hargrove
engineers+constructors

Memorandum

To: **Chris Biederman, CTO Li-Cycle, Kurtis Boehm, P.E. Li-Cycle**

From: **Caroline Yi, P.E, Kevin Kammerer, P.E., P.L.S.**

Date: **November 3, 2021**

Re: **Li-Cycle Commercial Hub No. 1**
Stormwater Management & Storm Drainage Design

The purpose of this memo is to establish the design criteria and parameters for stormwater management on the Li-Cycle Commercial Hub No. 1 project located in the Town of Greece, NY. An existing stormwater management facility and storm drainage improvements exists on the property that was designed to accommodate a previously approved development. It is assumed that facility will provide adequate storm water quality and quantity. The proposed development will utilize this existing stormwater management facility and meet the same requirements.

The overall site currently drains to the eastern part of the site where the stormwater pond is located. According to aerial mapping a small portion of the site drains northwest. The proposed development will drain to the east and excess flows will be captured by a network system of swales and stormwater pipes. The storm drainage system will comprise of two (2) main trunklines, north and south. Depressed areas were created in between the building and specific areas to provide temporary attenuation of the captured runoff. The flow collected in these areas will be directed to the main trunklines. The main line to the north will tie into the previously approved system which outfalls on the north side of the stormwater management pond. The line to the south will capture runoff in a similar fashion and direct flow to the south side of the pond. The stormwater pond currently outfalls to separate existing swales east and north east of the site. None of the federal wetlands area is to be disturbed or filled as a result of this project.

The proposed improvements will be designed to not exceed the existing stormwater pond's designed development rates, provide downstream protection of the existing system and conform to the Town of Greece and NY state requirements. This system requires a 30% reduction of the peak pre-development.

A summary of the design requirements and proposed stormwater design is described below. Stormwater flows and volumes were obtained using Hydraflow Hydrographs software. The design approach of the current development in terms of stormwater management is not to exceed the impervious areas analyzed on the previously approved development in order to satisfy storage requirements. A comparison of the areas were evaluated below.

Stormwater Management

The design basis for stormwater management will be in compliance with the Town of Greece guidelines and NY state regulatory requirements. It is assumed that adequate depth exists in the drainage systems to allow for gravity drainage. Assumptions will be verified with topographic survey and subsurface investigation.

Runoff from proposed development shall not exceed the peak rate of seventy (70) percent of the undeveloped conditions for runoff events ranging from the 1-yr to 100-yr storm

Detention sizing shall be done using the SCS TR-55 method and computations shall be based on 24-hr duration (Soil Conservation Service, SCS)

The following parameters are to be used for the drainage design per drainage manual Unified Stormwater Sizing Criteria:

- Water Quality Volume (WQv)
- Apply Runoff Reduction Techniques to reduce Total WQv
- Channel Protection Volume (CPv) of the post-developed 1-yr 24 hr storm
- Overbank Flood discharge from the 10-yr storm pre-development rates
- Extreme Storm discharge from the 100-yr storm pre-development rates
- Closed conveyance systems shall be sized to adequately convey the 10-year storm frequency

Drainage System

Storm Lateral Size and Materials per Town of Greece Design Criteria:

Storm laterals shall be a minimum of six (6) inch diameter

Storm sewer construction shall conform to the requirements of Section A – Sanitary Sewers, A7 Sewer Construction

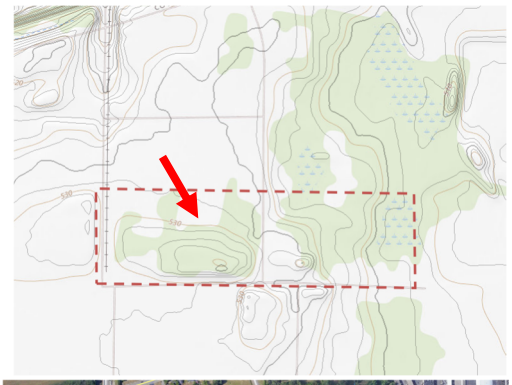
Storm manholes and manhole construction shall comply with Section A – Sanitary Sewers, A8 Sanitary Manholes

Storm Lateral Construction shall comply with Section A – Sanitary Sewers, A10 House Laterals

Inlets shall conform to the requirements of NYSDOT Section 604 Drainage Structures

Stormwater Calculation Summary

*Total Drainage Area: 124 acres**
Site Development Area: 62 acres
Offsite drainage areas 62 acres
Pre-development: 6.6% impervious (4.08 acres)
Post-dev.: 52.4% impervious (32.27 acres)



Soil Type: D (per USGS Web soil survey)
Time of concentration, TC= 42 min approx.
*Water Quality Volume, WQV = (P*Rv*A)/12*
(Equation per Stormwater Drainage Manual)
P=Rainfall Event Number in inches
Rv= Impervious cover factor
A=Site area in acres
= 2.41 ac-ft (3887 CY)

24 hr storm volumes and predevelopment flows

CPv	*3.182 ac-ft (5134 CY); 13.92 cfs (pre)*
Overbank	*5.792 ac-ft (9345 CY); 49.23 cfs (pre)*
Extreme Flood	*9.717 ac-ft (15677 CY); 122.96 cfs (pre)*

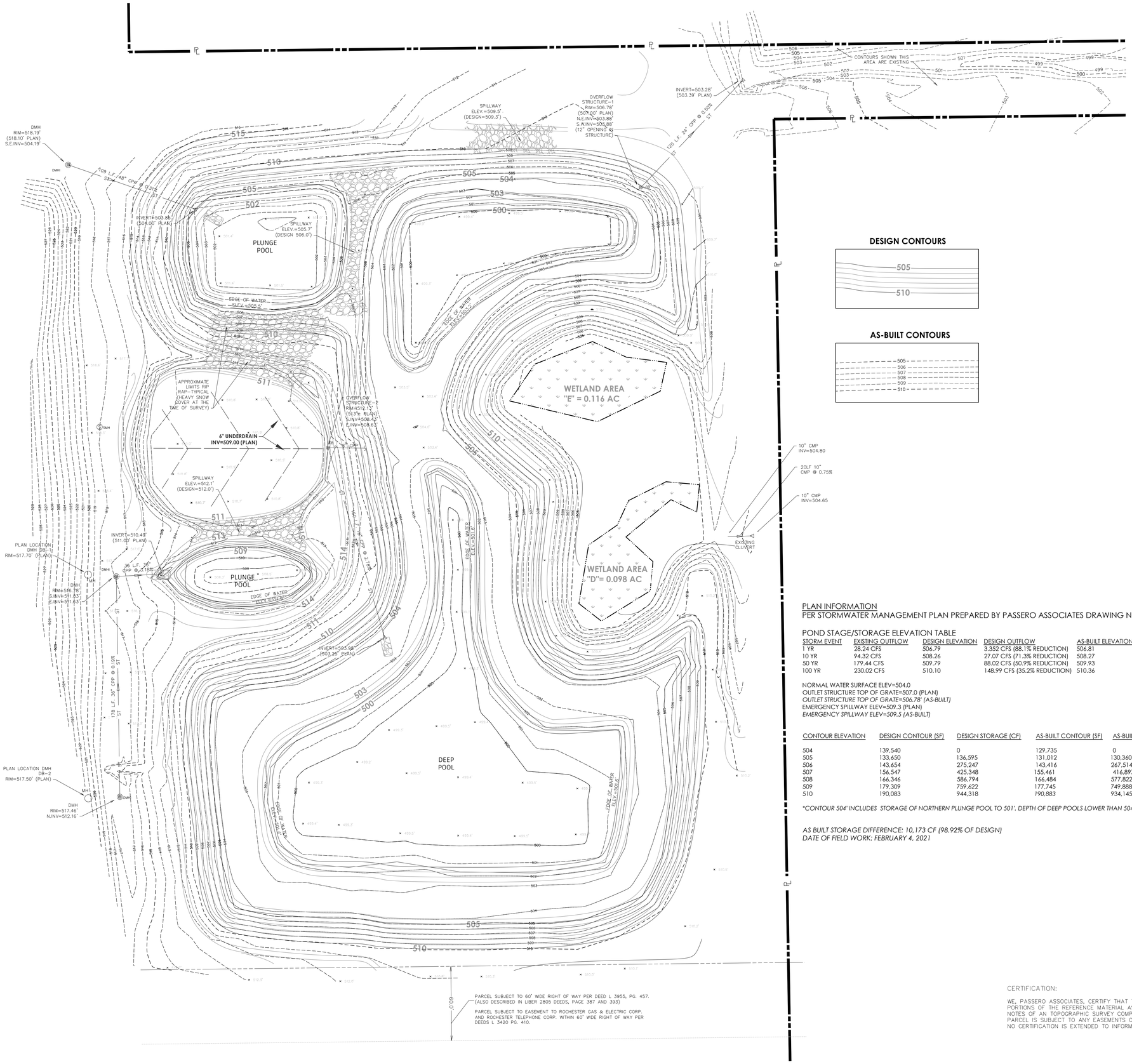
Pre to post development modeled storage volume required
Volume Required: 19,564 CY

Comparison of previously approved development:
Site Area: 57.39 acres (per development plans)*
Since remaining site is 44% impervious, 4.23 acres were added for comparison*
Adjusted Site Area: 61.62 acres, 59.1% impervious < 52.4% impervious
Existing Stormwater Management Pond Volume: 34,598 CY > 19, 564 CY required storage

Green Infrastructure Practices to consider for Runoff Reduction:

- Soil Restoration (required for Redevelopment)
- Reduction of Impervious Cover (Reduce impervious parking by using porous pavers in parking area)
- Vegetated swale instead of concrete channel or underground storm sewers
  - (contributing Drainage Area < 5 acres and WQv flow < 3 fps
- Runoff Reduction Volume, RRv for Hydrologic Soil Group, HSG A&B 20%; C&D 10%
- Tree planting
- Disconnection of rooftop runoff
- Rain gardens, infiltration, bioretention, dry swale
- Stormwater planters (collect runoff from bldgs.)

**Information per LiDestri Eco-Industrial Park Phase I SWPPP and Site Development Plans*



GRAPHIC SCALE
30 0 15 30 60
1" = 30'

DESIGN CONTOURS

505
510

AS-BUILT CONTOURS

505
506
507
508
509
510

PLAN INFORMATION
PER STORMWATER MANAGEMENT PLAN PREPARED BY PASSERO ASSOCIATES DRAWING NO. C106, DATED APRIL 2018

POND STAGE/STORAGE ELEVATION TABLE

STORM EVENT	EXISTING OUTFLOW	DESIGN ELEVATION	DESIGN OUTFLOW	AS-BUILT ELEVATION	AS-BUILT OUTFLOW
1 YR	28.24 CFS	506.79	3.352 CFS (88.1% REDUCTION)	506.81	3.807 CFS (86.5% REDUCTION)
10 YR	94.32 CFS	508.26	27.07 CFS (71.3% REDUCTION)	508.27	27.18 CFS (71.2% REDUCTION)
50 YR	179.44 CFS	509.79	88.02 CFS (50.9% REDUCTION)	509.93	78.99 CFS (56.0% REDUCTION)
100 YR	230.02 CFS	510.10	148.99 CFS (35.2% REDUCTION)	510.36	162.94 CFS (29.2% REDUCTION)

NORMAL WATER SURFACE ELEV=504.0
OUTLET STRUCTURE TOP OF GRATE=507.0 (PLAN)
OUTLET STRUCTURE TOP OF GRATE=506.78' (AS-BUILT)
EMERGENCY SPILLWAY ELEV=509.3 (PLAN)
EMERGENCY SPILLWAY ELEV=509.5 (AS-BUILT)

CONTOUR ELEVATION	DESIGN CONTOUR (SF)	DESIGN STORAGE (CF)	AS-BUILT CONTOUR (SF)	AS-BUILT STORAGE (CF)
504	139,540	0	129,735	0
505	133,650	136,595	131,012	130,360
506	143,654	275,247	143,416	267,514
507	156,547	425,348	155,461	416,897
508	166,346	586,794	166,484	577,822
509	179,309	759,622	177,745	749,888
510	190,083	944,318	190,883	934,145

**CONTOUR 504' INCLUDES STORAGE OF NORTHERN PLUNGE POOL TO 501', DEPTH OF DEEP POOLS LOWER THAN 504' ARE NOT INCLUDED PER DEC DESIGN MANUAL.*

AS BUILT STORAGE DIFFERENCE: 10,173 CF (98.92% OF DESIGN)
DATE OF FIELD WORK: FEBRUARY 4, 2021

CERTIFICATION:

WE, PASSERO ASSOCIATES, CERTIFY THAT THIS MAP WAS PREPARED USING PORTIONS OF THE REFERENCE MATERIAL AS LISTED HEREON AND FROM NOTES OF AN TOPOGRAPHIC SURVEY COMPLETED FEBRUARY 4, 2021. THIS PARCEL IS SUBJECT TO ANY EASEMENTS OR ENCUMBRANCES OF RECORD. NO CERTIFICATION IS EXTENDED TO INFORMATION NOT REFERENCED.

ROBERT A. VENTO N.Y.S.P.L.S. NO. 049701 DATE
bvento@passero.com

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL INKED OR EMBOSSED SEAL AND INKED SIGNATURE SHALL BE CONSIDERED A TRUE AND VALID COPY.

CERTIFICATION INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE AGENCIES LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

N:\PROJECTS-NEW\2010\20101073\20101073.0025\DRAWINGS\ENGINEERING\TEMP ARCHIVE\20101073.0025 LIDESTRI POND ASBUILT C032018.DWG 3/11/2021 4:27 PM Austin Goodwin

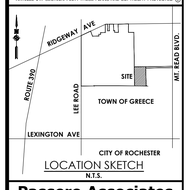
Passero Associates
Rochester, NY • Fernandina Beach, FL
www.passero.com

ABBREVIATION TABLE	
BLDG.	BUILDING
C.L.F.	CHAIN LINK FENCE
CNC.	CONCRETE
E.O.P.	EDGE OF PAVEMENT
MEAS.	MEASURES
R.O.W.	RIGHT OF WAY
STKF.	STOCKADE FENCE

LEGEND	
CB	CATCHBASIN
C/O	CLEANOUT (UNKNOWN TYPE)
C/O SD	CLEANOUT DRAINAGE SEWER
C/O SS	CLEANOUT SANITARY SEWER
	END SECTION DRAINAGE PIPE
GV	GAS VALVE
HYD	HYDRANT
LP	LIGHTPOLE
MH	MANHOLE (UNKNOWN TYPE)
MH	MANHOLE ELECTRIC
MH	MANHOLE DRAINAGE INLET
MH	MANHOLE DRAINAGE SEWER
MH	MANHOLE SANITARY SEWER
	SIGN POST (SINGLE)
SP	TRAFFIC LIGHT SPAN POLE
PP	UTILITY POLE
	UTILITY POLE ANCHOR WIRE
	UTILITY POLE WITH LIGHT
CC	WATER SERVICE
WV	WATER VALVE

Revisions

No.	Date	By	Description
1.	2.23.21	A.S.	REVISED PER TOWN ASB STANDARDS



LOCATION SKETCH
N.T.S.

Passero Associates
242 WEST MAIN STREET, SUITE 100
ROCHESTER, NY 14614
(585) 325-1000
Fax: (585) 760-8580
Principal-in-Charge David L. Cox, PE
Project Manager Robert A. Vento, PLS
Drafted by A.Snyder

Client:
LIDESTRI FOODS
815 W. WHITNEY ROAD
FAIRPORT, NY, 14450

AS-BUILT STORMWATER MANAGEMENT AREA LIDESTRI FROZEN FOODS

TOWN OF GREECE, MONROE COUNTY, NEW YORK STATE

Project No.
20101073.0025

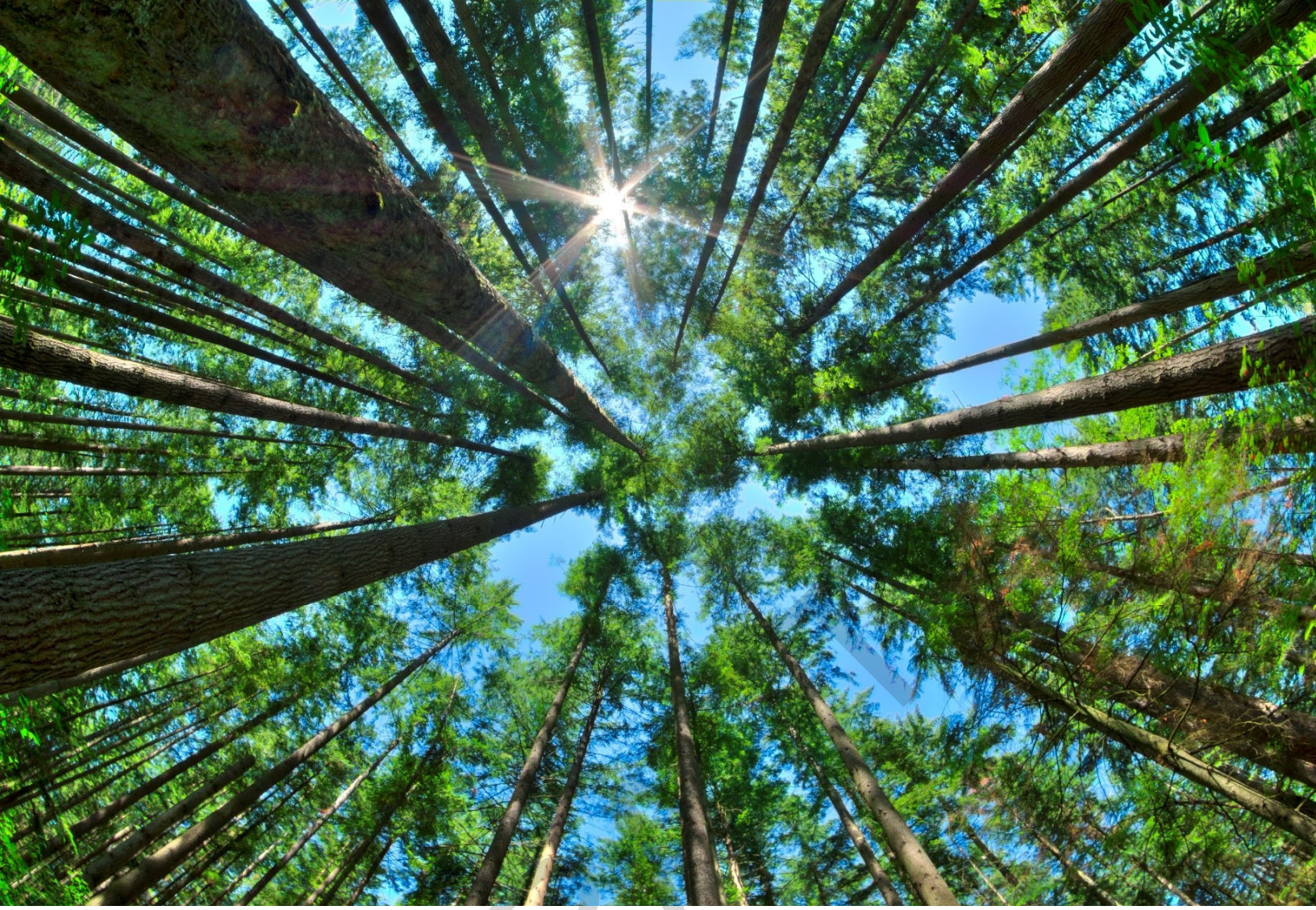
Drawing No. SWMA ASB-1
Sheet No. 1 of 1

Scale: 1" = 30'

Date 02-23-2021

Stormwater Design for Li-Cycle facilities at 50 and 205 McLaughlin Road

The proposed improvements will be designed to not exceed the existing stormwater pond's designed development rates, provide downstream protection of the existing system and conform to the Town of Greece and NY state requirements. This system requires a 30% reduction of the peak pre-development. A stormwater management report for each site will be submitted to the Town of Greece Planning Board for review and approval as part of the site plan approval documents.



Construction Stormwater Pollution Prevention Plan

Li-Cycle Commercial Hub #1

4 November 2021

Project No.: 0563864

The business of sustainability

ERM

Document details	The details entered below are automatically shown on the cover and the main page footer. PLEASE NOTE: This table must NOT be removed from this document.
Document title	Construction Stormwater Pollution Prevention Plan
Document subtitle	Li-Cycle Commercial Hub #1
Project No.	0563864
Date	4 November 2021
Version	1.0
Author	Stephen Mirabello, David Murtha, Albert Garcia
Client Name	Li-Cycle North America Hub, Inc.

Document history

				ERM approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
Draft	00	Albert Garcia	Stephen Mirabello	Dave Murtha	11.04.2021	

Signature Page

4 November 2021

Construction Stormwater Pollution Prevention Plan

Li-Cycle Commercial Hub #1

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Consultant Director & Project Manager

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Albert Garcia
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NYS Certifying PE

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CONTENTS

List of Appendices

ACRONYMS AND ABBREVIATIONS

Name	Description
BMPs	Best Management Practices
C&D	Construction and Demolition Debris
C-SWPPP	Construction Stormwater Pollution Prevention Plan
ERP	Emergency Response Plan
E&SC	Erosion and Sediment Control
FEMA	Federal Emergency Management Agency
GP	General Permit
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit for Stormwater Discharges
NCSS	National Cooperative Soil Survey
NOI	Notice of Intent
NOT	Notice of Termination
NSWD	Non-Stormwater Discharges
NYSDEC	New York State Department of Environmental Conservation
OPRHP	Office of Parks, Recreation and Historic Preservation
RECP	Rolled Erosion Control Product
RED	RED-Rochester, LLC
SCS	Soil Conservation Service
SMP-S	Site Management Plan-South (for the Eastman Business Park)
SPDES	State Pollution Discharge Elimination System
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USDA	United States Department of Agriculture

1. PERMIT OVERVIEW AND REQUIREMENTS

1.1 Permit Overview

This Stormwater Pollution Prevention Plan ("SWPPP") is prepared to inform the landowner and construction personnel of the measures to be implemented for controlling runoff and pollutants from the Site during and after construction activities at the Li-Cycle Commercial Hub #1 located at 205 McLaughlin Road, south of Ridgeway Avenue, and west of Mt. Read Boulevard within the Town of Greece, New York (hereafter the "Facility", "Hub" or "Site"). This SWPPP satisfies the requirements of the New York State Pollution Discharge Elimination System ("SPDES") General Permit ("GP") for Stormwater Discharges from Construction Activities, as issued January 29, 2020, (Permit No. GP-0-20-001). A copy of the GP is located in Appendix A. Any material conflicts between this plan and the Site plans, specifications or instructions, must be brought to the attention of the design professional. The project may have other permits and it is the responsibility of the owner and contractor to know and understand all permits.

The Operator, Li-Cycle North America Hub, Inc. ("Li-Cycle") will be issued a bill from New York State for a one hundred dollar ($100.00) annual fee for continuing coverage under the open GP-0-20-001 permit. The Operator will also be billed by New York State for a one time one hundred dollar ($100) per acre fee for the proposed disturbed soil area listed in the Notice of Intent ("NOI"), and finally a one-time six hundred seventy-five dollar per acre ($675/ac) fee for the proposed increased impervious area listed in the NOI.

The Operator is responsible to maintain the following information onsite in a secure location that is accessible during normal working hours to an individual performing a compliance inspection:

- the NOI application form (hardcopy or electronic);
- the New York State Department of Environmental Conservation ("NYSDEC") NOI Acknowledgement Letter;
- this SWPPP;
- a copy of the SPDES General Permit (included in the SWPPP);
- Municipal Separate Storm Sewer System ("MS4) SWPPP Acceptance Form (where applicable); and
- All Stormwater inspection reports.

Technical standards are detailed in the "New York State Standards and Specifications for Sediment and Erosion and Sediment Control (November 2016)", as well as illustrated on the Li-Cycle Commercial Hub #1 Development Plans and Drawings included in Appendix B. The design of post-construction stormwater control practices follow the guidance provided by "New York State Stormwater Management Design Manual" (January 2015).

1.2 SWPPP Objectives

The objective of the SWPPP is to minimize the number and amount of pollutants in the Facility's construction related stormwater runoff while maintaining compliance with stormwater regulatory requirements. The project has been designed in accordance with Chapter 4 of the NYSDEC Stormwater Management Design Manual, and NYSDEC's GP-0-20-001 for construction activities.

The Facility will implement several Best Management Practices ("BMPs") to control potential pollutant runoff from construction. The BMPs include proper management of vehicles and equipment stored

outside and standard work procedures to keep potential contaminants from entering the stormwater catch basins and retention basins. The Facility is confident that the use of BMPs will have the desired effects of protecting the environment to the extent practical and meeting the Federal and State stormwater management requirements.

2. SWPPP REVIEW

2.1 SWPPP Review

Federal, State, and local regulatory agencies that have jurisdiction may review this SWPPP. A copy of this construction SWPPP ("C-SWPPP") will be kept available on site at all times. If this SWPPP does not meet the requirements of the respective regulations, then the applicable regulatory agencies may notify the permittee in writing that the SWPPP needs to be revised. The permittee will make the required modifications within seven (7) days of notification and will submit written certification to the reviewing agency that the changes have been implemented.

2.2 SWPPP Update

Amendment of the SWPPP will occur if the following occurs:

- If the current provisions are ineffective at minimizing pollutants in stormwater discharge(s);
- If any change in construction design or operation has the potential to effect the amount of pollutants in stormwater discharge(s);
- If an inspection identifies that there are deficiencies in the current plan; and
- If there is a change of personnel in charge of certain aspects of the plan.

If the post-construction portion of the SWPPP requires modification, the owner or Operator must notify the MS4 in writing of the planned changes. Before commencing construction of the post-construction stormwater, the SWPPP amendments or modifications must be reviewed and accepted by the MS4. The SWPPP Plan Changes, Authorization, and Change Certification form must be filled out and a copy will be retained onsite during construction.

3. MANAGEMENT & PROFESSIONAL ENGINEER'S CERTIFICATIONS

3.1 Management Certification

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

_____	_____
Signature	Date
_____	_____
Printed Name	Title

3.2 Professional Engineer's Certification

"I hereby certify that I am familiar with the requirements of GP-0-20-001 and that I, or an agent working under my direction, have visited the Site. I also certify that this SWPPP has been prepared in accordance with good engineering practices, including consideration of applicable industry standards. Furthermore, I certify that procedures for required inspections and testing have been established and that, based upon the current conditions at the Site, this SWPPP is adequate for the Facility. Such certification shall in no way relieve the Site of the duty to maintain and fully implement this SWPPP in accordance with the requirements of GP-0-20-001."

_____	_____
Signature	Date
_____	_____
Printed Name	Title

4. RECORDKEEPING AND REPORTING

The Site will retain a copy of the NOI Form, the NYSDEC NOI Acknowledgment Letter, the SWPPP and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete Notice of Termination (“NOT”) Form.

5. SITE ASSESSMENT, EVALUATION, AND PLANNING

5.1 Project Information

The project contact information of all parties having a legal interest in the property and the tax reference number and parcel number of the subject property or properties is provided below.

- **Owner:** Ridgeway Properties 1, LLC
  c/o Conductor Property Management LLC
  1010 Lee Road
  Rochester, NY 14606

- **Operator:** Li-Cycle North America Hub, Inc.
  874 Walker Rd, Suite C
  Dover, Delaware 1990

The Hub will be located on all of the real property with a tax parcel identification number of 089.04-1-3.21 and a current address of 205 McLaughlin Road, Town of Greece, Monroe County, New York, and on a portion of the real property with a tax parcel identification number of 089.04-1-3.22 and a current address of 50 McLaughlin Road, Town of Greece, Monroe County, New York (collectively, referred to as "205 McLaughlin Road (Private)."

Initial site grading will be conducted by Pike Corporation as the contractor. The contractor for the balance of construction activities for the Hub is yet to be identified.

5.2 Project Scope

The project includes the redevelopment of the approximately 41-acre lot to include development of a hydrometallurgical manufacturing facility with chemical reagent storage. The Facility will consist of the construction of approximately 20 separate structures and processing areas, as well as ancillary roads, parking, and product loading, unloading, storage and delivery equipment. The processing and manufacturing portions of the Facility will be constructed on the Hub Lot. The east side of the Hub Lot will be temporarily used for construction equipment laydown and construction employee parking, and also includes the two existing rail spurs and one new rail spur that will be extended approximately 1,000 linear feet east from the existing terminus on the south side of the Hub Lot. The total acreage that will be disturbed within the Lots is approximately 41 acres, and another approximate 1-acre will be disturbed within the land retained by Ridgeway Properties to extend McLaughlin Road (Private) from the southern boundary of the Warehouse Lot along the eastern property line of Building 502 to the Hub Lot. See Appendix B for a figure illustrating the Facility's proposed site plan. Please note that a separate SWPPP and NOI Form have been prepared for the construction of the Warehouse on tax parcel identification number 089.04-1-3.22.

5.3 Pre-Development Conditions

The Site is located in the area known as East Business Park-South on currently undeveloped land. The Hub will be located on all of the real property with a tax parcel identification number of 089.04-1-3.21 and a current address of 205 McLaughlin Road and on a portion of the real property with a tax parcel identification number of 089.04-1-3.22 with a current address of 50 McLaughlin Road, Town of Greece, Monroe County, New York (collectively, referred to as "205 McLaughlin Road (Private)." Presently, the Lot where the hydrometallurgical processing facility will be constructed is a vacant earthen pad. Because of the Site's past use by the Eastman Kodak Company ("Kodak"), the NYSDEC requires any soil

disturbance on either of the lots to comply with the Site Management Plan-South ("SMP-S"), including an appended excavation management plan. The current owner of both lots is Ridgeway Properties 1, LLC ("Ridgeway Properties"), an affiliate of LiDestri Foods, Inc. ("LiDestri"). Within the last two years, Ridgeway Properties constructed a Stormwater detention pond system with adequate capacity to reduce post-development stormwater runoff from all of its land, including the Li-Cycle lots, by 30% when compared to pre-development flows. The Stormwater detention pond system also includes stormwater quality management features.

An existing stormwater management facility and storm drainage improvements exists on the property that was designed to accommodate a previously NYSDEC-approved development. The project is located on approximately 41.06 acres of cleared lands. The site generally drains from west to east toward the existing stormwater management facility. A system of culverts, swales and drainage pipes collect upland area runoff. The existing upland drainage area that drains to the stormwater management facility is approximately 82 acres less the leased area. Area slopes range from 2 to 5%.

Floodplains were researched using the online Firmette tools found at Federal Emergency Management Agency ("FEMA") Map Service Center. Review of the floodplain mapping indicates the Site is not located in any flood plains. This site is shown on FEMA map 36055C0183G.

5.4 Project Type

The project is a new construction that has been designed in accordance with Chapter 4 of the NYSDEC Stormwater Management Design Manual and NYSDEC's GP-0-20-001 for construction activities.

5.5 Historic Preservation Determination/Environmental Assessment

Powers Archaeology LLC conducted a Historic Sensitivity Assessment in 2017 as part of their Phase IA and IB (Phase I) Cultural Resource Investigations for the Proposed Lidestri Eco-Industrial Park Project, Town of Greece, Monroe County, New York document, dated March 20, 2017.

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) reviewed the report prepared by Powers Archaeology LLC entitled "Phase II Cultural Resource Investigations for the Rouse Historic Site *USN #05505.000573 within the Proposed LiDestri Eco-Industrial Park Project, Town of Greece, Monroe County, New York" (Somerville et al. July 2017), in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York State Parks, Recreation and Historic Preservation Law). Based upon the review by the OPRHP, it was the OPRHP's opinion that the previous project will have No Impact upon Cultural Resources in or eligible for inclusion in the State and National Registers of Historic Places. The OPRHP submitted their opinion to Passero Associates on August 21, 2017. The construction and development activities for the Li-Cycle Hub facility are consistent with the previous LiDestri Eco-Industrial Park Project.

5.6 Receiving Waters

The Genesee River provides drainage for the Site. These waters flow north and empty into Lake Ontario. Waters from Lake Ontario find their way to the Atlantic Ocean via the St. Lawrence River.

An existing stormwater management facility and storm drainage improvements exists on the property that was designed to accommodate the previously NYSDEC and Town of Greece-approved development. The overall site currently drains to the eastern part of the site where the stormwater detention pond is located. According to aerial mapping, a small portion of the site drains to the northwest. The proposed development will drain to the east and excess flows will be captured by a network system of swales and stormwater piping. The stormwater pond currently outfalls to separate existing swales east and north east of the site that drain to the Genesee River.

5.7 Soils

Per the Phase 1 conducted by Powers Archaeology LLC in March of 2017, there are three soil types found within the Site -- from the Brockport, Riga, and Made Land soil series. These soils are variably to moderately well-drained. Figure 3 and Table 1 from the Phase 1 conducted by Powers Archaeology LLC are provided below summarizing the soils within the Site.

Figure 3. Area of Potential Effect on the 2017 NRCS Web Soil Survey

Table 1. Summary of Soils Within the Area of Potential Effect

Soil Name	Soil Horizon Depth cm (in)	Soil Color	Soil Texture Inclusions	Slope Percent	Drainage	Landform
Brockport silty clay loam (BrA)	Ap 0-13 cm (0-5 in) Eg 13-23 cm (5-9 in) Bt 23-46 cm (9-18 in) BCg 46-69 cm (18-27 in) 2R 69-91 cm (27-36 in)	Dk GBrn Gry OBrn GBrn O	Si Cl Lo Si Cl Lo Cl Cl Shale	1-15	Somewhat poor	Bedrock controlled landforms
Made Land (Md)	H1 0-13 cm (0-5 in) H2 13-61 cm (5-24 in)	Varies	Si Lo Grl Si Lo	0-8	Varies	Depressions, areas of waste fill
Riga silt loam (RgB)	Ap 0-18 cm (0-7 in) E 18-36 cm (7-14 in) 2t1 36-43 cm (14-17 in) 2t2 43-74 cm (17-29 in) R 74-152 cm (29-60 in)	DkGBrn YBrn Brn/Dk Brn Lt OGry/Lt Gry Lt OGry/Lt Gry	Grl Si Lo Grl Si Lo Cl Lo/Si Cl Lo Cl Lo/Cl	2-8	Moderately well	Benches, ridges, till plains

It should be noted that the Site is subject to the controls, restrictions and requirements outlined in the SMP-S found in Appendix C.

5.8 Developed Conditions

The proposed development will use the existing stormwater management facility which was designed to provide the required stormwater quality, quantity volume, and criteria. The proposed improvements will be designed to not exceed the existing stormwater pond's designed development rates, provide downstream protection of the existing system and conform to the Town of Greece and New York State requirements.

The site development area is approximately 26 acres and the proposed lease area is approximately 41 acres. To satisfy storage requirements, the development is not to exceed the impervious area percentage analyzed on the previously NYSDEC and Town of Greece-approved development. The maximum impervious area was determined to be approximately 24 acres. A summary of the design requirements to include the effective stormwater volume of the leased area are included in the SWPPP. Stormwater flows and volumes were obtained using Hydraflow Hydrographs software.

5.9 Disturbance of Greater Than Five (5) Acres

It is anticipated that construction of the Hub will disturb more than five acres at a single time. To be authorized to disturb greater than five (5) acres of soil at any one time, the Owner and Operator will comply with the following requirements:

- The owner or Operator shall have a qualified inspector conduct at least two (2) site inspections in accordance with Part IV.C. of the General Permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures will be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
- The owner or Operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
- The owner or Operator shall install any additional site-specific practices needed to protect water quality.

6. EROSION AND SEDIMENT CONTROL

This Section describes Site activities, materials, and physical features that have the potential to contribute pollutants to storm water runoff.

6.1 Erosion and Sediment Control Practices

Several erosion control practices may be employed during construction by the contractor under direct supervision by the Operator and a qualified SWPPP Inspector. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to the minimum standards. These anticipated practices are explained below and shown in detail in Appendix B.

- Silt Fence/Filter Socks - Silt fencing or filter socks shall be installed at the toe of all slopes along the perimeter of the disturbed areas and at the toe of slope for any soil stock pile areas. The fencing/filter socks will be installed in accordance with the NYSDEC construction standards and at the instruction of this plan. The silt fencing shall be buried in the ground at least 6 inches. Filter socks will be at least 8 inches in diameter and secured with wooden stakes along the entire length. The contractor shall provide continued monitoring to ensure the silt fencing/socks remains intact, and shall repair as needed. When the silt buildup is greater than 1/3 the height of the fence or filter, the contractor shall remove and dispose of the silt.
- Stabilized Construction Entrance - The project entrance shall serve as the construction entrance to the project and shall be installed according to the details of this plan. The contractor shall ensure that mud is not tracked onto the adjacent roadways and that the stone entrance properly removes mud and debris from construction vehicles.
- Drop Inlet Protection - All field inlets and catch basins shall have inlet protection in accordance with the detail in Appendix B. Drop Inlet protection can be removed from catch basins in the roadway when the sub base is installed, and from the field inlets when the adjacent area is brought to final grade and stabilized.
- Seeding and Stabilization - The contractor shall seed and stabilize all disturbed areas not to be worked for 7 days within 7 days of the last disturbance. Stabilization measures may include but are not limited to straw mulching, wood chip mulching, jute mesh and hydroseeding. The stormwater management area and adjacent areas shall be stabilized immediately following their shaping and installation. All embankments greater than a 3:1 ratio shall be stabilized with jute mesh.
- Check Dam - 24-inch-high stone check dams will be installed in all temporary and permanent diversion swales. The check dams will be installed every 2 vertical feet. Once the site is stabilized, these check dams will be removed.
- Truck Washdown Area - A truck washdown area will be provided adjacent to the construction entrance. This area will be constructed such that it drains to a sediment basin that is located immediately adjacent, prior to discharging offsite.

Additional measures may be required during construction at the guidance of the owner or certified SWPPP Inspector. The contractor shall begin to make all adjustments to the erosion control requirements within 24 hours of receipt of any identified deficiencies. During construction, the Owner will be responsible for providing reports twice a week to the Town of Greece by a qualified SWPPP Inspector in accordance with the GP-0-20-001.

Any modifications to the SWPPP will be reported to the Town of Greece and the NYSDEC in writing prior to implementation.

The owner is responsible for having a qualified operator on site at all times who has at least 4 hours of erosion control training in accordance with the GP-0-20-001. Once the site has achieved 80% stabilization and ground cover, the Town shall be required to sign off on the Notice of Termination (NOT) prior to submission to the NYSDEC. Removal of all temporary erosion and sediment control practices is required prior to demobilization.

6.2 Construction Phasing Plan and Sequence of Operation

The contractor will be responsible for submitting a phasing plan (if any) prior to construction detailing how construction will be implemented. A single phase of construction is anticipated for the project. Construction will disturb more than five acres at a single time. To minimize erosion, the following is observed:

- Temporary structural erosion controls will be installed prior to earthwork as per the attached plans;
- Areas to be undisturbed for more than 14 days will be temporarily stabilized by seeding;
- Disturbed areas will be reseeded and mulched immediately after final contours are re-established and no more than 14 days after the completion of construction at that site; and
- Temporary erosion control devices will not be removed until the area served by the devices is stabilized by the growth of vegetation and the area is certified as being stabilized by the Qualified Inspector.

Spills or leaks can occur near exposed areas in the diesel fueling area and from vehicle drips should they occur. Bulk containers are provided with secondary containment, reducing the potential to contribute pollutants to stormwater runoff.

6.3 Erosion and Sediment Control Practice Inspection Schedule

Inspection reports will be completed every seven days and within 24 hours of any storm event producing 0.5-inch of precipitation or more, and provided to the Stormwater Management Officer by e-mail within 24 hours of the inspection. A monthly summary of reports will be copied to the site logbook and delivered to the Stormwater Management Officer within five days after the month's end.

In the event that greater than five (5) acres of soil remain disturbed, a qualified inspector will conduct at least two (2) site inspections in accordance with Part IV.C. of GP-0-20-001 every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

The Town of Greece or its designated agent shall make inspections as required and shall either approve that portion of the work completed or shall notify the Operator that the work fails to comply with the SWPPP. The SWPPP and the records of any inspections completed by the Owner or its agent shall be maintained at the Site in the site logbook from the date of initiation of construction activities to the date of final stabilization. To obtain inspections, the Operator shall notify the Town of Greece at least 48 hours before the following activities occur:

- Start of construction.
- Erosion and sediment control measures have been installed and stabilized.
- Site clearing has been completed.

- Rough grading has been completed.
- Final grading has been completed.
- Close of the construction season.
- Final landscaping.
- Closeout inspection.

