</u>: The silt sack shall be maintained in working condition for the life of the project. If the sack breaks, is damaged, or ceases to function during the construction period, the Contractor shall remove and replace it with new as many times as necessary at no additional cost to the City.

<u>SUBMITTALS</u>: All submittals shall be submitted prior to purchase and in accordance with the requirements of the General Conditions, Section C, Special Provisions, Article 11.

<u>Manufacturer's Data:</u> The Contractor shall submit manufacturer's data with all properties to demonstrate compliance with the requirements of this specification.

MEASUREMENT AND PAYMENT: The quantity of **CATCH BASIN SILT SACK** to be paid for under this item shall be the number of catch basins silt sacks furnished and installed, in accordance with the plans, specifications, and directions of the Engineer.

The price bid shall be unit price for **EACH** Catch Basin Silt Sack and shall include the cost of all labor, materials, equipment including maintenance, replacement when sack is damaged, and any incidental expenses necessary to complete the work in accordance with the specifications to the satisfaction of the Engineer.

The cost of maintaining and clearing Catch Basin Silt Sack during and upon completion of the work will be deemed included in the price bid for this item. Payment for work performed under this item shall be as follows:

*50% payment upon installation.

*50% payment after Substantial Completion and upon removal of silt sack.

Clear Existing Drainage Structure and Clear Existing Storm/Sanitary Sewer Pipe shall be paid for under their respective contract items.

END OF PAGE

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ITEM NO.«#»

TEMPORARY SEEDING

WORK: Under this Item, the Contractor shall furnish cover crop seeds and prepare soil, to accomplish **TEMPORARY SEEDING** in accordance with the plans, specifications, and directions of Engineer.

<u>INTENT</u>: The intent of this Item is to establish and maintain a temporary cover crop as an erosion control measure.

<u>MATERIALS</u>: Unless otherwise herein specified, all materials and methods of construction shall comply with Section B, "Materials and Methods of Construction".

<u>Seed Mix</u>: All types of cover crop seed shall be fresh, recleaned seed of the latest crop mixed in the following proportions by weight and meeting the following standards of pure live seed content. The tolerance for PLS (purity x germination) shall be those listed.

The seed listed below is available from Ernst Conservation Seeds, Meadville, PA or approved equal. Check seed lots on all species to exclude crown vetch or other unspecified species.

All Seed shall be delivered in sealed standard size bags of the vendor, showing weight, analysis and name of vendor. It shall be stored as directed by the Engineer in such a manner that its effectiveness will not be impaired. The Engineer reserves the right to reject, on or after delivery, any material which does not, in their opinion, meet these specifications.

SEED		Time of Year	Minimum Seeding Temperature	Rate per acre
Secale cereale	cereal rye	Fall: Sept. – Nov. Spring: March, April	38- 41º Fahrenheit	50 lbs.
Avena sativa	common oats	Fall: September, October Spring: March, April	38- 41º Fahrenheit	128 lbs.
Lolium multiflorum	annual ryegrass	Fall: August – October Spring: March, April, May	40° Fahrenheit	50 lbs.
Fagopyrum esculentum	buckwheat	Summer: June 15 – July 5		50 lbs.

<u>Mycorrhizal Fungi Inoculant</u>: Powder MycoApply Micronized Endo as manufactured by Mycorrhizal Applications, Inc., Oregon or approved equal, shall be mixed with the seeds at a ratio of ten (10 lbs.) pounds of Micronized Endo per quantity of seed for one (1) acre. The Micronized Endo and Seed Mix shall be mixed on site in a CLEAN portable cement mixer or similar type mixer so that the powder evenly covers all of the seed.

<u>SECALE CEREALE – CEREAL RYE</u>

The **time** of seeding shall be as follows:

Seed shall be sown in the Fall during September thru November or in the Spring during March and April or at such other times as are approved by the Engineer. All seeding is to be done in moderately dry to moist (not wet) soil and at a time when the wind does not exceed a velocity of five (5) miles per hour.

The temperature of seeding shall be as follows:

The minimal germination temperature 3-5 degrees Celsius (38- 41 degrees Fahrenheit) The optimum temperature is 16 to 22 degrees Celsius (60 to 72 degrees Fahrenheit).

The rate of seeding shall be as follows:

Temporary Cover Crop - fifty (50 lbs.) pounds per acre.

Secale Cereale shall be combined with one of more of the following (depending on season):

AVENA SATIVA – COMMON OATS

The time of seeding shall be as follows:

Seed shall be sown in the Fall during September and October or in the Spring during March and April or at such other times as are approved by the Engineer. All seeding is to be done in moderately dry to moist (not wet) soil and at a time when the wind does not exceed a velocity of five (5) miles per hour.

The temperature of seeding shall be as follows:

The minimal germination temperature is between 3 to 5 degrees Celsius (38 to 41 degrees Fahrenheit). The optimum temperature is 16 to 22 degrees Celsius (60 to 72 degrees Fahrenheit).

The rate of seeding shall be as follows:

Temporary Cover Crop - one hundred twenty eight (128 lbs.) pounds per acre.

Avena Sativa shall be combined with one of more of the following (depending on season):

LOLIUM MULTIFLORUM – ANNUAL RYEGRASS Do Not Substitute Perennial Rye

The time of seeding shall be as follows:

Annual Ryegrass shall be sown in the Fall during August, September and October or in the Spring during March, April, and May or at such other times as are approved by the Engineer. All seeding is to be done in moderately dry to moist (not wet) soil and at a time when the wind does not exceed a velocity of five (5 mph) miles per hour.

The temperature of seeding shall be as follows:

The minimal germination temperature 4.5-5 degrees Celsius (40 degrees Fahrenheit) The optimum temperature is 16 to 22 degrees Celsius (60 to 72 degrees Fahrenheit).

The rate of seeding shall be as follows:

Temporary Cover Crop – fifty (50 lbs.) pounds per acre

FAGOPYRUM ESCULENTUM – BUCKWHEAT

The time of seeding shall be as follows:

Buckwheat shall be sown in the **Summer** between **June 15 and July 5** or at such other times as are approved by the Engineer. All seeding is to be done in moderately dry to moist (not wet) soil and at a time when the wind does not exceed a velocity of five (5 mph) miles an hour.

The rate of seeding shall be as follows:

Temporary Cover crop - fifty (50 lbs.) pounds per acre

INSTALLATION: Temporary seeding shall be sown in the spring during the months of March, April, or May, in midsummer, or in August, September, October, or November, depending on type of seed, or as directed by the Engineer.

Prior to seeding, the area to be seeded shall be disked to loosen top four (4") inches of soil. The disked area shall be fine tilled to open the soil and render it free of rocks, roots, top growth, or debris over two (2") inches in any direction. The chain method or another suitable and preapproved method of cultivation shall be employed to loosen, rough grade, and prepare the seedbed. All areas shall then be compacted using a two hundred (200 lbs.) pound roller.

Cover crop seed shall be mixed as per the above schedule. All seeding shall be performed in moderately dry to moist soil conditions at a time when the wind velocity does not exceed five (5 mph) miles per hour.

MAINTENANCE:

Temporary seeding (cover crops):

- If planted in Spring, plowed under in the following Spring.
- If planted in Fall, plowed under the following Summer.