6.4 Erosion and Sediment Control Inspection

All erosion and sediment control practices will be maintained to assure practices are effective at preventing pollutants from being discharged. Repairs to erosion and sediment control practices will be made as soon as feasible. The following inspections for erosion and sediment control practices are used on site:

- Silt fence/Filter Socks/Compost Filter Socks – maintenance shall be performed as needed and material removed when “bulges” develop in the silt fence.
- Silt fence and filter sock fabric shall be inspected for the depth of sediment, rips, and to confirm that the barrier is secured.
- Fence posts will be inspected to confirm they are secure in the ground.
- Seeded and planted areas will be inspected for bare spots, washouts, and healthy growth. Spot reseeding and sodding will be implemented if required.
- Storm drain inlet protection (not including silt sacks) – inspect after each storm event. Remove sediment when 50 percent of the storage volume is achieved.
- Sediment trap and sediment ponds – sediment shall be removed and the trap restored to the original dimensions when the sediment has accumulated to 50 percent of the design depth and design capacity.
- Stabilized construction entrance – entrance shall be maintained in a condition that shall prevent tracking. This may require periodic top dressing with additional aggregate. All sediment tracked onto or spilled on public rights-of-way shall be removed immediately. When necessary, vehicle wheels must be cleaned to remove sediment prior to entrance on public rights-of-way. When washing is required, it shall be done in an area stabilized with aggregate.
- Rock outlet protection – once a riprap outlet has been installed, the maintenance needs are very low. It should be inspected after high flows for evidence of scour beneath the riprap. Repair should be immediate.
- Dust control – if the site is subject to dusty conditions on the construction access roads or other open areas, these areas will have water or another dust control material applied that will inhibit the production of dust. This will be done on an as needed basis or preventatively if problems are known to occur. No chemical or polymer materials should be applied in close proximity to any streams or wetlands.

The site construction manager will be responsible for monitoring day-to-day construction activities. A trained and experienced contractor will be an employee with the contracting company and will be responsible for implementing the C-SWPPP. The trained contractor must have received 4 hours of training that meets the NYSDEC qualified inspector training requirements. The trained contractor will be on-site any time when soil-disturbing activities are being conducted.

If repairs are required for any erosion or sediment control, repair will start within 24 hours of the report. A maintenance inspection report will be completed by the inspector and maintained onsite with the C-SWPPP. A copy of the Weekly Construction SWPPP Inspection Report can be found in Appendix D.

7. POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

7.1 Stormwater Management Controls

Post-construction stormwater management controls will follow the guidelines and best management practices outlined in the Site's post-construction SWPPP. Post-construction stormwater management controls will follow the measures outlined in the SPDES MSGP for Stormwater Discharges Associated with Industrial Activity (MSGP-0-17-004).

7.2 Green Infrastructure Practices/Runoff Reduction Techniques

Green Infrastructure and runoff reduction practices will follow the guidelines and best management practices outlined in the "New York State Stormwater Management Design Manual" (January 2015).

8. CONSTRUCTION WASTE

All waste generated during construction will be transported by a licensed waste hauler and properly disposed at an appropriately permitted landfill or treatment facility. The Site has been the location of environmental remediation activities in 2002, 2003, and 2007. While not expected, if any hazardous wastes are discovered or generated during construction, a licensed hazardous waste carrier will be contracted to dispose the hazardous waste at a properly licensed and appropriate location. C&D cover and underlying fill will be managed according to the SMP-S dated January 2016.

Scrap metal shall be segregated and shipped offsite for recycling.

Portable sanitary facilities will be made available to construction personnel and will be serviced regularly.

8.1 Concrete Waste Management and Controls

Prior to arrival/use on concrete on site, a concrete washout shall be constructed and utilize by all washing or dumping of extra concrete that takes place on site. When the concrete washouts near their reasonable handling volume, they shall be removed and disposed of properly and a new washout shall be constructed and maintained until all concrete deliveries have ceased to the site.

8.1.1 Masonry Mixing Area

Slurries from concrete or mortar mixing operations shall not be permitted. Masonry mixing areas shall be located a minimum distance of 100 linear feet from drainage ways, inlets and surface waters and all storm water runoff from these areas shall be contained by a berm or other measures. Run-on water to these areas will be diverted to prevent mixing of clean water and water contaminated with concrete slurry.

8.1.2 Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washouts which have been prepared to prevent contact between the concrete wash and storm water. A standard detail on the construction of the concrete wash out is included on Sheet C503 Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters or highway right of ways, or any location other than the designated concrete washout. Waste concrete may be poured into forms to make riprap or other useful concrete products. Proper signage designating the “Concrete Washout” shall be placed near the facility. Concrete Washouts shall be located at minimum 100 linear feet from drainage ways, inlets and surface waters.

The hardened residue from the concrete wash out areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. Maintenance of the washout is to include removal of hardened concrete. The Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor’s Superintendent will be responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or Watercourses. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over and off pavement. Residue from saw-cutting and grinding shall be collected by vacuum and disposed of in the concrete washout facility.

The Project may require the use of multiple concrete wash out areas. These concrete washes out areas are to be made available to all trades and subcontractors working on the Project. The Contractor may designate certain wash out areas for particular trades or subcontractors, but the Contractor is responsible for the management of all concrete washout areas on the Project. All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on the PROGRESS DRAWING by the Contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out is included on Sheet XXXX.

9. OFFSITE VEHICLE TRACKING

The site is accessed by privately maintained roads, which are owned and maintained by Ridgeway Properties. To minimize offsite vehicle tracking, any trucks used to bring in materials or remove materials will use the stabilized construction entrance to the site. Excavation equipment will not regularly enter or leave the site and will be staged on site when possible during construction. If offsite vehicle tracking occurs, cleanup will occur per Ridgeway Properties protocols and contractor procedures.

10. TEMPORARY STABILIZATION FOR FROZEN CONDITIONS

Since construction activities are anticipated to occur during winter/frozen ground conditions, the following will be implemented if winter/frozen ground conditions occur:

- Perimeter erosion controls will be installed prior to earthwork disturbances.
- Stabilization for frozen conditions using seeding, mulch and/or aggregate compacted subbase may be used.
- Temporary seeding will be used if the area cannot be seeded prior to October 1. Winter rye at a rate of 120 pounds per acre (2.5 pounds per 1,000 square feet) will be seeded or stabilized as per the temporary stabilization for winter construction/frozen conditions.
- Areas that are disturbed and are inactive for fourteen (14) consecutive days must be mulched and include areas that are covered in snow. The mulch must consist of loose straw applied at a rate of 2 to 3 bales per thousand square feet and applied uniformly over the area. If the area is snow covered, apply the mulch on top of the snow. Mulch must be crimped into bare soil/snow using a tracked vehicle driven in at least two directions. Areas where mulch is blown away will require re-mulching in accordance to this Section. This area must be included on the inspection checklist for the next inspection. Mulched area must be retracked if snow is melting or soil is thawing at least once every seven days or more if directed by the qualified SWPPP inspector. Additional mulch or biodegradable erosion control matting may be required for full and adequate coverage.
- Any additional measures deemed appropriate by the inspector will be implemented.
- Weekly inspections may be suspended if construction is postponed and suspended over the winter. Monthly inspections must still be conducted.

11. STORMWATER MAINTENANCE PROCEDURES

The Operator will be responsible for maintaining temporary erosion and sediment controls and practices. It will be the responsibility of the Operator to use the SWPPP Inspection Reports as well as perform inspections to maintain the temporary controls so that they are working efficiently. The Operator will ensure that captured sediment is removed periodically from silt fences, check dams, silt sacks, inlet protections, and sediment traps to maintain efficiency. Top-soil, mulch, and seeds will be replaced if seeding has been disturbed.

Post-construction maintenance will be performed in accordance with best management practices outlined in the SPDES Multi Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-17-004).

12. SPILL PREVENTION PRACTICES

Post-construction spill prevention measures will be implemented per Li-Cycle's Emergency Response Plan ("ERP"), and the following general practices. If the contractor is will have more than 1,320 gallons of petroleum onsite, the contractor shall complete a Spill Prevention, Control, and Countermeasure (SPCC) Plan prior to starting construction activities.

12.1 Good Housekeeping

Good housekeeping practices will be used throughout the Facility to reduce the possibility of accidental spills and potential for storm water pollution. Good housekeeping measures will be maintained at all of the listed source areas and throughout the Facility.

The following list of good housekeeping practices will be regularly implemented at the Facility:

- Prior to trucking loading/unloading departure from the Site, the driver will inspect all areas around the truck and surrounding pavement to ensure all garbage and debris is accounted for and properly disposed of in an appropriate waste container;
- Pick up and dispose of all discarded packaging and materials that are potentially exposed to storm water;
- Routinely inspect for leaks and/or conditions that could lead to the discharge of wash waters to the storm water system;
- Keep all containers with the potential to be exposed to storm water clean and free of corrosion;
- Store all containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- All shipping and receiving operations involving liquids should be overseen by qualified employees;
- Minimize authorized Non-Storm water Discharges ("NSWDs") from non-industrial activities (e.g., rinse-free/dry-wash vehicle cleaning, fire hydrant testing and/or fire suppression system flushing, etc.) that contact industrial areas of the Facility. All routine fire hydrant flushing activities that may occur onsite will be conducted in a manner that ensures the NSWD's do not contain any quantities of pollutants that cause or contribute to an exceedance of a water quality standard;
- Prevent disposal of any industrial materials into the storm water conveyance system; and
- Spill kits will be maintained and located near areas where spills are most likely to occur.

12.2 Spill Prevention and Response

Spill prevention and response is implemented through this Plan in collaboration with the Contractor's Spill Prevention and Response Plan. The Contractor shall develop and implement a Spill Response Plan prior to starting construction activities. The emergency contact information is located in Appendix E. Any spill of petroleum, hazardous material, or any material that if released would likely pollute the waters of the state, must be reported to the NYSDEC (1-800-457-7362) within two (2) hours of discovery of the spill (reportable quantities for specific hazardous materials can be found in the Technical Field Guidance for Spill Reporting and Initial Notification Requirements, available on the NYSDEC website). This requirement is waived only for petroleum spills which meet all of the following criteria:

1) the quantity is known to be less than five gallons;

2) the spill is contained and under control of the spiller;

3) the spill has not and will not reach the state's water or any land; and

4) the spill is cleaned up within two hours of discovery.

In accordance with this Plan, all drums and containers are routinely inspected for leaks and repaired or replaced as required. In addition, Site employees and material unloading personnel are trained annually in proper transfer procedures and in avoiding careless spills of materials.

Pollution prevention measures and BMPs include preventative maintenance, spill prevention, good housekeeping, routine visual inspections, schedules of activities, prohibition of practices, maintenance procedures, and other physical, structural, and/or managerial practices that are intended to prevent or reduce pollution of waters of the United States.

12.2.1 Person Discovering Discharge

The following steps will be followed by persons that discover uncontrolled stormwater discharges at the Site:

1. Quickly assess the severity of the discharge in terms of quantity and consequences.
2. Notify the Plan Manager and report the location of the discharge, the type of material discharged, the quantity of material discharged, and any additional information that the Plan Manager may need.
3. If adequately trained in discharge response, follow the following additional procedures. Otherwise, summon additional trained personnel to respond to the discharge.
   a. Obtain discharge response equipment from the nearest spill kit.
   b. Isolate nearby catch basins or outfalls with absorbent socks or pigs.
   c. If inside, place absorbent socks along the bottom of nearby exterior doorways.
   d. Stop the release of material at the source, if possible.
   e. Stop the flow of spilled material by surrounding the spilled material with absorbent socks.
   f. Spread granular absorbent on the spilled material to stabilize and to contain the material.
   g. Use a shovel or other tools to place the absorbent material and absorbed material in an empty drum. Properly label the drum.
   h. Use soapy water, detergent, or other appropriate materials to clean up the remaining spill. Allow flow into drains only after any visible sheen or discoloration has been removed.
   i. Restock spill kit(s) as necessary.
   j. Complete as much of the appropriate Spill Response Report form as possible.
   k. Verify that all notifications were made as per the Spill Response and Prevention Plan and the Emergency Contact List.

12.2.2 Plan Manager

The following are the responsibilities of the Plan Manager in the event of an unanticipated discharge:

1. Based on the information provided by the person who discovered the discharge, if meeting minimum reporting requirements, notify the appropriate agencies of the discharge.
2. Assist in containing the discharge, as necessary.

12.2.3 Recordkeeper

The following are the responsibilities of the Recordkeeper in the event of an unanticipated discharge:

1. Finalize the Spill Response Report form and file; and
2. Update the Plan based on the efficacy of the spill response.

12.3 Visual and Routine Inspections

Visual inspections shall be conducted weekly. The inspections must be performed during routine operating hours and documented including follow-up procedures if determined necessary. An example inspection form is included in Appendix D. Completed inspection forms will be maintained on-Site in the Plan Manager's files along with the SWPPP.

Routine inspections are not intended to be documented evaluations of the entire Site but rather a routine "look-over" of the areas to identify items or areas of potential contamination. Routine inspections will cover the Site parking areas, storm water drainage areas, retention basins and catch basins, chemical storage and battery storage areas, and the vegetated areas of the Site. The Site perimeter will be traversed in so far as it is accessible to verify whether there is visible evidence of discharge of pollutants to the Site from adjacent properties. The Plan Manager will be notified of any items of potential concern identified during the routine inspections.

Recording and reporting for maintenance activities are preventative maintenance measures. Keeping track of all maintenance activities such as sweeping, cleaning, mowing, flow control measures, pavement repair and other erosion control practices will enable the storm water pollution prevention team to evaluate the effectiveness of the BMPs employed, equipment used, and drainage system operation.

12.3.1 SWPPP Qualified Inspection/inspector Training

The 4-Hour Erosion & Sediment Control Training is a required course for certain contractors, subcontractors, consultants, and other qualified individuals that will be involved with the implementation of the Stormwater Pollution Prevention Plan on a construction site that has coverage under a NYSDEC SPDES permit for Stormwater Discharges from construction activity. The certification received by this course is viable for 3 years from the date that the training was completed. This course is required for new employees involved in such activity as well as individuals who have not taken the course within the past 3 years.

Under the SPDES General Permit for Stormwater Discharges from Construction Activity, certain contractors (Trained Contractor) and certain Qualified Inspectors are required to complete 4 hours of NYSDEC-endorsed training in the principles and practices of erosion and sediment control (E&SC) every 3 years.

Trained Contractor - Prior to the commencement of construction, an owner or Operator shall have each contractor and subcontractor, that has been identified as being responsible for implementation of the CSWPPP, identify at least one employee from their company (known as the Trained Contractor) that has received 4 hours of endorsed E&SC training. The Trained Contractor must be on site on a daily basis when soil disturbance activities are being performed and will be responsible for implementation of the practices included in the SWPPP.

Qualified Inspector - An owner or Operator of a regulated construction project, with some exceptions, shall have a Qualified Inspector conduct specific site inspections. Certain Qualified Inspectors who work on these sites (i.e., individuals working under direct supervision of, and at the same company as, a licensed Professional Engineer ("PE") or Registered Landscape Architect of New York State) are required to complete 4 hours of E&SC training under the General Permit.

12.4 Employee Training and Contractor Certification

Members of the pollution prevention team will undergo an orientation tofamiliarize them with the intent and goals of the SWPPP. The training involves a review of the regulations and the potential pollutant source areas on-Site. Training topics will include but not be limited to:

- good housekeeping;
- material management practices (including organization and proper material labeling);
- how to recognize unauthorized discharges (e.g. no wastewater from washing vehicles should be allowed to discharge off-site via outfalls, floor drains should not be used for fluid disposal);
- how to evaluate the condition and maintenance needs of storm water controls and equipment that may contribute to contamination of storm water if not functioning properly (e.g. leaking trucks);
- how to identify when corrective actions are required and execution of proper corrective actions (e.g. use of dry cleanup methods to address spills whenever possible);
- used oil management; and
- fueling procedures.

Training will be documented and records kept in Appendix F. There should also be routine sessions that allow the team members to exchange ideas on how to reduce the potential storm water contamination from the Site. In addition, all other Site employees will be given general awareness instructions regarding the preventive measures and BMPs outlined in this Plan. Employees will also be advised on procedures to follow in the event of a spill or leak on-Site (e.g. using dry clean-up methods to address spills). It is intended that all personnel will have a heightened sense of awareness concerning environmental hazards and potential pollutant sources.

All contractors and subcontractors involved in soil disturbance and/or stormwater management practice installation and maintenance shall be identified in the SWPPP, and shall sign a copy of the certification statement provided in Appendix G. The certification must include the name and title of the person providing the signature, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made. The certification statement must be included in the SWPPP.

12.5 Sediment and Erosion Control

In addition to sediment and erosion control related to construction activities discussed in Section 6, permanent sediment and erosion control measures have been established at the Facility with paving of parking lots and offloading areas, the application of gravel in unpaved areas, the presence of curbs and landscaping, and the site stormwater control system. These measures were implemented during Facility construction to limit erosion in the vicinity of the Facility; therefore, erosion is not of concern at this Facility.

12.6 Materials/Waste Handling, Storage, & Compatibility

The facility is a lithium-ion recycling plant that will process cathode and anode materials from spent lithium-ion batteries into battery grade end-products. The cathode and anode recycling will only take place after construction is finished and therefore cathode and anode materials will not be present on site until after construction. Construction of the Hub will generate construction debris and waste that will need to be disposed and/or recycled in accordance with applicable guidelines and regulations. Waste anticipated to be generated include general trash and debris, non-hazardous waste, and universal waste (e.g. light bulbs and Lamps, batteries, aerosol cans, etc.). Waste handling will be governed by the Site

Hazardous Material Handling Program, Hazardous Communication Program, BMPs, materials and waste handling procedures, and the Site's waste management plan.

12.6.1 Progress Drawing

A Progress Drawing consisting of a print of the Erosion and Sediment Control Plans shall be posted inside the job trailer wall. The Progress Drawing will be used to record the locations of the Job Trailer, Sanitary Waste Facilities, Solid Waste Facilities, Fuel Storage Area, Equipment Service Area, and Concrete Washout Pit. Any time any of these facilities are relocated on the site, a new location will be noted on the Progress Drawing and a modification report will be prepared.

12.6.2 Materials Covered

Contractor shall maintain Safety Data Sheets (SDSs) of all materials brought on site to comply with Occupational Safety and Health Administration (OSHA) Hazard Communication Standard. The following materials or substances are expected to be present onsite during construction:

- Concrete/Additives/Wastes Cleaning solvents
- Detergents Petroleum based products
- Paints/Solvents
- Acids Fertilizers
- Solid and construction wastes Sanitary wastes
- Soil stabilization additives Oils, Greases and Petroleum Products
- Scrap Metal

13. NON-STORMWATER DISCHARGE ("NSWD") CERTIFICATION

The following NSWDs are authorized by GP-0-20-001:

- discharges from firefighting activities;
- fire hydrant flushings;
- waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP;
- routine external building washdown which does not use detergents;
- pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- air conditioning condensate;
- uncontaminated groundwater or spring water;
- uncontaminated discharges from construction site de-watering operations; and
- foundation or footing drains where flows are not contaminated with process materials such as solvents.

With the exception of flows from firefighting activities, these discharges must be identified in the SWPPP if planned to occur. The above listed activities do not apply to Li-Cycle Site activities.

14. CLOSEOUT PER TOWN OF GREECE REQUIREMENTS

The Operator must satisfy the following project closeout requirements:

- Reestablish grade of all permanent stormwater facilities.
- Inspect grading of all drainage structures and provide elevation as-builts to the Town of Greece.
- Establish perennial vegetative cover to 80% density over the entire site.
- Removal of all debris and temporary erosion and sediment control practices.
- Provide a written certification by a New York State licensed/certified professional that the site has undergone final stabilization (as defined in § 176-2) and that all temporary erosion and sediment controls not needed for long-term erosion control have been removed.
- Complete any other measure deemed appropriate and necessary by the Town of Greece to stabilize the project site.
- Obtain a final inspection by the Town of Greece.

APPENDIX A GP-0-20-001

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

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

PREFACE

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

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

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

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

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

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

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

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

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

B. Effluent Limitations Applicable to Discharges from Construction Activities

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

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

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

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

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

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

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

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

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

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

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

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

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

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

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

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

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

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

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

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

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

D. Maintaining Water Quality

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

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

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

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

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

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

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

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

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

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

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

d. Documentation that:

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

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

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

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

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

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

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

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

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

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

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

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

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

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

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

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

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

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

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

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

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

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

B. Required SWPPP Contents

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

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

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

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

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

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

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

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

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

C. Required SWPPP Components by Project Type

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

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

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

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

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

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

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

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

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

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

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

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

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

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

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

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

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

B. Addresses

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

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

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

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

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

B. Continuation of the Expired General Permit

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

C. Enforcement

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

D. Need to Halt or Reduce Activity Not a Defense

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

E. Duty to Mitigate

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

F. Duty to Provide Information

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

G. Other Information

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

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

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

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

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

I. Property Rights

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

J. Severability

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

K. Requirement to Obtain Coverage Under an Alternative Permit

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

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

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

L. Proper Operation and Maintenance

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

M. Inspection and Entry

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

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

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

O. Definitions

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

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

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

R. Other Permits

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

APPENDIX A – Acronyms and Definitions

Acronyms

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

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX B – Required SWPPP Components by Project Type

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

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

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

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

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

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

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2

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

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

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

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

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

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River **-** Figure 1
- Onondaga Lake Watershed **-** Figure 2
- Greenwood Lake Watershed **-**Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

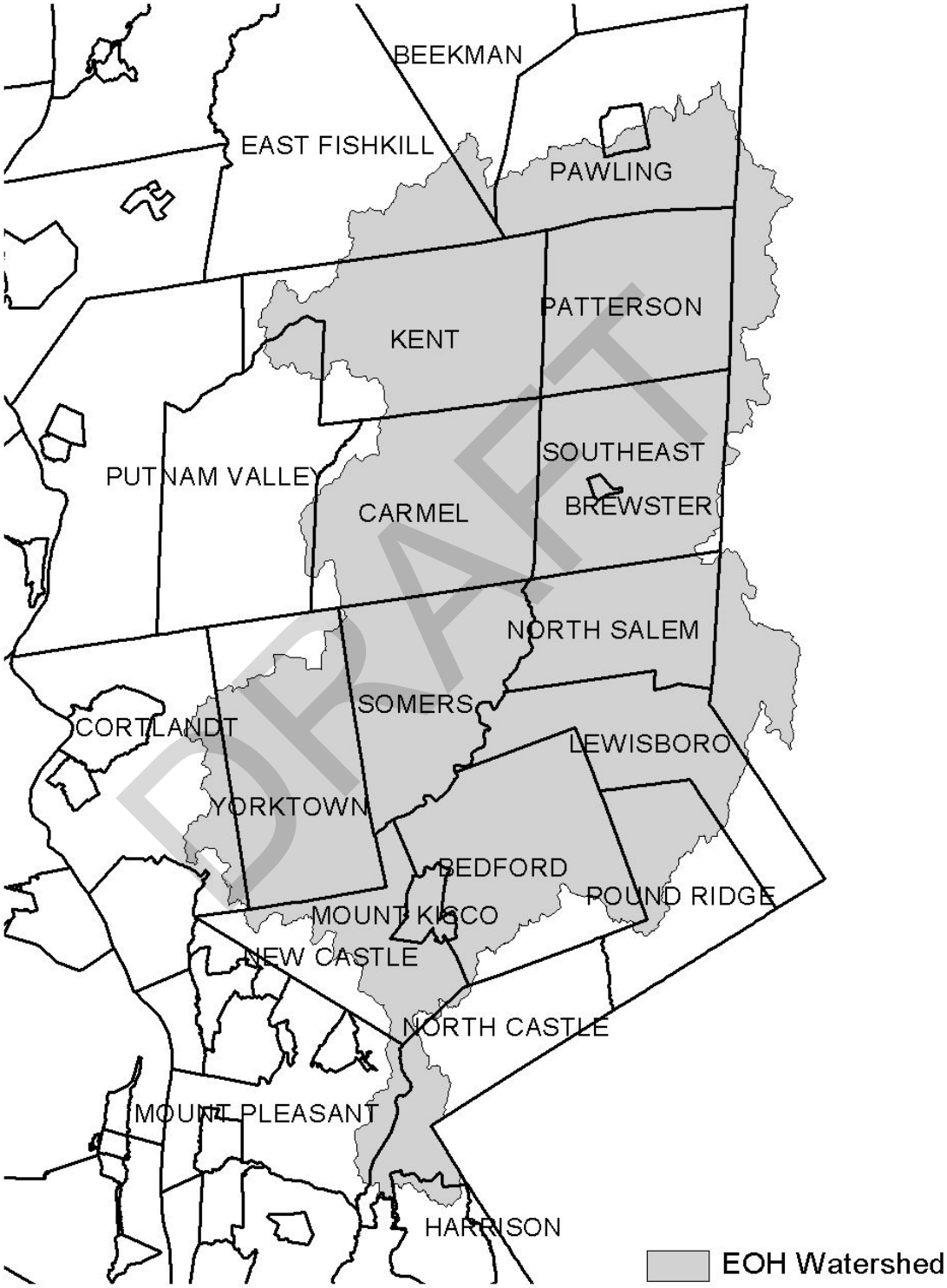


Figure 2 - Onondaga Lake Watershed

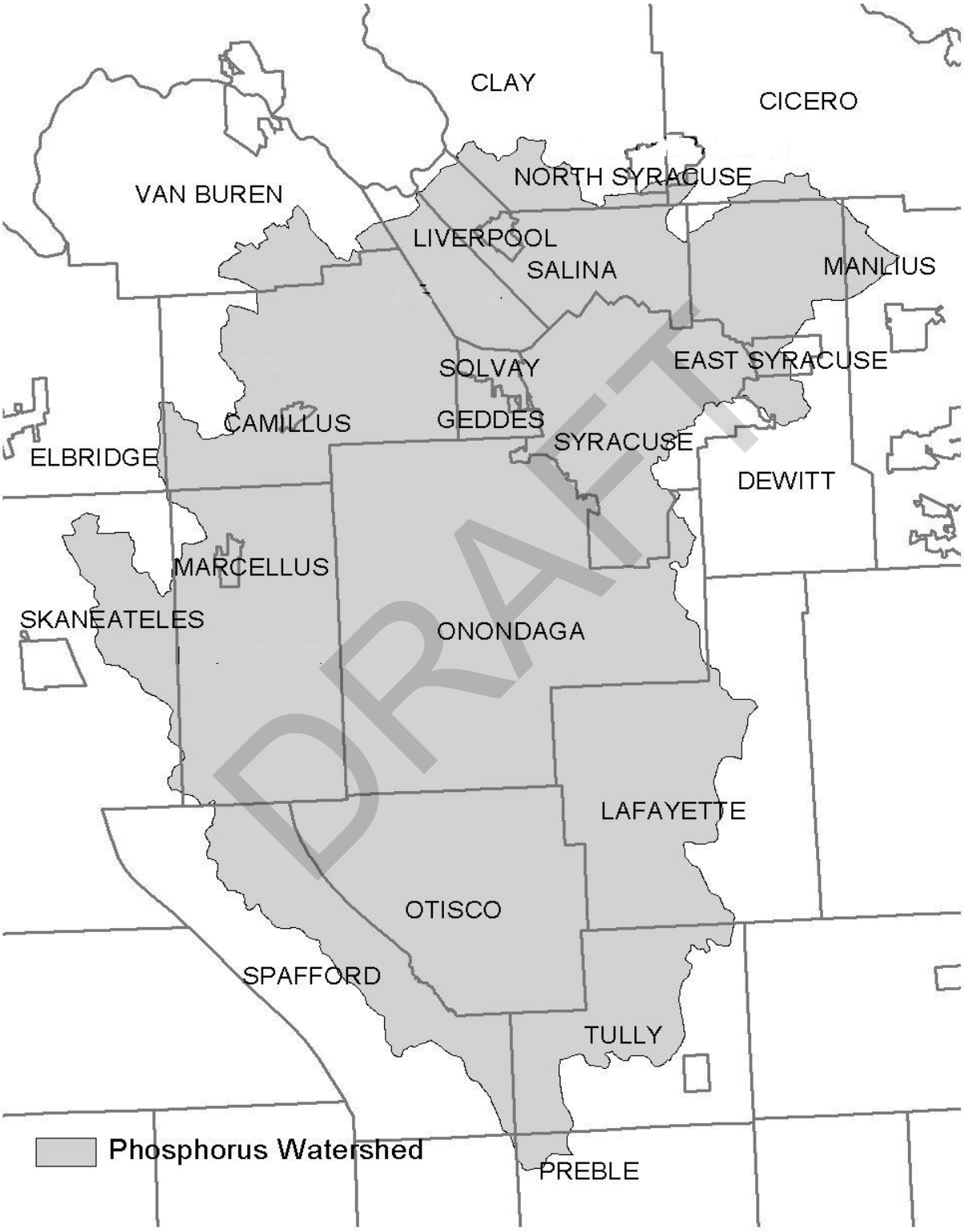


Figure 3 - Greenwood Lake Watershed

Figure 4 - Oscawana Lake Watershed

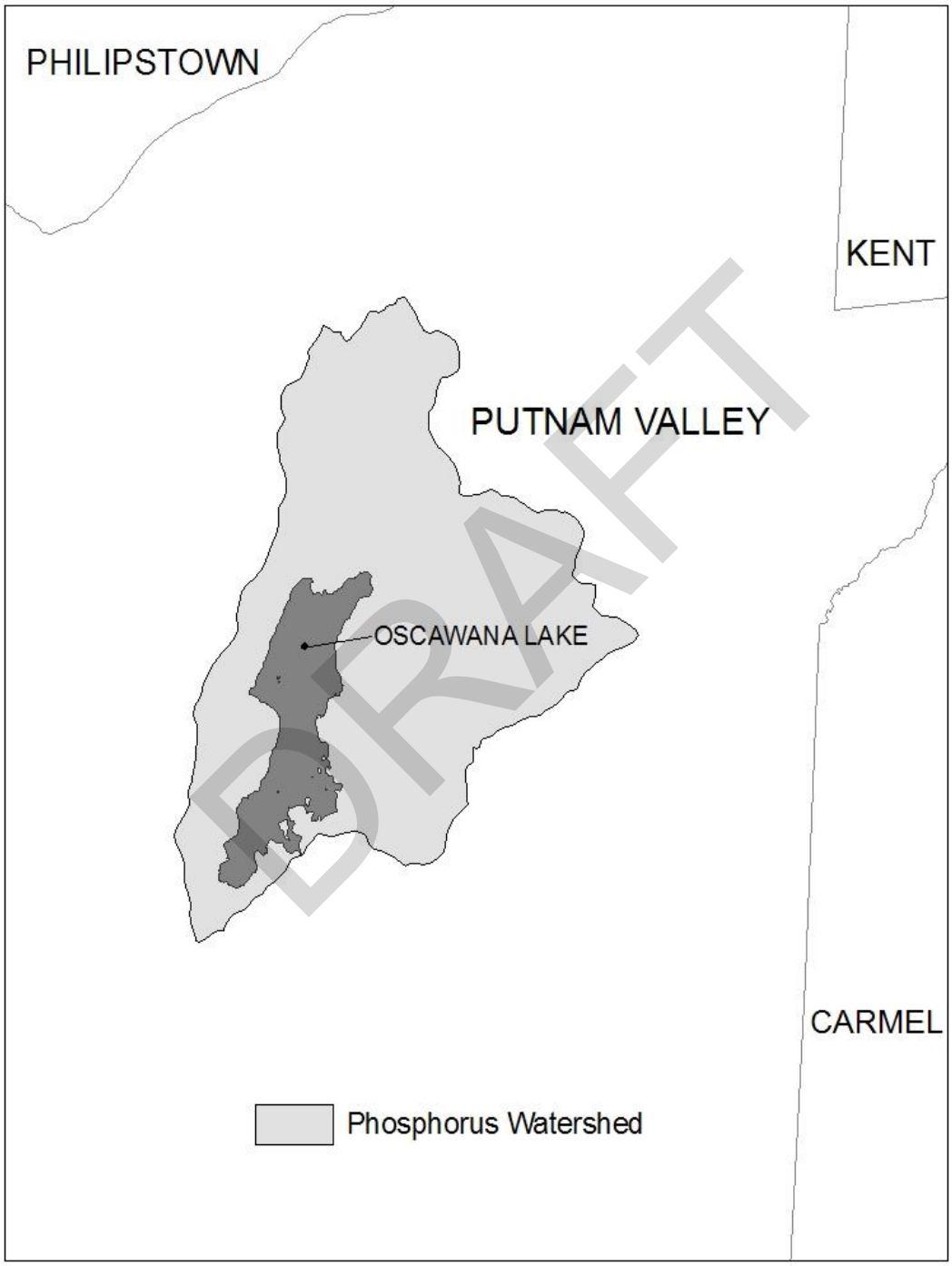
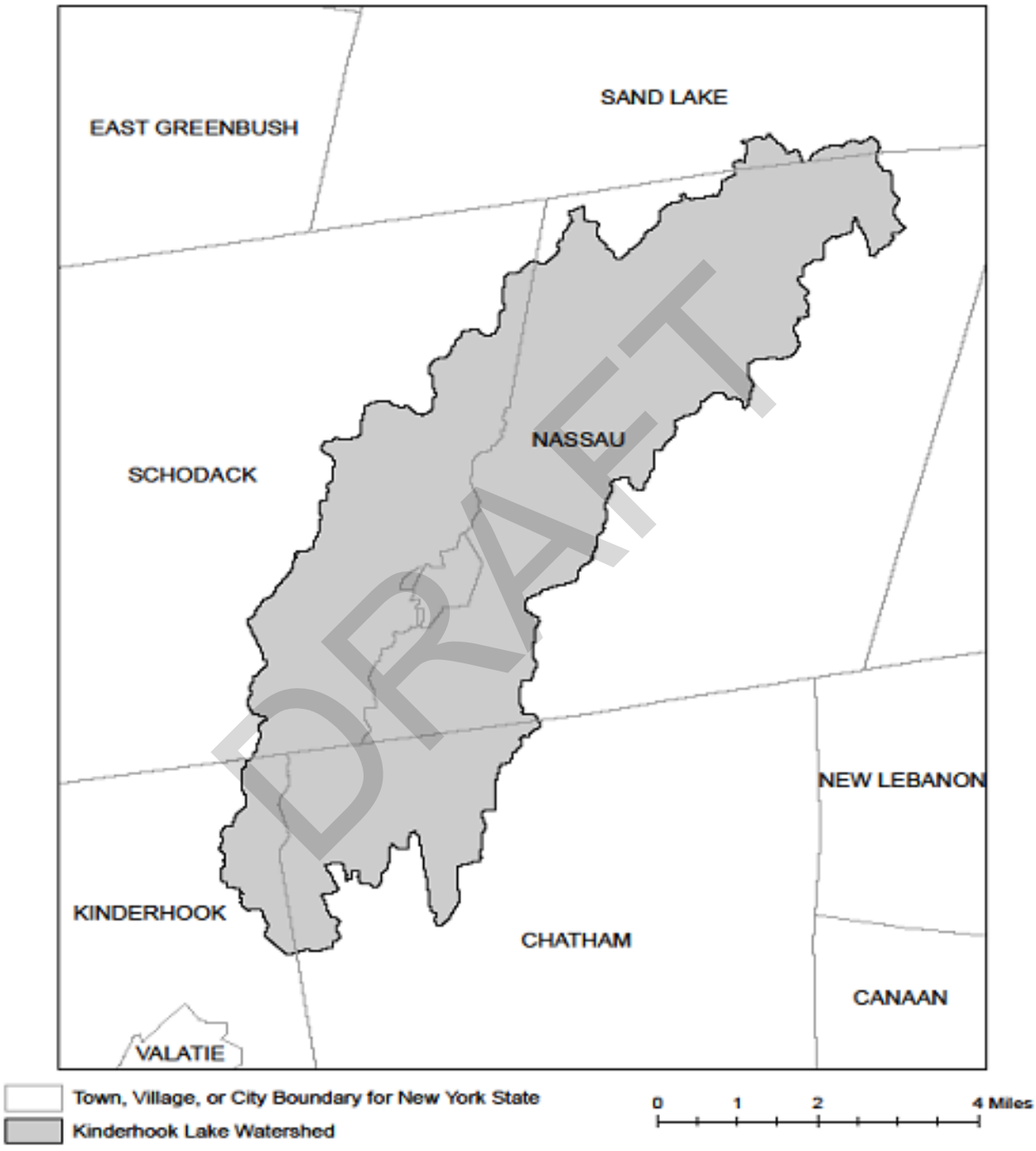


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX B LI-CYCLE COMMERCIAL HUB 1 DEVELOPMENT PLANS AND DRAWINGS

PROJECT SUMMARY	
PROJECT ADDRESS:	205 McLAUGHLIN ROAD, ROCHESTER, NY 14606
APPLICANT'S NAME:	LI-CYCLE NORTH AMERICA HUB, INC.
APPLICANT'S ADDRESS:	874 WALKER ROAD, SUITE C DOVER, DELAWARE 19904
MONROE COUNTY TAX ID:	089.04-1-3.21 089.04-1-3.22
PROPERTY DESCRIPTION	LOTS AR-3A1 & 3A2
PROJECT ZONING:	IG - GENERAL INDUSTRIAL
PROPOSED SETBACKS:	*SETBACK FROM CL R/W: 100' *SIDE/REAR SETBACKS ADJOINING RESIDENTIAL DISTRICT: 100' *SIDE/REAR SETBACKS ADJOINING NONRESIDENTIAL DISTRICT: 25'
TOTAL PROPERTY AREA:	LOT AR-3A1 = 28.958± ACRES LOT AR-3A2 = 90.535± ACRES TOTAL AREA: 119.49± ACRES
AREA OF LAND DISTURBANCE:	41.06 ACRES
PARKING REQUIREMENTS:	1 SPACE FOR EACH EMPLOYEE = SPACES 4 H/C SPACES REQ'D.
LOT COVERAGE:	PERVIOUS AREA: 34%± IMPERVIOUS AREA: 66%±
CURRENT USE:	VACANT INDUSTRIAL
PROPOSED USE:	INDUSTRIAL DEVELOPMENT
DESIGN PROFESSIONAL:	HARGROVE ENGINEERS + CONSTRUCTORS
CONTACT:	DONALD A. BROWN. PE, CPESC
ADDRESS:	17 PARK OF COMMERCE BLVD. SUITE 200 SAVANNAH, GA. 31405
PHONE:	(912)239-1411
EMAIL:	dabrown@hargrove-epc.com
24 HOUR CONTACT:	
SURVEYOR:	ROBERT A. VENTO, NYSPLS # 049701 PASSERO ASSOCIATES 242 WEST MAIN STREET, SUITE 100, ROCHESTER, NY 14614 PHONE: (585)325-1000
UTILITY PROVIDERS:	WATER SERVICE: RED ROCHESTER ELECTRICAL SERVICE: RED ROCHESTER GAS SERVICE: RG&E SANITARY SEWER: MCPW
EARTHWORK:	CUT: +/- 65,500 CY FILL: +/- 15,500 CY NET FILL: +/- 50,000 CY

*NOTE:
CALCULATED EARTHWORK VOLUMES ARE BASED ON NEAT VOLUMES BETWEEN THE EXISTING AND PROPOSED SURFACES.

LOCATION MAP
SCALE: NTS

DRAWING INDEX	
CH1-2210-CV-PLN-100	COVER SHEET & DRAWING INDEX
CH1-2210-CV-PLN-101	CIVIL GENERAL NOTES
CH1-2210-CV-PLN-102	EXISTING CONDITIONS & DEMOLITION PLAN
CH1-2210-CV-PLN-103	OVERALL SITE PLAN
CH1-2210-CV-PLN-104,105,106	SOIL EROSION & SEDIMENTATION PLAN
CH1-2210-CV-PLN-107,108,109	GRADING, DRAINAGE & PAVING PLAN
CH1-2210-CV-PLN-110,111,112	UTILITY PLAN
CH1-2210-CV-PLN-113	SITE LIGHTING PLAN
CH1-2210-CV-PLN-114,115,116,117	ROAD & UTILITY PROFILES
CH1-2210-CV-PLN-118	SOIL EROSION & SEDIMENTATION PLAN NOTES AND DETAILS
CH1-2210-CV-DET-119,120,121,122,123	SITE DEVELOPMENT DETAILS

DEVELOPMENT PLAN OF

LI-CYCLE COMMERCIAL HUB I (DEVELOPMENT AREA #2)

205 McLAUGHLIN ROAD, ROCHESTER, NY 14606

PREPARED BY

hargrove engineers+constructors

COMMISSIONER OF PUBLIC WORKS

_____
SIGNATURE DATE

CHIEF ENGINEER

_____
SIGNATURE DATE

FIRE MARSHAL

_____
SIGNATURE DATE

PLANNING BOARD APPROVAL

Dig Safely. New York. Call 811 before you dig

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY JAP	DATE 08/19/21
CHECKED BY KDK	DATE 09/14/21
APPROVED BY DAB	DATE -/-/--
COST/SCHEDULE/ AREA	–
SCALE	NTS

hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
COVER SHEET

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-PLN-100	REV. C

GENERAL NOTES:

1.00 GENERAL:

1.01 CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER TO AVOID INTERFERENCES WITH PLANT ACTIVITIES.

1.02 CONTRACTOR SHALL COORDINATE WITH OWNER REGARDING PROCUREMENT OF ANY AND ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

1.03 OWNER IS RESPONSIBLE FOR PROCURING ALL PERMITS REQUIRED FOR THIS PROJECT.

1.04 METHODS OF CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND ORDINANCES.

1.05 CONTRACTOR SHALL FIELD VERIFY ALL SIZES AND LOCATIONS OF ALL EXISTING ITEMS AND COORDINATE WITH ENGINEER IF CONFLICTS EXIST.

1.06 CONTRACTOR SHALL ENSURE GOOD HOUSEKEEPING PRACTICES ARE MAINTAINED THROUGHOUT CONSTRUCTION. THE CONSTRUCTION SITE SHALL BE CLEANED AT THE END OF EACH DAY.

1.07 CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO BEGINNING ANY EXCAVATION. CONTRACTOR SHALL NOT ASSUME UTILITIES ARE EXACTLY IN THE AREA MARKED AND SHALL USE EXTREME CAUTION WHEN WORKING IN AREAS WHERE EXISTING UTILITIES ARE PRESENT.

1.08 CONTRACTOR SHALL COORDINATE CIVIL PLANS WITH MECHANICAL, ELECTRICAL, AND STRUCTURAL PLANS AS THEY APPLY TO VERIFY CONFLICTS DO NOT EXIST. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF CONFLICTS ARE FOUND.

1.09 BASED ON CURRENT FEMA FIRM 36055C0183G & 36055C0191G, EFFECTIVE DATE 08/28/2008, THIS SITE APPEARS TO BE LOCATED IN ZONE "X" AND IS NOT LOCATED WITHIN A 100-YEAR FLOOD PLAIN.

1.10 FLOOD ZONE DETERMINATION IS BASED ON THE FLOOD INSURANCE RATE MAPS AND DOES NOT IMPLY THAT THE PROPERTY WILL OR WILL NOT BE FREE FROM FLOODING OR DAMAGE.

1.11 PROJECT LOCATION:
205 McLAUGHLIN ROAD
ROCHESTER, NY 14606

1.12 SURVEY DATA WAS COMPILED FROM A TOPOGRAPHIC SURVEY PROVIDED BY PASSERO ASSOCIATES ROBERT A. VENTO N.Y.P.L.S. NO. 049701, DATED JULY, 2021.
ALL BOUNDARY AND EASEMENT WORK WAS PREPARED BY PASSERO ASSOCIATES ROBERT A. VENTO N.Y.P.L.S. NO. 049701.

HARGROVE ENGINEERS + CONSTRUCTORS ASSUME NO LIABILITY FOR ERRORS RESULTING FROM SURVEY WORK PERFORMED BY OTHERS. SEE COVER SHEET FOR SURVEYOR CONTACT INFORMATION.

1.13 THE HORIZONTAL DATUM IS REFERENCED TO NAD-27 ON THE N.Y.S. PLANE COORDINATE SYSTEM, BEARINGS SHOWN HEREON ARE REFERENCED TO GRID. DISTANCES SHOWN ARE GROUND. SURVEY WORK FOR THIS MAP WAS COMPLETED TO AN ACCURACY OF 1 PART IN 10,000 (1:10,00) OR BETTER.

1.14 THE VERTICAL DATUM IS REFERENCED TO NAVD-29. HORIZONTAL AND VERTICAL DATUM WERE MEASURED USING RTK GPS USING THE KODAK MONUMENT BASELINE POINTS SHOWN ON SURVEY PROVIDED BY PASSERO ASSOCIATES ROBERT A. VENTO N.Y.P.L.S. NO. 049701, DATED JULY, 2021.

1.15 PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.

1.16 NO SUB-SURFACE INVESTIGATION WAS PERFORMED BY HARGROVE ENGINEERS + CONSTRUCTORS. THIS SURVEY DOES NOT GUARANTEE THE "EXISTENCE OR NON-EXISTENCE" OF UNDERGROUND UTILITIES. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, CONTACT 811 OR (315)437-7394 TO CONFIRM THE LOCATION OR EXISTENCE OF UNDERGROUND UTILITIES.

1.17 THERE ARE FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY. WETLANDS DELINEATED BY TES, JULY, 2016.

THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY.

1.18 CONTRACTOR SHALL PROVIDE AS BUILT DRAWINGS TO THE OWNER UPON COMPLETION OF CONSTRUCTION. DRAWINGS SHALL BE SUBMITTED TO OWNER AND OWNER'S ENGINEER FOR RECORD IN BOTH .PDF AND AUTOCAD FORMATS.

2.00 DEMOLITION:

2.01 ITEMS SHOWN SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND FEDERAL CODES AND REGULATIONS. AT NO TIME SHALL DEMOLITION OR CONSTRUCTION DEBRIS BE BURNED OR BURIED ON SITE.

2.02 DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO REMOVED EXISTING CONCRETE FOUNDATION, FENCING, CONCRETE CURB WALL, RELOCATE 2 F/H'S, GRAVEL, ASPHALT DRIVE, EXISTING PIPE & CATCH BASIN. SEE CH1-2210-CV-PLN-102 EXISTING CONDITIONS & DEMOLITION PLAN.

2.03 EXISTING UTILITY SERVICE(S) SHALL BE SAFELY ISOLATED PER OSHA AND FACILITY LOCK-OUT TAG-OUT PROCEDURES.

2.04 CONTRACTOR SHALL FOLLOW ALL OSHA AND PLANT REQUIREMENTS FOR WORK IN EXCAVATED AREAS. THE CONTRACTOR SHALL ALSO COORDINATE ANY ENVIRONMENTAL TESTING FOR EXCAVATED SOIL WITH THE OWNER.

2.05 CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE IF HAZARDOUS MATERIALS, SUCH AS BUT NOT LIMITED TO ASBESTOS AND LEAD, ARE PRESENT. IF HAZARDOUS MATERIALS ARE ENCOUNTERED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER TO COORDINATE REMOVAL.

2.06 CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES AS REQUIRED TO ENSURE DUST WILL NOT INTERFERE WITH THE PUBLIC OR PLANT OPERATIONS AND SAFETY.

2.07 SAFETY MEASURES SHALL BE PROVIDED BY THE CONTRACTOR THROUGHOUT THE LIFE OF THE PROJECT. SAFETY MEASURES SHALL MEET LOCAL PLANT REQUIREMENTS AND ANY LOCAL, STATE AND FEDERAL GUIDELINES.

2.08 ALL STRUCTURES SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.

2.09 THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY TEMPORARY SHORING THAT IS REQUIRED TO FACILITATE CONSTRUCTION. SHORING SHALL BE DESIGNED AND USED IN ACCORDANCE WITH CURRENT OSHA STANDARDS AND ANY LOCAL, STATE AND FEDERAL REGULATIONS.

2.10 ALL PAVEMENT TO BE REMOVED SHALL BE FIRST SAW CUT TO A SMOOTH EDGE AND THEN REMOVED BY MECHANICAL MEANS. IF PAVEMENT IS NOT TO BE REPLACED IN THE SAME DAY A STEEL PLATE SUITABLE TRAFFIC SHALL BE PLACED OVER THE OPENING. AT NO POINT SHALL OPEN HOLES IN PAVEMENT BE LEFT UNATTENDED OR UNCOVERED DURING CONSTRUCTION.

3.00 DIMENSIONING:

3.01 VERIFY ALL DIMENSIONS AND CONDITIONS RELATED TO EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. SCALE IS FOR GUIDELINE PURPOSES ONLY. IF DIMENSIONS ARE UNCLEAR, DO NOT SCALE. REQUEST CLARIFICATION FROM THE ENGINEER.

3.02 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EMPLOY THE NECESSARY PROFESSIONAL SERVICES TO DETERMINE THE NECESSARY METHODS AND SUPPORTS REGARDING FORMING AND CONSTRUCTION LOADS.

3.04 ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED ON THE PLANS. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.

3.05 WRITTEN DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS. IF ADDITIONAL DIMENSIONS ARE NEEDED THE CONTRACTOR SHALL COORDINATE WITH OWNER'S ENGINEER. DO NOT SCALE DRAWINGS.

3.06 CONTRACTOR SHALL FOLLOW STATE REQUIREMENTS AND GOOD SURVEY PRACTICES FOR CONSTRUCTION LAYOUT WORK.

4.00 SITE WORK / PAVING:

4.01 CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO LOCATE ALL EXISTING UNDERGROUND UTILITIES AND EXERCISE CARE TO PROTECT THEM FROM DAMAGE DURING EXCAVATION AND CONSTRUCTION.

4.02 TOP SOIL CONTAINING ORGANIC MATTER, DEBRIS OR OTHER LOOSE MATERIAL MUST BE STRIPPED. TOP SOIL SHALL BE STOCKED PILED ON SITE AND SPREAD OVER PERVIOUS AREAS FOR GRASS STABILIZATION. THIS SOIL IS NOT CONSIDERED SUITABLE FOR STRUCTURAL BACKFILL. ANY OTHER ON SITE MATERIAL DEFINED AS UNSUITABLE SHALL BE REMOVED FROM THE CONSTRUCTION AREAS.

4.03 ALL TREES AND STUMPS SHALL BE EITHER MULCHED AND SPREAD AS A TOPPING OVER PERVIOUS AREAS. NO VEGETATION SHALL BE BURNED OR BURIED ON SITE. ALL ORGANIC MATERIAL NOT MULCHED AND USED ON SITE SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.

4.04 ALL STUMP HOLES SHALL BE FILLED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATION.

4.05 CONTRACTOR SHALL SHORE UP ALL FOUNDATIONS WHERE EXCAVATION MAY CAUSE INSTABILITIES. CONTRACTOR SHALL FOLLOW ALL OWNER REGULATIONS FOR WORKING IN EXCAVATIONS. EXCAVATIONS GREATER THAN 4 FEET IN DEPTH SHALL BE BRACED UNLESS SIDES ARE SLOPED IN ACCORDANCE WITH OSHA STANDARDS.

4.06 CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IS MAINTAINED THROUGHOUT CONSTRUCTION. PONDING AND STANDING WATER SHALL BE KEPT TO A MINIMUM.

4.07 CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING REQUIRED TO FACILITATE CONSTRUCTION.

4.08 CONSTRUCTION SHALL BE PER ALL APPLICABLE CODES AND REGULATIONS.

4.09 FILL SHALL BE PLACED AND COMPACTED IN MAXIMUM LIFTS OF 8" WITH SELF PROPELLED COMPACTION EQUIPMENT (VIBRATORY ROLLERS). IF HAND GUIDED EQUIPMENT IS TO BE USED LIFTS SHALL BE BETWEEN 4 & 6". FILL SHALL BE COMPACTED TO WITHIN 95% OF THE MATERIALS MAXIMUM MODIFIED PROCTOR DENSITY (ASTM D 1557) WITHIN 4% OF OPTIMUM MOISTURE CONTENT.

4.10 ALL FILL COMPACTION SHALL BE VERIFIED BY PROOF-ROLLING THE AREA WITH A LOADED TANDEM AXLE TRUCK OR VIBRATORY ROLLER UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER. ANY SOFT AREAS IDENTIFIED SHALL BE INVESTIGATED TO DETERMINE THE CAUSE AND REPAIRED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THIS SHALL INCLUDE BUT NOT BE LIMITED TO REMOVING THE SOFT, DRY AND LOW-DENSITY SOIL, REPLACING AND RECOMPACTING WITH SUITABLE FILL MATERIAL AND RETESTING THE AREA.

4.11 STRUCTURAL FILL IS DEFINED IN SECTION PER SITE GEOTECHNICAL ENGINEER.

4.12 ANY DISTURBED AREA NOT RECEIVING AN IMPERVIOUS PAVEMENT SURFACE SHALL BE GRADED FOR POSITIVE DRAINAGE AND STABILIZED BY GRASSING. VEGETATION SHALL BE NATIVE, PERENNIAL AND WELL ESTABLISHED FOR GROWING IN THE LOCAL CONDITIONS.

4.13 CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL EROSION AND POLLUTION CONTROL REQUIREMENTS ESTABLISHED BY THE STATE OF NEW YORK AND FEDERAL REQUIREMENTS.

4.14 CONTRACTOR SHALL REPAIR ANY DAMAGED AREAS, I.E. BUILDINGS, UTILITIES, ETC., RESULTING FROM THEIR ACTION. ALL REPAIR COSTS SHALL BE BORN SOLELY BY THE CONTRACTOR.

4.15 CONTRACTOR SHALL INSPECT ALL CONSTRUCTION MATERIALS PRIOR TO ACCEPTING DELIVERY. ANY DAMAGED MATERIAL SHALL BE REJECTED IMMEDIATELY. CONTRACTOR SHALL STORE MATERIAL ON SITE SO THAT IT IS PROTECTED FROM DAMAGE.

4.16 A GEOTECH ENGINEER IS TO OBSERVE ALL EXCAVATIONS AND IS TO CERTIFY THAT ALL BEARING SURFACES MEET DESIGN CRITERIA.

4.17 ASPHALT, CONCRETE AND GRAVEL, PAVING SHALL BE INSTALLED PER NEW YORK DOT STANDARDS AND GOOD CONSTRUCTION PRACTICES.

4.18 ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF THE NEW YORK MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND MANUAL ON UNIFORM TRAFFIC DEVICES FOR STREETS AND HIGHWAYS (AASHTO MUTCD) BOTH CURRENT EDITIONS FOR DESIGN. CONTRACTOR SHALL INSTALL SIGNS AND POST PER THE APPLICABLE STANDARDS.

4.19 PAINT FOR STRIPPING SHALL BE SHERWIN WILLIAMS BRAND, SETFAST® ACRYLIC TRAFFIC MARKING PAINT, OR APPROVED EQUAL. CONTRACTOR SHALL PREPARE SURFACE AND APPLY PAINT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

4.20 REINFORCED CONCRETE PIPE SHALL BE ASTM C76 CLASS III WITH EITHER SOIL TIGHT GASKET JOINTS OR GEOTEXTILE WRAPPED JOINTS. SEE DETAIL SHEET FOR BEDDING DETAIL.

4.21 PIPE BEDDING AND TRENCH BACKFILL SHALL BE CLASS I BEDDING UNLESS OTHERWISE NOTED.

5.0 SANITARY UTILITY NOTES:

5.01 THE EXPECTED EXTREME FROST DEPTH FOR THIS SITE IS 48 INCHES. MINIMUM COVER FOR PIPES AND STRUCTURES SHALL BE 48 INCHES BELOW FINAL GRADE. COORDINATE WITH GRADING PLAN PRIOR TO LAYING PIPE.

5.02 ALL UTILITIES SHALL BE INSTALLED BELOW THE FROST LINE TO MINIMIZE POTENTIAL FOR FROST EFFECTS ON THE PIPING.

5.03 SANITARY SEWER PIPE SHALL BE SDR-35 BELL AND SPIGOT PIPE WITH GASKET JOINTS.

5.04 PROVIDE SANITARY SEWER CLEANOUTS AT A MAXIMUM SPACING OF 100 FT AND AT EVERY TURN IN THE PIPING SYSTEM.

5.05 CLEANOUTS IN UNPAVED AREAS SHALL BE RAISED ABOVE GRADE A MINIMUM OF 3 INCHES AND FITTED WITH A THREADED CAP. CLEANOUTS LOCATED IN AREAS THAT WILL RECEIVE VEHICLE OR PEDESTRIAN TRAFFIC SHALL BE INSTALLED FLUSH WITH A BRASS COVER SUITABLE FOR HS-20 LOAD RATINGS.

5.06 BUILDING CONNECTIONS SHALL BE MADE WITH A WYE CONNECTION. COORDINATE SEWER TIE LOCATIONS WITH THE BUILDING PLUMBING DRAWINGS. PIPE WORK FROM THESE PLANS TERMINATE FIVE FEET FROM THE BUILDING.

5.07 PLUMBING SHALL BE PER THE INTERNATIONAL PLUMBING CODE 2012, LOCAL REGULATIONS AND NEW YORK STATE LAWS AND AMENDMENTS. WHEN CONFLICTS OCCUR BETWEEN THESE, THE MOST STRINGENT CODE SHALL APPLY. COORDINATE WITH ENGINEER WHEN DISCREPANCIES ARE ENCOUNTERED.

5.08 CONNECTIONS TO CONCRETE BOXES WITH FLEXIBLE PIPE SHALL BE WITH A FLEXIBLE WATER AND SOIL TIGHT CONNECTION.

5.09 SEWER PIPE SHALL BE PROPERLY BEDDED IN SUITABLE BACKFILL MATERIAL. SEE DETAIL SHEET FOR PIPE BEDDING SECTION.

5.10 SEPARATION BETWEEN WATER AND SEWER SERVICES SHALL BE 18 INCHES VERTICAL AND 10 FEET HORIZONTAL SEPARATION. WATER AND SEWER SERVICES SHALL BE INSTALLED IN SEPARATE TRENCHES. TO THE MAXIMUM DEGREE PRACTICAL WATER LINES SHALL BE INSTALLED ABOVE SEWER LINES.

6.0 FIRE MAIN NOTES:

6.01 MINIMUM COVER FOR WATER PIPING SHALL BE FOUR (4) FEET.

6.02 CONTRACTOR SHALL FOLLOW BASF SPECIFICATIONS AND STANDARDS, NFPA 24, AND ANY APPLICABLE LOCAL & STATE CODES REGARDING FIRE MAIN MATERIAL AND INSTALLATION REQUIREMENTS. WHEN CONFLICTS EXIST THE CONTRACTOR SHALL NOTIFY THE OWNER AND OWNER'S ENGINEER OF RECORD FOR GUIDANCE.

6.03 WHEN UTILITY CROSSINGS OCCUR A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE MAINTAINED. THE FIRE MAIN SHALL BE INSTALLED ABOVE ANY SANITARY & PROCESS SEWER LINES WHEN PRACTICAL.

6.04 ONCE THE NEW FIRE WATER PIPING HAS BEEN INSTALLED THE CONTRACTOR SHALL FLUSH THE SYSTEM CLEAN IN ACCORDANCE WITH NFPA 24 GUIDELINES REGARDING PROPER DISPOSAL OF FLUSH WATER.

6.05 ONCE FINAL INSTALLATION HAS BEEN COMPLETED THE FIRE MAIN SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE LATEST EDITION FOR NFPA-24 AND IN ACCORDANCE WITH NEW YORK TECHNICAL STANDARDS.

6.06 ALL PVC/HDPE PIPE SHALL BE INSTALLED WITH A CONTINUOUS #14GA, COATED COPPER WIRE. THE WIRE SHALL BE PLACED DIRECTLY OVER THE PIPE. THE WIRE SHALL EXTEND FROM VALVE BOX TO VALVE BOX. ENDS OF THE WIRE AT THE VALVE BOXES SHALL BE PLACED OUTSIDE THE RISER PIPE AND TERMINATED INSIDE THE TOP OF THE VALVE BOX. THERE SHALL BE ENOUGH LOOSE WIRE AT THE END TO EXTEND NOT LESS THAN 12-INCHES AND NOT MORE THAN 24-INCHES ABOVE GROUND LEVEL.

7.0 WATER UTILITY NOTES:

7.01 THE EXPECTED EXTREME FROST DEPTH FOR THIS SITE IS 48 INCHES. MINIMUM COVER FOR PIPES SHALL BE 48 INCHES BELOW FINAL GRADE. COORDINATE WITH GRADING PLAN PRIOR TO LAYING PIPE

7.02 WATER SUPPLY PIPING SHALL BE PVC PIPE UNLESS NOTED OTHERWISE ON PLANS. PIPE SIZE SHALL BE AS NOTED ON PLANS

7.03 WATER LINES SHALL BE SEPARATED FROM SANITARY SEWER LINES BY 10 FEET HORIZONTAL DISTANCE AND INSTALLED IN SEPARATE TRENCHES. VERTICAL CROSSING SHALL BE SEPARATED BY 18 INCHES WITH WATER PIPING INSTALLED ABOVE SANITARY SEWER PIPE. WHEN 10 FEET SEPARATION IS NOT PRACTICAL WATER AND SEWER LINES MAY BE INSTALLED IN A BENCHED MANNER. BENCH SHALL ALLOW FOR 5 FEET OF HORIZONTAL AND 18 INCHES VERTICAL SEPARATION. SANITARY SEWER SHALL BE INSTALLED BELOW THE WATER PIPE.

7.04 CONTRACTOR SHALL REJECT ANY UNSOUND PIPE IMMEDIATELY AND HAVE IT REMOVED FROM THE PROJECT SITE. PIPE SHALL BE STORED ON THE SITE IN A MANNER THAT WILL MINIMIZE DAMAGE FROM CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PIPE DAMAGED DUE TO CONSTRUCTION ACTIVITIES AT THEIR OWN COST

7.05 PIPES SHALL BE FLUSHED CLEAN WITH WATER PRIOR TO INSTALLATION. WATER SHALL BE FLOWED THROUGH THE PIPE UNTIL NO DIRTY WATER APPEARS AT THE POINT OF OUTLET

7.06 PIPE SHALL BE DISINFECTED WITH A CHLORINE SOLUTION PRIOR TO USE. CHLORINE SOLUTION SHALL CONTAIN 50 PPM OR 200 PPM CHLORINE. MINIMUM CONTACT TIME FOR 50 PPM SOLUTION IS 24 HRS AND 3 HOURS FOR 200 PPM SOLUTION

7.07 UPON COMPLETION OF DISINFECTION PROCESS THE PIPE SHALL BE FLUSHED WITH CLEAN WATER TO THE ACCEPTABLE CHLORINE LIMITS ESTABLISHED BY THE STATE OF MISSOURI

7.08 CHLORINATED WATER SOLUTION SHALL NOT BE DISCHARGED TO DRAIN FIELDS OR SURFACE WATERS

7.09 THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS PRESENT IN THE SYSTEM

7.10 PIPES SHALL BE PROPERLY BEDDED TO PROVIDE STRUCTURAL SUPPORT FOR THE PIPE. PIPE SHALL REST ON SAND OR FINE GRAVEL. PIPE SHALL NOT REST ON ROCK OR BE SUPPORTED ON BLOCKS PLACED IN THE TRENCH. IF SOFT MATERIAL IS ENCOUNTERED THE TRENCH SHALL BE OVER EXCAVATED BY AT LEAST 2 PIPE DIAMETERS AND BACKFILLED WITH APPROPRIATE BEDDING MATERIAL. PIPING SHALL BE LAID ON A FIRM BASE THE ENTIRE TRENCH LENGTH

7.11 CONTRACTOR SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL CODES, LAWS AND REGULATIONS FOR WATER UTILITIES. WHEN CONFLICTS OCCUR BETWEEN THESE, THE MOST STRINGENT CODE SHALL APPLY

7.12 ALL NONMETALLIC PIPES SHALL HAVE 14 GA. TRACER WIRE INSTALLED FOR FUTURE LOCATIONS.

8.0 ELECTRICAL UTILITY NOTES:

8.01 ALL ELECTRICAL CONDUIT, CONDUCTORS AND STRUCTURES FOR EQUIPMENT SHALL BE INSTALLED AS PART OF THIS CONTRACT.

8.02 BEDDING OF CONDUIT IS INCLUDED AS PART OF THIS SCOPE OF WORK.

8.03 COORDINATE THE LOCATION OF CONDUITS WITH ELECTRICAL DRAWINGS TO ENSURE ALL STUB UPS ARE IN THE CORRECT LOCATION.

8.04 METHOD OF CONSTRUCTION SHALL CONFORM TO CURRENT ELECTRICAL CODES AND NEW YORK REQUIREMENTS.

8.05 MINIMUM COVER FOR CONDUIT 48 INCHES.

8.06 WHEN POSSIBLE ALL CONDUIT SHALL BE LAID ABOVE ALL OTHER UTILITIES.

8.07 SECONDARY CONDUITS SHALL BE INSTALLED A MINIMUM OF 12 INCHES FROM PRIMARY CONDUITS WHEN INSTALLED IN A COMMON TRENCH.

8.08 ALL CONDUIT SHALL BE SCHEDULE 40 PVC WITH FIBERGLASS SWEEPS UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS. PVC JOINTS SHALL BE GLUED AND COMPRESSED TO FULL DEPTH OF COUPLING. FIBERGLASS CONDUIT SHALL MEET NEW YORK'S POWER SPECIFICATION FOR COLOR, MATERIAL, AND SWEEP RADIUS.

8.09 PULL BOXES SHALL BE TRAFFIC RATED BOXES. BOXES SHALL BE QUAZITE BRAND, PART #PG4848BA48 UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED EQUAL BY THE OWNER OR OWNER'S ENGINEER.

8.10 ALL CONDUIT SHALL BE PROOF TESTED AFTER BACKFILLING AND PRIOR TO CABLE INSTALLATION AGAINST DEFLECTION VIA A MANDREL TEST PRIOR TO ACCEPTANCE. FAULTY SECTIONS FOUND SHALL BE REPLACED WITH NEW AT THE EXPENSE OF THE CONTRACTOR.

8.11 SEE ELECTRICAL DRAWINGS FOR CABLE SIZES AND TYPES.

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

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B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

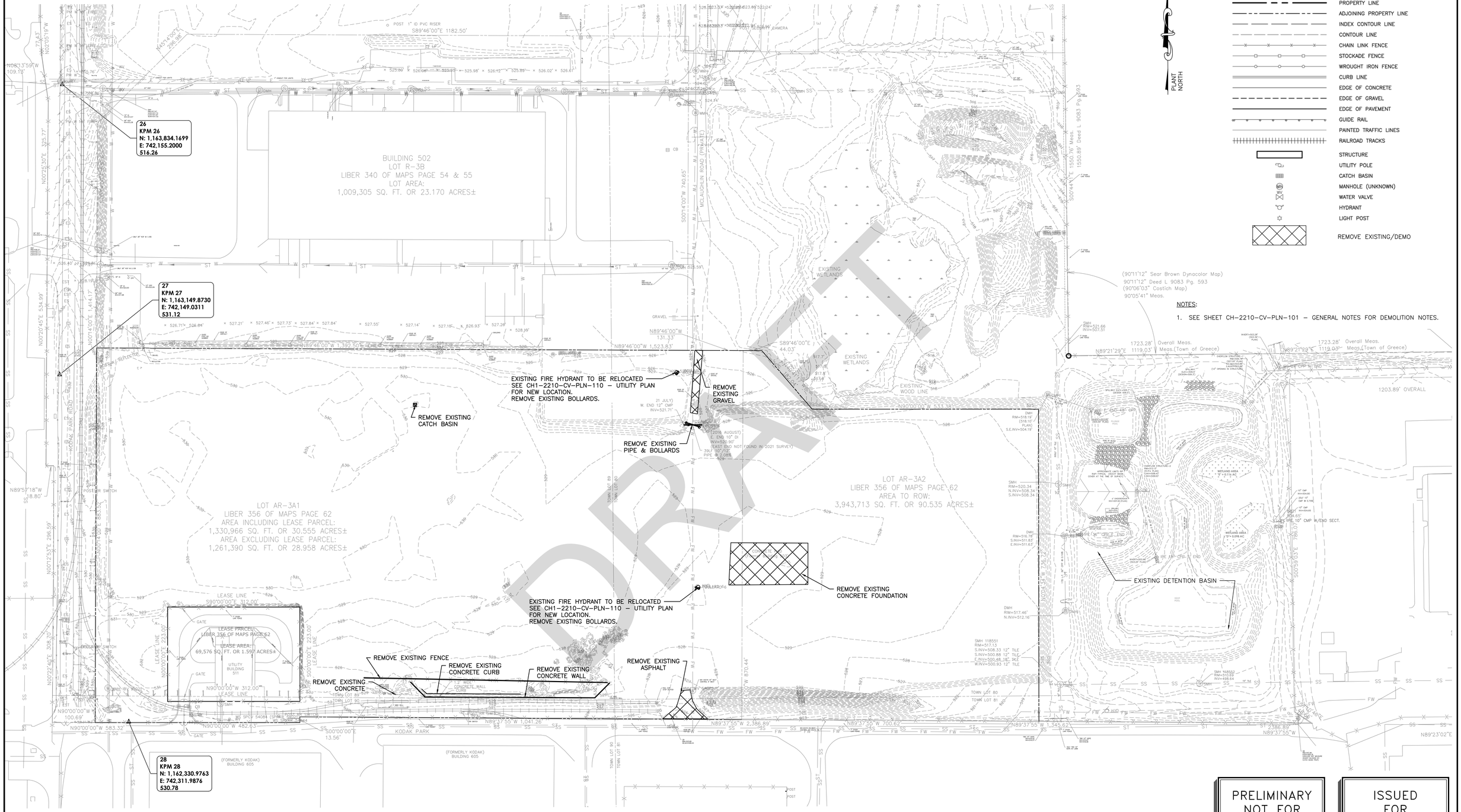
Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY JAP — DATE 08/19/21
CHECKED BY KDK — DATE 09/14/21
APPROVED BY DAB — DATE –/–/––
COST/SCHEDULE/ AREA –
SCALE NTS

hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
GENERAL NOTES

CONTRACT NO. 201968 — OWNER NO. 1953
APPROVED BY – — DATE –
APPROVED BY – — DATE –
DRAWING NUMBER CH1-2210-CV-PLN-101 — REV. C



NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 - GENERAL NOTES FOR DEMOLITION NOTES.

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	SURVEY OF LOT AR-3A1 & AR-3A2, DATED: JULY, 2021 BY: R. VENTO,PASSERO ASSOC.

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Hub #1 - Rochester, NY

DRAWN BY: JAP	DATE: 08/19/21
CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: -/-/--
COST/SCHEDULE/ AREA: –	
SCALE: 1"=100'	

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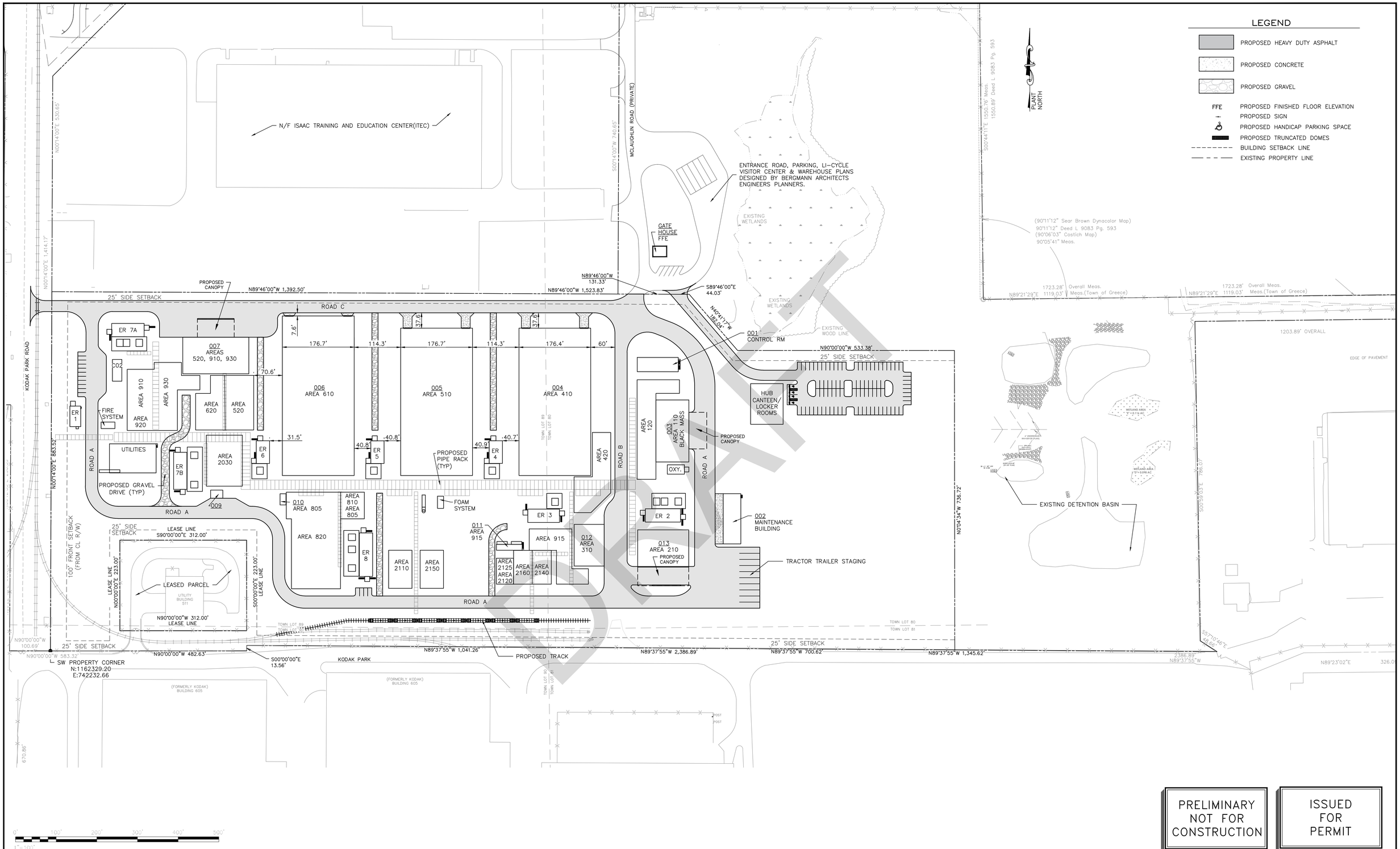
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
EXISTING CONDITIONS & DEMOLITION PLAN

CONTRACT NO.: 201968	OWNER NO.: 1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2210-CV-PLN-102	REV.: C



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APPROVED BY DAB	DATE –/–/–
COST/SCHEDULE/ AREA	–
SCALE	1"=100'

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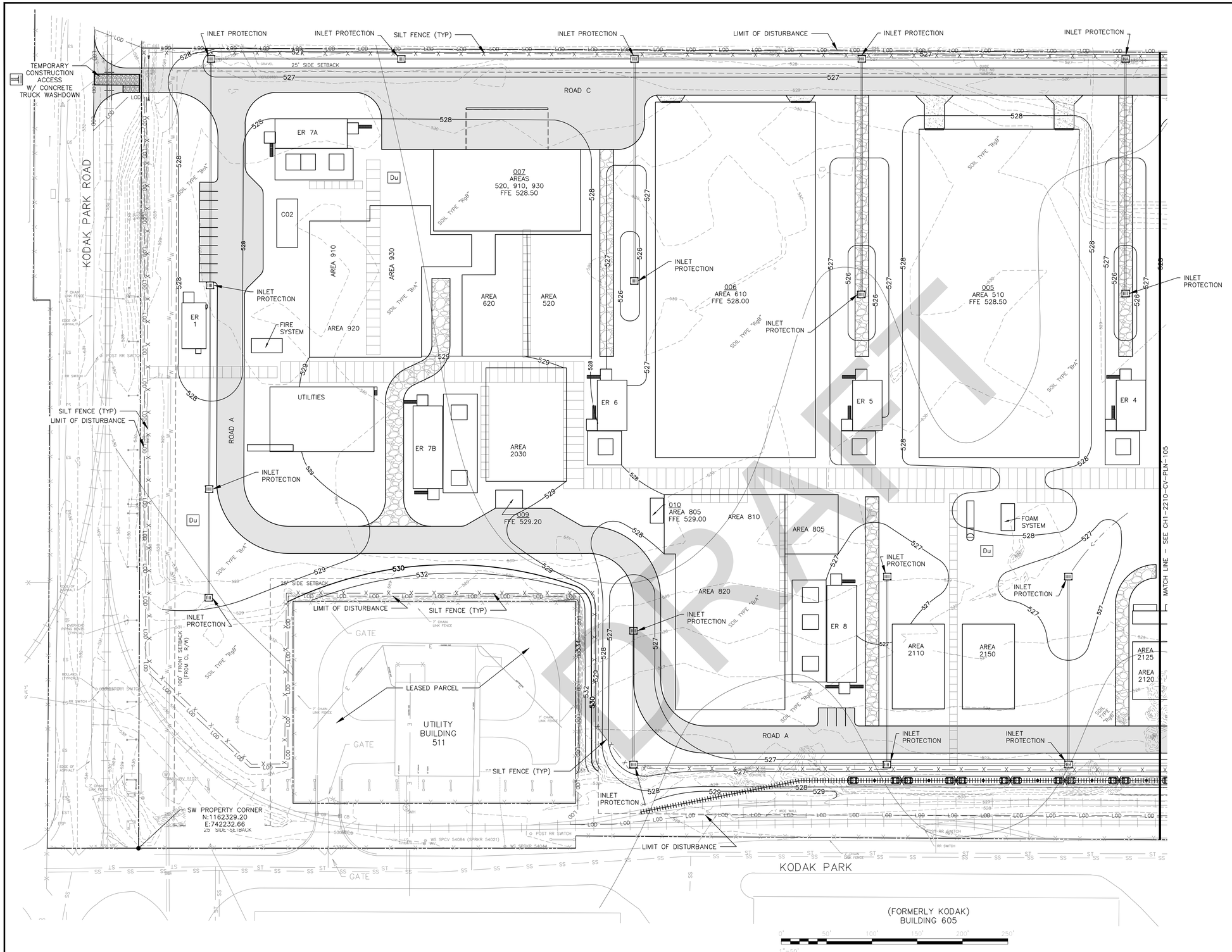
DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
OVERALL SITE PLAN

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-PLN-103	REV. C



PLANT NORTH

SOIL TYPE LEGEND	
MAP UNIT SYMBOL	MAP UNIT NAME
BrA	BROCKPORT SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
RgB	RIGA SILT LOAM, 2 TO 8 PERCENT SLOPES

NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEET CH-2210-CV-PLN-118 FOR EROSION NOTES & DETAILS.
3. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.
4. BMPS SHALL REMAIN IN PLACE UNTIL FINAL SOIL STABILIZATION HAS BEEN ACHIEVED.
5. REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AS THE DEVELOPMENT PROGRESSES.