The Contractor shall perform all work required to achieve rapidly established growth. The Contractor may be directed to reseed any areas which, in the opinion of the Engineer, are unacceptable. The Contractor shall adequately maintain the erosion control cover, including watering as necessary. If the growth is inadequate for erosion control, the Contractor shall overseed using half the rate of seed originally applied. If the grass seed growth is over sixty percent (60%) damaged, reseed following the originally specified rate.

<u>SUBMITTALS</u>: All submittals shall be in accordance with the requirements of the General Conditions, Section C, Special Provisions, Article 11.

<u>Seed Mix</u>: The Contractor shall submit documentation attesting to the seed composition for approval prior to performing the seeding operation. Any substitutions must be submitted to the Landscape Architect and approved prior to ordering the seed.

<u>MEASUREMENT AND PAYMENT</u>: The quantity of **TEMPORARY SEEDING** to be paid for under this Item shall be the number of **POUNDS** of seed furnished, planted, and maintained in accordance with the plans and specifications, to the satisfaction of the Engineer.

The price bid shall be a unit price per **POUND** of Temporary Seeding and shall include the cost of labor, materials (including water), and equipment necessary or required to furnish seed, mycorrhizal fungi inoculant, prepare the seed bed, plant, reseed, grow, and maintain the seeded areas and all work incidental thereto in accordance with the plans and specifications, to the satisfaction of the Engineer.

The price of water, regardless of the source, shall be considered part of the bid price.

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ITEM NO. «#» TEMPORARY SILT FENCE

WORK: Under this item the Contractor shall install **TEMPORARY SILT FENCE** to prevent excess sediment from leaving the site, at the locations shown on the plans, in accordance with the specifications and as directed by the Engineer.

INTENT: The intent of this item is to facilitate an erosion and sediment control plan, which may be required by NYS Department of Environmental Conservation (DEC) in accordance with the State Pollutant Discharge Elimination System (SPDES) and The Code of Federal Regulations, 40 CFR Part 122.

<u>MATERIALS</u>: Unless otherwise herein specified, all materials and methods of construction shall comply with Section B, "Materials and Methods of Construction".

Silt fence shall be prefabricated wire backed fabric with posts such as Carthage Silt Fences, manufactured by Carthage Mills, Cincinnati OH, or approved equal. Posts, wire mesh, and fabric shall meet the following specifications:

<u>Posts</u>: Posts shall be wood, steel, or an approved synthetic material, with a minimum length of three (3') feet. Hardwood posts shall have a minimum cross sectional area of 1.25" x 1.25" and steel posts of U, T, L, or C shape shall weigh one (1 lb.) pound per linear foot.

<u>Wire Mesh</u>: Wire mesh fencing shall be a minimum of fourteen (14) gauge with a maximum six (6") inch mesh opening.

<u>Geotextile:</u> Fibers used in the manufacture of geotextiles, and the threads used in joining geotextiles by sewing, shall consist of long-chain, synthetic polymers, composed of at least 95 percent by weight polyolefins, polyesters, or polyamides. The geotextile and the threads used in sewing geotextiles, shall be resistant to chemical attack, rot, and mildew. The geotextile shall have no tears or defects which adversely alter its physical properties. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages. The geotextile shall have no tears or defects which adversely alter its physical properties. Geotextile for temporary silt fence shall meet or exceed requirements for temporary silt fence as set forth by AASHTO M-288 and as outlined below:

PROPERTY	<u>UNIT</u>	TEST METHOD	TYPICAL VALUES*
Grab Strength	LB	ASTM D 4632	90
Grab Elongation	%	ASTM D 4632	20 (max)
Trapezoid Tear Strength	LB	ASTM D 4533	60
Permittivity	Sec ⁻¹	ASTM D 4491	0.05
Water Flow Rate	gpm/ft ²	ASTM D 4491	10
Apparent Opening Size	US Std Sieve	ASTM D4751	30
Ultraviolet stability	%	ASTM D 4355	70

*Minimum values unless otherwise indicated.

INSTALLATION: Silt Fence shall be installed prior to land disturbing activities or as necessary to control erosion from land disturbing activities. Comply with all applicable standards for Soil Erosion and Sediment Control as set forth by New York State DEC. Care shall be taken when installing the silt fence that all the requirements of Article 14, Section C, "Tree Work" shall be followed. In addition, where tree roots of one (1") inch or greater are encountered, or if directed by the Engineer, the Contractor shall move the location of the silt fence to avoid damage to existing trees.

Contractor shall first excavate a trench approximately six (6") inches deep and four (4") inches wide in the line of the silt fence. Silt fence to be located at least ten feet from the toe of steep slopes and nearly level throughout its length. Contractor shall drive posts securely at least sixteen (16") inches into the ground on the down slope side of the trench. Post spacing shall be a maximum of ten (10") feet on center. Adjust spacing to place posts at low points along fence line.

Fasten support wire fence to upslope side of posts, extending six inches into the trench. Attach continuous length of fabric to upslope side of fence posts with ties space every twenty-four (24") inches at top and mid-section. Avoid joints, particularly at low points in the fence line. Where joints are necessary, fasten fabric securely to support posts and overlap to the next post. Place the fabric in the trench so the bottom folds across the bottom of the trench. Place backfill in the trench over the fabric to the ground line and compact with a power tamper.

Additional erosion and sedimentation control measures beyond those shown on the drawings may be required to prevent siltation. The Engineer shall determine the necessity of actual measures beyond those installed by the Contractor.

MAINTENANCE AND REMOVAL: Contractor shall inspect silt fences every seven (7) days and after each rainfall event. Any sediment deposits found shall be removed promptly to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care not to undermine the silt fence during clean out. If the fabric is torn, decomposed, or in anyway becomes ineffective, the Contractor shall replace it immediately without additional cost to the City.

The silt fence shall remain in place and maintained until the completion of the contract or as directed by the Engineer and shall become the property of the Contractor. Upon removal, the Contractor shall remove and dispose of any excess sediment accumulations, top dress the area, and cover with vegetation all bare areas in accordance with the plans.

MEASUREMENT AND PAYMENT: The quantity of **TEMPORARY SILT FENCE** to be paid for under the item shall be the number of **LINEAR FEET** installed in accordance with the plans, specifications and directions of the Engineer.

The price bid shall be a unit cost per LINEAR FOOT of TEMPORARY SILT FENCE and shall include the cost of all labor, materials, and equipment necessary to complete the work, including the fabric, wire mesh, posts, all hardware, excavation, maintenance and removal of silt fence, all in accordance with the plans and specification, to the satisfaction of the Engineer.

Lawn seed, sod, or other vegetation for restoration shall be paid for under their respective contract items. Straw bales, if required, shall be paid for separately under the item "Temporary Straw Bale Dike".

Payment for work performed under this item shall be as follows:

- 50% payment upon installation.
- 50% payment upon complete removal of the Temporary Silt Fence.

END OF PAGE

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ITEM NO. «#» STABILIZED CONSTRUCTION ENTRANCE

WORK: Under this Item, the Contractor shall furnish and install a **STABILIZED CONSTRUCTION ENTRANCE** to the dimensions and the locations shown on the plans, in accordance with the specifications, and as directed by the Engineer.

INTENT: The intent of this item is to facilitate an erosion and sediment control plan, which may be required by NYS Department of Environmental Conservation (DEC) in accordance with the State Pollutant Discharge Elimination System (SPDES) and The Code of Federal Regulations, 40 CFR Part 122.