LEGEND

- TEMPORARY CONSTRUCTION ACCESS
- X — SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- TEMPORARY CONSTRUCTION ACCESS W/ CONCRETE TRUCK WASHDOWN
- INLET PROTECTION
- SOIL TYPE "RgB" / SOIL TYPE "BrA" — SOIL LINE
- Du — DUST CONTROL
- 532 — PROPOSED CONTOUR ELEVATION
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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COST/SCHEDULE/ AREA: –	
SCALE: 1"=50'	

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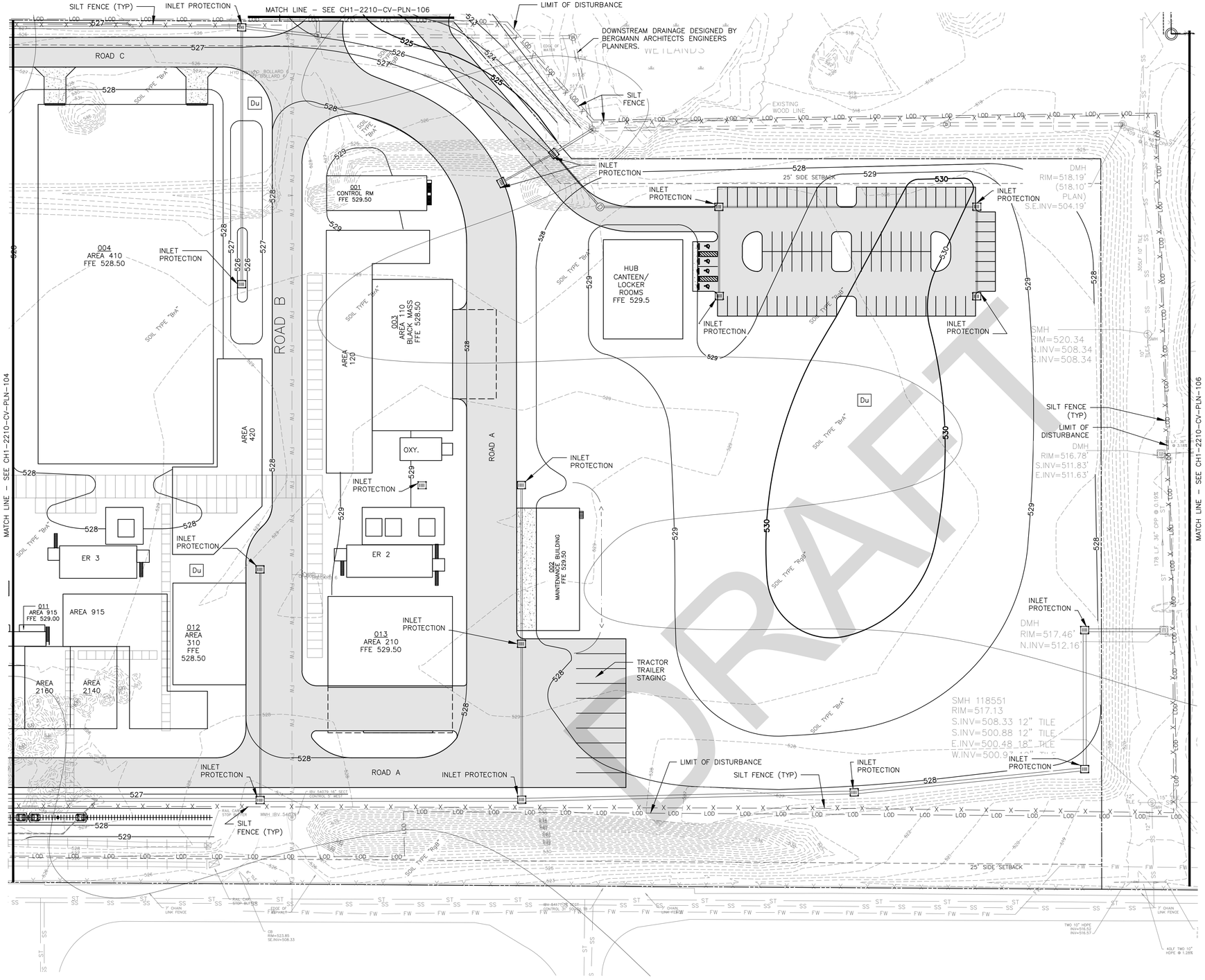
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SOIL EROSION & SEDIMENTATION PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2100-CV-PLN-104	REV.: C



SOIL TYPE LEGEND	
MAP UNIT SYMBOL	MAP UNIT NAME
BrA	BROCKPORT SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
RgB	RIGA SILT LOAM, 2 TO 8 PERCENT SLOPES

NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEET CH-2210-CV-PLN-118 FOR EROSION NOTES & DETAILS.
3. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.
4. BMPS SHALL REMAIN IN PLACE UNTIL FINAL SOIL STABILIZATION HAS BEEN ACHIEVED.
5. REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AS THE DEVELOPMENT PROGRESSES.

LEGEND

- TEMPORARY CONSTRUCTION ACCESS
- X — SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- TEMPORARY CONSTRUCTION ACCESS W/ CONCRETE TRUCK WASHDOWN
- INLET PROTECTION
- SOIL TYPE "RgB" / SOIL TYPE "BrA" — SOIL LINE
- Du — DUST CONTROL
- 532 — PROPOSED CONTOUR ELEVATION
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

0' 50' 100' 150' 200' 250'
1"=50'

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

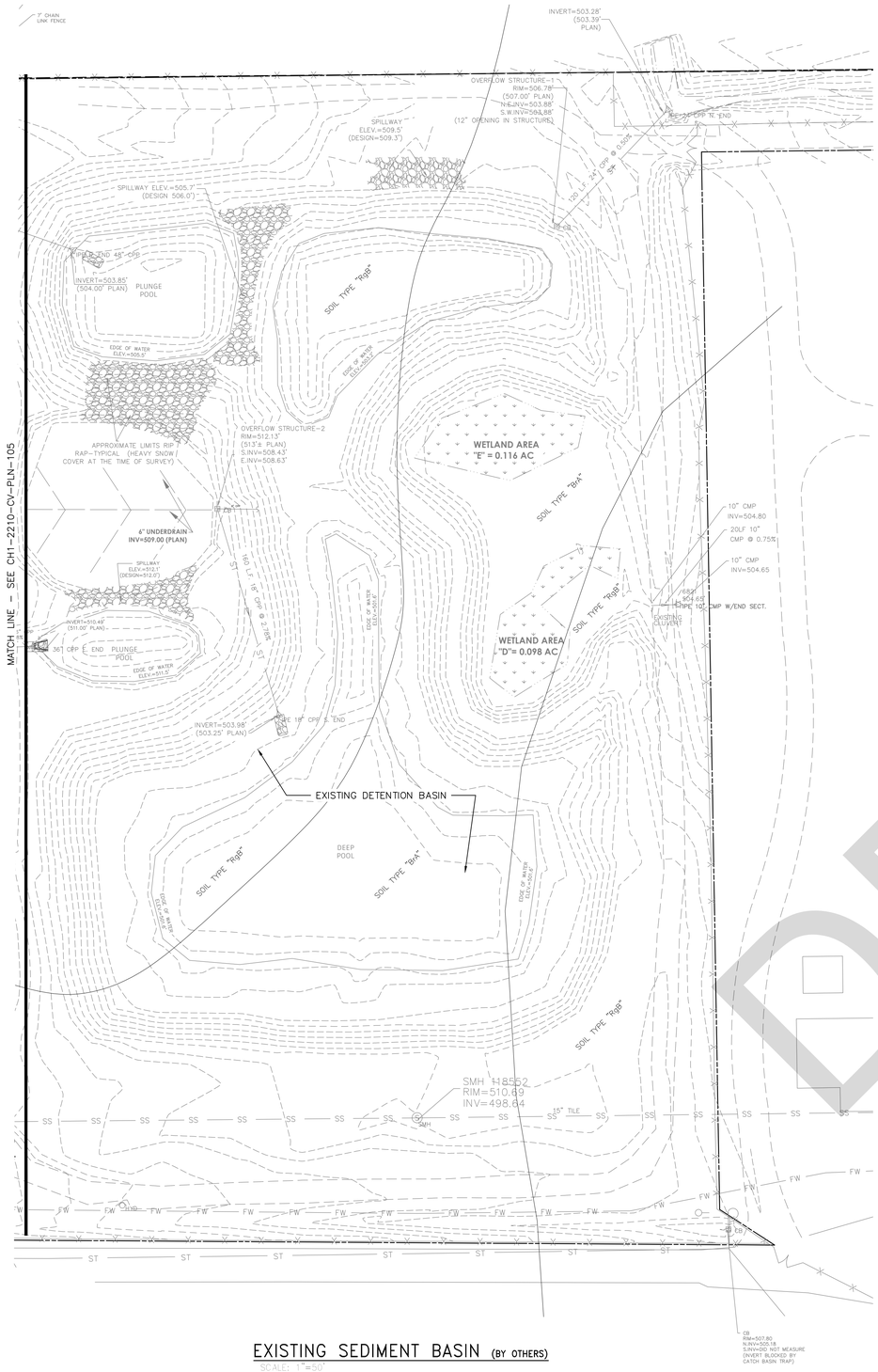
DRAWN BY: JAP	DATE: 08/23/21
CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: –/–/–
COST/SCHEDULE/ AREA: –	
SCALE: 1"=50'	

hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SOIL EROSION & SEDIMENTATION PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2100-CV-PLN-105	REV.: C



EXISTING SEDIMENT BASIN (BY OTHERS)
SCALE: 1"=50'

PLANT NORTH

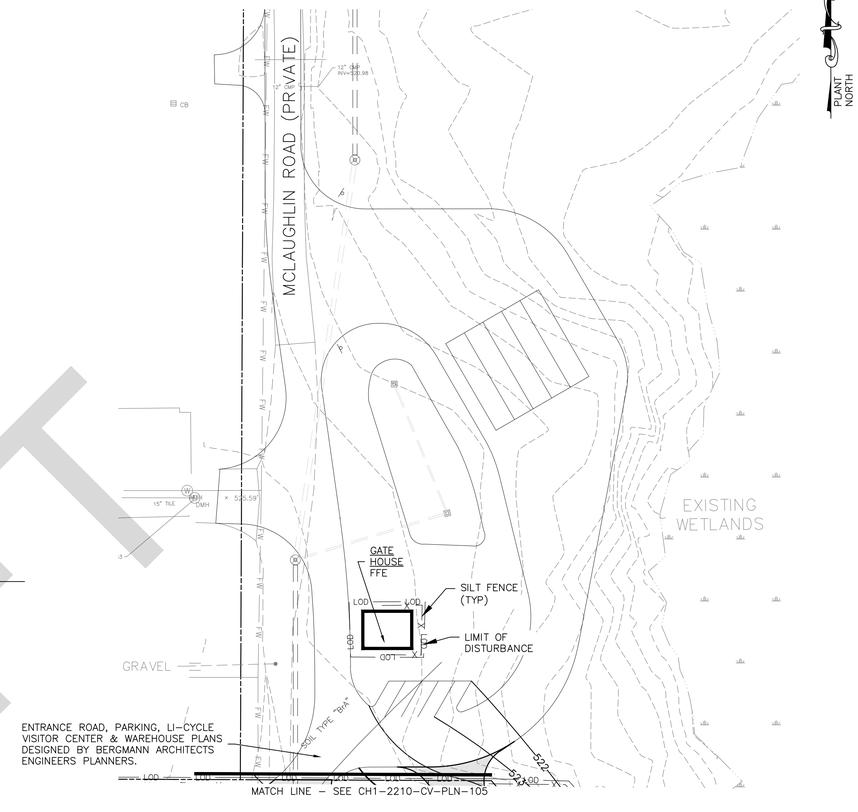
NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEET CH-2210-CV-PLN-118 FOR EROSION NOTES & DETAILS.
3. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.
4. BMPS SHALL REMAIN IN PLACE UNTIL FINAL SOIL STABILIZATION HAS BEEN ACHIEVED.
5. REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AS THE DEVELOPMENT PROGRESSES.

SOIL TYPE LEGEND	
MAP UNIT SYMBOL	MAP UNIT NAME
BrA	BROCKPORT SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
RgB	RIGA SILT LOAM, 2 TO 8 PERCENT SLOPES

LEGEND

- TEMPORARY CONSTRUCTION ACCESS
- X — SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- TEMPORARY CONSTRUCTION ACCESS W/ CONCRETE TRUCK WASHDOWN
- INLET PROTECTION
- SOIL TYPE "RgB" / SOIL TYPE "BrA" — SOIL LINE
- Du — DUST CONTROL
- 532 — PROPOSED CONTOUR ELEVATION
- EXISTING PROPERTY LINE



GATE HOUSE PLAN
SCALE: 1"=50'

PLANT NORTH

0' 50' 100' 150' 200' 250'
1"=50'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY: JAP	DATE: 08/23/21
CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: –/––/––
COST/SCHEDULE/ AREA: –	
SCALE: 1"=50'	

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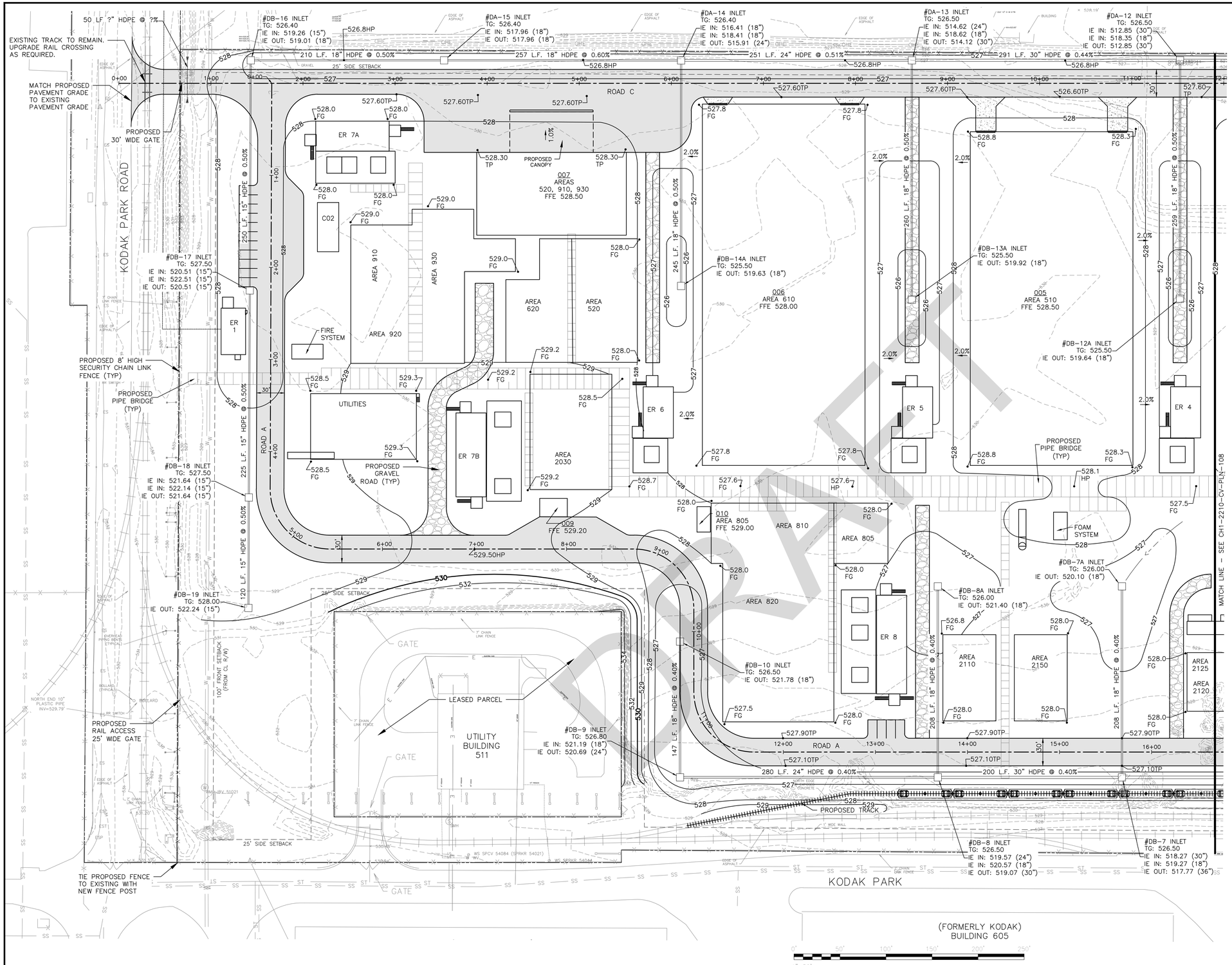
DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SOIL EROSION & SEDIMENTATION PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2100-CV-PLN-106	REV.: C



NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.
3. REFER TO STRUCTURAL & ARCHITECTURAL PLANS.
4. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.

LEGEND

- SD — PROPOSED STORM DRAINAGE
- PROPOSED PRECAST CONCRETE INLET
- (D) PROPOSED PRECAST CONCRETE MANHOLE
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- 00.00 TP — PROPOSED TOP OF PAVEMENT ELEVATION
- 00.00 FG — PROPOSED FINISHED GRADE ELEVATION
- 532 — PROPOSED CONTOUR ELEVATION
- FFE — PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED SIGN
- PROPOSED HANDICAP PARKING SPACE
- PROPOSED TRUNCATED DOMES
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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D	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
C	10/14/21	PROGRESS PRINT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

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CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: -/--/--
COST/SCHEDULE/ AREA: –	
SCALE: 1"=50'	

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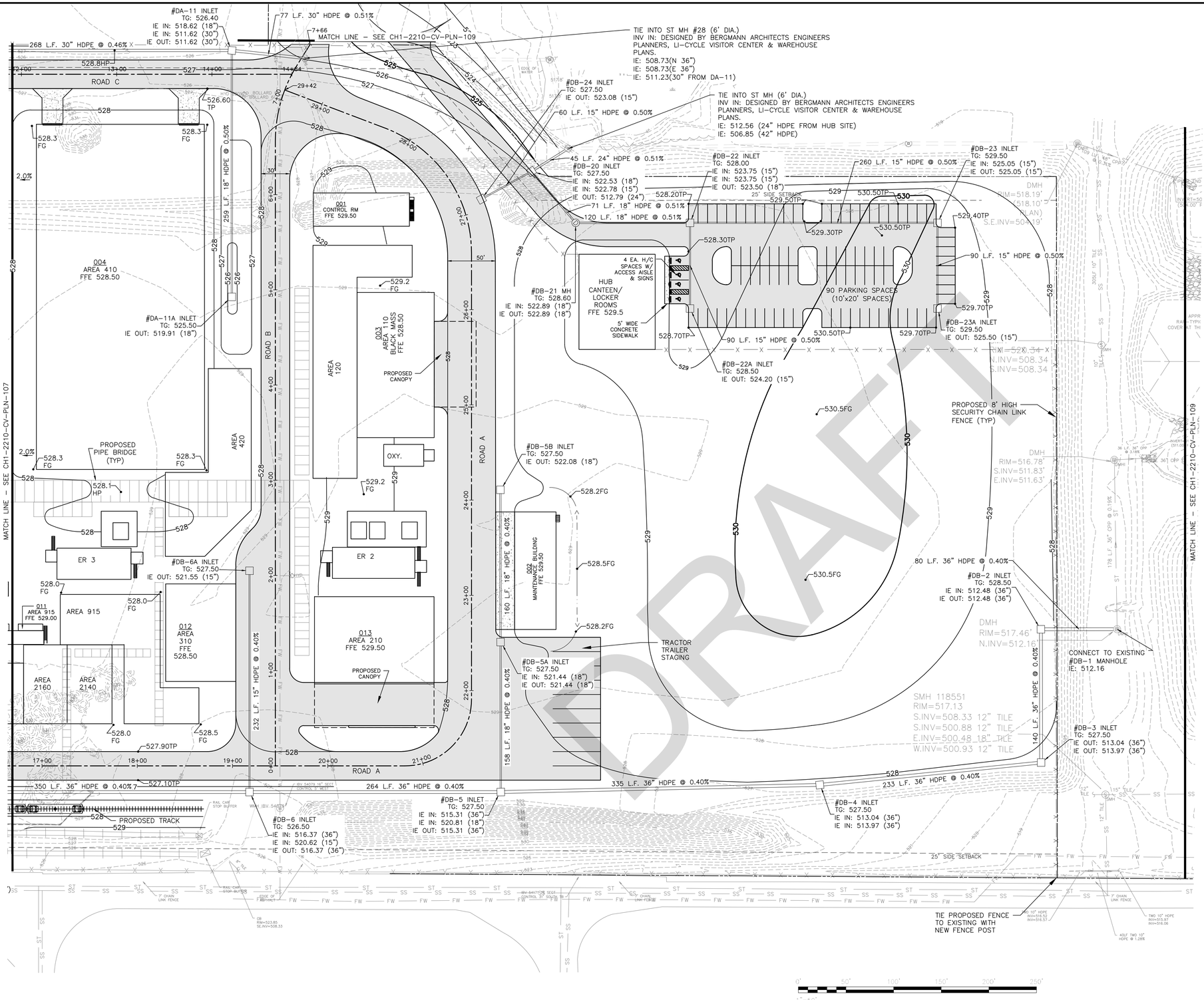
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
GRADING, DRAINAGE & PAVING PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2100-CV-PLN-107	REV.: D



NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.
3. REFER TO STRUCTURAL & ARCHITECTURAL PLANS.
4. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.

LEGEND

- PROPOSED STORM DRAINAGE
- PROPOSED PRECAST CONCRETE INLET
- PROPOSED PRECAST CONCRETE MANHOLE
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- 00.00 TP — PROPOSED TOP OF PAVEMENT ELEVATION
- 00.00 FG — PROPOSED FINISHED GRADE ELEVATION
- 532 — PROPOSED CONTOUR ELEVATION
- FFE — PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED SIGN
- PROPOSED HANDICAP PARKING SPACE
- PROPOSED TRUNCATED DOMES
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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D	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
C	10/14/21	PROGRESS PRINT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

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Hub #1 - Rochester, NY

DRAWN BY	DATE
JAP	08/19/21
CHECKED BY	DATE
KDK	09/14/21
APPROVED BY	DATE
DAB	–/–/–
COST/SCHEDULE/ AREA	
–	
SCALE	
1"=50'	

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DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
GRADING, DRAINAGE & PAVING PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY	DATE
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APPROVED BY	DATE
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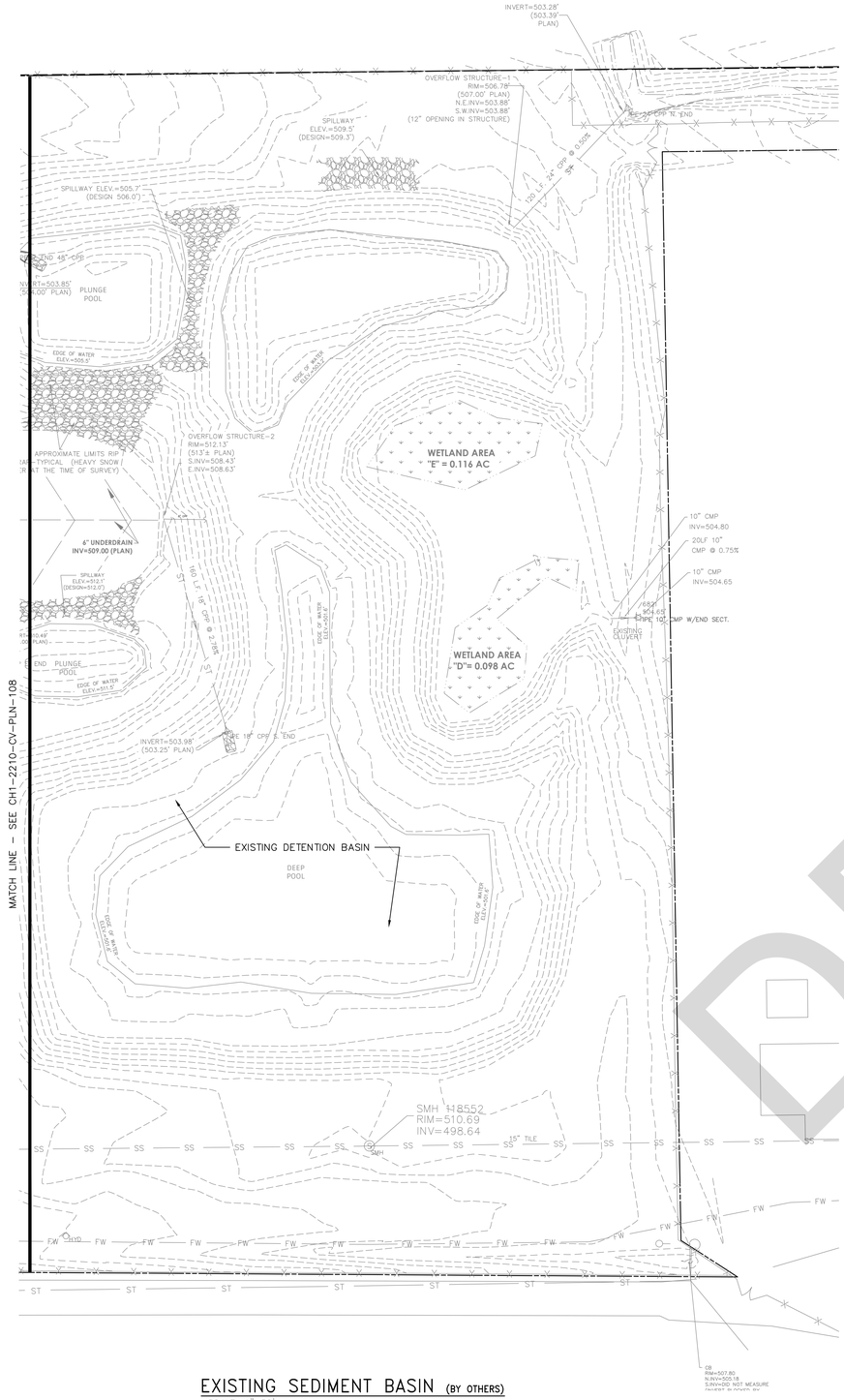
DRAWING NUMBER: CH1-2100-CV-PLN-108 REV. D



EXISTING SEDIMENT BASIN (BY OTHERS)

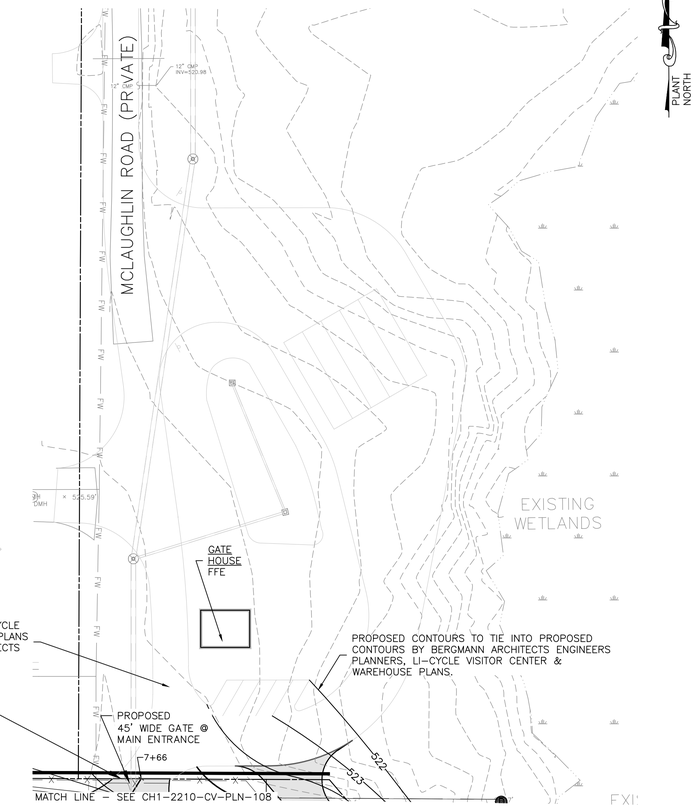
SCALE: 1"=50'

NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.
3. REFER TO STRUCTURAL & ARCHITECTURAL PLANS.
4. EXISTING STORMWATER DETENTION BASIN TO BE MAINTAINED BY OWNER.

LEGEND

——SD——	PROPOSED STORM DRAINAGE
□	PROPOSED PRECAST CONCRETE INLET
Ⓓ	PROPOSED PRECAST CONCRETE MANHOLE
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED CONCRETE
00.00 TP	PROPOSED TOP OF PAVEMENT ELEVATION
00.00 FG	PROPOSED FINISHED GRADE ELEVATION
532	PROPOSED CONTOUR ELEVATION
FFE	PROPOSED FINISHED FLOOR ELEVATION
— — —	EXISTING PROPERTY LINE



GATE HOUSE PLAN

SCALE: 1"=50'

0' 50' 100' 150' 200' 250'

1"=50'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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D	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
C	10/14/21	PROGRESS PRINT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

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CHECKED BY KDK	DATE 09/14/21
APPROVED BY DAB	DATE –/–/–
COST/SCHEDULE/ AREA	–
SCALE	1"=50'

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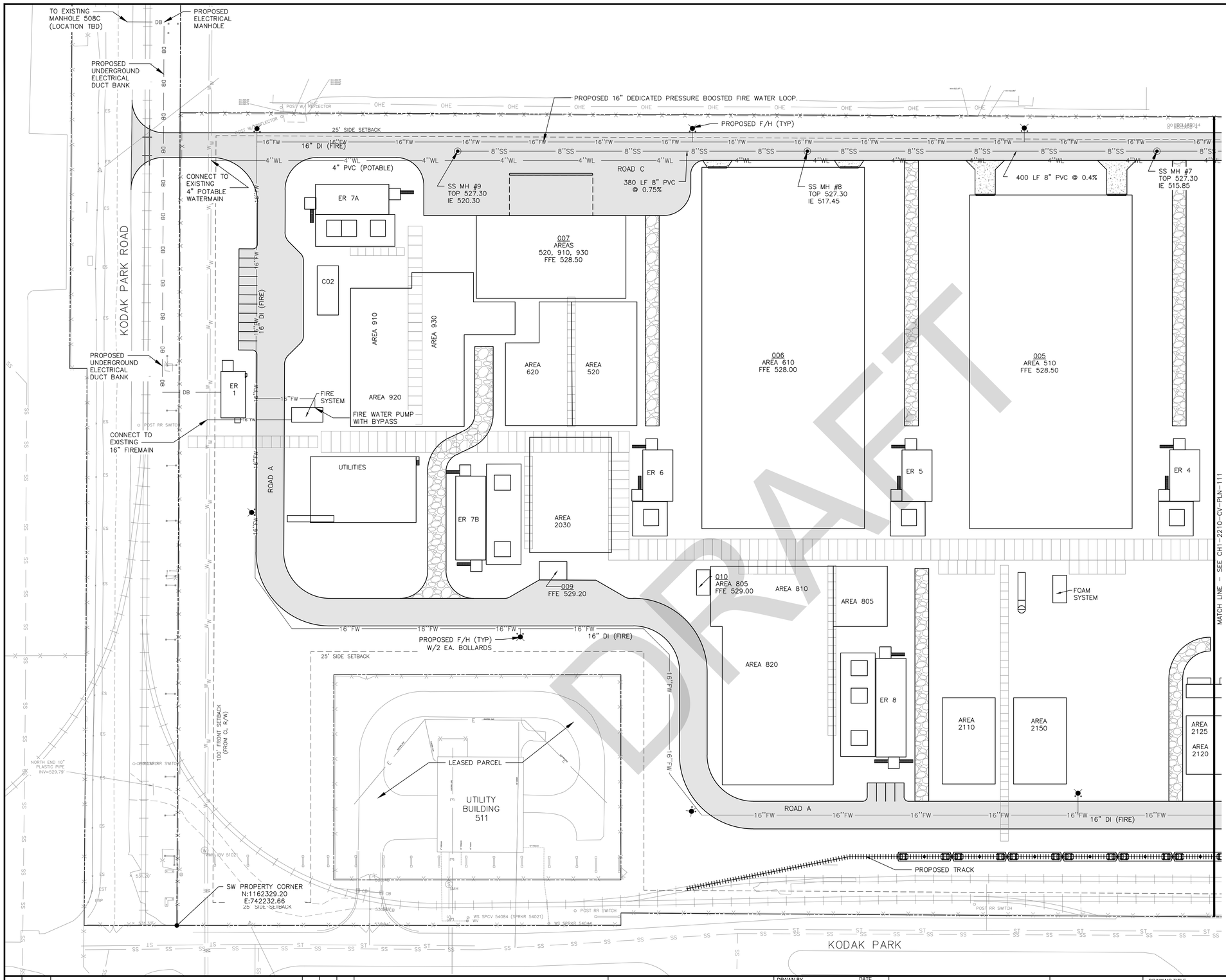
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
GRADING, DRAINAGE & PAVING PLAN

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2100-CV-PLN-109	REV. D



NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.

LEGEND

- PROPOSED 16" DUCTILE IRON FIRE MAIN
- PROPOSED DOMESTIC WATER
- PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT ASSEMBLY W/BOLLARDS
- PROPOSED VALVE IN MANHOLE
- PROPOSED PRECAST CONCRETE MANHOLE
- PROPOSED UNDERGROUND ELECTRICAL DUCT BANK
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

0' 50' 100' 150' 200' 250'
1"=50'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY JAP	DATE 08/23/21
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COST/SCHEDULE/ AREA	–
SCALE	1"=50'

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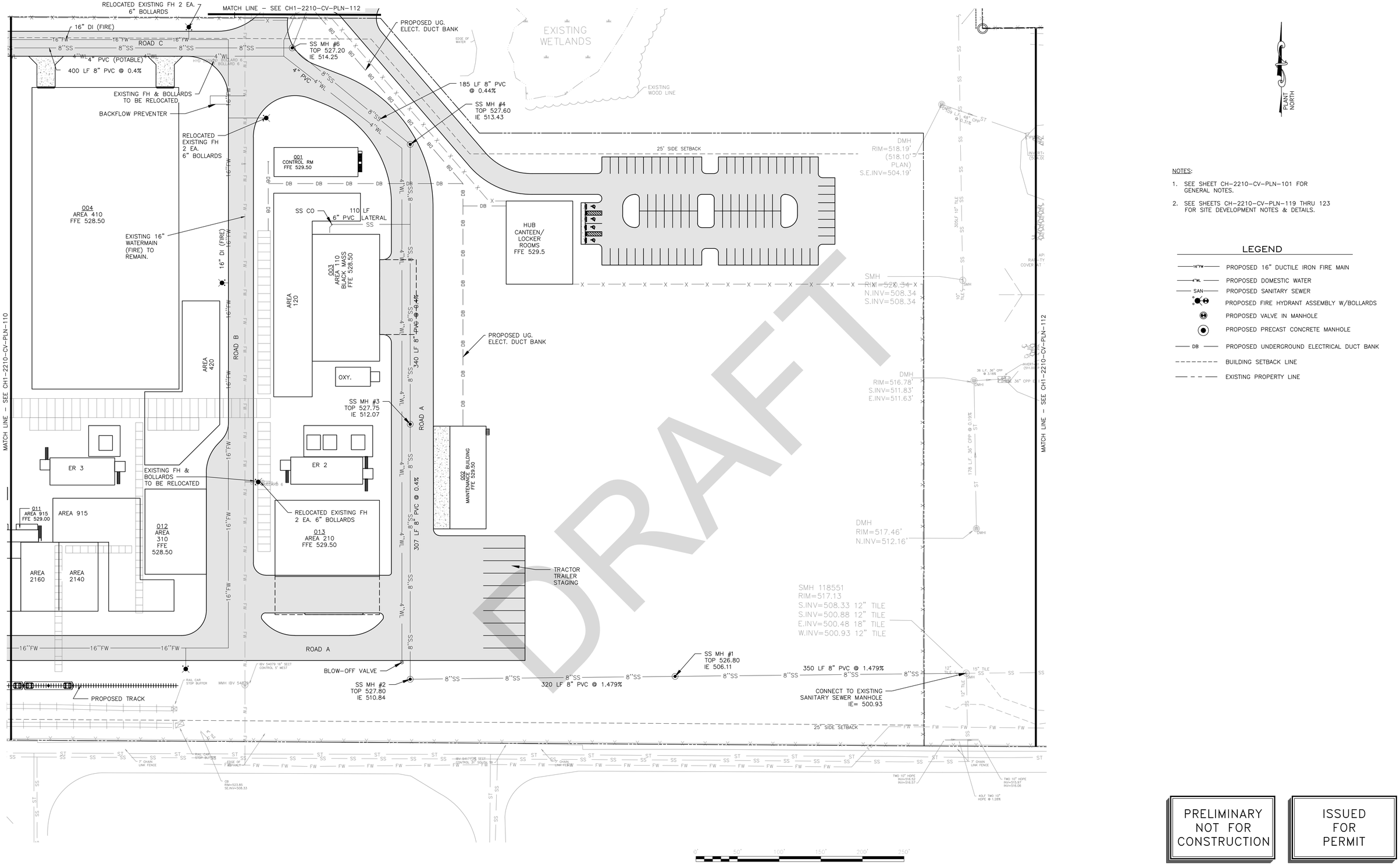
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
UTILITY PLAN

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2100-CV-PLN-110	REV. C



NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.

LEGEND

- PROPOSED 16" DUCTILE IRON FIRE MAIN
- PROPOSED DOMESTIC WATER
- PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT ASSEMBLY W/BOLLARDS
- PROPOSED VALVE IN MANHOLE
- PROPOSED PRECAST CONCRETE MANHOLE
- PROPOSED UNDERGROUND ELECTRICAL DUCT BANK
- BUILDING SETBACK LINE
- EXISTING PROPERTY LINE

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
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Li-Cycle™
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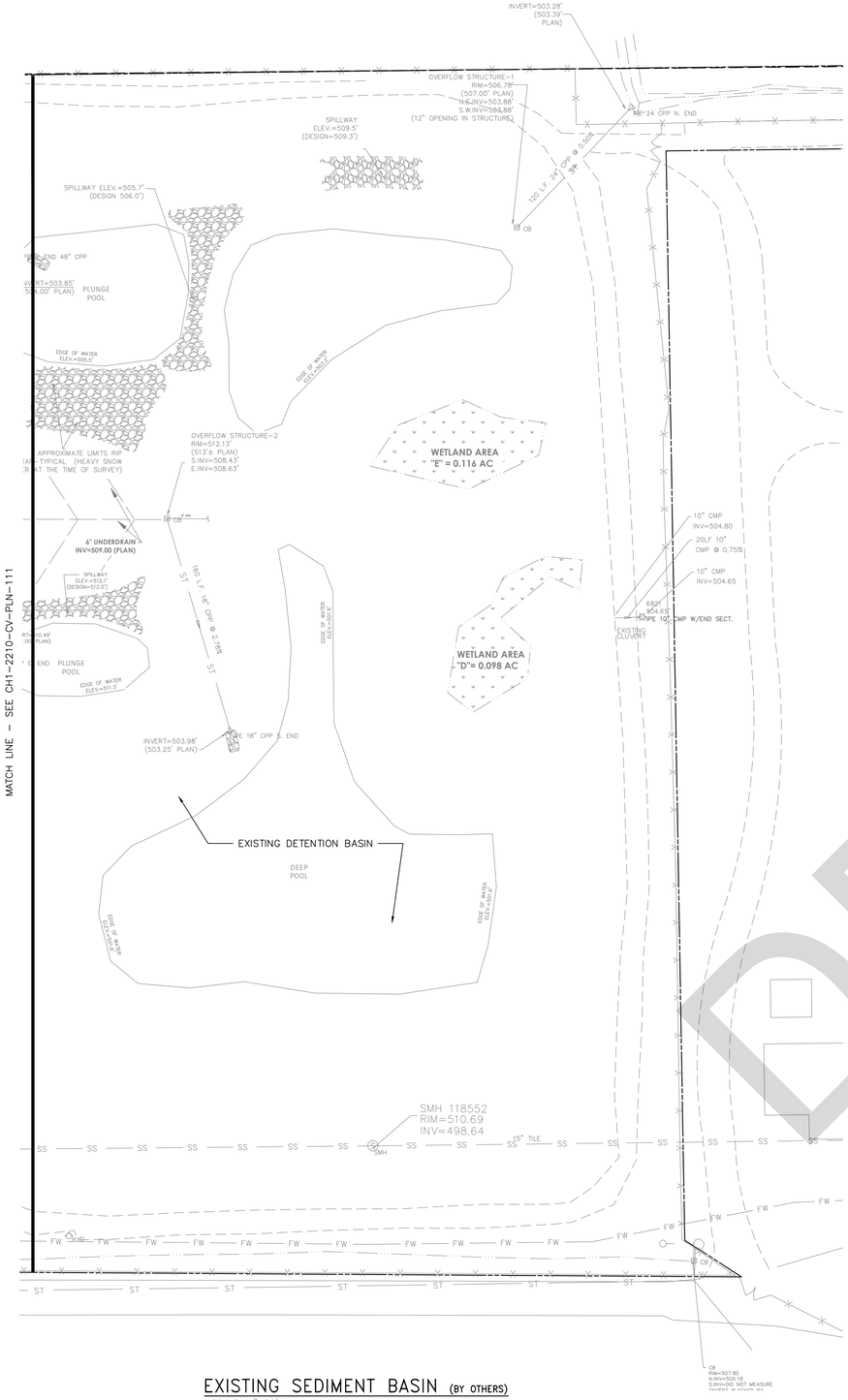
UTILITY PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1-2100-CV-PLN-111	REV.: C



EXISTING SEDIMENT BASIN (BY OTHERS)

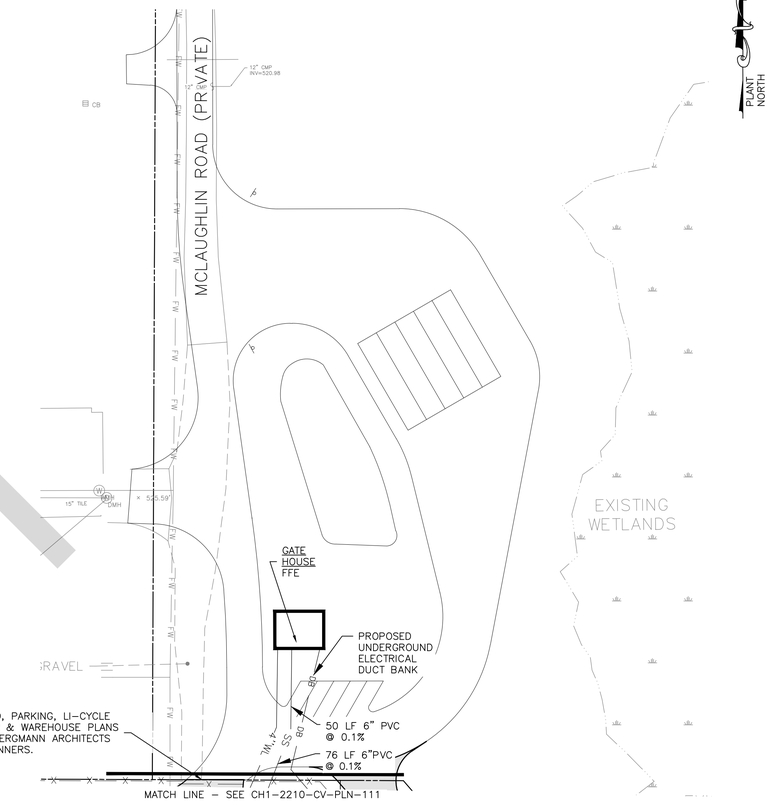
SCALE: 1"=50'

NOTES:

1. SEE SHEET CH-2210-CV-PLN-101 FOR GENERAL NOTES.
2. SEE SHEETS CH-2210-CV-PLN-119 THRU 123 FOR SITE DEVELOPMENT NOTES & DETAILS.

LEGEND

- 16"FW — PROPOSED 16" DUCTILE IRON FIRE MAIN
- 4"WL — PROPOSED DOMESTIC WATER
- SAN — PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT ASSEMBLY W/BOLLARDS
- PROPOSED VALVE IN MANHOLE
- PROPOSED PRECAST CONCRETE MANHOLE
- DB — PROPOSED UNDERGROUND ELECTRICAL DUCT BANK
- EXISTING PROPERTY LINE



GATE HOUSE PLAN

SCALE: 1"=50'

0' 50' 100' 150' 200' 250'

1"=50'

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™

Hub #1 - Rochester, NY

DRAWN BY JAP	DATE 08/23/21
CHECKED BY KDK	DATE 09/14/21
APPROVED BY DAB	DATE –/––/––
COST/SCHEDULE/ AREA	–
SCALE	1"=50'

hargrove services corporation

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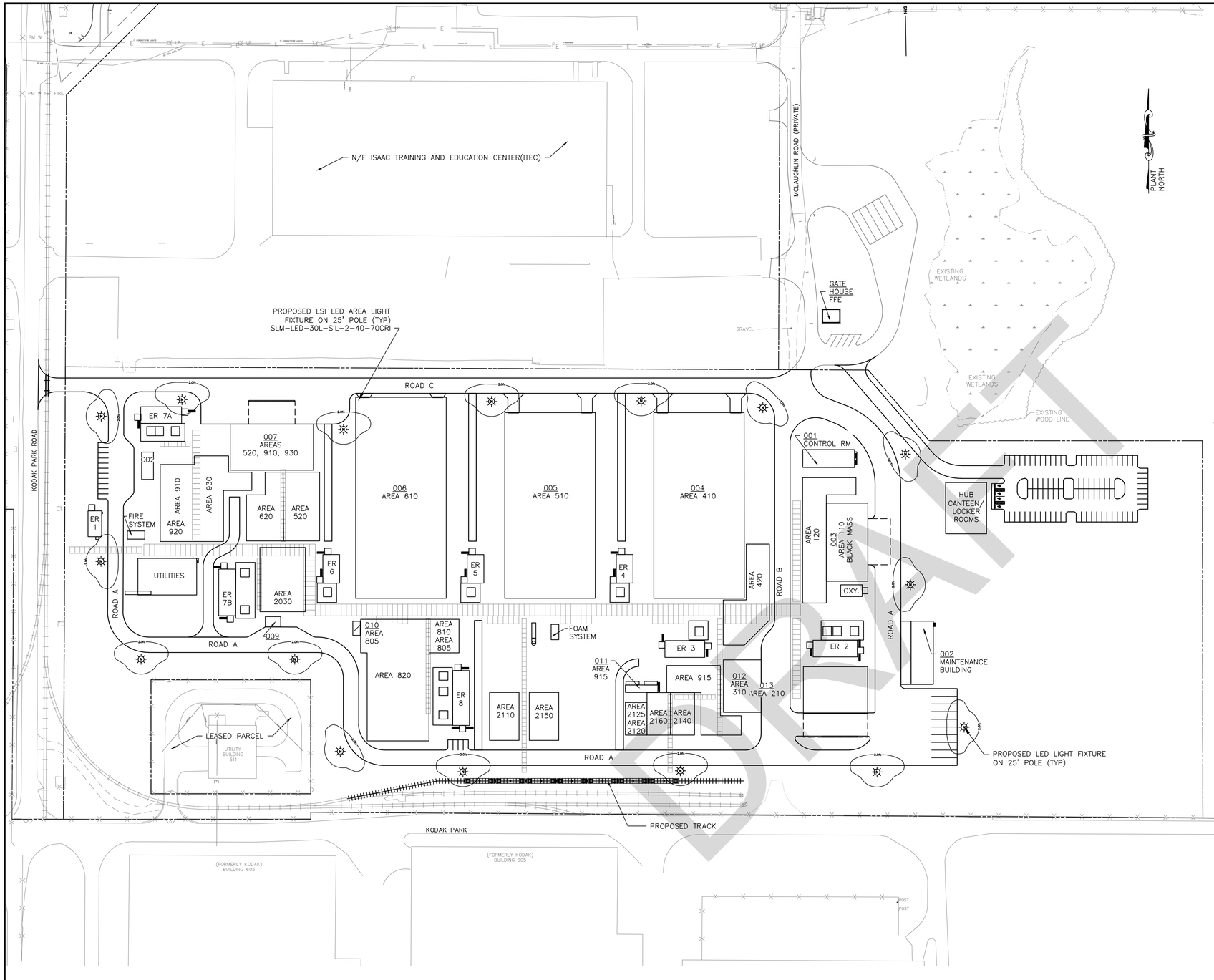
DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
UTILITY PLAN

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2100-CV-PLN-112	REV. C



0' 100' 200' 300' 400' 500'
1"=100'

SLM-LED-30L-SIL-2-40-70CRI

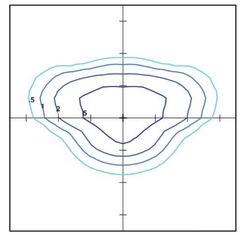
LUMINAIRE DATA

Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	31,743
Watts	232
Efficacy	137
IES Type	Type II - Short
BUG Rating	B4-U0-G3

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	4953	16%
Medium (30-60)°	19157	60%
High (60-80)°	7350	23%
Very High (80-90)°	284	1%
Uplight (90-180)°	0	0%
Total Flux	31743	100%

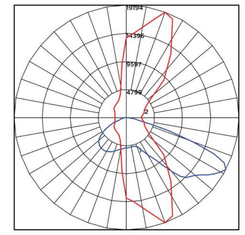
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

5 FC 2 FC 1 FC 0.5 FC

POLAR CURVE



LEGEND

PROPOSED LED LIGHT FIXTURE ON 25' POLE

NOTE:
1. PROPOSED LIGHT POLE & FIXTURE TO MATCH DEVELOPMENT AREA #1.

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY JAP	DATE 08/23/21
CHECKED BY KDK	DATE 09/14/21
APPROVED BY DAB	DATE –/–/–
COST/SCHEDULE/ AREA	–
SCALE	1"=100'

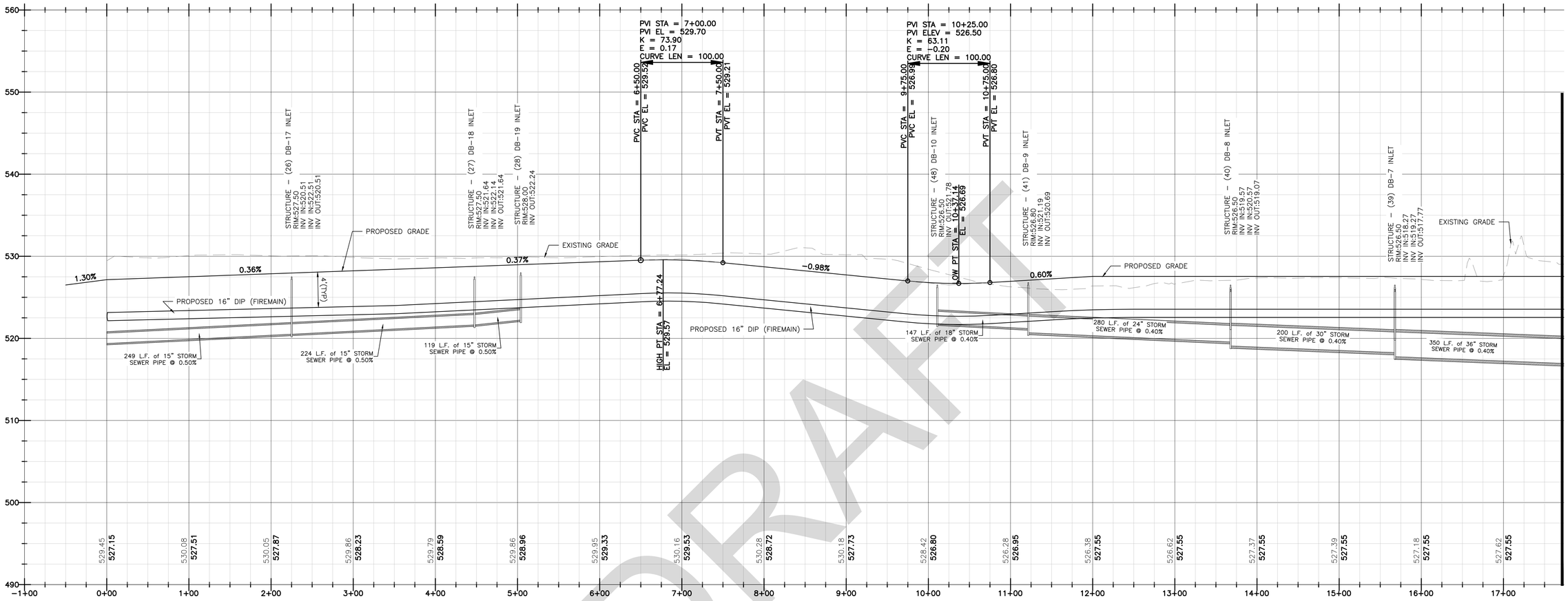
hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SITE LIGHTING PLAN

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2100-CV-PLN-113	REV. C

Alignment A PROFILE



SCALE: 1"=6' VERTICAL
1"=60' HORIZONTAL

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

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COST/SCHEDULE/ AREA	–
SCALE	AS SHOWN

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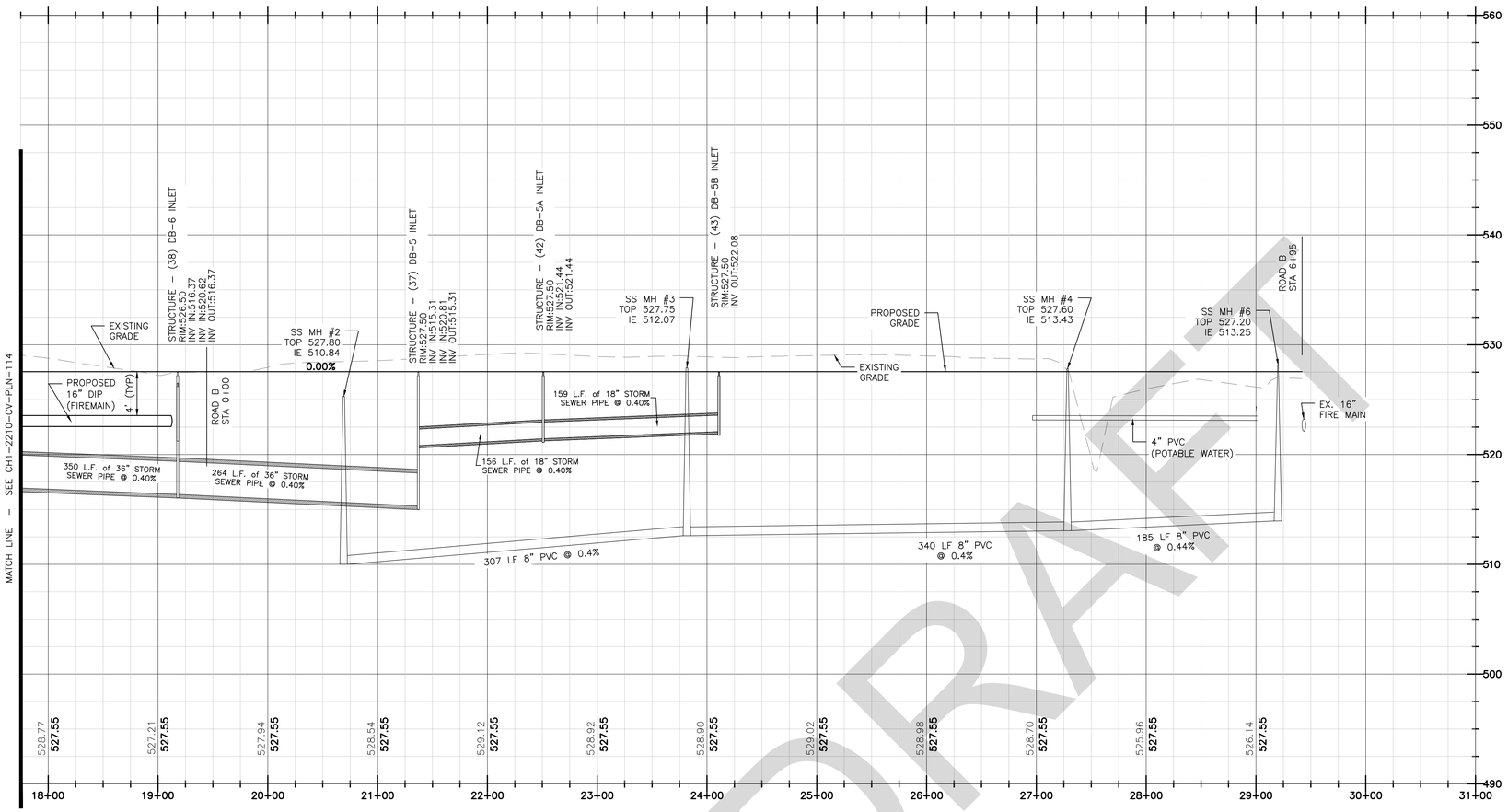
DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
ROAD & UTILITY PROFILES – ROAD A

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-PLN-114	REV. C

Alignment A PROFILE



SCALE: 1"=6' VERTICAL
1"=60' HORIZONTAL

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APPROVED BY DAB — DATE –/--/--
COST/SCHEDULE/ AREA –
SCALE AS SHOWN

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LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
ROAD & UTILITY PROFILES – ROAD A

CONTRACT NO. 201968 — OWNER NO. 1953
APPROVED BY – — DATE –
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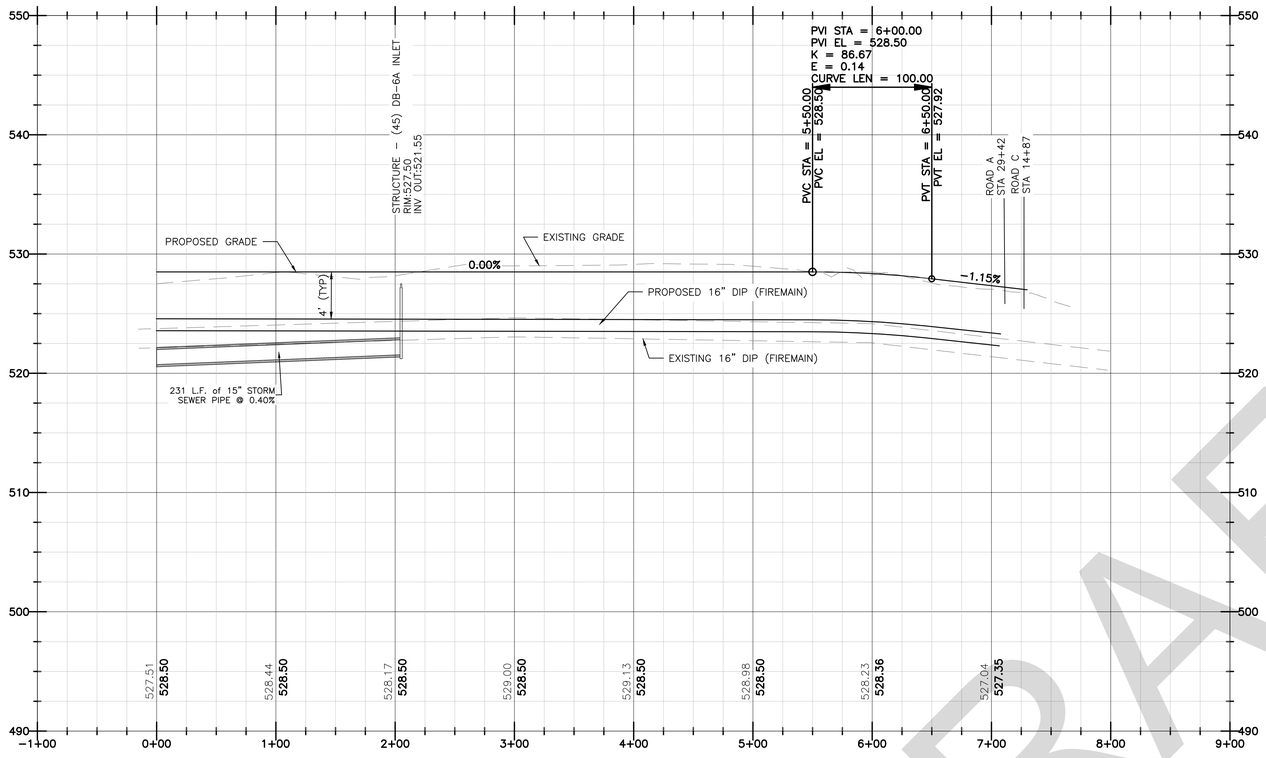
DRAWING NUMBER CH1-2210-CV-PLN-115 — REV. C

Alignment B PROFILE



SCALE: 1"=6' VERTICAL
1"=60' HORIZONTAL

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CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: –/––/––
COST/SCHEDULE/ AREA: –	
SCALE: AS SHOWN	

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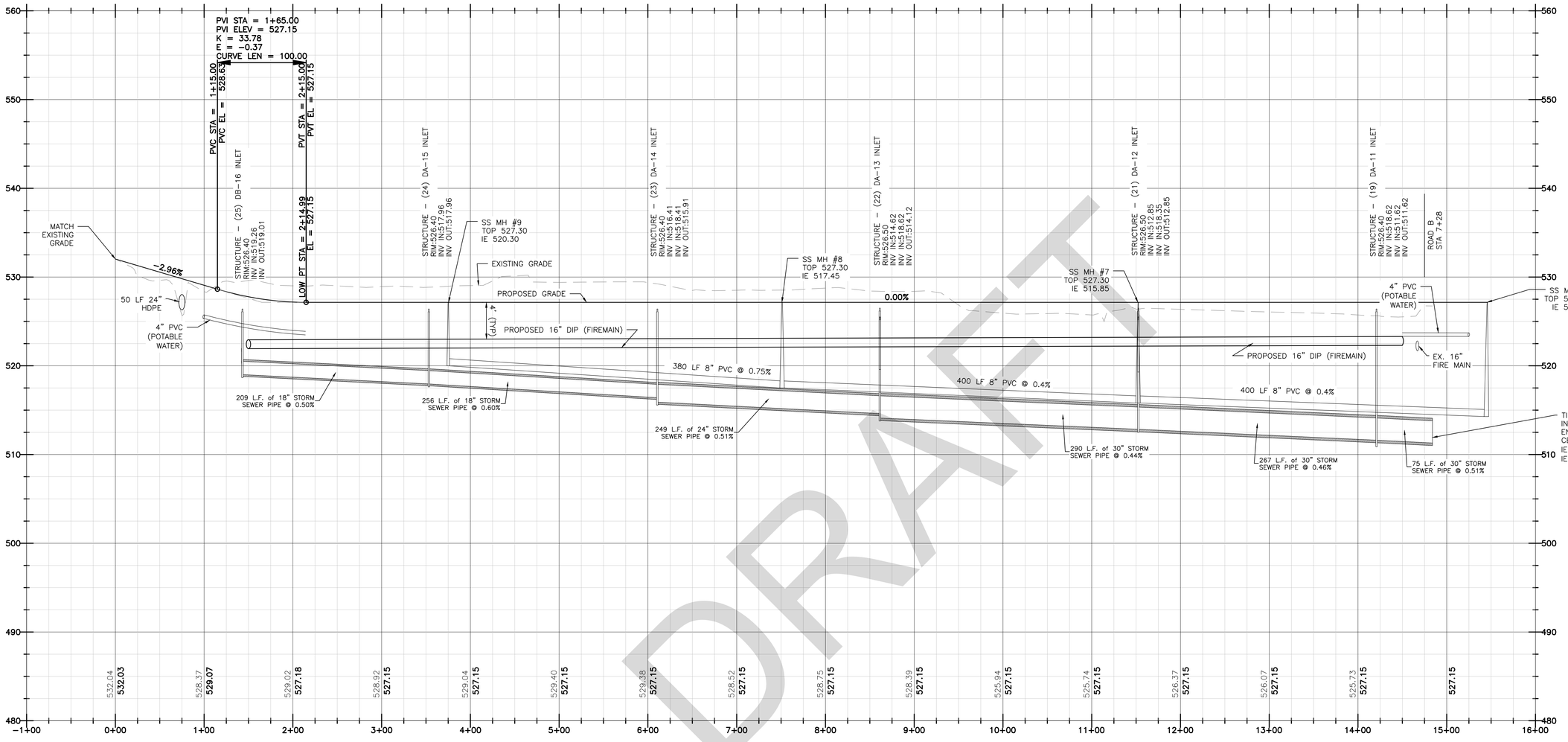
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
ROAD & UTILITY PROFILES – ROAD B

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-PLN-116	REV. C

Alignment C PROFILE



SCALE: 1"=6' VERTICAL
1"=60' HORIZONTAL

PRELIMINARY NOT FOR CONSTRUCTION

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COST/SCHEDULE/ AREA: –	
SCALE: AS SHOWN	

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DRAWING TITLE
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COMMERCIAL HUB I
CIVIL
ROAD & UTILITY PROFILES – ROAD C

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-PLN-117	REV. C

GENERAL TOWN/EROSION CONTROL NOTES:

1. ALL FACILITIES TO BE CONSTRUCTED OR INSTALLED SHALL COMPLY WITH ALL THE LATEST REVISIONS AND APPLICABLE SECTIONS OF THE GREECE TOWN CODE. WATER SERVICES, STORM LATERALS, AND SANITARY LATERALS TO EXTEND 10' BEYOND PROPERTY LINES OR EASEMENT LINES. THE CLEANOUTS FOR SANITARY AND STORM LATERALS SHALL BE PLACED AT THE RIGHT–OF–WAY OR SEWER EASEMENT LINE. CONTRACTOR IS CAUTIONED TO NOTIFY CENTRAL STAKEOUT AT 1–800–962–7962 FOR LOCATION OF ANY UNDERGROUND UTILITIES BEFORE UNDERTAKING ANY CONSTRUCTION IN THIS AREA.
2. ALL FILL AREAS SHALL BE COMPACTED TO 95% OF ORIGINAL DENSITY PER MODIFIED PROTECTOR TEST. THIS SHALL BE CERTIFIED TO ENGINEER IN ALL AREAS OF FILL BY A LICENSED TESTING COMPANY. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS OR OTHER APPLICABLE REGULATIONS AOBE.
3. CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE, DURING CONSTRUCTION, WHENEVER POSSIBLE ALL NATURAL FEATURES, INCLUDING LARGE TREES AND WATER COURSES. CONTRACTOR SHALL NOT REMOVE TREES THAT ARE NOT DIRECTLY INTERFERING WITH THE PROPOSED WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SILTATION AND EROSION CONTROL MEASURES DURING THE ENTIRE PERIOD OF CONSTRUCTION, IN THIS EVENT, ALTERNATE FACILITIES AND/OR MEASURES SHALL BE APPROVED BY ENGINEER.
5. TOPSOIL SHALL BE REMOVED FROM ALL CUT AND FILL AREAS. STOCKPILE TOPSOIL IN SUCH A MANNER THAT WILL NOT OBSTRUCT SILTATION CONTROL OR SITE DRAINAGE.
6. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATION TO LOCATED EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS REQUIRED TO MEET EXISTING CONDITIONS.
7. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT UTILITY LINES SHOWN ON THE APPROVED DRAWINGS AND OTHER LINES NOT SHOWN HEREON OR OF RECORD.
8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL IMPROVEMENTS SHOWN ON THE APPROVED PLANS.
9. HIGHWAY DRAINAGE SHALL BE MAINTAINED AT ALL TIMES.
10. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE AS–BUILT PLANS OF THE COMPLETED UTILITIES AND SHALL BE FURNISHED ON SUITABLE REPRODUCIBLE MATERIAL TO THE TOWN, THE OWNER AND HARGROVE ENGINEERS + CONSTRUCTORS.
11. THE CONTRACTOR IS CAUTIONED THIS SITE MAY HAVE SEVERAL BURIED DRAINAGE TILES AND OTHER UNKNOWN UTILITIES, CONDUITS, AND DRAINAGE INFRASTRUCTURE NOT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PREPARE TO DEAL WITH THESE FACILITIES WHEN DISCOVERED AND ALLOW FROM CONSTRUCTION TIME LOSSES IF ADDITIONAL ENGINEERING IS REQUIRED TO RESOLVE THE DISCOVERY.
12. LOCATIONS OF EXISTING STRUCTURES INCLUDING SHOWN ON THE DRAWINGS ARE INTENDED FOR GENERAL INFORMATION ONLY – A STAKEOUT IS REQUIRED.
13. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND ELEVATION OF UNDERGROUND UTILITIES BEFORE COMMENCING CONSTRUCTION. EXPLORATORY EXCAVATION SHALL BE MADE SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET THE EXISTING CONDITIONS. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE PLANS AND ANY OTHER LINES NOT SHOWN NOR OF RECORD. ANY EXPENSE DUE TO THE LOSS OF TIME SHALL BE AT THE CONTRACTORS EXPENSE.
14. ALL THICKNESS SHOWN ON THE DETAILS ARE COMPACTED.

SOIL RESTORATION NOTES:
1. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12" USING CAT–MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATION AIR AND COMPOST INTO SUBSOILS.
2. ROCK–PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF 4" AND LARGER ARE CLEANED OFF SITE.
3. APPLY TOPSOIL TO A DEPTH OF 6 INCHES ON ALL AREAS BEING RETURNED TO GRASS.
4. VEGETATE AS REQUIRED BY APPROVED PLANS.

COMPACTION NOTES:
1. THE CONTRACTOR SHALL STRIP THE TOPSOIL AND REMOVED ANY UNSUITABLE SOILS, WITHIN THE PROPOSED GRADING LIMITS PRIOR TO PLACEMENT OF FILL MATERIAL.
2. ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY OF STANDARD PROCTOR TEST AT OPTIMUM MOISTURE CONTENT.
3. THE COMPACTION TESTS WILL BE CONDUCTED BY A LICENSED TESTING LABORATORY AND RESULTS SUBMITTED TO DESIGN ENGINEER.

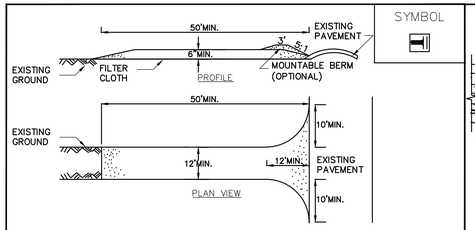
SEEDING NOTES:
TO PROVIDE THE FOLLOWING SEED MIXTURES DURING CONSTRUCTION:

TEMPORARY SEEDING:
RYEGRASS (ANNUAL OR PERENNIAL) @ 30 LBS. PER ACRE OR 0.7 LBS. PER 1,000 SQUARE FEET.

PERMANENT SEEDING:
65% KENTUCKY BLUEGRASS BLEND @ 85 LBS. PER ACRE OR 2.0–2.6 LBS. PER 1,000 SQUARE FEET
20% PERENNIAL RYEGRASS @ 26–36 LBS PER ACRE OR 0.6–0.8 LBS. PER 1,000 SQUARE FEET
15% FINE FESCUE @ 19–26 LBS. PER ACRE OR 0.4–0.6 LBS. PER 1,000 SQUARE FEET

FOR ALL SEEDING & STABILIZATION MEASURES IT IS THE RESPONSIBILITY OF THE OWNER & DEVELOPER TO ENSURE THAT FINAL STABILIZATION OCCURS AS REQUIRED BY THE NYSDEC. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 7 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN(S).

CONSTRUCTION SEQUENCE FOR GRADING AND EROSION CONTROL:
1. USE MCLAUGHLIN ROAD FOR STABILIZED CONSTRUCTION ENTRANCE.
2. CONSTRUCT EROSION CONTROL MEASURES AS SHOWN ON THE PLANS.
3. STABILIZE STORMWATER MANAGEMENT AREAS.
4. CLEAR AND GRUB THE PROJECT IMPROVEMENTS AREAS.
5. STRIP TOPSOIL AND STOCKPILE FOR LATER USE.
6. GRADE IMPROVEMENTS AREAS WITHIN THE PROJECT SITE. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 7 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST DISTURBANCE.
7. CONSTRUCT SEDIMENTATION BARRIERS.
8. REPLACE TOPSOIL AND FINE GRADE.
9. HYDRO–SEED ALL DISTURBED AREAS WITHIN 10 DAYS AFTER FINAL GRADING, CONTRACTOR IS RESPONSIBLE TO RESEED IF GRADING IS UNSATISFACTORY.
10. UPON APPROVAL OF THE TOWN, REMOVE ALL TEMPORARY SILTATION CONTROLS.
11. SLOPES SHALL NOT EXCEED 1' VERTICAL TO 3' HORIZONTAL MAX. MAINTAIN 1:3 WHERE POSSIBLE.
12. MINIMUM OF 6" OF TOPSOIL IS TO BE PLACED ON ALL GRASS AREAS.
13. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BASED UPON ACTUAL FIELD CONDITIONS AOBE. CONTRACTOR SHALL PROVIDE FOR THE COST IN HIS CONTRACT.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SILTATION AND EROSION CONTROL MEASURES FROM INSTALLATION THROUGH MAINTENANCE AND REMOVAL AFTER RE–VEGETATION HAS BEEN ESTABLISHED.
15. ALL END SECTIONS WILL BE PROVIDED WITH RIP–RAP APRONS.
16. ALL EROSION AND SEDIMENT CONTROL METHODS WILL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.



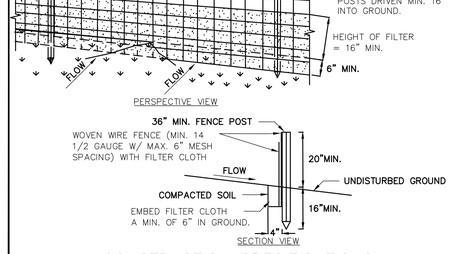
SYMBOL

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 1–4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY–FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ACCESS



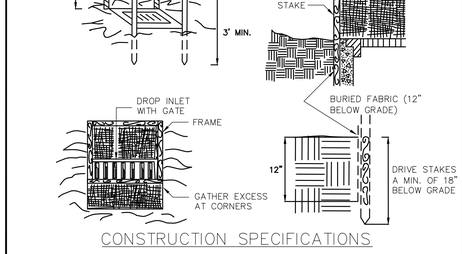
SYMBOL

CONSTRUCTION SPECIFICATIONS

1. **WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.**
2. **FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.**
3. **WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER–LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.**
4. **PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.**
5. **MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.**

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE



SYMBOL

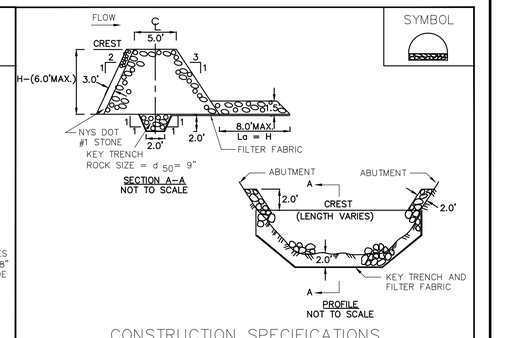
CONSTRUCTION SPECIFICATIONS

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

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

FABRIC DROP INLET PROTECTION



SYMBOL

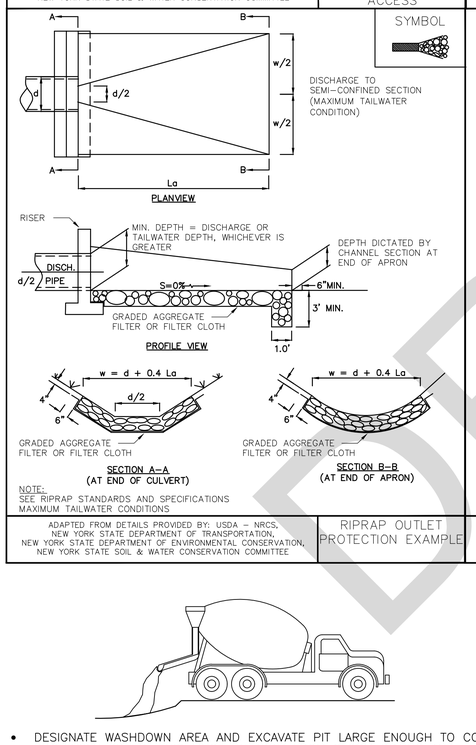
CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER THE ROCK DAM SHALL BE CLEARED AND STRIPPED OF ROOTS AND OTHER OBJECTIONABLE MATERIAL. THE RESERVOIR SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT REMOVAL.
2. DIMENSIONS SHOWN ARE MINIMUM. TRENCH SHALL BE EXCAVATED FROM ABUTMENT TO ABUTMENT ON THE DAM CENTERLINE. FILTER FABRIC SHALL BE PLACED FROM UPSTREAM EDGE OF KEYTRENCH TO DOWNSTREAM EDGE OF APRON. JOINTS WILL LAP A MINIMUM OF 1 FT. WITH UPSTREAM STRIP ON TOP.
3. CONSTRUCT THE ROCK EMBANKMENT TO THE DIMENSIONS SHOWN ON THE DRAWING. ROCK ABUTMENTS SHALL BE MAINTAINED 2 FT. ABOVE THE CREST.
4. THE ROCK DAM SHALL BE CONSTRUCTED PRIOR TO CLEARING THE BASIN AREA. STABILIZE ALL DISTURBED AREAS, EXCEPT THE BASIN AREA, WITH TEMPORARY SEEDING.
5. FENCES AND WARNING SIGNS SHOULD BE PLACED AS APPROPRIATE.

MAXIMUM DRAINAGE AREA: 50 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

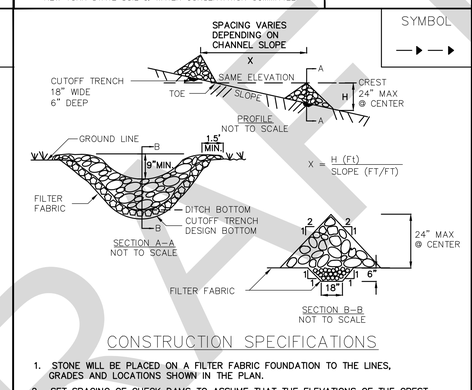
ROCK DAM



NOTE:
SEE RIPRAP STANDARDS AND SPECIFICATIONS FOR MAXIMUM TAILWATER CONDITIONS

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

RIPRAP OUTLET PROTECTION EXAMPLE



SYMBOL

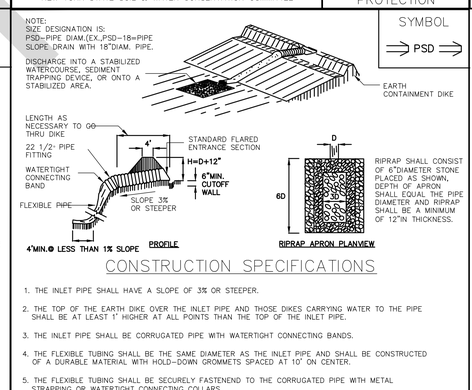
CONSTRUCTION SPECIFICATIONS

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

MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STONE CHECK DAM



CONSTRUCTION SPECIFICATIONS

1. THE INLET PIPE SHALL HAVE A SLOPE OF 3% OR STEEPER.
2. THE TOP OF THE EARTH DIKE OVER THE INLET PIPE AND THOSE DIKES CARRYING WATER TO THE PIPE SHALL BE AT LEAST 1' HIGHER AT ALL POINTS THAN THE TOP OF THE INLET PIPE.
3. THE INLET PIPE SHALL BE CORRUGATED PIPE WITH WATERTIGHT CONNECTING BANDS.
4. THE FLEXIBLE TUBING SHALL BE THE SAME DIAMETER AS THE INLET PIPE AND SHALL BE CONSTRUCTED OF A DURABLE MATERIAL WITH HOLD–DOWN GROMMETS SPACED AT 10' ON CENTER.
5. THE FLEXIBLE TUBING SHALL BE SECURELY FASTENEND TO THE CORRUGATED PIPE WITH METAL STRAPPING OR WATERTIGHT CONNECTING COLLARS.
6. THE FLEXIBLE TUBING SHALL BE SECURELY ANCHORED TO THE SLOPE BY STAKING AT THE GROMMETS PROVIDED.
7. A RIPRAP APRON SHALL BE PROVIDED AT THE OUTLET. THIS SHALL CONSIST OF 6"DIAMETER STONE PLACED AS SHOWN.
8. THE SOIL AROUND AND UNDER INLET PIPE AND ENTRANCE SECTION SHALL BE HAND TAMPED IN 4"LIFTS TO THE TOP OF EARTH DIKE.
9. FOLLOW–UP INSPECTION AND ANY NEEDED MAINTENANCE SHALL BE PERFORMED AFTER EACH STORM EVENT.

* DRAINAGE AREA MUST NOT EXCEED 3.5 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

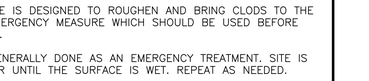
PIPE SLOPE DRAIN

- DESIGNATE WASHDOWN AREA AND EXCAVATE PIT LARGE ENOUGH TO CONTAIN WASHDOWN WATER. THIS MUST BE AWAY FROM STORM DRAINS AND WATERWAYS.
- ADVISE CONCRETE TRUCK DRIVERS OF THE DESIGNATED WASH–OUT AREAS BEFORE THEY START THE JOB.
- WASHDOWN CHUTE, HOPPER, AND REAR OF VEHICLE ONLY. DO NOT WASH OUT DRUM.
- ENSURE THAT ALL WASHDOWN WATER STAYS IN PIT.
- DISPOSE OF SETTLED, HARDENED CONCRETE IN GARBAGE WITH OTHER CONSTRUCTION DEBRIS.
- NEVER DISPOSE OF WASHDOWN WATER IN STREETS, STORM DRAINS, OR STREAMS.

CONCRETE TRUCK WASHDOWN
NOT TO SCALE

DUST CONTROL

Du



TEMPORARY METHODS

MULCHES. SEE STANDARD DS1 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB–TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2 – DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY–ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB–TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

PERMANENT VEGETATION. SEE STANDARD DS3 –DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP – TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR–CONSTRUCTION ROAD STABILIZATION.