The purpose of a Stabilized Construction Entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets. Contractor shall install a stabilized pad of aggregate underlain with geotextile at all points where trucks and construction equipment enter and/or leave the site as shown on the plans and as directed by the Engineer.

MATERIALS: Unless otherwise specified, the materials shall meet the requirements of Section B, "Materials and Methods of Construction".

Broken Stone: Stone shall consist of straight one (1") inch or two (2") inch coarse aggregate in accordance with ASTM C33, free from organic or other deleterious material. Recycled Concrete Aggregate (R.C.A.) of the specified sizes is acceptable.

<u>Geotextile - Separation</u>: Separation application is defined as the placement of a flexible porous geotextile between dissimilar materials so that the integrity and functioning of both materials can be maintained or improved, but where water seepage through the geotextile is not a critical function.

Fibers used in the manufacture of geotextiles, and the threads used in joining geotextiles by sewing, shall consist of long-chain, synthetic polymers, composed of at least 95 percent by weight polyolefins, polyesters, or polyamides. The geotextile and the threads used in sewing geotextiles, shall be resistant to chemical attack, rot, and mildew. The geotextile shall have no tears or defects which adversely alter its physical properties. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages.

	ASTM TEST		
Structure	N/A	Woven	Non Woven
Elongation	D4632	< 50%	≥ 50%
Grab Strength	D4632	1100 N	700 N
(minimum)		(247 LBF)	(157 LBF)
Tear Strength	D4533	400 N	250 N
(minimum)		(90 LBF)	(56 LBF)
CBR Puncture	D4833	4000 N	1820 N
(minimum)		(90 LBF)	(410 LBF)
Permittivity (minimum)	D4491	.02 /sec. Minimum	.02 /sec. Minimum
Apparent Opening Size	D4751	0.6 mm Maximum	0.6 mm Maximum
(maximum)		Std. No. 230 sieve	Std. No. 230 sieve

Geotextiles shall conform to the following AASHTO M-288 properties for separation geotextiles:

Geotextile shall be ADS 315W, as manufactured by Advanced Drainage Systems, Inc., Hillard, OH, FX-66 (woven) or FX-60HS (non-woven) as manufactured by Carthage Mills, Cincinnati, OH, or 600X (woven) or 160N (non-woven) as manufactured by Mirafi, Inc., Pendergrass, NC, or approved equal.

INSTALLATION: Unless otherwise shown on the plans, for sites with only one (1) construction entrance, the Stabilized Construction Entrance shall be twenty-four (24') feet wide. Where there are two (2) or more construction entrances to the site the Stabilized Construction Entrance shall be twelve (12') feet wide minimum, but not less than the full width of the entrance. Length of the entrance shall be a minimum of fifty (50') feet.

<u>Geotextile - Separation</u>: The ground shall be prepared by removing stumps and other organic material, along with any large boulders and sharp objects which may tear or damage the fabric. After the ground has been prepared, the fabric shall be rolled directly on the ground. The fabric shall be placed over the entire area that is to be covered by the aggregate, unless otherwise directed by the Engineer. All seams shall be overlapped approximately six (6") inches. No equipment, materials or machinery shall be placed on or be transported over exposed fabric. Broken stone shall then be carefully placed to prevent dislocation of the fabric.

If the fabric is damaged during installation, the rupture shall be removed and the damaged area shall be covered with a patch of new fabric that will overlap the undamaged fabric approximately six (6") inches in all directions. All repaired fabric surface costs will be deemed part of the price bid.

Broken Stone: Broken stone shall be spread utilizing suitable equipment or from piles dumped along the proposed site. Stone shall be evenly spread so that the course will have, after rolling, a minimum of six (6") inches in thickness. No segregation of large or fine materials will be allowed, but the stone as spread shall be well graded with no pockets of fine material.

MAINTENANCE: The entrance shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic inspection and top dressing with additional aggregate as directed by the Engineer. All sediment spilled, dropped, or washed onto the public streets must be removed immediately.

When necessary, wheels of all vehicles leaving the construction site must be cleaned to remove sediment prior exiting the site. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses at all times. The cleaning of wheels, if necessary, shall be deemed part of the bid price of this item.

<u>REMOVAL</u>: All materials installed for the Stabilized Construction Entrance shall be removed from the site and disposed of by the Contractor at the end of all construction activity as directed by the Engineer, at no additional cost to the City.

SUBMITTALS: All submittals shall be in accordance with the requirements of the General Conditions, Section C, Special Provisions, Article 11.

Manufacturer's Data - Geotextile: The Contractor shall submit manufacturer's data with sufficient detail to demonstrate compliance with the requirements of this specification.

<u>Sample - Geotextile</u>: The Contractor shall furnish two labeled (2) samples of the geotextiles intended for use in the work for approval and the Engineer's use. The label shall include the manufacturer's product name, the type of fabric, and the weight of grade of the material. Geotextiles used in the work shall conform to the approved samples.

<u>Sample – Broken Stone</u>: A three (3) pound bag of broken stone or RCA shall be submitted to the Engineer for approval with a sieve analysis and the name of the supplier.

MEASUREMENT AND PAYMENT: The quantity of **STABILIZED CONSTRUCTION ENTRANCE** to be paid for under this item shall be the number of **SQUARE YARDS** furnished and installed complete, in accordance with the plans, specifications, and directions of the Engineer.

The price bid shall be a unit price per of **SQUARE YARD** of Stabilized Construction Entrance and shall include the cost of all labor, materials, and equipment including broken stone, geotextile, maintenance, cleaning of wheels as necessary, removals at end of contract, and all incidental expenses necessary to complete the work in accordance with the plans and specifications, to the satisfaction of the Engineer.

Payment for work performed under this item shall be as follows:

- 50% payment upon installation.
- 50% payment upon complete removal of the Stabilized Construction Entrance.

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ITEM NO. «#» TOPSOIL (CUSTOM)

<u>WORK:</u> Under this Item, the Contractor shall furnish, place, and incorporate TOPSOIL (CUSTOM) in accordance with the plans, specifications, and directions of the Engineer. The Contractor shall be liable for any damage to property caused by topsoil operations and all areas and construction disturbed shall be restored to their original condition, to the satisfaction of the Engineer.

MATERIALS:

<u>Topsoil</u>: Shall be a loamy sand, friable soil that has been removed to a depth of one foot (1') or less, if subsoil is encountered. Topsoil shall be of uniform quality, free from hard clods, stiff clay, hard pan, sods, partially disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, boards, chips, sticks, or any other undesirable material. No topsoil shall be delivered in a frozen or muddy condition.

Topsoil shall be provided by Island Topsoil, Syosset, NY, Long Island Compost, Yaphank, NY, Natures Choice, Jersey City, NJ, New York Recycling and Materials, Inwood, NY or approved equal.

1. <u>Organic Content:</u> Topsoil shall contain less than one percent (1%) organic matter determined by loss on ignition, of moisture-free samples dried in accordance with the current method of the Association of Official Agricultural Chemists.

2. <u>The acidity range</u> shall be pH 65.5to pH 76.8 inclusive.

3. <u>Soil Textural Analysis:</u> Topsoil shall consist of the following percentages of sand, silt and clay. <u>Any soil that does not meet the requirements below will be rejected and removed from the site.</u> When directed by the Landscape Construction Unit, the Contractor may be granted permission to screen delivered topsoil in order to achieve particle size compliance. Additional testing at the Contractor's expense will be required to confirm compliance after completion of on-site screening.

Sand (0.05 to 2 mm)	65% to 85%
Silt (0.002 to 0.05 mm)	6% to 12%
Clay (<0.002 mm)	3-6%

4. <u>Electrical Conductivity</u> shall be a maximum of 1.5 mmhos/cm. <u>A higher level would indicate</u> excessive salt content and material will be rejected and removed from the site.

5. <u>Nutrients:</u> Topsoil test results shall show recommendations for soil additives or fertilizers to correct nutrient deficiencies as necessary. Soil additives and fertilizers shall be incorporated <u>as necessary at the Contractor's expense.</u> Follow the fertilizer recommendation as provided by the required laboratory.

The Contractor shall at the direction and discretion of the Engineer, or when quantities exceed one hundred (100) cubic yards, furnish a certified report of an approved Analytical Chemist showing the

analysis of representative samples of the topsoil which they propose to use. All samples are to be received by the Engineer and delivered to the laboratory, and the price bid shall include inspection and laboratory charges. Samples shall be submitted 48 hours prior to the delivery of topsoil.

No topsoil shall be delivered until the approval of samples by the Engineer, but such approval shall not constitute final acceptance. The Engineer reserves the right to reject on or after delivery any material that does not, in their opinion, meet these specifications.

INSTALLATION:

<u>Preparation of Subgrade</u>: Hollows, depressions, and gullies shall be filled with acceptable material free from stones over two inches (2") in diameter, cinders, rubbish, and other unsuitable material. All surplus material and debris shall be removed and disposed of as directed by the Engineer.

Loosen subsoil by scarifying, ripping or tilling using disks, harrows or other suitable equipment to a depth of(4"- 6") immediately before placing any topsoil. Repeat cultivation in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

<u>Placement and Spreading of Topsoil</u>: No topsoil shall be handled when, in the opinion of the Engineer, it is too wet. Place and spread approved topsoil in dry weather on dry unfrozen grade. Topsoil for groundcover and herbaceous plant areas shall be mixed with the compost in the proportions of seven (7) cubic yards of topsoil to two (2) cubic yards of compost and spread to a compacted depth of nine (9"), or as indicated on the drawings. No deduction shall be made for the volume of compost in the measurement of topsoil quantities.

<u>Preparation of Final Grade</u>: Thoroughly cultivate topsoil to minimum depth of(4") by rototilling or hand methods where compaction has occurred and to break up all soil lumps. Float until surface is smooth.

<u>SUBMITTALS:</u> All submittals shall be as per General Conditions, Section C, Special Provisions, Article 11.

<u>Proposed Samples and Test Results</u>: The Contractor shall submit two (2) five pound (5 lb.) bags to the Landscape Architect, with the testing report attached, for approval prior to delivering material to the site.

The Contractor shall at the direction and discretion of the Engineer, or when quantities exceed one hundred (100) cubic yards, furnish a certified report showing the analysis of representative samples of the topsoil which they propose to use. Testing shall be performed by Rutgers Cooperative Research & Extension Testing laboratories or equivalent laboratory as approved in writing by the Agency's Specifications and Estimating department. Laboratory testing performed more than six months prior to the Contractor's submittal date will be rejected. The testing shall include: pH, organic matter content (loss on ignition method), soluble salt level and soil textural analysis. Price bid shall include all inspection and laboratory fees.

No topsoil shall be delivered to the site until the approval of samples by the Landscape Architect, but such approval shall not constitute final acceptance.

DELIVERY AND APPROVAL: The Contractor shall notify the Resident Engineer a minimum of 48 hours prior to the intended topsoil delivery date. All imported topsoil shall be delivered in trucks and will be subject to visual inspection and additional testing. The topsoil shall NOT be spread until the Engineers' sampling and testing is completed, unless otherwise directed. The Engineer reserves the right to reject any topsoil which does not fall within acceptable limitations of this specification and the initial submittal to design including the landscape architect approved sample and the approved test report. Where the topsoil is rejected, it shall be immediately removed from the site. Where it has been determined by the Landscape Construction Unit that soil amendments are allowable, the correction shall be made at the Contractor's expense, except as outlined below. Additional testing after amending shall also be at the Contractor's expense. All testing shall be performed by Rutgers Cooperative Research & Extension Testing laboratories or equivalent laboratory as approved in writing by the Agency's Specifications and Estimating department.

Engineer's determination based on test results of delivered material: Under no circumstances shall the organic content exceed twelve percent (12%). Should Agency test results of delivered material show organic content greater than twelve percent (12%), the soil shall be rejected and removed from the site. Should Agency's test results show pH between pH 5.0 and 6.0, and where directed by the Engineer, limestone may be added <u>at the Contractor's expense</u> to bring the soil to the required minimum pH 6.0. The Contractor will be required to re-test after incorporation of limestone to assure a minimum pH 6.0. Should Engineer's test results of delivered material show a pH greater than 7.5 the soil shall be rejected and removed from the site.

The Engineer reserves the right to reject on or after delivery any material that does not, in their opinion, meet these specifications.

<u>APPEAL PROCESS</u>: The Resident Engineer shall visually check for discrepancies between the delivered soil and the approved submittal and sample. If the Engineer suspects that the topsoil delivered to the site has excessively high levels of organic matter, clay, etc. that would not be within the allowable levels listed in this specification, the soil will be rejected until additional testing proves otherwise. Should the Contractor contest the Engineer's determination, the Arboriculture and Horticulture Unit will take samples so additional tests may be performed at Contractor's expense. Testing shall be performed by Rutgers Cooperative Research & Extension Testing laboratories or equivalent laboratory as approved in writing by the Agency's Specifications and Estimating department. These results shall be considered final.

<u>MEASUREMENT AND PAYMENT:</u> The quantity of TOPSOIL (CUSTOM)_to be paid for under this Item shall be the number of CUBIC YARDS of topsoil furnished, placed, and incorporated in the completed work in accordance with the plans, specifications, and directions of the Engineer, measured in trucks used for delivery, at the site of the work. No topsoil shall be furnished until ordered by the Engineer.

The price bid shall be a unit price per CUBIC YARD of topsoil (custom) measured in trucks used for delivery, and shall include the cost of all labor, materials, and equipment necessary to prepare topsoil areas, test, furnish, place, and incorporate topsoil and all other work incidental thereto, in accordance with the plans and specifications, to the satisfaction of the Engineer.

The furnishing and incorporating of limestone or compost, where deemed necessary by the Agency shall be paid for under the items "Compost" and "Limestone".