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY	DATE
JAP	08/23/21
CHECKED BY	DATE
KDK	09/14/21
APPROVED BY	DATE
DAB	–/–/–
COST/SCHEDULE/ AREA	
–	
SCALE	
NTS	

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Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE
LI–CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SOIL EROSION & SEDIMENTATION NOTES AND DETAILS

CONTRACT NO. 201968	OWNER NO. 1953
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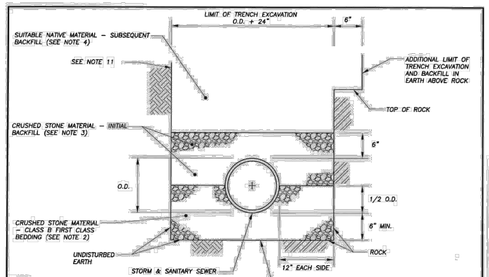


NOTES:

1. O.D. IS THE OUTSIDE DIAMETER OF THE PIPE BARREL.
2. BEDDING MATERIAL (CLASS B – FIRST CLASS BEDDING) SHALL BE A UNIFORM MIXTURE OF CRUSHED STONE CONFORMING TO THE REQUIREMENTS AND GRADATION OF NYSDOT SECTION 703–02, CRUSHED STONE MATERIAL DESIGNATION 703–0201, SIZE DESIGNATION 1 AND 2 AS FOLLOWS:

SIZE DESIGNATION	SCREEN SIZES			
	1 1/2"	1"	1/2"	1/4"
1		100	90–100	0–15
2	100	90–100	0–15	

3. INITIAL BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6" IN COMPACTED THICKNESS AND SHALL CONFORM TO THE REQUIREMENTS AND GRADATION OF NYSDOT SECTION 703–02, CRUSHED STONE MATERIAL DESIGNATION 703–0201, SIZE DESIGNATION 1 AND 2.
4. SUITABLE NATIVE MATERIAL SHALL BE USED FOR SUBSEQUENT BACKFILL, UNLESS THE NATIVE MATERIAL IS FOUND TO BE UNACCEPTABLE AS DETERMINED BY THE COMMISSIONER OF PUBLIC WORKS. WHEN NATIVE MATERIAL IS FOUND UNACCEPTABLE, OR WHERE INDICATED ON THE APPROVED CONSTRUCTION PLANS, SUBSEQUENT BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF NYSDOT SECTION 203–2.02C, EXCEPT GRADATION SHALL BE:

SIEVE SIZE	% PASSING BY WEIGHT
3"	100
2"	90–100
1/4"	30–65
No. 40	5–40
No. 200	0–10

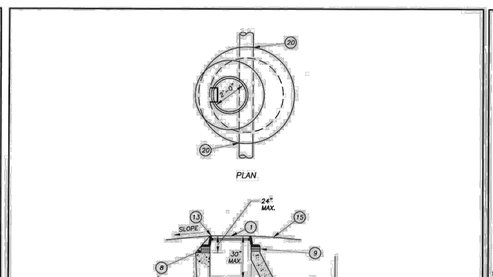
SUBSEQUENT BACKFILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6" IN COMPACTED THICKNESS UP TO THE FINISHED SUBBASE GRADE IN PAVEMENT AND SIDEWALK AREAS, TO THE BOTTOM OF TOPSOIL IN SEEDED AREAS, OR TO FINISHED GRADE.

5. LIMITS SHOWN ARE MAXIMUM ALLOWED AND MINIMUM REQUIRED FOR EXCAVATION AND BACKFILL.
6. UPPER LIMIT FOR TRENCH EXCAVATION IS THE TOP OF EXISTING SURFACE, AT THE TIME OF EXCAVATION.
7. UPPER LIMIT FOR ROCK EXCAVATION IS TOP SURFACE OF ROCK.
8. UPPER LIMIT FOR SUBSEQUENT BACKFILL IS BOTTOM OF NEW PAVEMENT, SUBBASE, BOTTOM OF TEMPORARY PAVEMENT, BOTTOM OF TOPSOIL IN SEEDED AREAS, OR FINISHED SURFACE.
9. EXCAVATION BEYOND TRENCH LIMITS SHOWN SHALL BE BACKFILLED WITH THE MATERIAL AND IN THE COMPACTED LAYERS SHOWN FOR BACKFILL WITHIN THE SEWER TRENCH.
10. TEMPORARY OR PERMANENT BLOCKS OR ANY OTHER TYPE OF PIPE SUPPORT SHALL NOT BE USED DURING PIPE INSTALLATION.
11. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE TO PROVIDE TEMPORARY SHEETING AND SHORING, OR TO OPEN THE EXCAVATION WITH THE SIDES SLOPED TO A STABLE SLOPE NOT STEEPER THAN THAT ALLOWED BY THE NYSDOL INDUSTRIAL CODE RULE 23. ANY TEMPORARY SHEETING AND SHORING SHALL BE REMOVED AND ANY OPENED EXCAVATIONS SHALL BE BACKFILLED AS SPECIFIED IN NOTE 4.

STANDARD BEDDING DETAIL
STORM & SANITARY SEWERS
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 1



SECTION

STANDARD MANHOLE DETAIL
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 3A

NOTES:

1. STANDARD SANITARY MANHOLE FRAME AND COVER SHALL BE #1032XV FRAME & #1007PC COVER AND STANDARD STORM MANHOLE FRAME AND COVER SHALL BE #1032XC FRAME AND #1007PC COVER WITH 6–1" DIA. VENT HOLES, AS MANUFACTURED BY SYRACUSE CASTINGS, OR APPROVED EQUIVALENT. "SANITARY SEWER" SHALL BE CAST INTO THE SOLID COVER AND "STORM SEWER" SHALL BE CAST INTO THE PERFORATED COVER.
2. MANHOLE STEPS SHALL BE EMBEDDED IN RISERS AND SHALL BE ML–10–NOR COPOLYMER POLYPROPYLENE WITH 1/2" STEEL REINFORCEMENT AS MANUFACTURED BY AMERICAN STEP CO., INC. OR APPROVED EQUIVALENT.
3. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS, INCLUDING GRADE RINGS, FLAT SLAB TOPS, RISERS AND CONICAL TOPS, BASE SECTIONS, AND STEPS AND LADDERS, SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478. FOR 48" DIAMETER RISERS, FLAT SLAB TOPS AND BASE SLABS SHALL BE 6" MINIMUM THICK. FOR RISERS GREATER THAN 48", FLAT SLAB TOPS AND BASE SLABS SHALL BE 8" MINIMUM THICK. MINIMUM WALL THICKNESSES SHALL BE AS FOLLOWS: 48" DIAMETER, 5" THICK; 60" DIAMETER, 6" THICK; AND 72" DIAMETER, 7" THICK.
4. TONGUE AND GROOVE JOINTS WITH RUBBER GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C443. ALL JOINTS SHALL BE FILLED OUTSIDE WITH CONCRETE GROUTING MATERIAL CONFORMING TO NYSDOT SECTION 701–05 (NON–METALLIC, NON–SHRINK GROUT) AND SHALL BE SEALED WITH 2 COATS OF COAL–TAR PROTECTIVE COATING.
5. PAINT INTERIOR AND EXTERIOR OF ALL SURFACES WITH 2 COATS OF FARBERTITE WATER BASED COAL–TAR PROTECTIVE COATING AS MANUFACTURED BY IPA SYSTEMS, INC. OR APPROVED EQUIVALENT.
6. SANITARY MANHOLE INVERTS SHALL BE OF SEWER BRICK MEETING ASTM C32 GRADE SS SPECIFICATION LAID IN PORTLAND CEMENT MORTAR. INVERTS SHALL BE TRUE TO LINE AND GRADE. HALF PIECE SECTIONS OF PIPE MAY BE USED FOR BOTTOM HALF OF INVERT IN STRAIGHT THROUGH MANHOLES. STORM MANHOLE INVERTS SHALL BE CONSTRUCTED OF CLASS A CONCRETE. ALL INVERTS SHALL EXTEND TO THE CROWN OF THE LARGEST PIPE IN THE MANHOLE.
7. POURED–IN–PLACE CONCRETE FOR INVERTS, BENCHES AND FILLETS SHALL BE CLASS A CONFORMING TO THE REQUIREMENTS OF SECTION 501 OF THE NYSDOT SPECIFICATIONS.
8. CLASS A CONCRETE FILLET ALL AROUND FRAME AND GRADE RINGS OR BRICK WITH 2 COATS OF COAL–TAR PROTECTIVE COATING.
9. PRECAST REINFORCED CONCRETE GRADE RINGS OR SEWER BRICK (8" MAXIMUM HEIGHT). SET FRAME & COVER AND GRADE RINGS OR BRICK IN PORTLAND CEMENT MORTAR BED. PLASTER ALL EXPOSED SURFACES WITH PORTLAND CEMENT MORTAR (INSIDE AND OUTSIDE). COAT INSIDE & OUTSIDE WITH 2 COATS OF COAL–TAR PROTECTIVE COATING.
10. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE TO PROVIDE TEMPORARY SHEETING AND SHORING, OR TO OPEN THE EXCAVATION WITH THE SIDES SLOPED TO A STABLE SLOPE NOT STEEPER THAN THAT ALLOWED BY THE NYSDOL INDUSTRIAL CODE RULE 23. ANY TEMPORARY SHEETING AND SHORING SHALL BE REMOVED AND ANY OPENED EXCAVATIONS SHALL BE BACKFILLED AS SPECIFIED IN NOTE 11.
11. WITHIN EXISTING AND PROPOSED RIGHT–OF–WAYS, EXISTING AND PROPOSED TOWN DEDICATED EASEMENTS, OR WHERE INDICATED ON THE APPROVED CONSTRUCTION PLANS OR WHERE REQUIRED BY THE TOWN ENGINEER AND THE COMMISSIONER OF PUBLIC WORKS, BACKFILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6" IN COMPACTED THICKNESS UP TO THE FINISHED SUBBASE GRADE IN PAVEMENT OR SIDEWALK AREAS, TO THE BOTTOM OF TOPSOIL IN SEEDED AREAS, OR TO FINISHED GRADE. SUITABLE NATIVE MATERIAL SHALL BE USED FOR BACKFILL, UNLESS THE NATIVE MATERIAL IS FOUND UNACCEPTABLE AS DETERMINED BY THE TOWN ENGINEER AND THE COMMISSIONER OF PUBLIC WORKS. WHEN NATIVE MATERIAL IS FOUND UNACCEPTABLE, OR WHERE INDICATED ON THE APPROVED CONSTRUCTION PLANS, BACKFILL SHALL CONFORM TO SECTION 203–2.02C OF THE NYSDOT SPECIFICATIONS, EXCEPT THAT THE GRADATION SHALL BE AS FOLLOWS:

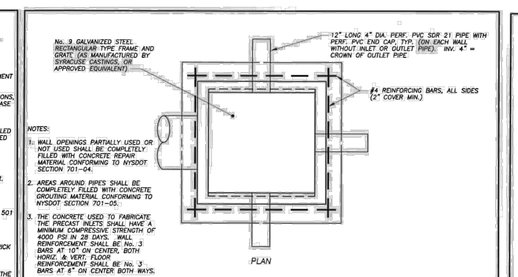
SIEVE SIZE	% PASSING BY WEIGHT
3"	100
2"	90–100
1/4"	30–65
No. 40	5–40
No. 200	0–10

12. 6" MINIMUM UNIFORM MIXTURE CRUSHED STONE BEDDING (CONFORMING TO REQUIREMENTS AND GRADATION OF NYSDOT SECTION 703–02 CRUSHED STONE, MATERIAL DESIGNATION 703–0201, SIZE DESIGNATION 1 AND 2).
13. PROVIDE POSITIVE SLOPE AWAY FROM MANHOLE COVER.
14. BENCHES SHALL BE SLOPED TOWARD MANHOLE INVERT.
15. FINISH GRADE SHOWN ON THE CONSTRUCTION PLANS IS APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS IN THE FIELD PRIOR TO ORDERING MANHOLES.
16. STEP LOCATION FOR PIPES LESS THAN 18" DIAMETER SHALL BE PLACED OVER THE CENTERLINE OF THE DOWNSTREAM PIPE. STEP LOCATION FOR PIPES GREATER THAN 18" DIAMETER SHALL BE PLACED OVER THE BENCH.
17. PROVIDE A MINIMUM 0.1' DROP WITHIN THE MANHOLE FOR STRAIGHT THROUGH MANHOLES AND A MINIMUM 0.2' DROP FOR MANHOLES WITH INTERNAL SWEEPS (FOR SEWERS WITH THE SAME DIAMETER). FOR MANHOLES WITH SEWERS THAT ARE OF DIFFERENT DIAMETERS, THE SPRINGLINES OR CENTERLINES OF THE PIPES SHALL BE AT THE SAME ELEVATION.
18. WHEN REQUIRED BY THE TOWN ENGINEER AND THE COMMISSIONER OF PUBLIC WORKS, A MARKER POST SHALL BE INSTALLED AT MANHOLES (GREEN POLYPROPYLENE, TEN VIEW, 66" LONG (HEIGHT ABOVE GROUND), TRIANGULAR SHAPE, FLEXIBLE POST INSTALLATION, AS MANUFACTURED BY RHINO MARKING AND PROTECTION SYSTEMS, OR APPROVED EQUIVALENT).
19. FLAT SLAB TOPS SHALL BE PROVIDED WHERE MANHOLE HEIGHT IS LESS THAN 8 FEET (INVERT TO TOP OF COVER). 4' DIAMETER MANHOLE OPENINGS SHALL BE CONCENTRIC AND 3' DIAMETER & 6' DIAMETER MANHOLE OPENINGS SHALL BE ECCENTRIC.
20. FLEXIBLE WATERTIGHT PIPE–TO–MANHOLE CONNECTORS SHALL BE CAST–A–SEAL OR PSX–DIRECT DRIVE RUBBER GASKETS WITH STAINLESS STEEL COMPONENTS AND FASTENERS AS MANUFACTURED BY PRESS–SEAL GASKET CORPORATION, OR APPROVED EQUIVALENT.

STANDARD MANHOLE DETAIL
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 3B



NOTES:

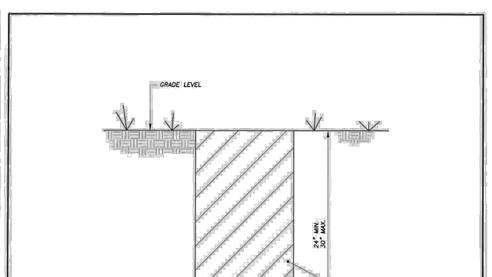
1. WALL OPENINGS PARTIALLY USED OR NOT USED SHALL BE COMPLETELY FILLED WITH CONCRETE REPAIR MATERIAL CONFORMING TO NYSDOT SECTION 701–04.
2. AREAS AROUND PIPES SHALL BE COMPLETELY FILLED WITH CONCRETE GROUTING MATERIAL CONFORMING TO NYSDOT SECTION 701–05.
3. THE CONCRETE USED TO FABRICATE THE PRECAST INLETS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. WALL REINFORCEMENT SHALL BE NO. 3 BARS AT 10" ON CENTERS, BOTH HORIZ. & VERT. FLOOR REINFORCEMENT SHALL BE NO. 3 BARS AT 6" ON CENTER BOTH WAYS.
4. THE INSIDE & OUTSIDE OF INLETS SHALL BE PAINTED WITH 2 COATS OF FARBERTITE WATER–BASED COAL–TAR PROTECTIVE COATING, AS MANUFACTURED BY IPA SYSTEMS, OR APPROVED EQUIVALENT.

CLASS A CONCRETE COLLAR (CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 501 OF THE NYSDOT SPECIFICATIONS).

STANDARD FIELD INLET
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 10



NOTES:

1. CABLES MUST CABLES MUST BE BURIED A MINIMUM OF 24 INCHES BELOW FINAL GRADE LAID IN THE CENTER OF A 12–INCH VERTICAL LAYER OF ACCEPTABLE SAND PADDING, WITH WARNING RIBBON ACCORDING TO NEC REQUIREMENTS. BACKFILL MUST BE CLEAN EARTH WITH NO DEBRIS OR ROCKS OVER 2 INCHES IN DIAMETER FOR THE FIRST 12 INCHES OF COVER OVER THE SAND PADDING. NO ROCKS LARGER THAN 2 INCHES IN DIAMETER ARE ALLOWED IN THE REMAINING BACKFILL.
2. CABLES FOR SERVICE ARE THREE CONDUCTOR ALUMINUM APPROVED FOR DIRECT BURIAL.

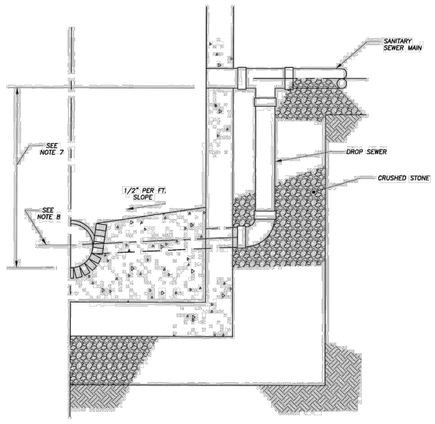
CONDUIT SERVICE LATERAL DETAIL
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 40

NOTES:

1. REFER TO STANDARD MANHOLE DIMENSIONS AND STANDARD MANHOLE CONSTRUCTION DETAIL DRAWINGS FOR ADDITIONAL DETAILS AND NOTES.
2. FOR SEWER MAIN, REFER TO STANDARD BEDDING DETAIL STORM & SANITARY SEWERS FOR EXCAVATION, BEDDING AND BACKFILL (INITIAL & SUBSEQUENT) REQUIREMENTS.
3. SEWER PIPES SHALL NOT ENTER THE MANHOLE WITHIN 6" OF MANHOLE JOINTS.
4. CRUSHED STONE ENCASEMENT ALL AROUND DROP SEWER SHALL BE A MINIMUM OF 12" THICKNESS ON ALL SIDES OF THE PIPE BARREL AND SHALL BE PLACED IN LAYERS NOT EXCEEDING 6" IN COMPACTED THICKNESS.
5. SANITARY SEWER MAIN AND DROP SEWER SHALL BE OF THE SAME DIAMETER, MATERIAL AND WALL THICKNESS.
6. PROVIDE INVERT AND BENCH WALL FOR DROP SEWER AS SHOWN ON STANDARD MANHOLE DIMENSIONS AND STANDARD MANHOLE CONSTRUCTION DETAIL DRAWINGS.
7. PROVIDE OUTSIDE DROP FEATURE WHEN DIFFERENCE IN INVERT ELEVATIONS IS GREATER THAN 2'.
8. FOR SEWERS THAT ARE DIFFERENT DIAMETERS, THE SPRINGLINES OR CENTERLINES OF THE PIPES SHALL BE AT THE SAME ELEVATION (PLUS A SLOPE OF 1/2" PER FT. ON THE INVERT).

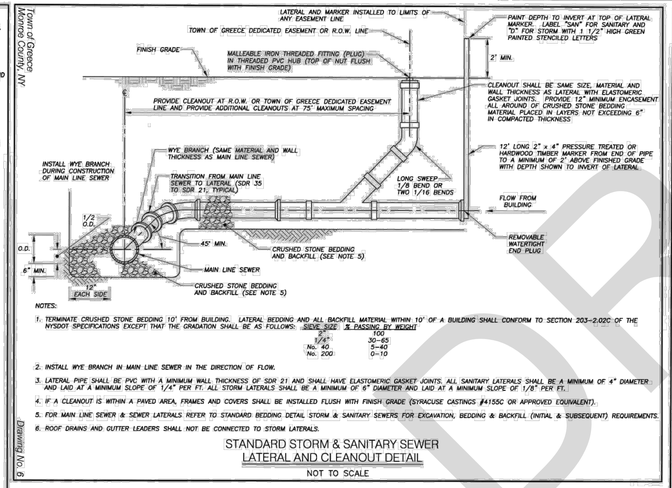


STANDARD DROP CONNECTION DETAIL
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 5

Town of Greece
Monroe County, NY



NOTES:

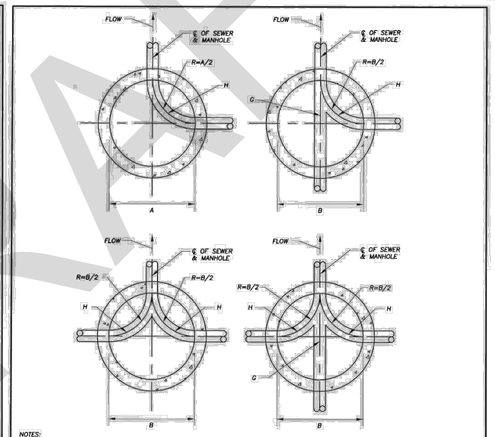
1. TERMINATE CRUSHED STONE BEDDING 10' FROM BUILDING. LATERAL BEDDING AND ALL BACKFILL MATERIAL WITHIN 10' OF A BUILDING SHALL CONFORM TO SECTION 203–2.02C OF THE NYSDOT SPECIFICATIONS EXCEPT THAT THE GRADATION SHALL BE AS FOLLOWS:

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
1/4"	30–65
No. 40	5–40
No. 200	0–10

2. INSTALL WYE BRANCH IN MAIN LINE SEWER IN THE DIRECTION OF FLOW.
3. LATERAL PIPE SHALL BE PVC WITH A MINIMUM WALL THICKNESS OF SDR 21 AND SHALL HAVE ELASTOMERIC GASKET JOINTS. ALL SANITARY LATERALS SHALL BE A MINIMUM OF 4" DIAMETER AND LAID AT A MINIMUM SLOPE OF 1/4" PER FT. ALL STORM LATERALS SHALL BE A MINIMUM OF 6" DIAMETER AND LAID AT A MINIMUM SLOPE OF 1/8" PER FT.
4. IF A CLEANOUT IS WITHIN A PAVED AREA, FRAMES AND COVERS SHALL BE INSTALLED FLUSH WITH FINISH GRADE (SYRACUSE CASTINGS #4155C OR APPROVED EQUIVALENT).
5. FOR MAIN LINE SEWER & SEWER LATERALS REFER TO STANDARD BEDDING DETAIL STORM & SANITARY SEWERS FOR EXCAVATION, BEDDING & BACKFILL (INITIAL & SUBSEQUENT) REQUIREMENTS.
6. ROOF DRAINS AND GUTTER LEADERS SHALL NOT BE CONNECTED TO STORM LATERALS.

STANDARD STORM & SANITARY SEWER
LATERAL AND CLEANOUT DETAIL
NOT TO SCALE

Drawing No. 6



NOTES:

1. FOR ALL MANHOLES, THE DESIGN ENGINEER SHALL SUBMIT DESIGN DETAILS SHOWING MANHOLE SIZE, MATERIAL, INVERT PLAN, BENCH WALLS, AND OTHER PERTINENT DETAILS FOR REVIEW AND APPROVAL.
2. FOR ALL MANHOLES WITH PIPES LARGER THAN 24" OR WITH ARCH OR ELLIPTICAL PIPES, THE DESIGN ENGINEER SHALL SUBMIT DESIGN DETAILS SHOWING SIZE, MATERIAL, INVERT PLAN, BENCH WALLS, AND OTHER PERTINENT DETAILS FOR REVIEW AND APPROVAL.

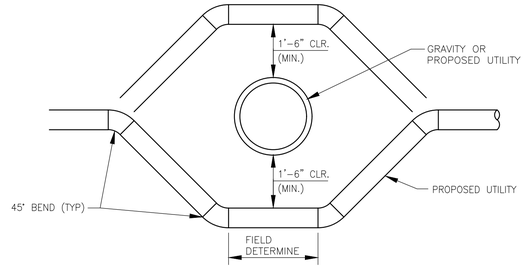
TYPICAL MANHOLE DIAMETER

PIPE DIA.		8"	10"	12"	18"	24"
DIMENSION	A	4'–0"	4'–0"	5'–0"	5'–0"	6'–0"
	B	4'–0"	4'–0"	5'–0"	5'–0"	6'–0"
	G	0.1'	0.1'	0.1'	0.1'	0.1'
	H	0.2'	0.2'	0.2'	0.2'	0.2'
NOTE: FOR MANHOLES WITH SEWERS THAT ARE OF DIFFERENT DIAMETERS, MATCH SPRINGLINES.						

STANDARD MANHOLE DIMENSIONS
NOT TO SCALE

Town of Greece
Monroe County, NY

Drawing No. 2



NOTE:
1. FOR NEW CROSSINGS SEE PLAN AND/OR SPECS FOR PIPE MATERIAL
2. FOR EXISTING LOWERINGS, PIPE MATERIAL AND FITTINGS SHOULD MATCH EXISTING PIPE SPECS

UTILITY CROSSING
SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/08/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

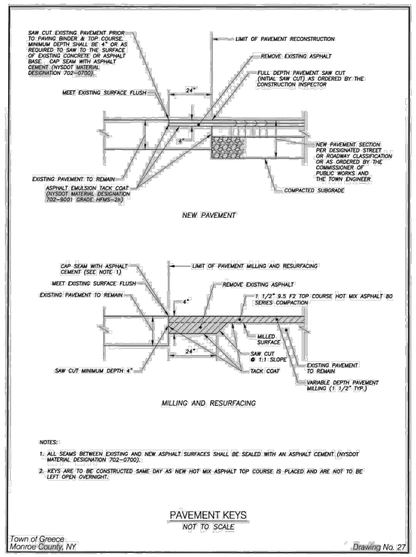
Li-Cycle™
Hub #1 - Rochester, NY

DRAWN BY: JAP	DATE: 08/23/21
CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: –/–/–
COST/SCHEDULE/ AREA: –	
SCALE: NTS	

hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE
LI–CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SITE DEVELOPMENT DETAILS

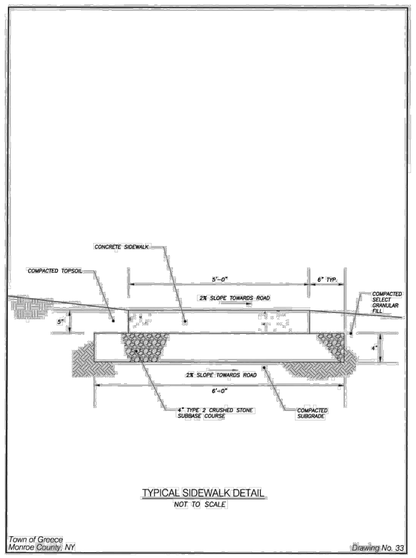
CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY: –	DATE: –
APPROVED BY: –	DATE: –
DRAWING NUMBER: CH1–2210–CV–DET–119	REV.: C



PAVEMENT KEYS
NOT TO SCALE

Town of Greece
Monroe County, NY

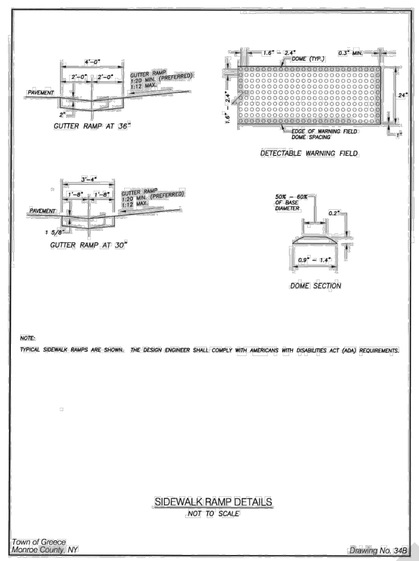
Drawing No. 27



TYPICAL SIDEWALK DETAIL
NOT TO SCALE

Town of Greece
Monroe County, NY

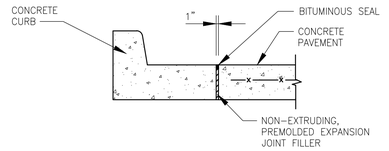
Drawing No. 33



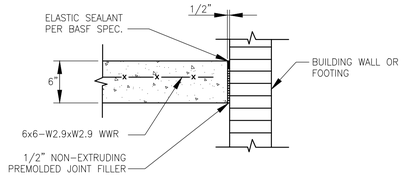
SIDEWALK RAMP DETAILS
NOT TO SCALE

Town of Greece
Monroe County, NY

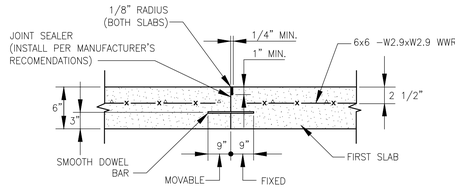
Drawing No. 34B



EXPANSION JOINT AT CURB

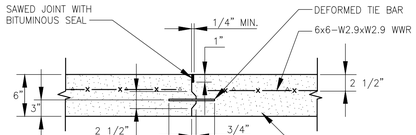


EXPANSION JOINT AT BUILDING



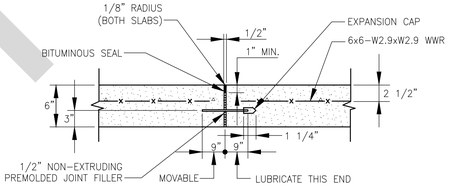
NOTES:
1. TRANSVERSE CONTRACTION JOINTS TO BE SPACED NOT TO EXCEED 25' O/C.
2. DOWELS BARS ARE TO BE 3/4" DIA., 18" LONG AND 18" O/C.
3. W.W.F. SHALL NOT PASS THRU JOINTS.

TRANSVERSE CONTRACTION JOINT



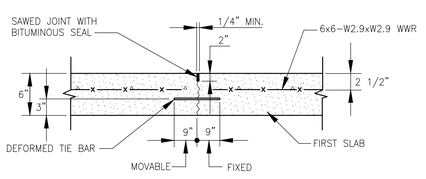
NOTES:
1. TIE BARS SHALL BE 3/4" DIA. DEFORMED STEEL BARS, 18" LONG AT 18" O/C.

LONGITUDINAL CONSTRUCTION JOINT



NOTES:
1. TRANSVERSE CONTRACTION JOINTS TO BE SPACED NOT TO EXCEED 25' O/C.
2. DOWELS BARS ARE TO BE 3/4" DIA., 18" LONG AND 18" O/C.
3. W.W.F. SHALL NOT PASS THRU JOINTS.

DOWEL EXPANSION JOINT

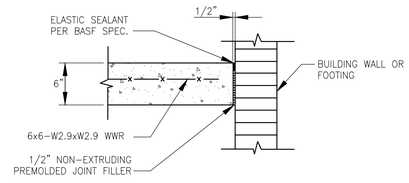


NOTES:
1. WHEN LONGITUDINAL CONSTRUCTION JOINT IS NOT USED A LONGITUDINAL CONTRACTION JOINT IS USED AT INTERVALS NOT TO EXCEED 25' O/C.
2. TIE BARS SHALL BE 3/4" DIA. DEFORMED STEEL BARS, 18" LONG AT 18" O/C.

LONGITUDINAL CONTRACTION JOINT

NOTES:
1. WHEN A JOINT FALLS WITHIN 5' OF OR CONTACTS BASINS, MANHOLES, OR OTHER STRUCTURES, SHORTEN ONE OR MORE PANELS EITHER SIDE OF OPENING TO PERMIT JOINT TO FALL ON ROUND STRUCTURES AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES.
2. ALL TRANSVERSE JOINTS MUST EXTEND THROUGH CURBS AND MUST BE CONTINUOUS ACCROSS PAVEMENT, EXCEPT TIED TRANSVERSE CONSTRUCTION JOINTS. EXPANSION JOINTS WILL NOT BE REQUIRED EXCEPT AT STRUCTURES OR AS SHOWN ON THE PLANS.

CONCRETE JOINT DETAILS
SCALE: NTS



EXPANSION JOINT AT BUILDING

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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Li-Cycle™
Hub #1 - Rochester, NY

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DATE	08/23/21
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DATE	09/14/21
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DATE	–/––/––
COST/SCHEDULE/ AREA	–
SCALE	NTS

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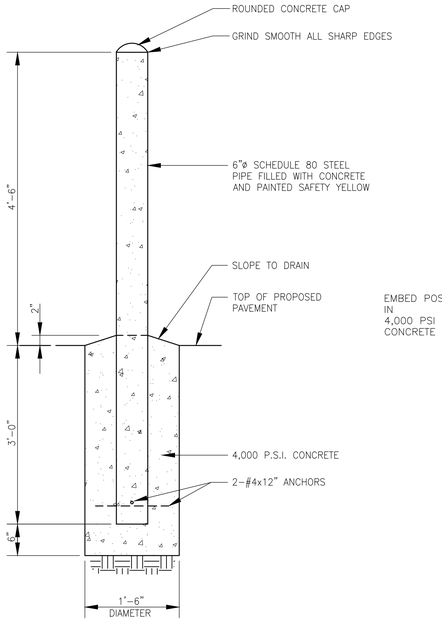
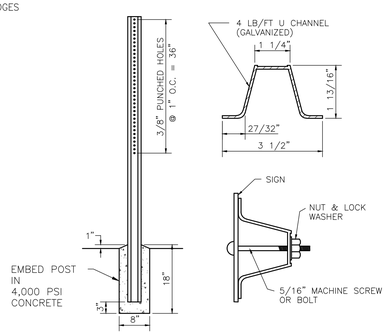
DRAWING TITLE

LI–CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SITE DEVELOPMENT DETAILS

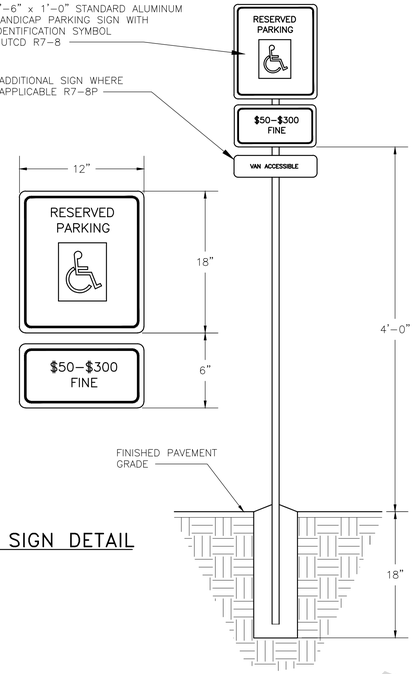
CONTRACT NO.	201968
OWNER NO.	1953
APPROVED BY	–
DATE	–
APPROVED BY	–
DATE	–
DRAWING NUMBER	CH1–2210–CV–DET–120
REV.	C



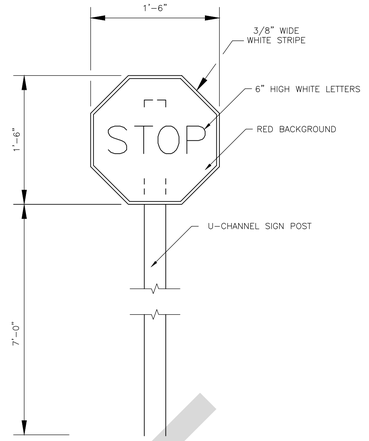
STEEL BOLLARD DETAIL
SCALE: NTS



NOTE:
POST SHALL BE CAREFULLY CLEANED AND PHOSPHATED. IMMEDIATELY AFTER PHOSPHATING POST SHALL BE COATED WITH A MODIFIED POLYESTER PAINT BY ELECTRODEPOSITION AND THEN THOROUGHLY BAKED. COLOR IS PERMA-GREEN PER FED. STANDARD 595-A COLOR #14109

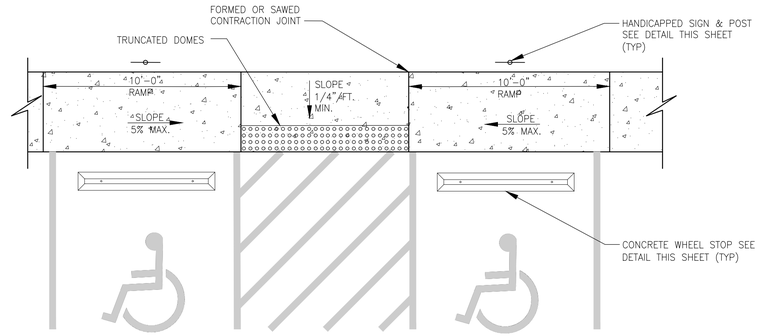


HANDICAP SPACE SIGN DETAIL
SCALE: NTS

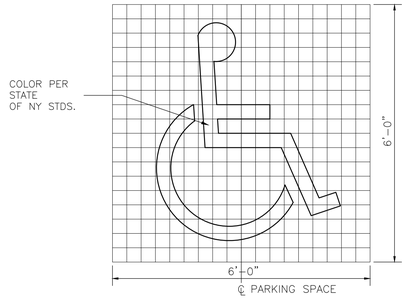


NOTE:
1. ALL PAINT COLORS SHALL BE RETROREFLECTIVE.
2. SIGN SHALL CONNECT TO U-CHANNEL WITH 2 BOLTS MINIMUM.

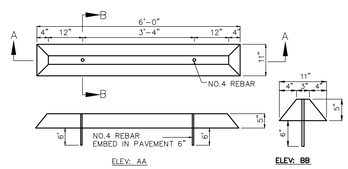
STOP SIGN DETAIL
SCALE: NTS



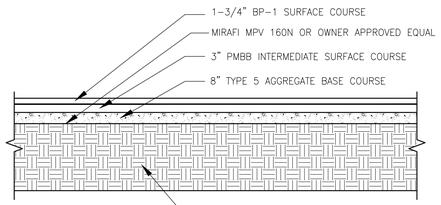
SIDEWALK WITH RAMP
SCALE: NTS



HANDICAP PAVEMENT MARKING
SCALE: NTS

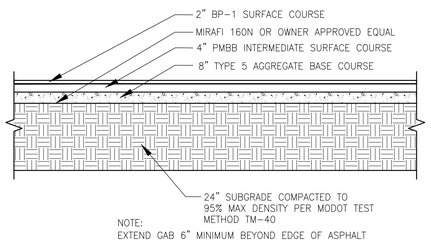


PRECAST CONC. WHEEL STOP
SCALE: NTS



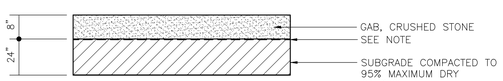
NOTE:
EXTEND GAB 6" MINIMUM BEYOND EDGE OF ASPHALT

LIGHT DUTY ASPHALT DETAIL
SCALE: NTS



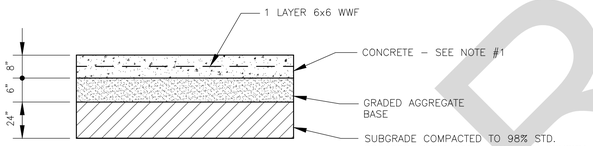
NOTE:
EXTEND GAB 6" MINIMUM BEYOND EDGE OF ASPHALT

HEAVY DUTY ASPHALT DETAIL
SCALE: NTS



NOTE:
GEOTEXTILE FILTER FABRIC WILL BE PRESENT BETWEEN GAB AND SUBGRADE WITHIN THE BOUNDS OF WWTA. FABIC WILL HAVE MINIMUM PERMITTIVITY = 1/0.1s PER ASTM D4491/D4491M, AND MAXIMUM AOS = No. 70 SIEVE PER ASTM D4751

GRAVEL DETAIL
SCALE: NTS



SECTION

NOTES:

1. CONCRETE SHALL BE 4,000 PSI, COMPRESSIVE STRENGTH, 700 PSI FLEXURAL STRENGTH, AIR ENTRAINED CONCRETE WITH MAX. SUMP OF 4" AS SUPPLIED BY WESTERN READY MIX. WWR-6x6W2.9xW2.9
2. MAXIMUM WATER-CEMENT RATIO SHALL BE 0.40.
3. PROVIDE SEALED SAW CUT JOINTS AT 12'-0" MAX. SPACING.
4. CARE SHALL BE TAKEN TO ENSURE ADEQUATE VIBRATION OF CONCRETE AT JOINT LOCATIONS TO PREVENT VOIDS AROUND INSERTS AND REBAR.
5. MIX DESIGN SHALL INCLUDE NOVOMESH 950 MACRO-SYNTHETIC FIBERS AS MANUFACTURED BY PROPEX CONCRETE SYSTEMS. FIBER REINFORCEMENT SHALL BE APPLIED AT A RATE OF 5 POUNDS PER CUBIC YARD OF CONCRETE. FIBERS SHALL BE ADDED TO THE MIX AT THE BATCH PLANT IN STRICT ACCORDANCE WITH THE MANUFACTURES RECOMENDATIONS.
6. CONTRACTOR SHALL COORDINATE WITH OTHER CRAFTS TO ENSURE THAT ALL UNDERGROUND PIPING AND ELECTRICAL IS IN PLACE PRIOR TO PLACING PAVING.
7. IF PAVING OPERATIONS ARE DISCONTINUED FOR MORE THAN 30 MIN. A CONSTRUCTION JOINT SHALL BE INSTALLED AT THE LOCATION.
8. MIX DESIGN SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER PRIOR TO USE IN THE FIELD.
9. PAVING SURFACES SHALL RECEIVE A BROOM FINISH.