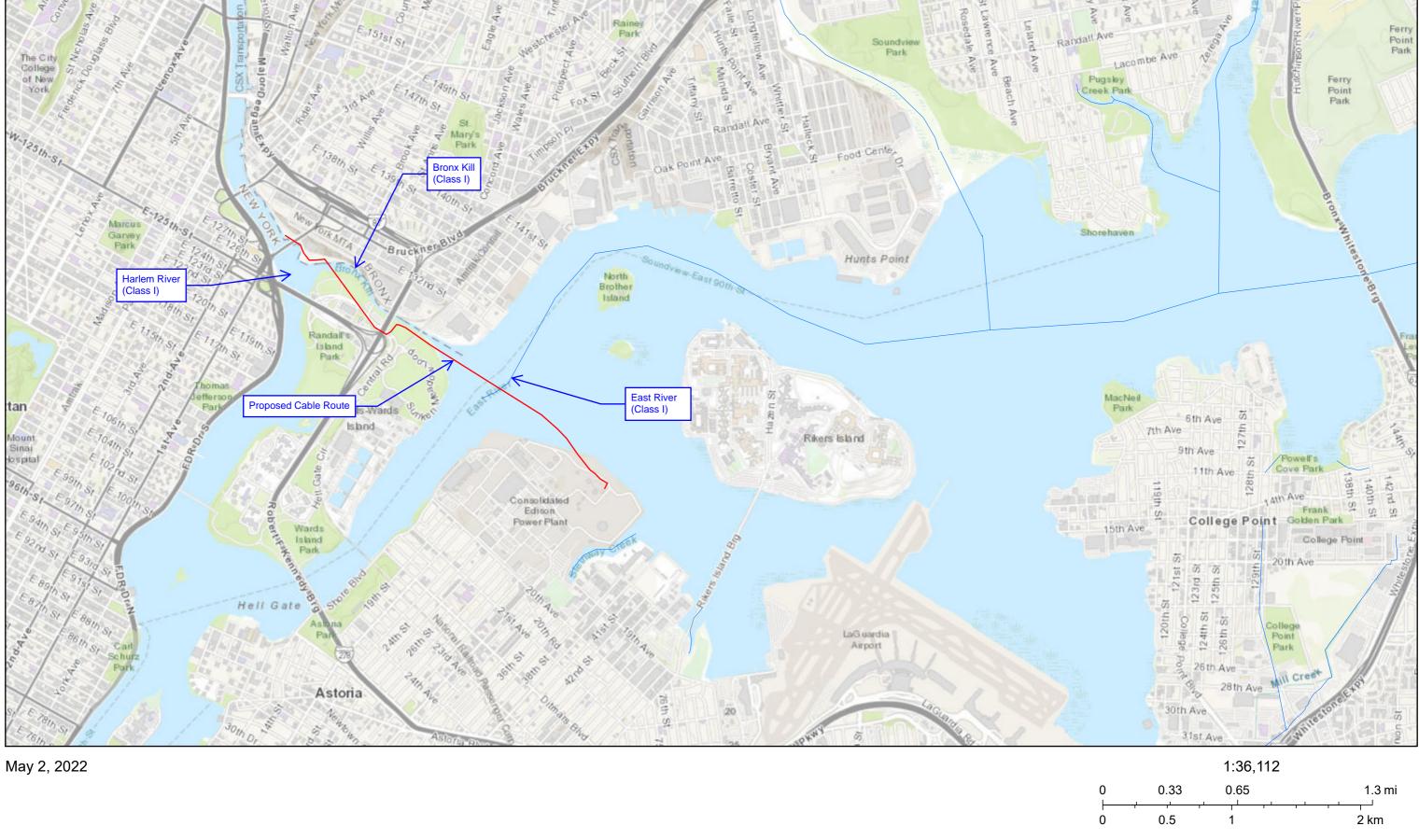
Excavation, Earth Moving Operations, or Strip, Store and Spread Existing Topsoil (where required prior to installation of new topsoil) shall be paid for separately under their respective contract items.

*Delivery ticket with name and address of vendor, date, and estimated volume must be supplied to the Engineer prior to truck measurement.

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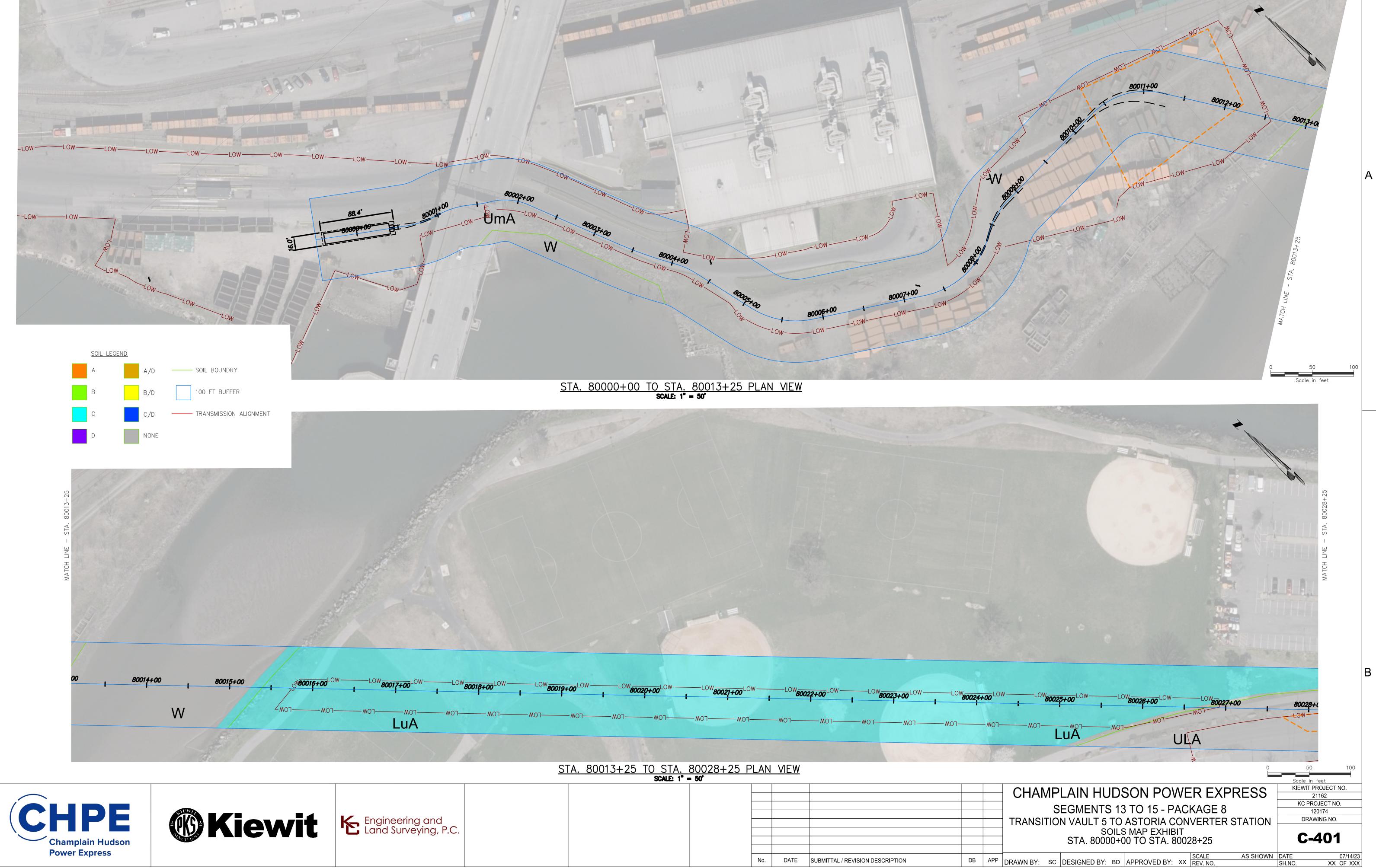
02/11/2022 CUSTOM – STANTEC/ TOTTENVILLE SHORELINE PROTECTION PROJECT/ R006-119M