MAX. SIZE OF COARSE AGGREGATE, INCHES	AIR ENTRAINMENT CONTENT PERCENT BY VOLUME
3/4" TO 1"	5% - 7%

CONCRETE DETAIL
SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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Li-Cycle™
Hub #1 - Rochester, NY

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KDK	09/14/21
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DRAWING TITLE
LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SITE DEVELOPMENT DETAILS

CONTRACT NO.	OWNER NO.
201968	1953
APPROVED BY	DATE
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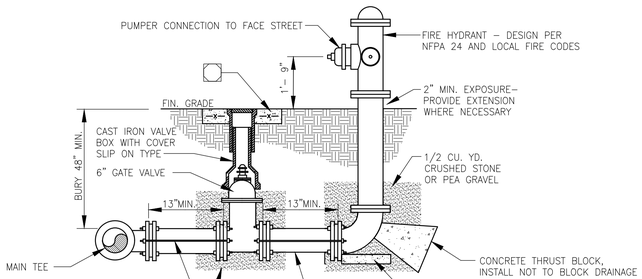
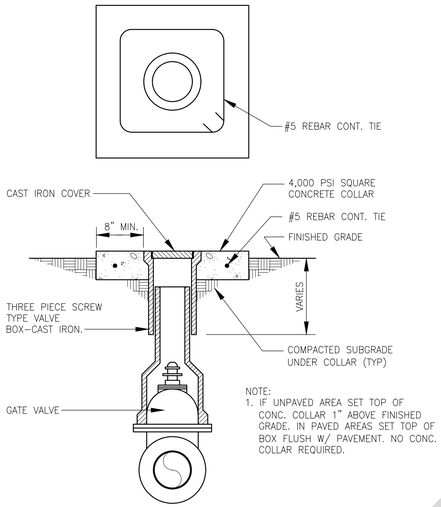
DRAWING NUMBER	REV.
CH1-2210-CV-DET-121	C



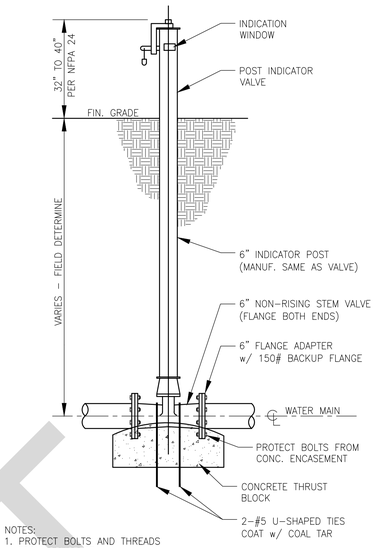
NOTES:
1. ALL JOINTS FROM MAIN TO HYDRANT SHALL BE RESTRAINED.
2. PROTECT BOLTS AND THREADS FROM CONCRETE.
3. FIRE HYDRANT ASSEMBLY SHALL BE EQUIPPED WITH AUTOMATIC BALL DRIP VALVES FOR FREEZE PROTECTION

FIRE HYDRANT ASSEMBLY
SCALE: NTS



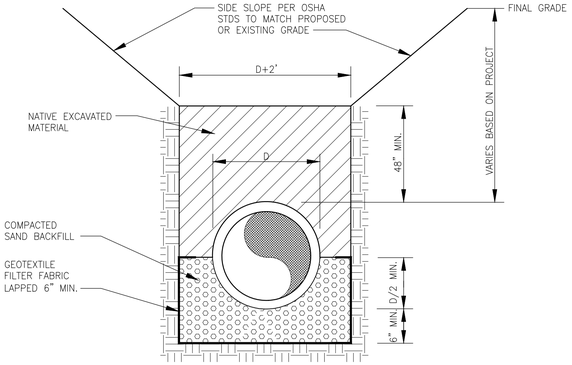
NOTE:
1. IF UNPAVED AREA SET TOP OF CONC. COLLAR 1" ABOVE FINISHED GRADE. IN PAVED AREAS SET TOP OF BOX FLUSH W/ PAVEMENT. NO CONC. COLLAR REQUIRED.

VALVE BOX DETAIL
SCALE: NTS



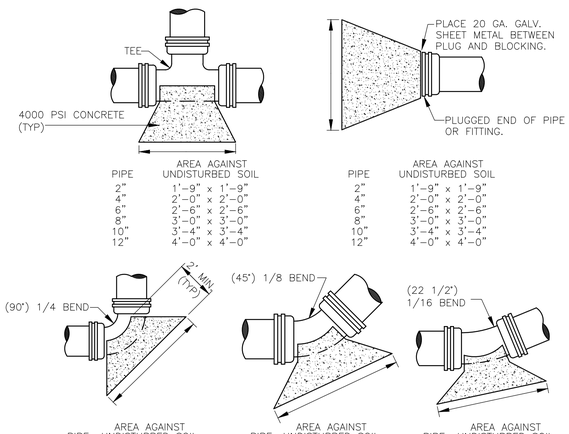
NOTES:
1. PROTECT BOLTS AND THREADS FROM CONCRETE.
2. COORDINATE MONITORING REQUIREMENTS WITH OWNER

POST INDICATOR VALVE
SCALE: NTS



NOTE: ALL TEMPORARY SLOPES & TRENCH BORES SHALL BE PER OSHA REGULATIONS.

PIPE BEDDING DETAIL
SCALE: NTS



PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-9" x 1'-9"
4"	2'-0" x 2'-0"
6"	2'-6" x 2'-6"
8"	3'-0" x 3'-0"
10"	3'-4" x 3'-4"
12"	4'-0" x 4'-0"

PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-9" x 1'-9"
4"	2'-0" x 2'-0"
6"	2'-6" x 2'-6"
8"	3'-0" x 3'-0"
10"	3'-4" x 3'-4"
12"	4'-0" x 4'-0"

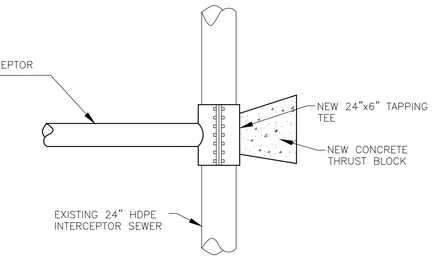
PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-9" x 1'-9"
4"	2'-6" x 2'-6"
6"	3'-0" x 3'-0"
8"	3'-6" x 3'-6"
10"	3'-10" x 3'-10"
12"	4'-6" x 4'-6"

PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-6" x 1'-6"
4"	1'-6" x 1'-6"
6"	2'-0" x 2'-0"
8"	2'-8" x 2'-8"
10"	2'-11" x 2'-11"
12"	3'-2" x 3'-2"

PIPE	AREA AGAINST UNDISTURBED SOIL
2"	1'-0" x 1'-0"
4"	1'-0" x 1'-0"
6"	1'-6" x 1'-6"
8"	1'-8" x 1'-8"
10"	1'-10" x 1'-10"
12"	2'-0" x 2'-0"

NOTE:
1. ALL CONCRETE TO BE 4000 PSI
2. WHEN MECHANICAL JOINTS ARE USED PROTECT BOLTS AND THREADS FROM CONCRETE.

THRUST BLOCKING
SCALE: NTS



TAPPING TEE DETAIL
SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR	REFERENCE DRAWINGS
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Li-Cycle™
Hub #1 - Rochester, NY

		DATE
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CHECKED BY	KDK	09/14/21
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SCALE	NTS	

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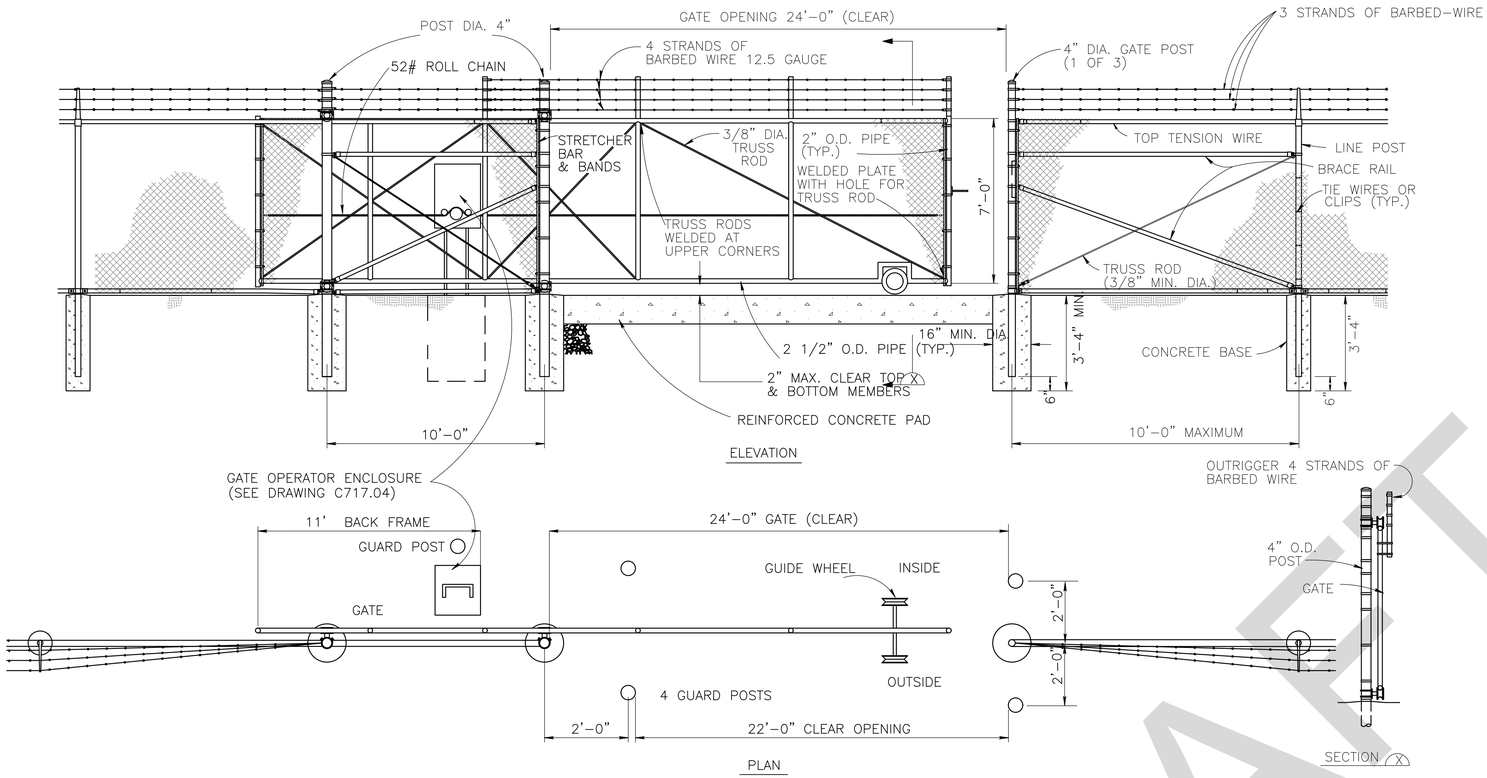
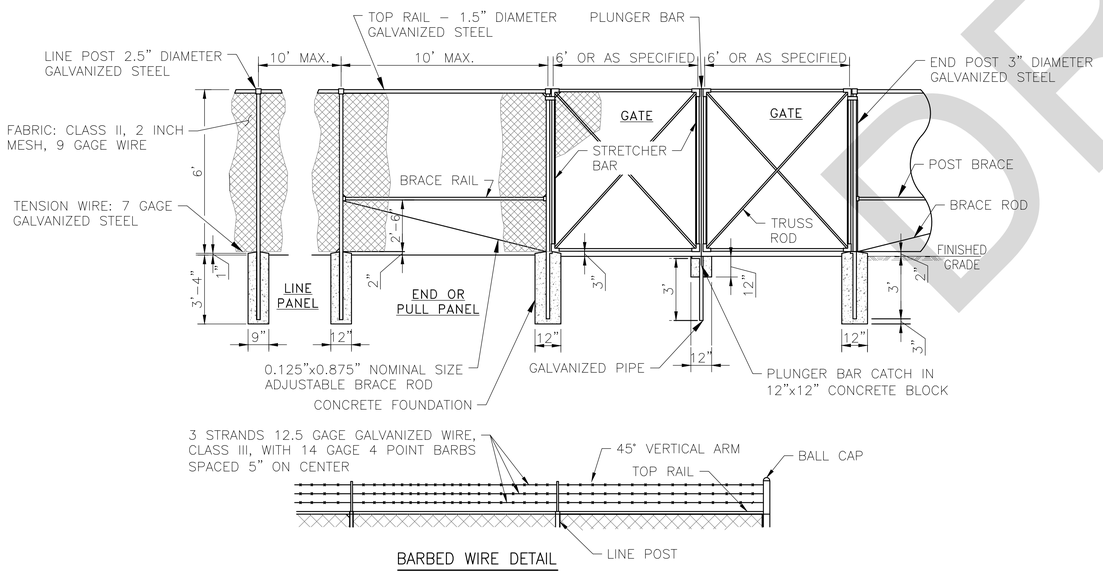
COMMERCIAL HUB I
CIVIL
SITE DEVELOPMENT DETAILS

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-DET-122	REV. C



SLIDE GATE

SCALE: NTS



BARBED WIRE DETAIL

CHAIN LINK FENCE

SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION

ISSUED FOR PERMIT

NO.	DATE	REVISIONS	BY	CK.	APPR.	REFERENCE DRAWINGS
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C	10/20/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
B	10/06/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–
A	09/17/21	ISSUED FOR PERMIT	JAP	KDK	DAB	–

Li-Cycle™

Hub #1 - Rochester, NY

DRAWN BY: JAP	DATE: 08/23/21
CHECKED BY: KDK	DATE: 09/14/21
APPROVED BY: DAB	DATE: –/––/––
COST/SCHEDULE/ AREA	–
SCALE	NTS

hargrove services corporation
Hargrove and Associates Inc.
600 Corporate Parkway, Suite 200
Birmingham, Al 35242
205.484.0227 - hargrove-epc.com

DRAWING TITLE

LI-CYCLE ROCH DFS 2.0
COMMERCIAL HUB I
CIVIL
SITE DEVELOPMENT DETAILS

CONTRACT NO. 201968	OWNER NO. 1953
APPROVED BY –	DATE –
APPROVED BY –	DATE –
DRAWING NUMBER CH1-2210-CV-DET-123	REV. C

APPENDIX C SITE MANAGEMENT PLAN

Site Management Plan

Eastman Business Park Section S (EBP-S)

Introduction

This Site Management Plan (SMP) is applicable to the area delineated on the attached Figure 1. The area is land that was owned by Eastman Kodak Company and is located within the Town of Greece and the City of Rochester, Monroe County, New York. The intent of the SMP is to minimize potential exposures that could arise during future use of the site due to residual contamination and to ensure that future site use does not impair the remedial program being implemented for portions of the site.

This SMP includes general requirements that are applicable across the entire area delineated on Figure 1. It further includes additional requirement for an area, indicated on Figure 2, known to be impacted by releases from historic operations. These operations contaminated groundwater in the vicinity of Solid Waste Management Unit (SWMU S-091), and resulted in a chlorinated solvent contaminant plume that extends downgradient in an east-northeast direction. The requirements to perform corrective action and remediate contamination for SWMU S-091is part of Kodak's Part 373 Hazardous Waste Management Permit (DEC Permit No. 8-2614-00205/00104) and will be retained by Kodak.

The SMP outlines requirements that must be followed related to environmental conditions and provides for routine reporting/certification to the New York State Department of Environmental Conservation (NYSDEC). The SMP may only be modified with NYSDEC approval.

Site History

Kodak began development of the Eastman Business Park Section South (EBPS) area in the late 1960s and development continued through the 1980s. EBPS is located within the Town of Greece and the City of Rochester, Monroe County, New York. The primary land uses have included: warehousing and shipping, coal storage, light manufacturing, chemical storage, and industrial refrigeration. Underground water, natural gas, electric, and sewer lines underlie some portions of the property, along with overhead piping infrastructure providing compressed air; potable water; Kodak process water, chilled water (for cooling), electric, and low-pressure steam to buildings in the area. Sanitary sewers in the area discharge to the Monroe County Division of Pure Waters sanitary sewer network. Within this parcel of property there are open areas of undeveloped property, some of which are heavily wooded.

There is one existing building located within the area (B-511) along with the footprint/slab of two former buildings that were previously demolished (B-503 & B-506). These buildings are described below.

Building 511 (B-511) is located in the southwest corner of the property and was constructed in 1967. Building 511 has a footprint size (sq ft) of approximately 9,776 and houses equipment supplying refrigeration to buildings in EBPS.

The former Building 503 location is currently a vacant concrete slab (no sewer connection). B-503 was demolished in 2005. Prior to demolition B-503 was used primarily for the storage of

pallets. Additionally, it was used for purchased materials and equipment, and Kodak internal equipment rental storage. The building was constructed in 1971, had a footprint size (sq ft) of 20,033, and was prefabricated metal on concrete.

Building 506 was used for storage of equipment and building supplies (often excess equipment removed from other buildings). Building 506 was demolished in 2004 such that all that remains today is a concrete slab (no sewer connection). The building had been constructed in 1969 (metal on concrete) and had a footprint size (sq ft) of 20,000. Landscaping equipment was stored in the area. An area south of the former B-506 location had been used for the storage of gravel, construction & demolition debris including road millings and broken pieces of asphalt (all have since been removed). Additionally there was an outside container storage area (cinder surfaced area) identified as SWMU-12.

Shed S-26 was built in 1974 and was an open-sided, elevated platform structure located immediately southeast of B-502. It was used for raw material/chemical storage and was demolished in 2007. As has been noted spills & releases from this storage area have resulted in groundwater contamination with the plume being designated as the "restricted area" in this SMP and associated easement (see Figure 2).

SOLID WASTE MANAGEMENT UNITS

In 1998, Kodak completed a RCRA Facility Assessment for Kodak Park. The assessment identified SWMUs subject to corrective action requirements. Kodak has identified the following SWMUs related to this parcel of property:

ID	INVESTIGATION AREA	UNIT TYPE	GENERAL DESCRIPTION	BUILDING NUMBER	LOCATION NOTES	OPERATIONAL STATUS	CORRECTIVE ACTION STATUS
S-007	UNGROUPED	WP	Wood Chipping Operation	B-503	B-503 Southeast	INACTIVE	NFA
S-008	UNGROUPED	CS	SWMU-12 Drum Storage (Closed)	B-506	South of B-506	INACTIVE	NFA
S-010	UNGROUPED	TS	Solid Waste Transfer / Storage	B-506	Center, Inside	INACTIVE	NFA
S-032	UNGROUPED	MA	Marshaling Area	B-511	West, Inside	INACTIVE	NFA
S-039	UNGROUPED	RS	Release Site	B-511	Southwest Corner	SPILL	NFA
S-070	UNGROUPED	RS	Release Site	B-511	North side of B-511	SPILL	NFA
S-091	S-091	RS	Release Site	B-502	Immediately North of Shed S-26	SPILL	FA

As indicated in the Table above, SWMU S-091 requires further action and has been the subject of a Corrective Measures Study (dated April 30, 2012). Upon remedy selection by NYSDEC, Kodak will complete a Corrective Measures Implementation Plan and initiate remedial measures in accordance with an approved schedule. Kodak has completed some interim remedial measures at this location that included a nano-scale zero valent iron injection program (NZVI) in 2006 with follow-up monitoring. Although the results of the injection program showed a reduction in concentration of contaminants at the suspected source location other monitoring wells showed levels that were little changed triggering the need for a CMS/CMI. The corrective action requirements for the "restricted area" (SWMU S-091) are specified in and will be dictated through Kodak's Part 373 RCRA Permit (NYSDEC Permit # 8-2614-0020/00104).

The RCRA Facility Investigations (RFIs) and Corrective Measures Studies (CMSs) for SIA-502/605 were completed in 2004 and 2007, respectively. In the CMS report Kodak reviewed site conditions and made recommendations for long-term care of SIA-502/605 (see SIA-502/605 RCRA Facility Investigation (RFI) Report (Golder, 2004) and SIA-502/605 Corrective Measures Study Report (Golder, 2007)). During the subsurface investigation programs, a number of soil and aqueous samples were collected from SIA-502/605 and adjacent areas for laboratory analysis, providing for a conceptual model of the site geology and hydrogeology to be developed along with an existing soil and groundwater/surface water analytical database to be created to characterize site conditions. This information was summarized in the SIA-502/605 reports. Aside from the S-091 area, the only part of the SIA-502/605 that required remedial action (SWMU S-030) was located outside and to the west of the EBP-S area, and is outside of the scope of this SMP.

Institutional Controls

A series of Institutional Controls are required to prevent potential exposure to any possible remaining contamination at the site. Management requirements include:

1. Non-interference with Corrective Measures:

   The Site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise remedial measures in the "restricted" area (SWMU S-091) as required by NYSDEC.

2. Environmental Easement & SMP:
   Compliance with the Environmental Easement (including access arrangements) and this SMP by the Declarant and the Declarant's successors and assigns;

3. Site Use Restrictions:

   a. Property Class:
      The property may only be used for commercial or industrial use unless a higher use is approved by the NYSDEC and reflected in an amendment to the Environmental Easement;

b. Groundwater Use:
No person shall use groundwater underlying the property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or relevant agency;

c. General Excavation and Management of Soils Generated Outside of the Identified "Restricted Area" (SWMU S-091)
Any future activities on the property that may disturb remaining contaminated material must be conducted in accordance with this SMP;

The Site owner and parties performing work are responsible for the safe performance of all intrusive work, the structural integrity of excavations and structures that may be affected by excavations. Any excess soil generated from an excavation must be managed in accordance with all applicable regulations and good engineering practices. It should be noted that based on the available data and existing knowledge of site conditions, there is no currently known contamination outside of the "restricted area." Available soil data shows that contaminant concentrations are below restrictions outlined in the Part 375 SCOs and/or the NYSDEC has granted a "No Further Action" for soils on the EBP-S parcel.

In the event that previously unidentified contaminant sources are found during subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. Sampling and chemical analysis will be performed as necessary to determine the nature of the material and proper handling and/or disposal method. In the event that unknown and/or unexpected contamination is identified during site work it will be promptly communicated by phone to NYSDEC's regional contact person listed below.

d. Excavation Requirements Specific to the "Restricted Area" (SWMU S-091)
If soil is generated via an excavation in the "restricted area" that is in contact with groundwater, any water resulting from dewatering activities will be managed in accordance with applicable regulations. Any excess soil generated at SWMU S-091will be placed on an impervious surface and covered and/or containerized. An organic vapor analyzer will be used during the excavation to screen for potential VOCs. Based on readings obtained a determination will be made on the need for sampling and analysis prior to off-site disposal at an approved facility. Any excess soil generated from an excavation must be managed in accordance with all applicable regulations and good engineering practices.

Notifications

The Site owner shall notify the NYSDEC project manager 15 days in advance of any planned excavation activities in the "restricted" area.

At least 15 days prior to the start of any activity in the "restricted area" (SWMU S-091) that is anticipated to encounter remaining contamination via excavated soil that is in contact with groundwater, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Mr. Bart Putzig
Regional Hazardous Waste Remediation Engineer
New York State Department of Environmental Conservation
Region 8 Office
6274 East Avon-Lima Rd.
Avon, NY 14414
bxputzig@gw.dec.state.ny.us
(585) 226-5349

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, and potential presence of grossly contaminated media;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of the excavation requirements for the "restricted area" from the Site Management Plan.
- A statement that the work will be performed in compliance with this Site Management Plan and 29 CFR 1910.120,
- The contractor's health and safety plan will be available on-site for review if desired
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

Simple excavations may only require compliance with a portion of the Excavation Controls specified below. For example, excavation of a small volume of soil from above the water table that is directly loaded for off-site disposal would not require the stockpiling or fluids management provisions of this section.

Excavation Controls

Soil Screening
Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when the invasive work is done

in the "restricted area" (SWMU S-091) in which soil that is in contact with groundwater is expected to be impacted.

Stockpile Methods

Any soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps and will be routinely inspected and damaged tarp covers will be promptly replaced.

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

Materials Excavation and Load-Out

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

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

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

Materials Transported Off-Site

All transport of materials will be performed in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Material transported by trucks exiting the site will be secured with covers and if loads contain wet material capable of producing free liquid liners will be used.

Trucks will be washed prior to leaving the site as necessary and wash waters will be collected and disposed of properly.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the restricted area will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from the restricted area will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate. Actual disposal quantities and associated documentation will be reported to the NYSDEC in conjunction with the periodic review certification (see Section 5 below).

Materials Reuse On-Site

At this time it is not anticipated that any excavated material that came into contact with groundwater from the restricted area would be reused on-site.

Cover System Restoration

There are no cover requirements in the restricted area.

Backfill from Off-Site Sources

It is not anticipated that there will be a need for any off-site backfill material in the restricted area. If the need ever arose the site owner will ensure that materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

Stormwater Pollution Prevention
It is not anticipated that there will be any excavations or construction projects of a size in the restricted area that would trigger the need for procedures for stormwater pollution prevention. As such, one is not being proposed here.

Community Air Monitoring Plan
The air in the vicinity of all locations where intrusive work will be performed that will disturb significant quantities of soil shall be monitored for volatile organic compounds, and airborne particulates (dust) in accordance with NYSDEC DER-10 and New York State Department of Health (NYSDOH) generic Community Air Monitoring Plan (CAMP).

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

Odor Control Plan
All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: limiting the area of open excavations and size of soil stockpiles; shrouding open excavations with tarps and other covers; and using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include direct load-out of soils to trucks for off-site disposal; use of chemical odorants in spray or misting systems; and, use of staff to monitor odors in surrounding neighborhoods. If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

Dust Control Plan
Dust suppression will be achieved through the use of an on-site water truck for wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

Gravel will be used on roadways to provide a clean and dust-free road surface. On-site roads will be limited in total area to minimize the area required for water truck sprinkling.
Soil Vapor Intrusion (SVI) Evaluation:
The potential for vapor intrusion must be evaluated for any new buildings developed on the property and any potential impacts that are identified must be mitigated;

Prior to the construction of any new buildings on the EBP-S Site either a SV evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure or a SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for any follow-up action if deemed necessary.

4. Notification of change in use

   The NYSDEC must be notified in writing at least 60 days prior to any change in the use (including ownership) of the site or the responsibility for implementing this SMP. Such notification will include a certification that the prospective purchaser or the new responsible party has been provided with a copy of this SMP; and

5. Inspection, reporting and certification of compliance:

   The Site owner must submit to NYSDEC a written statement that certifies, under penalty of perjury, that for each institutional control identified for the site all of the following statements are true:

   - The institutional control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
   - Nothing has occurred that would impair the ability of the control to protect the public health and environment;
   - Nothing has occurred that would constitute a violation or failure to comply with the site management plan for this control;
   - Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
   - Use of the site is compliant with the environmental easement.

- The information presented in the report is accurate, complete and consistent with the requirements of this SMP.

This periodic review certification will be made annually until such time that an alternate frequency is required by the by the NYSDEC, and will include the following statement:

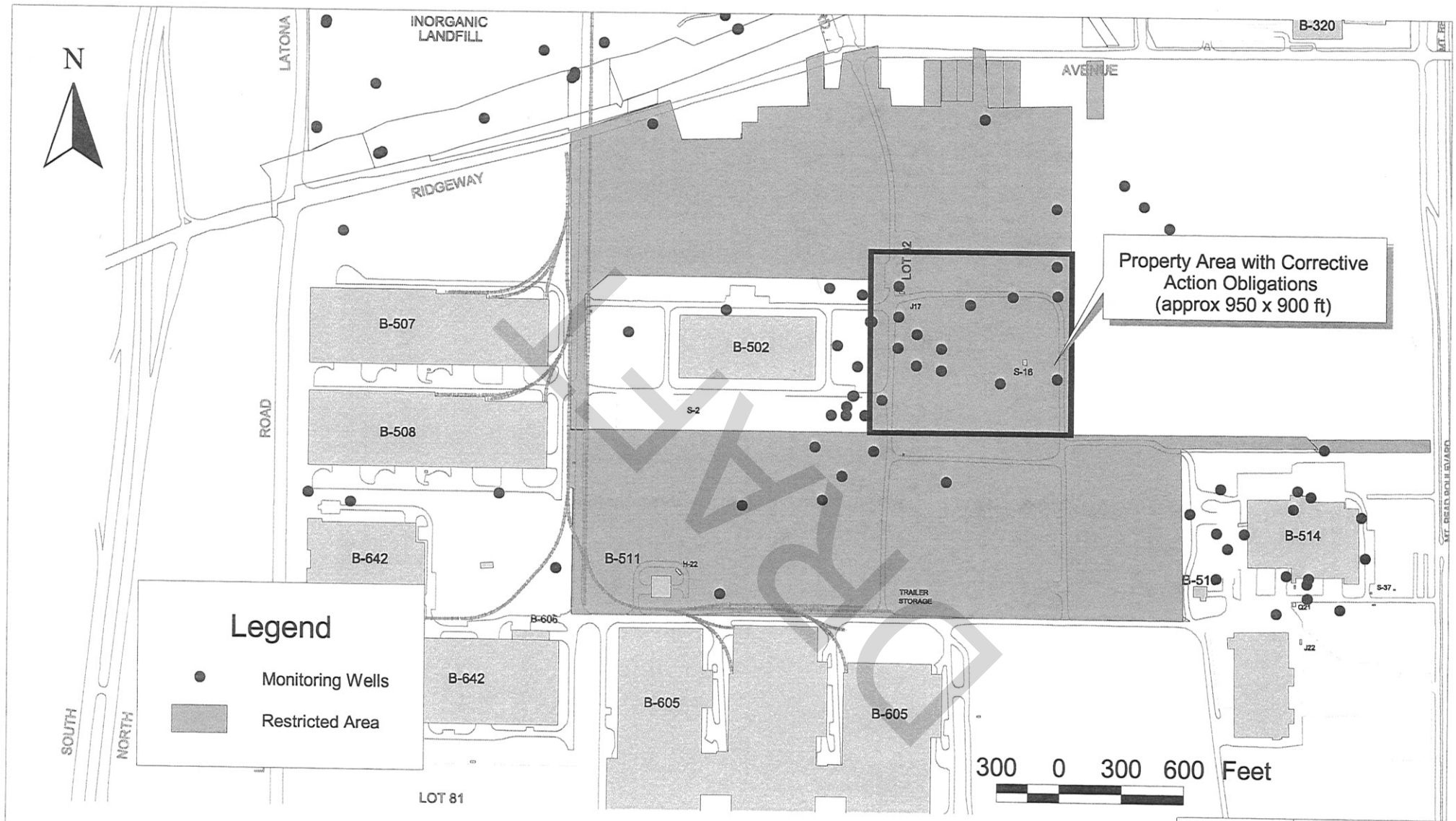
> I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the site consists of multiple properties): [and I have been authorized and designated by all site owners to sign this certification] for the site.

Currently, this certification will be directed to:

> Lawrence Thomas, Project Manager
> NYSDEC-Division of Environmental Remediation
> 625 Broadway, 12th Floor
> Albany, New York 12233-7017
> E-mail: lxthomas@gw.dec.state.ny.us
> (518) 402-9813

Included with each certification will be a facility contact name, telephone number and address.

Figures



KODAK PARK
CORRECTIVE ACTION PROGRAM
EASTMAN KODAK COMPANY
ROCHESTER, NEW YORK

Eastman Business Park - South

EASTMAN KODAK COMPANY

DRAWN:
DATE:
APPVD:
FILENAME:
PROJECT FOLDER:

Figure 2

APPENDIX D SWPPP INSPECTION FORM

LI-CYCLE NORTH AMERICA HUB, TOWN OF GREECE NY
WEEKLY CONSTRUCTION SWPPP INSPECTION REPORT

Inspector Name:	Date:
Signature (required):	Time:
Weather:	Inspection #:
Soil Conditions (dry, saturated, etc):	

Note: Digital photos, with date stamp required for all practices requiring corrective action, before and after, to be attached to the inspection report.

	YES	NO	N/A		
1.	☐	☐	☐	Routine Inspection.	Date of last inspection:_____
2.	☐	☐	☐	Inspection following rain event.	Date/time of storm ending:_____ Rainfall amount:_____ Recorded by:_____
3.	☐	☐	☐	Is this a final site inspection?	
4.	☐	☐	☐	Has site undergone final stabilization?	
	☐	☐	☐	If so, have all temporary erosion and sediment controls been removed?	

Site Disturbance (Indicate Locations on Plan)

	YES	NO	N/A	
1.	☐	☐	☐	Areas previously disturbed, but have not undergone active site work in the last 14 days?
2.	☐	☐	☐	Areas disturbed within last 14 days?
3.	☐	☐	☐	Areas expected to be disturbed in next 14 days?
4.	☐	☐	☐	Do areas of steep slopes or complex stabilization issues exist? If "YES" explain:
5.	☐	☐	☐	Are there currently more than 5 acres of disturbed soil at the site? If so make sure there is an approval letter from NYS DEC.

Additional Comments:_____

Inspection of Erosion and Sediment Control Devices

	Type of Control Device	Accumulation (if any) in %	Repairs/Maintenance Needed
1.			
2.			
3.			
4.			
5.			
6.			

Stabilization/Runoff

	YES	NO	N/A	
1.	☐	☐	☐	Are all existing disturbed areas contained by control devices? Type of devices:
2.	☐	☐	☐	Are there areas that require stabilization within the next 14 days? Specify Area:
3.	☐	☐	☐	Have stabilization measures been initiated in inactive areas?
4.	☐	☐	☐	Is there current snow cover or frozen ground conditions?
5.	☐	☐	☐	Rills or gullies?
6.	☐	☐	☐	Slumping/deposition?
7.	☐	☐	☐	Loss of vegetation?
8.	☐	☐	☐	Lack of germination?
9.	☐	☐	☐	Loss of mulching?

Receiving Structures/Water Bodies (Indicate locations where runoff leaves the project site on the site plan)

	YES	NO	N/A	
1.	☐	☐	☐	Surface water swale or natural surface waterbody?

If natural waterbody:

Is waterbody located ☐ onsite, or ☐ adjacent to property boundary?

Description of condition:_____

2.	☐	☐	☐	Municipal or community system?

Inspect locations where runoff from project site enters the receiving waters and indicate if there is evidence of:

a.	☐	☐	☐	Rills or gullies?
b.	☐	☐	☐	Slumping/deposition?
c.	☐	☐	☐	Loss of vegetation?
d.	☐	☐	☐	Undermining of structures?
e.	☐	☐	☐	Was there a discharge into the receiving water on the day of inspection?
f.	☐	☐	☐	Is there evidence of turbidity, sedimentation, or oil in the receiving waters?

Additional Comments:_____

Inspection of Post-Construction Stormwater Management Control Devices

	Type of Control Device	Phase of Construction	Repairs/Maintenance Needed
1.			
2.			
3.			
4.			

General Site Condition

	YES	NO	N/A	
1.	☐	☐	☐	Have action items from previous reports been addressed?
2.	☐	☐	☐	Does routine maintenance of protection components occur on a regular basis?
3.	☐	☐	☐	Does cleaning and/or sweeping affected roadways occur, at minimum, daily?
4.	☐	☐	☐	Is debris and litter removed on a monthly basis, or as necessary?
5.	☐	☐	☐	Is the site maintained in an orderly manner?

Contractors progress over last 7 days:_____

Anticipated work to be begun in the next 7 days:_____

Additional Comments:_____

Visual Observations

	YES	NO	N/A	
1.	☐	☐	☐	All erosion and sediment control measures have been installed/constructed?
2.	☐	☐	☐	All erosion and sediment control measures are being maintained properly?

SUMMARY OF ACTION ITEMS TO REPAIR/REPLACE/MAINTAIN/CORRECT DEFICIENCIES

Action Reported To (no signature required): _____

Company: _____

APPENDIX E EMERGENCY CONTACT LIST

Emergency Response Internal Contact List		
Resource	**Title**	**Contact Number**
Tom Collins	Primary Emergency Contact	TBD
TBD	Secondary Emergency Contact	TBD
Jackie Jordan	SWPPP Coordinator	315-532-2172
Tim Johnston	Executive Chairman & Co-Founder	647-330-0366
Ajay Kochhar	Chief Executive Officer	647-966-2025

Emergency Response External Contact List	
Resource	**Contact Number**
New York State Spill Hotline	1-800-457-7362
Emergency Services (Fire, police, ambulance)	911
National Response Center	800-424-8802
Kodak Fire Department - Emergency Response Responders	585-477-6930
EBP Security (Emergency)	585-722-9911
Bryan Gallagher, Eastman Kodak Company	585- 588-7483

APPENDIX F SWPPP TRAINING RECORDS

Stormwater Training Log

Date: _____

Name of Trainer: _____

Employee Name	Employee Title	Signature

APPENDIX G CONTRACTOR SWPPP CERTIFICATION FORM

Contractor SWPPP Certification Form

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP. I also understand that it is unlawful for any person to cause or contribute to a violation of the water quality standards."

_____	_____
Signature	Date
_____	_____
Printed Name	Title
_____	_____
Contracting Firm Name	Contracting Firm Address & Telephone #

Project:

Li-Cycle Commercial Hub 1

205 McLaughlin Road, Town of Greece, Monroe County, New York

SECTION RESERVED FOR SIGNED CONTRACTOR CERTIFICATION FORMS

APPENDIX H OPERATOR DESIGN CALCULATIONS

Engineers Report

For

Commercial Hub 1
(Development Area #2)
Town of Greece, NY

Hargrove E+C Project Number: 1953.201968.10

Document Number: HAR-RPT01968-EN-CV-002
Li-Cycle Number: CH1-2210-CV-RPT-0002

Prepared By: CCY
Reviewed By: KDK

Revision: B
October 2021
Issued for Permit

Contents

Appendices

ENGINEERS REPORT

1.0 INTRODUCTION

The development is for the Li-Cycle Commercial Hub No. I located in the LiDestri Eco-Industrial Park in the Town of Greece, NY. The site development area is approximately 62 acres with a proposed lease area of 41.06 acres. The project is zoned General Industrial (IG). An existing stormwater management facility and storm drainage improvements exists on the property that was designed to accommodate the previously approved development. The proposed development will utilize this existing stormwater management facility and meet the same requirements. The project will be serviced by existing onsite utilities. Information in this report references the previous design for the LiDestri Eco-Industrial Park by Passero Associates (Engineers Report prepared for Ridgeway Properties, LLC. dated August 2016).

2.0 LAND USE & ZONING

The development site encompasses two parcels at 205 McLaughlin Road currently zoned General Industrial (IG). The zoning requirements for the project are shown in the table below:

General Industrial (IG) Zoning Requirements		
Criteria	**Zoning Requirement**	**Provided by Current Plan**
1. Setbacks		
Right of Way	100 ft	100 ft
Rear/Side (Residential)	100 ft (residential) 25 ft (nonresidential)	100 ft (residential) 25 ft (nonresidential)
2. Minimum Building Area	1,000 sf	465,522 sf
3. Minimum Lot Area	5 acres	41.06 acres
4. Parking Stall Size	9 ft x 18 ft	9 ft x 18 ft
5. Parking Requirement	1 space / employee	1 space / employee

3.0 STORMWATER

3.1 Stormwater Management

An existing stormwater management facility and storm drainage improvements exists on the property that was designed to accommodate a previously approved development. The proposed development will utilize this existing stormwater management facility which was designed to provide the required stormwater quality and quantity volume and criteria. The proposed improvements will be designed to not exceed the existing stormwater pond's designed development rates, provide downstream protection of the existing system and conform to the Town of Greece and NY state requirements.

The site development area is approximately 62 acres and the proposed lease area is 41.06 acres. The development is not to exceed the impervious area percentage analyzed on the previously approved development in order to satisfy storage requirements. The maximum impervious area was determined to be approximately 29 acres. A summary of the design requirements to include the effective stormwater volume of the leased area is described below. Stormwater flows and volumes were obtained using Hydraflow Hydrographs software.

3.1.1 Stormwater Calculation Summary

Site Development Area: 61.62 acres
Pre to post development modeled storage volume required: 19,564 CY (52.4% impervious)
Volume produced by leased area (41.06 acres): 15,688 CY (66.1% impervious) or 27 acres

Comparison of previously approved development:
Site Area: 57.39 acres* (per development plans)
Since remaining site is 44% impervious*, 4.23 acres were added for comparison
Adjusted Site Area: 61.62 acres, 59.1% impervious < 52.4% impervious
Existing Stormwater Management Pond Volume: 34,598 CY*

*Information per LiDestri Eco-Industrial Park Phase I SWPPP and Site Development Plans prepared by Passero Associates

3.2 Storm Drainage Design

The storm drainage system will comprise of two (2) main trunklines, north and south. Depressed areas were created in between the building and specific areas to provide temporary attenuation of the captured runoff. The flow collected in these areas will be directed to the main trunklines. The main line to the north will tie into the previously approved system which outfalls on the north side of the stormwater management pond. The line to the south will capture runoff in a similar fashion and direct flow to the south side of the pond.