Astoria - Receiving Waterbodies



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

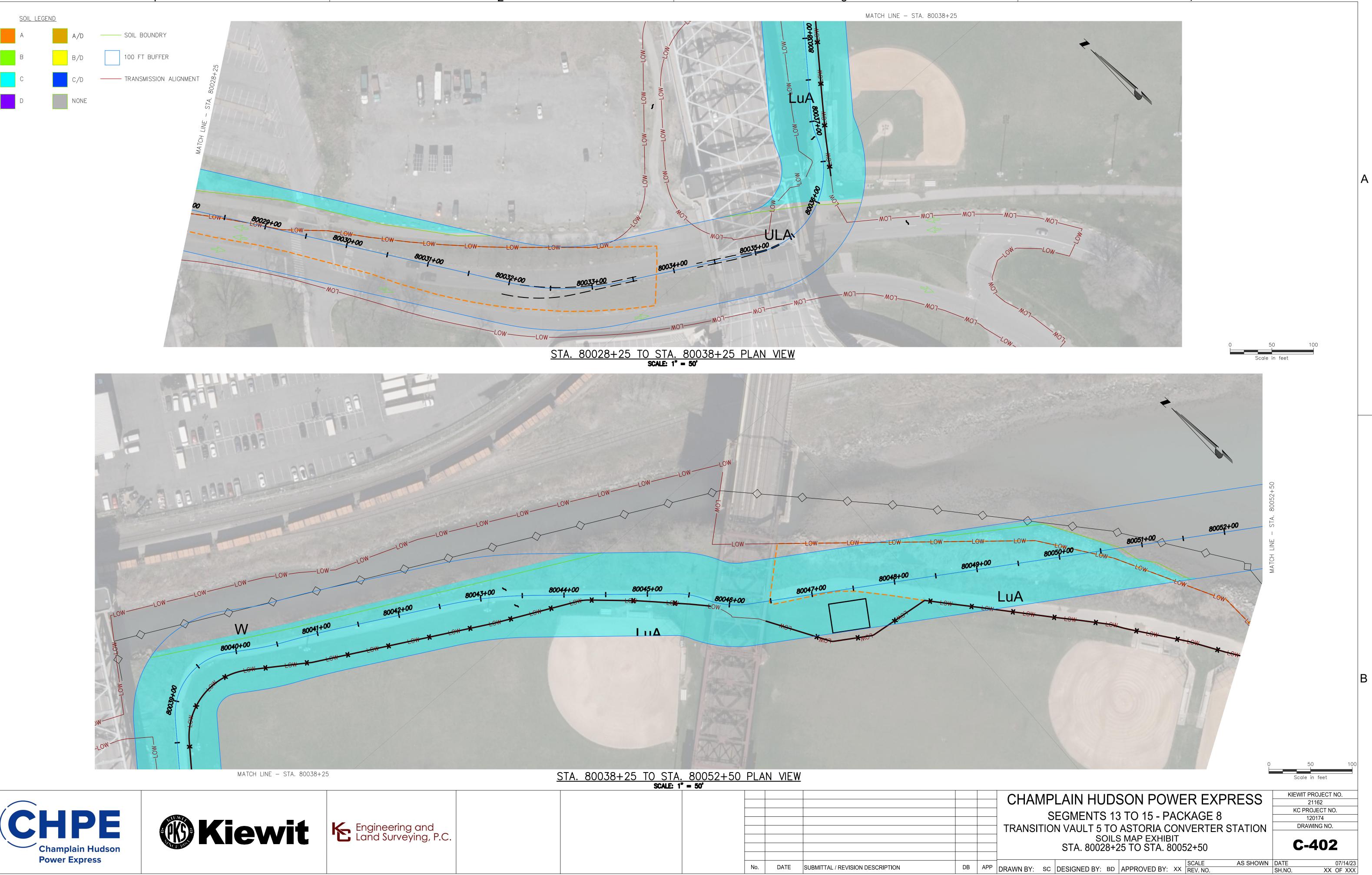
Appendix H – Soil Testing Data







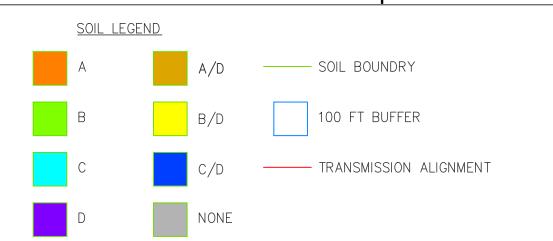
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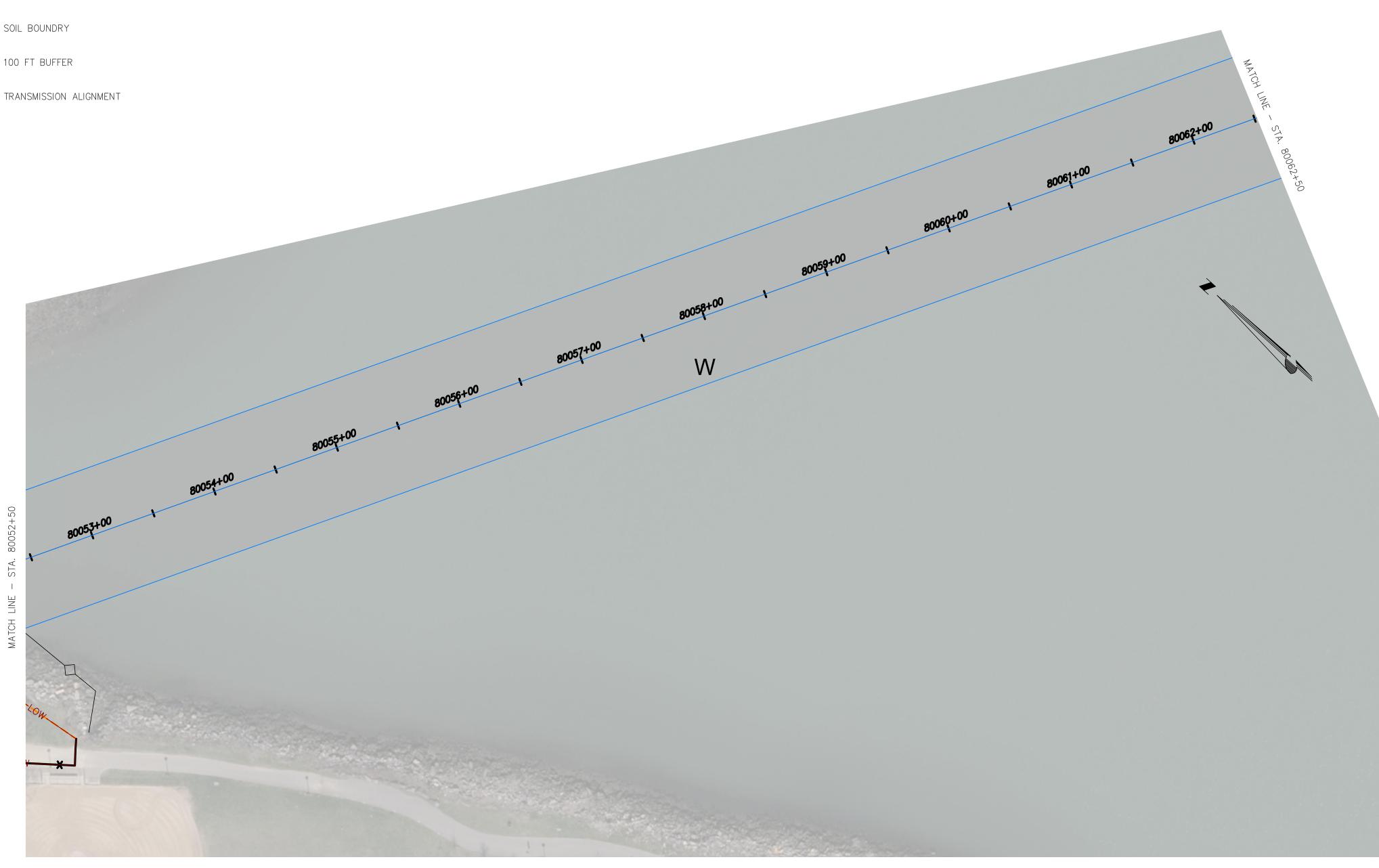






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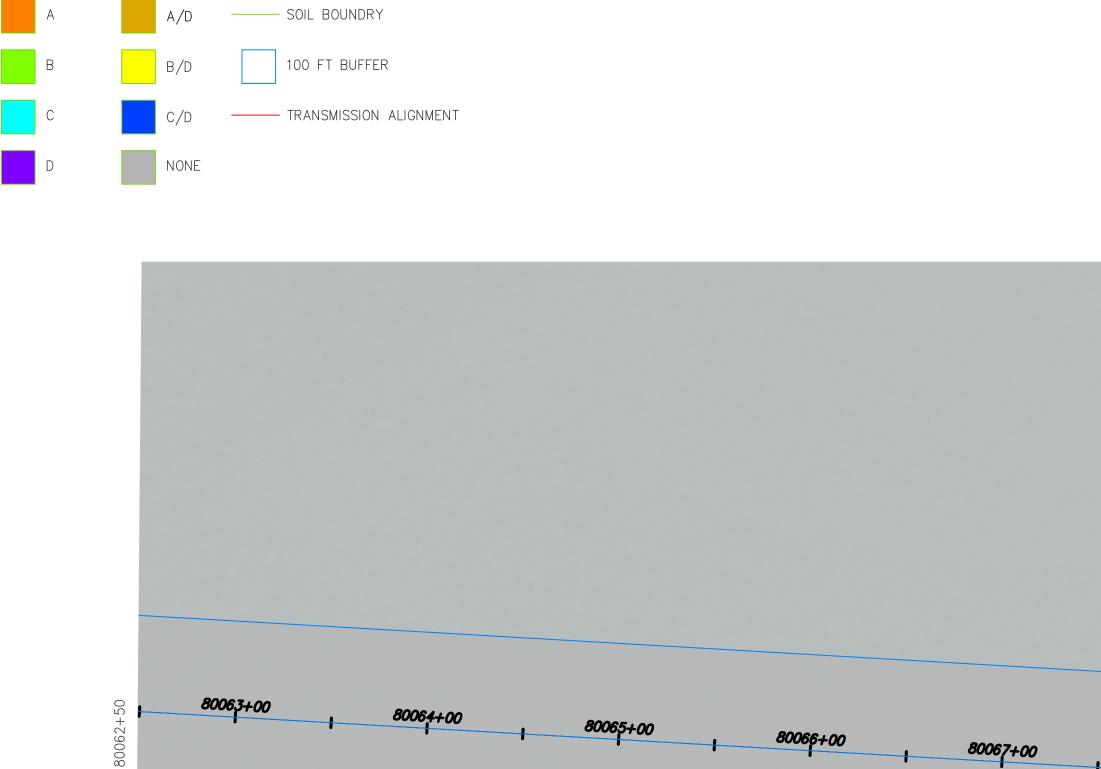




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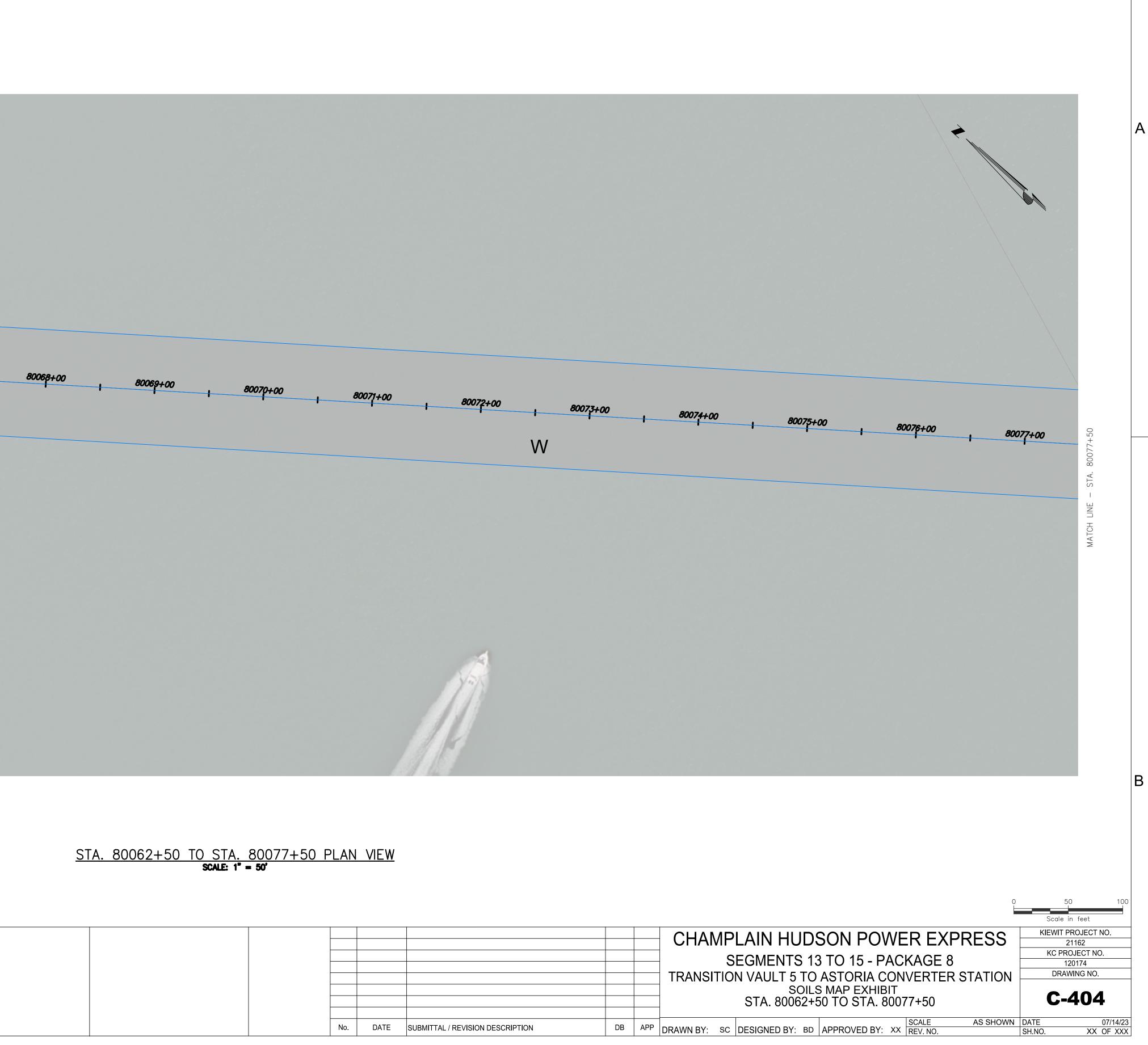
<u>SOIL LEGEND</u>







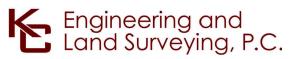


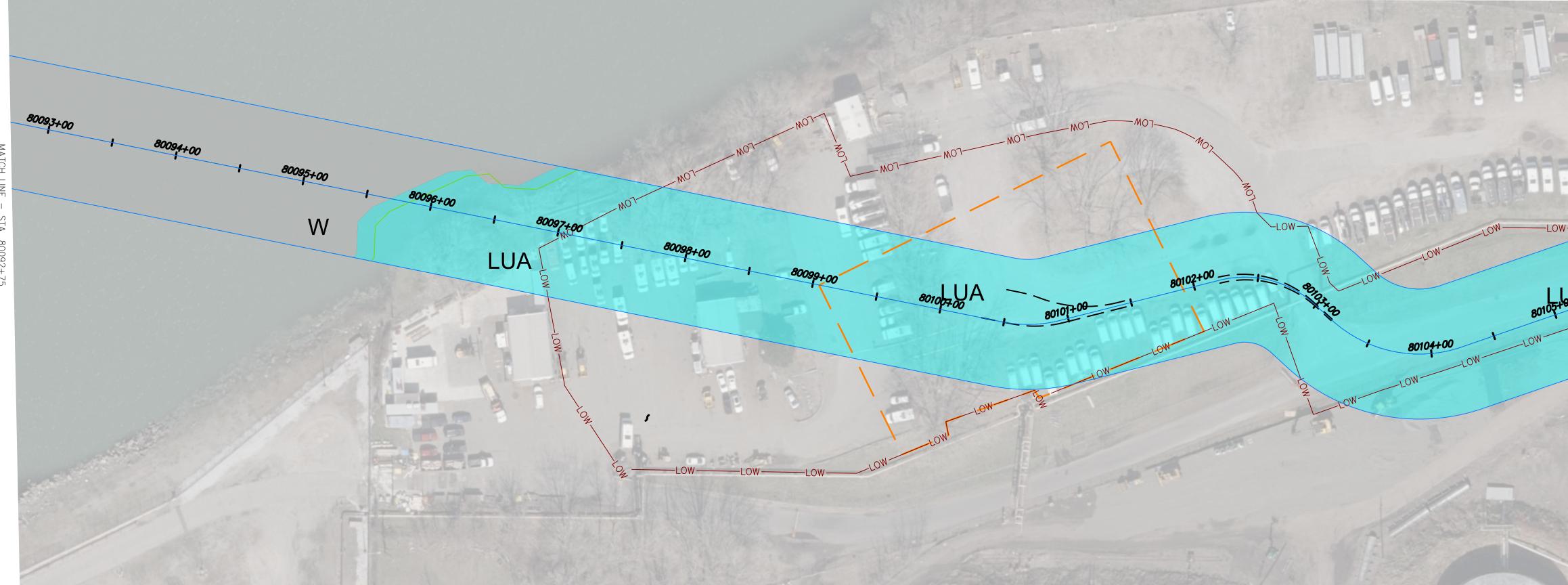


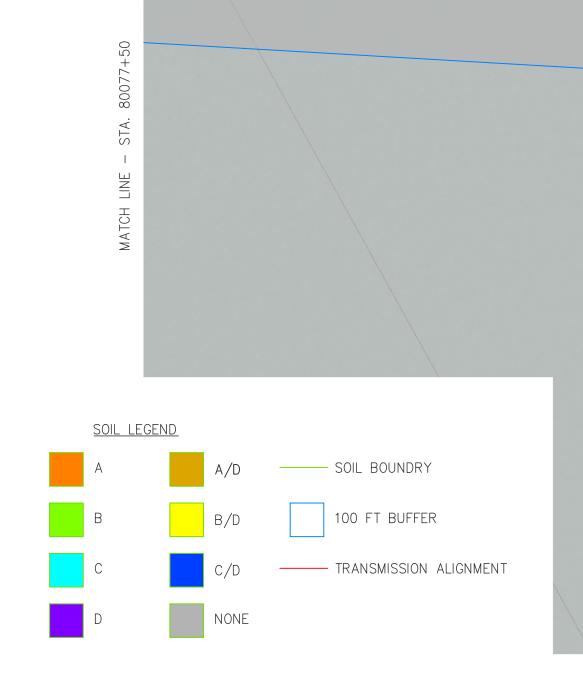
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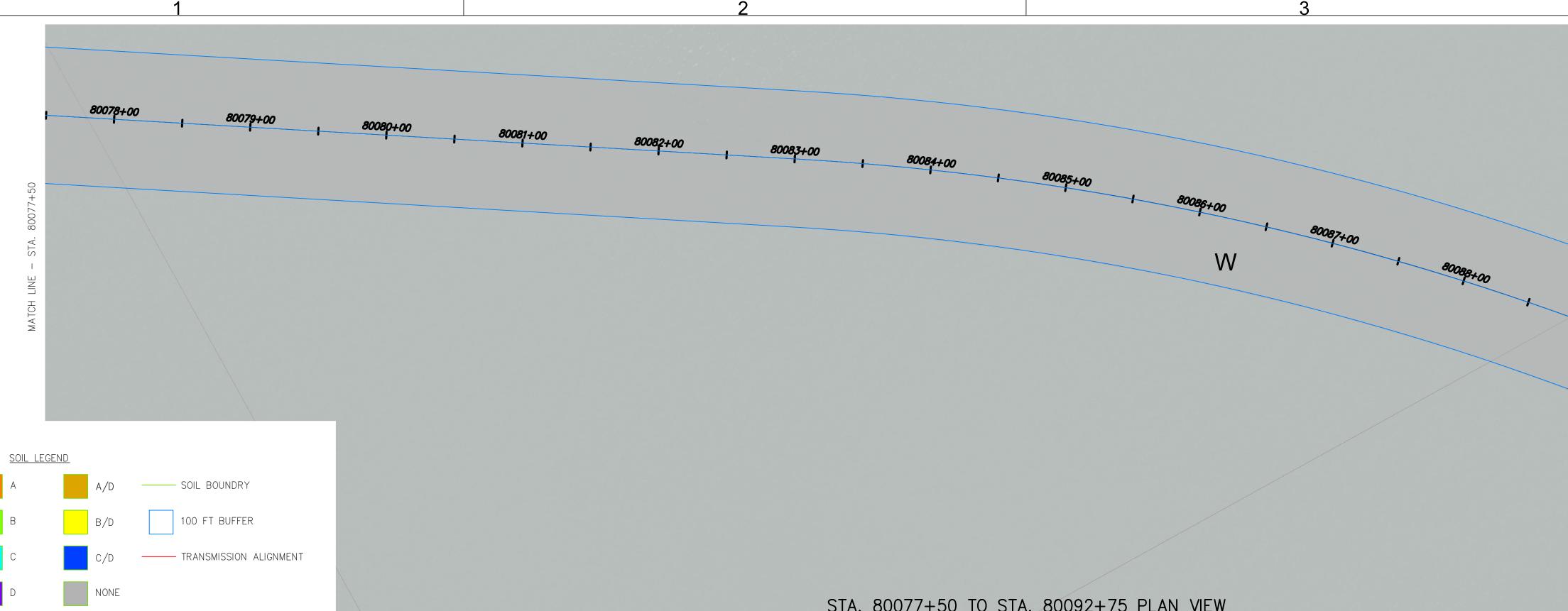












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