The system was modeled using Hydraflow Storm Sewers Extension for Autodesk Civil 3D. The hydraulic system was analyzed, and the calculations are in the Appendix.

3.2.1 Storm Lateral Size and Materials per Town of Greece Design Criteria:

- Storm laterals shall be a minimum of six (6) inch diameter
- Storm sewer construction shall conform to the requirements of Section A – Sanitary Sewers, A7 Sewer Construction

- Storm manholes and manhole construction shall comply with Section A – Sanitary Sewers, A8 Sanitary Manholes
- Storm Lateral Construction shall comply with Section A – Sanitary Sewers, A10 House Laterals
- Inlets shall conform to the requirements of NYSDOT Section 604 Drainage Structures

4.0 UTILITIES

4.1 Sanitary Sewer

Process water and industrial sewage will connect to the existing 12" Recycled Energy Development (RED) industrial sewer that flows to King's Landing treatment plant.

Domestic sanitary sewer will connect to an existing 8" Monroe County Pure Waters (MCPW) sewer that flows to VanLare treatment plant.

Domestic Sanitary Sewer:

1. Average Daily Loading
   a. Domestic Use = 100 employees * 15 gpd/employee = 1,500 gpd
2. Maximum Peak loading (Peaking Factor of 4.0)
   a. Peak Flow = 1,500 gpd * 4.0 = 6,000 gpd (0.006 MGD)
   b. Peak Flow = 6,000 gal/day * 1 day/24 hr * 1 hr/60 min = 4.2 gpm

The 8" MCPW sanitary sewer has adequate capacity to serve the proposed development.

Industrial Sanitary Sewer:

1. Average Daily Loading - Flow TBD
2. Maximum Peak loading (Peaking Factor of 4.0) – Flow TBD

4.2 Water

Potable water will be provided by an existing 4" main. The existing 16" fire service will provide fire flow to the proposed Li-Cycle Fire Loop.

The water distribution system will be analyzed for two conditions:

a. Peak Domestic Demand – Pressure TBD
b. Fire Demand – Pressure TBD

4.3 Gas, Electric, and Steam

Gas, electric, and steam service will be provided by RED. Gas and Electric will be designed by the surveyor.

5.0 TRAFFIC & ACCESS

A Traffic Impact Study (TIS) was prepared to analyze the effects of the development on surrounding road network by Bergmann Associates Inc. Refer to traffic study by Bergmann Associates Inc. for more information.

APPENDIX

Appendix A – Aerial Photo

Appendix B – Engineers Report by Passero Associates

Engineers Report

LiDestri Eco-Industrial Park
Greece, New York

August 2016

Prepared for:
Ridgeway Properties, LLC
815 W. Whitney Rd.
Fairport, NY 14450

P.N. 20101073.0025

PASSERO ASSOCIATES
engineering architecture

CONTENTS

APPENDICES

Engineers Report
Eco-Industrial Park – Town of Greece, New York.

1.0 INTRODUCTION

The proposal is for the LiDestri Eco-Industrial Park, which includes the potential for approximately 2 million sf of industrial/manufacturing space located on nearly 124 acres at 50 McLaughlin Road in the Town of Greece, NY (Monroe County). The project is zoned General Industrial (IG) and Professional Office (BP-1). In addition, recreational facilities, outdoor gardens, and seated outdoor lunch areas are planned for the development. The project will be serviced by existing onsite utilities.

2.0 LAND USE & ZONING:

Approximately 121 acres of the site is located on the parcel at 50 McLaughlin Road. The parcel is currently zoned General Industrial (IG) and does not require rezoning. The remaining 3 acres are adjacent to 50 McLaughlin Road and encompass 1349, 1361, 1391, 1395, and 1401 Ridgeway Avenue. These properties are zoned Professional Office (BP-1).

The zoning requirements for the project are shown in the table below and on the next page:

General Industrial (IG) Zoning Requirements		
Criteria	**Zoning Requirement**	**Provided by Current Plan**
1. Setbacks		
Right of Way	100 ft	
Front	100 ft	≥ 137 ft
Rear/Side (Residential)	100 ft (residential) 25 ft (nonresidential)	≥ 100 ft (residential) ≥ 25 ft (nonresidential)
Parking to Residential Boundary	50 ft	≥ 92 ft
2.Minimum Building Area	1,000 sf	100,000 sf
3.Minimum Lot Area	3 acres	12.2 acres
4. Parking Stall Size	9 ft x 18 ft	9 ft x 18 ft
5. Parking Requirement	1 space / employee	1 space/employee

Professional Office (BP-1) Zoning Requirements		
Criteria	**Zoning Requirement**	**Provided by Current Plan**
1. Maximum Building Height	30 ft	30 ft
2. Setbacks		
Front	70 ft	130 ft
Side	20 ft (non-residential) 40 ft (residential)	132 ft (non-residential) N/A (residential)
Rear	0 ft (non-residential)	50 ft
3. Maximum Lot Coverage	15%	15%
4. Minimum Building Area	1,000 sf	± 20,000 sf
5. Minimum Lot Area	12,000 sf	3 acres
6. Minimum Lot Width	80 ft	461 ft
7. Minimum Lot Depth	120 ft	280 ft
8. Parking Stall Size	9 ft x 18 ft	9 ft x 18 ft
9. Parking Requirement	3 spaces / 1,000 sf = 60	74 spaces

3.0 UTILITIES

3.1 Sanitary Sewer

Process water and industrial sewage will connect to the existing 12" Recycled Energy Development (RED) industrial sewer that flows to King's Landing treatment plant. Domestic sanitary sewer will connect to an existing 8" Monroe County Pure Waters (MCPW) sewer that flows to VanLare treatment plant.

Domestic Sanitary Sewer:

1. Average Daily Loading
   a. Domestic Use = 882 employees * 15 gpd/employee = **13,230 gpd**

2. Maximum Peak loading (Peaking Factor of 4.0)
   a. Peak Flow = 13,230 gpd * 4.0 = **52,920 gpd (0.053 MGD)**
   b. Peak Flow = 52,920 gal/day * 1 day/24 hr * 1 hr/60 min = **36.8 gpm**

The 8" MCPW sanitary sewer has adequate capacity to serve the proposed development.

Industrial Sanitary Sewer:

1. Average Daily Loading
   a. Industrial Use = 2,000,000 sf * 0.1 gpd/sf = **200,000 gpd**

2. Maximum Peak loading (Peaking Factor of 4.0)
   a. Peak Flow = 200,000 gpd * 4.0 = **800,000 gpd (0.800 MGD)**
   b. Peak Flow = 800,000 gal/day * 1 day/24 hr * 1 hr/60 min = **556 gpm**

The 12" RED industrial sewer has adequate capacity to serve the proposed development.

3.2 *Water*

Potable water will be provided by an existing 4" main. An existing 16" fire service will provide fire suppression flow to the proposed buildings.

Domestic Service Flow Data:

P_{st} = 85 psi
P_{res} = 43 psi
Q_{ob} = 480 gpm
Q_{20} = 608 gpm
Elevation = 531 ft

Fire Service Flow Data:

P_{st} = 85 psi
P_{res} = 50 psi
Q_{ob} = 1,190 gpm
Q_{20} = 2,216 gpm
Elevation = 531 ft

The water distribution system was analyzed for two conditions:
a. Peak Domestic Demand
b. Fire Demand

Based on the attached WaterCAD analysis the resulting pressures for the demand scenarios are as follows (See Appendix B for water service calculations).

a. Peak Domestic Demand = 36.8 gpm (882 employees * 15 gpd/employee * 4.0 Peaking Factor * 1 day/24 hr * 1 hr/60 min)
   Lowest pressure = **85.1 psi** (35 psi minimum recommended)

b. Fire Demand = 1,400 gpm (400 gpm sprinkler + 1000 gpm/hydrant)
   Residual Pressure at most remote Hydrant= **45.6 psi**. (20 psi minimum required)

As shown above the existing water system has the capacity to support the proposed development for domestic water and fire flow.

3.3 Gas, Electric, and Steam

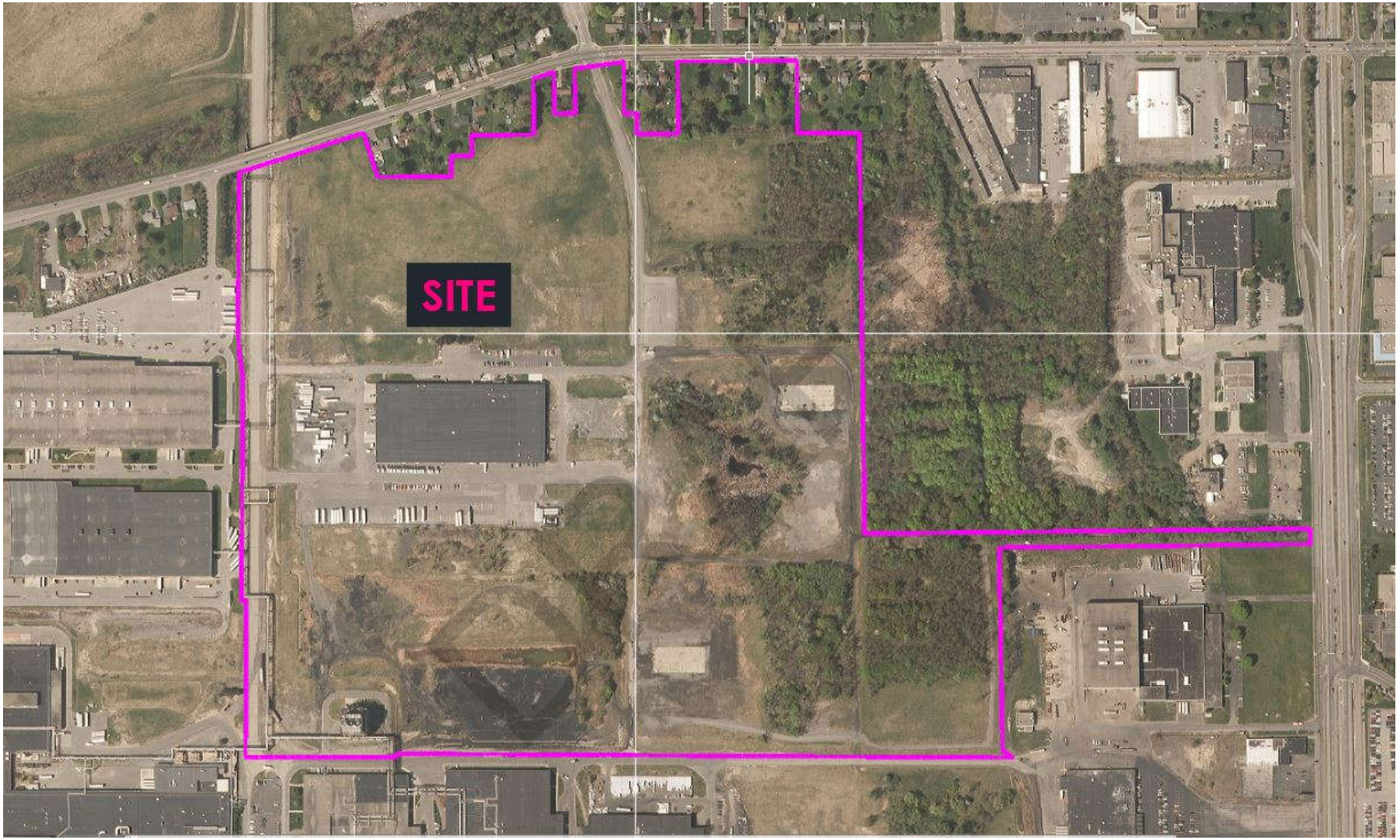
Gas, electric, and steam service will be provided by RED. Gas and Electric will be designed by the purveyor.

4.0 TRAFFIC & ACCESS

A Traffic Impact Study (TIS) was prepared to analyze the effects of the development on surrounding road network. The existing intersection of Ridgeway Avenue and McLaughlin Road is intended to serve as the primary project entrance. An additional access point to Ridgeway Avenue will likely be constructed for the proposed office building.

The Lidestri Industrial Park Development is located in an area designed to handle large amounts of traffic. Existing roadway infrastructure is ideal for the intended industrial use because it is located at the former Kodak Distribution Center. As shown in the TIS, existing roadways and intersections can support the anticipated traffic of the project. Even under the most developed scenarios generated and studied, all intersections and roadways are expected to be below capacity.

APPENDIX A. AERIAL PHOTO



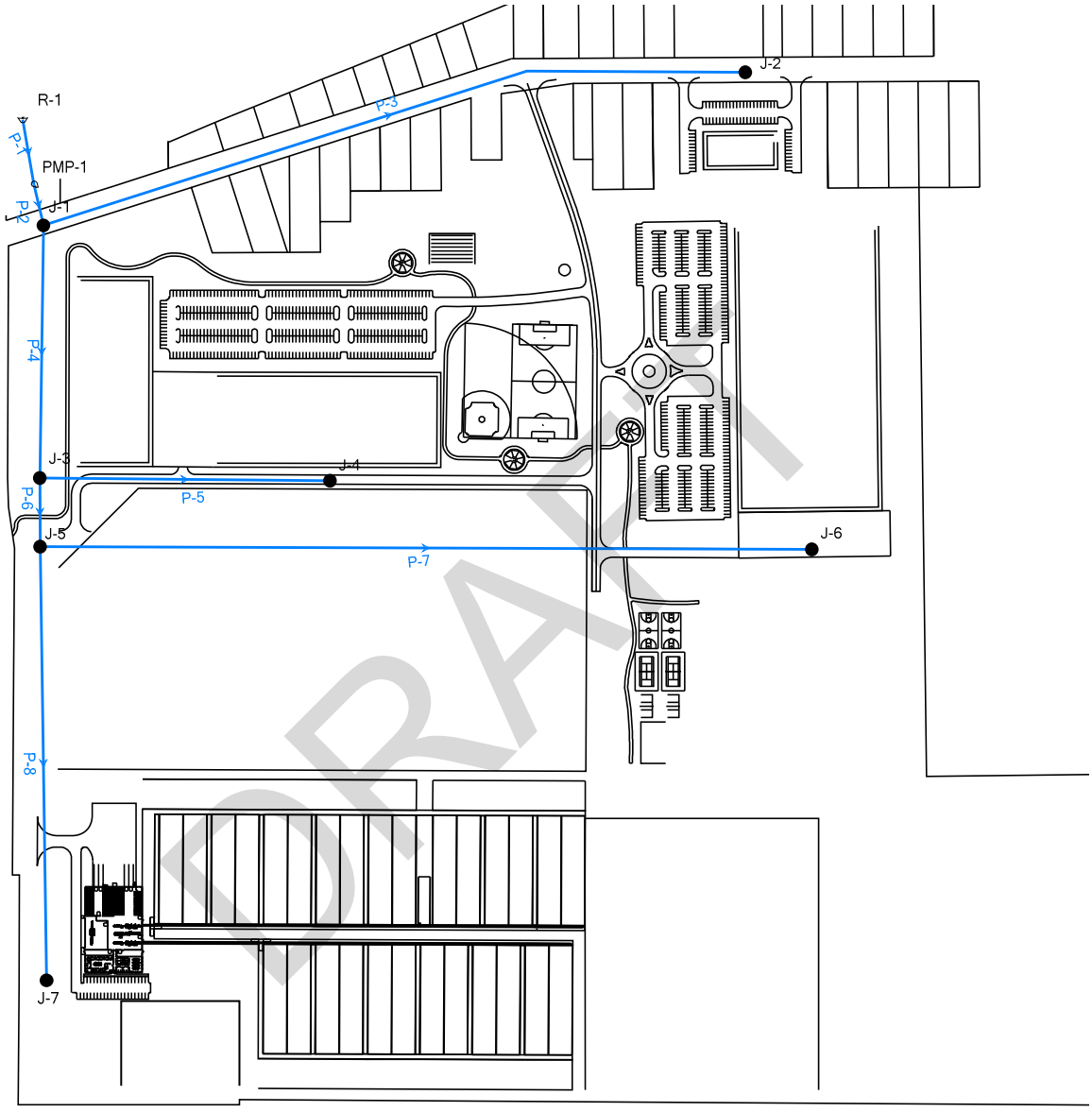
PA

AERIAL PHOTOGRAPH

August 2016

APPENDIX B. WATER SERVICE CALCULATIONS

Scenario: Domestic
Active Scenario: Domestic



FlexTable: Junction Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	525.00	0	727.37	87.6
J-2	525.00	3	727.35	87.5
J-3	525.00	7	726.70	87.3
J-4	525.00	10	726.62	87.2
J-5	525.00	0	726.65	87.2
J-6	520.00	16	726.15	89.2
J-7	530.00	2	726.64	85.1

FlexTable: Pipe Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C
P-1	R-1	PMP-1	48.0	130.0
P-2	PMP-1	J-1	4.0	130.0
P-3	J-1	J-2	4.0	130.0
P-4	J-1	J-3	4.0	130.0
P-5	J-3	J-4	4.0	130.0
P-6	J-3	J-5	4.0	130.0
P-7	J-5	J-6	4.0	130.0
P-8	J-5	J-7	4.0	130.0

FlexTable: Reservoir Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	532.00	37	532.00

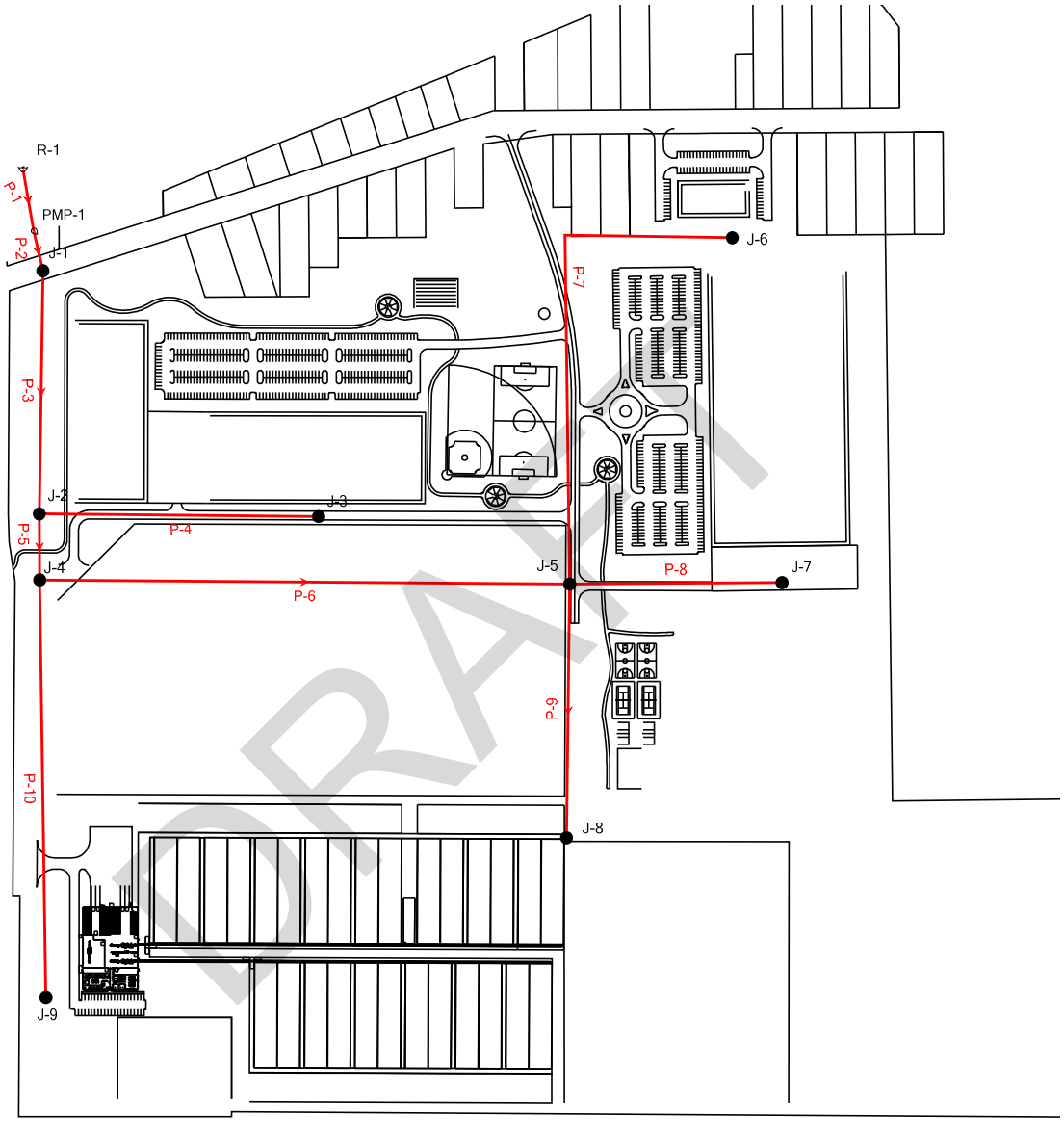
FlexTable: Pump Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Elevation (ft)	Pump Definition	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	531.00	Hydrant Flow Data	727.50	37	195.50

Scenario: Fire
Active Scenario: Fire



FlexTable: Junction Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	525.00	0	633.17	46.8
J-2	525.00	0	632.40	46.5
J-3	525.00	0	632.40	46.5
J-4	525.00	0	632.18	46.4
J-5	525.00	1,000	630.49	45.6
J-6	525.00	0	630.49	45.6
J-7	520.00	0	630.49	47.8
J-8	530.00	400	630.41	43.4
J-9	520.00	0	632.18	48.5

FlexTable: Pipe Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C
P-1	R-1	PMP-1	48.0	130.0
P-2	PMP-1	J-1	16.0	130.0
P-3	J-1	J-2	16.0	130.0
P-4	J-2	J-3	16.0	130.0
P-5	J-2	J-4	16.0	130.0
P-6	J-4	J-5	16.0	130.0
P-7	J-5	J-6	16.0	130.0
P-8	J-5	J-7	16.0	130.0
P-9	J-5	J-8	16.0	130.0
P-10	J-4	J-9	16.0	130.0

FlexTable: Reservoir Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	532.00	1,400	532.00

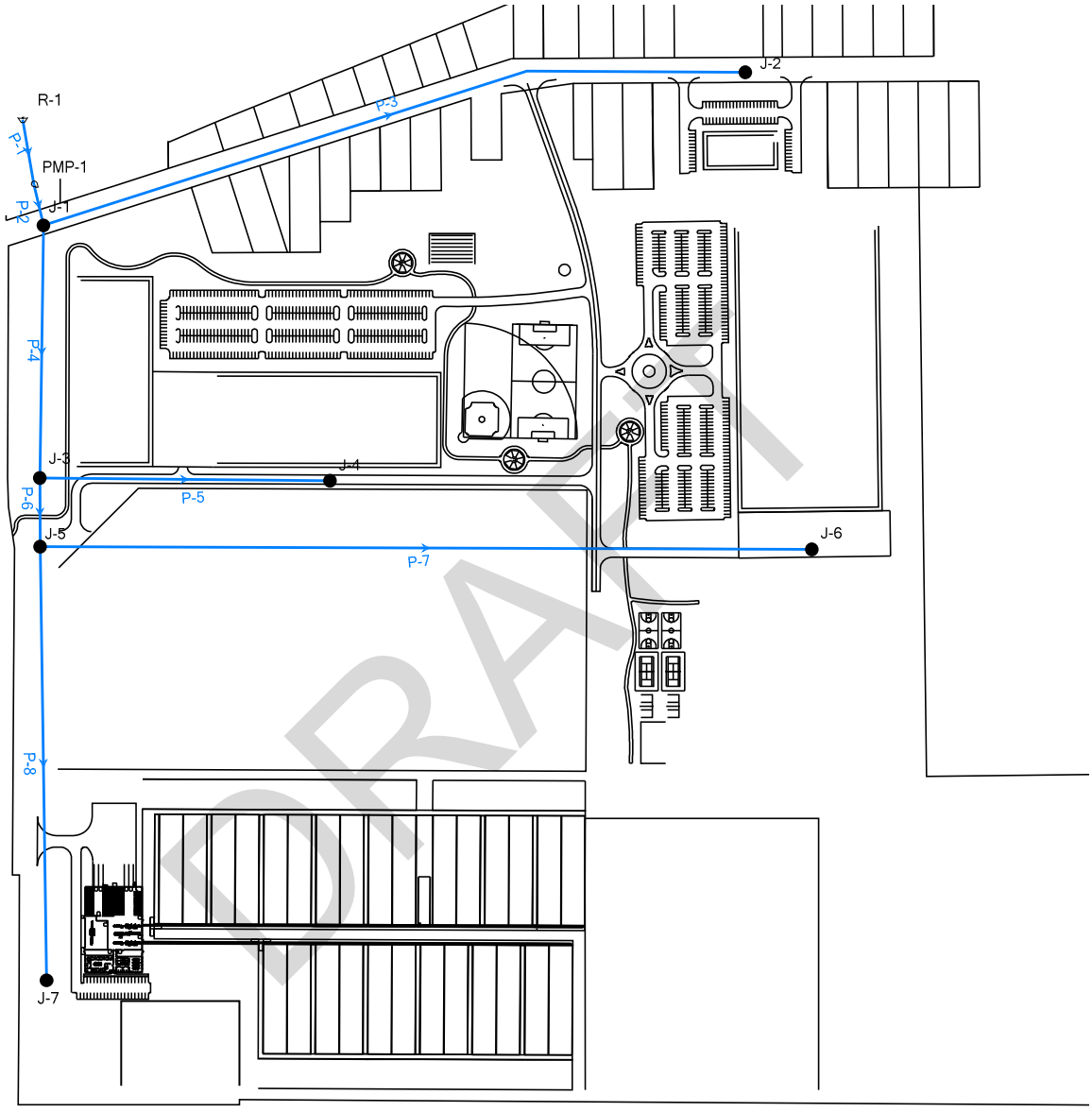
FlexTable: Pump Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Pump Definition	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	531.00	Hydrant Flow Data	633.30	1,400	101.30

Scenario: Domestic
Active Scenario: Domestic



FlexTable: Junction Table (Domestic Overall.wtg)

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Current Time: 0.000 hours

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	525.00	0	727.37	87.6
J-2	525.00	3	727.35	87.5
J-3	525.00	7	726.70	87.3
J-4	525.00	10	726.62	87.2
J-5	525.00	0	726.65	87.2
J-6	520.00	16	726.15	89.2
J-7	530.00	2	726.64	85.1

FlexTable: Pipe Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C
P-1	R-1	PMP-1	48.0	130.0
P-2	PMP-1	J-1	4.0	130.0
P-3	J-1	J-2	4.0	130.0
P-4	J-1	J-3	4.0	130.0
P-5	J-3	J-4	4.0	130.0
P-6	J-3	J-5	4.0	130.0
P-7	J-5	J-6	4.0	130.0
P-8	J-5	J-7	4.0	130.0

FlexTable: Reservoir Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	532.00	37	532.00

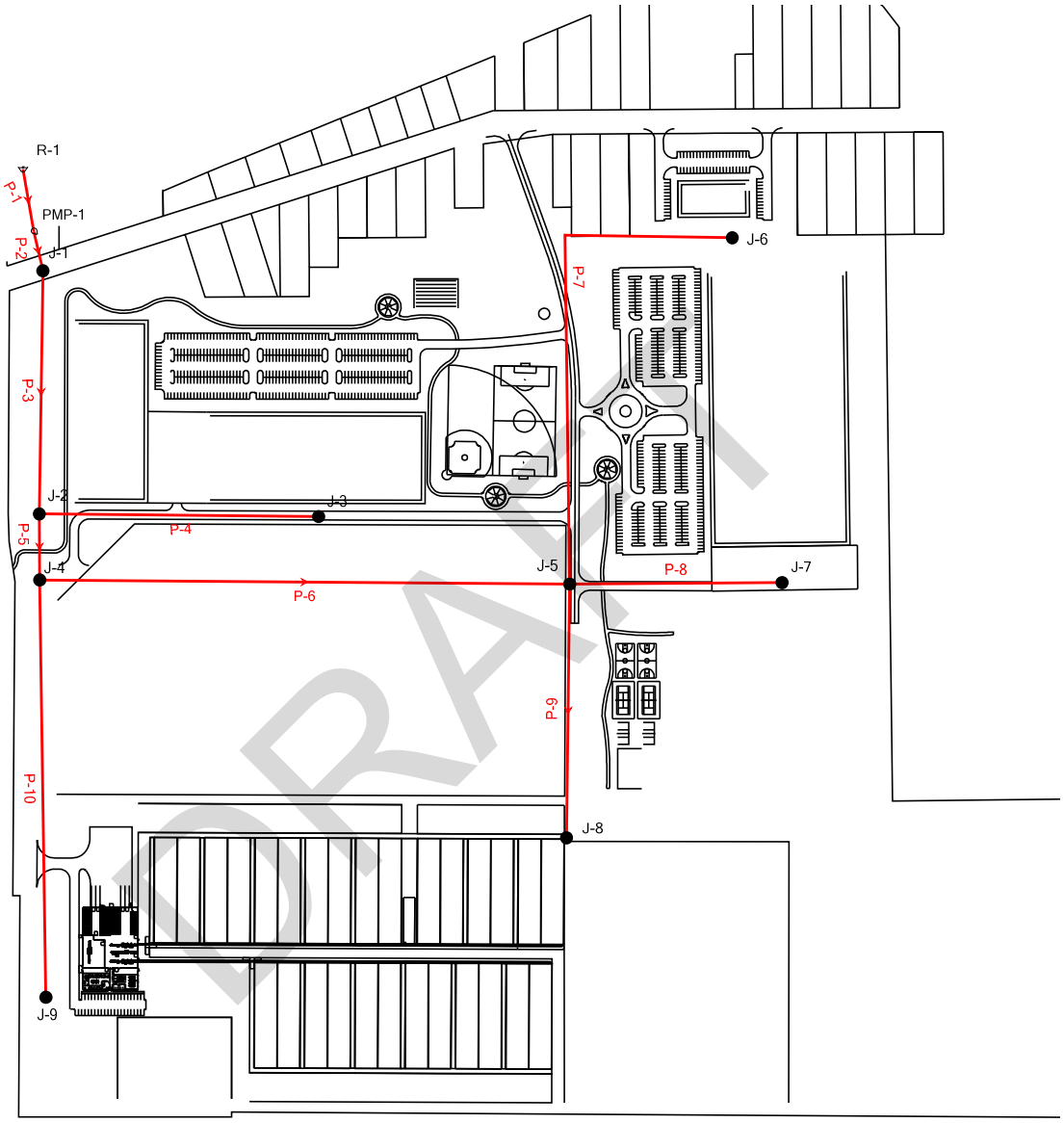
FlexTable: Pump Table (Domestic Overall.wtg)

Active Scenario: Domestic

Current Time: 0.000 hours

Label	Elevation (ft)	Pump Definition	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	531.00	Hydrant Flow Data	727.50	37	195.50

Scenario: Fire
Active Scenario: Fire



FlexTable: Junction Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
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J-3	525.00	0	632.40	46.5
J-4	525.00	0	632.18	46.4
J-5	525.00	1,000	630.49	45.6
J-6	525.00	0	630.49	45.6
J-7	520.00	0	630.49	47.8
J-8	530.00	400	630.41	43.4
J-9	520.00	0	632.18	48.5

FlexTable: Pipe Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Start Node	Stop Node	Diameter (in)	Hazen-Williams C
P-1	R-1	PMP-1	48.0	130.0
P-2	PMP-1	J-1	16.0	130.0
P-3	J-1	J-2	16.0	130.0
P-4	J-2	J-3	16.0	130.0
P-5	J-2	J-4	16.0	130.0
P-6	J-4	J-5	16.0	130.0
P-7	J-5	J-6	16.0	130.0
P-8	J-5	J-7	16.0	130.0
P-9	J-5	J-8	16.0	130.0
P-10	J-4	J-9	16.0	130.0

FlexTable: Reservoir Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	532.00	1,400	532.00

FlexTable: Pump Table (Fire Overall.wtg)

Active Scenario: Fire

Current Time: 0.000 hours

Label	Elevation (ft)	Pump Definition	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	531.00	Hydrant Flow Data	633.30	1,400	101.30

APPENDIX C. STORMWATER POLUTION PREVENTION PLAN (SEPARATE COVER)

Appendix C – Stormwater Pollution Prevention Plan (SWPPP) by Passero Associates

Stormwater Pollution Prevention Plan (SWPPP)

LiDestri Eco-Industrial Park Phase I Greece, New York

September 2016

Prepared for:
Ridgeway Properties, LLC
815 W. Whitney Rd.
Fairport, NY 14450

P.N. 20101073.0025

PASSERO ASSOCIATES
engineering architecture

Passero Associates | 242 West Main Street, Suite 100 | Rochester, NY 14614 | 585.325.1000 | www.passero.com

CONTENTS

APPENDICES

Stormwater Pollution Prevention Plan
LiDestri Eco-Industrial Park Phase I – Town of Greece, New York.

1.0 INTRODUCTION

The proposal for Phase I of the LiDestri Eco-Industrial Park includes 630,000 sf of green house and a 33,750 sf distribution office for a hydroponic operation which will grow and distribute organic baby spinach across the northeastern portion to the U.S. The development includes approximately 530,000 sf of additional future expansion area. All infrastructure will be designed to accommodate the current development and all future expansion. This report is being prepared to review the technical aspects of the proposal and evaluate existing utilities and proposed demands on the current infrastructure for the proposed development. The project is located at 50 McLaughlin Road within the Town of Greece and is zoned General Industrial (IG). This property is a previous Kodak site. The proposal will include private sanitary and storm sewers as well as a private water main for domestic and fire protection.

The site will drain to a regional stormwater management area (SMA) in the southeastern corner of the property that will control runoff rates and discharge to an offsite ditch. The regional stormwater management area is designed for full build out of the entire 124 acre LiDestri ECO-Industrial Park. The purpose of this SWPPP is to evaluate overall existing stormwater runoff vs. proposed anticipated Stormwater runoff from the entire parcel (water quantity) and evaluate the water quality for phase 1. An overall SWPPP has previously been submitted evaluating stormwater runoff for the entire Industrial Park, the hydraulic calculations have also been included in this SWPPP, in addition to the hydraulic calculations this SWPPP will evaluate Green Infrastructure for Phase I only. Specific SWPPP reports will be submitted with each future phase in conjunction with site development plans as future phases are developed.

The provided Stormwater Pollution Prevention Plan (SWPPP) materials adhere to the State Pollutant Discharge Elimination System (SPDES) General Permit (GP-0-15-02) for Stormwater Discharges from Construction Activity. The guidelines specified by the *New York State Stormwater Management Design Manual, January 2015* (SWDM) were used to analyze the proposed stormwater management facilities for this project. Erosion and Sediment controls were designed in conformance with New York Standards and Specifications for Erosion and Sediment Controls.

A copy of this SWPPP and associated inspection logs will be kept on site in the proposed office space and job trailer/SWPPP mailbox.

Owner/Operator
Ridgeway Properties, LLC
815 West Whitney Road
Fairport, NY 14450
(585) 208-1637
Contact: Ed Brillante

SWPPP Preparer
Passero Associates
242 West Main Street. Suite 100
Rochester, NY 14614
(585) 325-1000
Contact: Matthew Newcomb

2.0 EXISTING CONDITIONS

A. *Topography/ Drainage*

The project is located on approximately 124 acres of partially developed lands in the former Kodak Park, south of Ridgeway Avenue. A natural drainage divide runs north-south through the center of the site. The western portion of the site drains toward Paddy Hill Creek. The eastern section of the site drains toward the federal wetlands on the property and eventually discharges into a manmade swale along the southeast portion of the site.

B. *Soils*

Soils within the project boundary and within the offsite drainage area were reviewed for their hydrologic soil group in accordance with the USDA's NRCS Soil Survey. The soils are summarized below and the soils report is located in Appendix F.

BrA – Brockport silty clay loam	Hydrologic Soil Group: D Slopes: 0% - 2%
RgB – Riga silt loam	Hydrologic Soil Group: D Slopes: 2% - 8%
Mb – Made land	Hydrologic Soil Group: A

C. *Wetlands*

The site was reviewed for the existence of federal and state regulated wetlands within the property boundaries. Federal wetlands were researched using the online National Wetlands Inventory (NWI) from the U.S. Fish and Wildfire Service. State regulated wetlands were researched using the NYSDEC's online Environmental Resource Mapper website.

Review of the mapping indicates that there are no state wetlands located within the property boundaries. However, there are federally regulated wetlands within the property boundaries. The wetlands have been delineated by Terrestrial Environmental Specialist, Inc. on July 14th, 2016.

Refer to Appendix D for the state wetland mapping and Appendix E for the federal regulated wetlands mapping. See site plans for delineated wetlands.

D. *Floodplain*

Floodplains were researched using the online Firmette tools found at FEMA Map Service Center.

Review of the floodplain mapping indicates the site is not located in any flood plains. This site is shown on FEMA map 36055C0183G.

Refer to Appendix G for flood mapping.

E. *NYSDEC Environmental Resources*

The NYSDEC Environmental Resource Mapper is an interactive mapping application used to identify New York's state protected natural resources and environmental features. It displays the following information:

- Animals and plants that are rare in New York, including those listed as Endangered or Threatened (generalized locations). [Updated May 2008]
- Significant natural communities, such as rare or high-quality forests, wetlands, and other habitat types.
- New York's streams, rivers, lakes, and ponds; water quality classifications are also displayed

According to this database, there are no rare plants/ animals in the vicinity of the project. Refer to Appendix D for the NYSDEC's Environmental Resource Mapping.

F. *State Historic Preservation Office Review*

The site was reviewed for the presence of archeologically sensitive areas within the property boundary. The archeologically sensitive areas were located using online GIS tools found at the NYS Historic Preservation Office (SHPO).

After review, the subject parcel is located within an archeologically sensitive area. However, this site has been previously developed under Kodak and further investigation would not be required. SHPO mapping is located in Appendix H.

3.0 DEVELOPED CONDITIONS

The proposal evaluates overall existing peak runoff rates vs. proposed peak runoff rates based on the overall concept plan. A separate SWPPP will be developed a submitted to the Town for review as each phase is developed. Generally, all impervious area will drain to the proposed stormwater management facility located on the south east portion of the site. Each phase will be designed to treat water quality while the global stormwater facility will treat water quantity for the entire development.

Phase I has a project area of approximately 58 acres, with 16 acres of buildings/greenhouses currently proposed with area slated for future expansion of approximately 18.5 acres. Phase I will contain the stormwater management area which will service all of Phase I proposed and future development

4.0 GREEN INFRASTRUCTURE

The project will utilize green infrastructure measures to provide RRv treatment and contributes to the water quality treatment objectives of Chapter 5 of the NYS SWDM. Green infrastructure practices will be integrated into each phase of the site. Green infrastructure practices provide water quality treatment, through infiltration or filtration through a soil media.

Appendix K is where green infrastructure calculations will be located as each individual portion of the site is developed.

5.0 STANDARD STORMWATER MANAGEMENT PRACTICES (SMP'S)

Runoff reduction provided reduces the WQv required; the remaining water quality controls are provided in storage above the infiltration basins. These provide Cp, Q_P and Q_f protection in accordance with the *New York State Stormwater Management Design Manual, January 2015*. Refer to the table below for a summary of the runoff rates:

Description	Runoff (cfs)				
	1 Year	2 Year	10 Year	50 Year	100 Year
Pre-Developed Condition	28.24	42.53	94.32	179.44	250.82
Post-Developed Condition	2.90	3.42	23.18	31.22	93.46
Reduction Provided (%)	**90%**	**92%**	**75%**	**83%**	**63%**

As shown above, the peak rate of discharge is less for all storm events. This meets the intent of the NYSDEC SWDM by releasing the water at a peak rate less than or equal to the existing peak rate. Refer to Appendix J for the Hydraflow analysis.

6.0 CONSTRUCTION EROSION CONTROL PRACTICES & INSPECTIONS

The Owner is responsible for having monthly inspections of the storm water management facility completed. The inspections shall review and document the following at a minimum: visual inspection of the outlet structure, check of the outlets for excessive sediment accumulation, visual inspection of the earthen berm for signs of erosion, burrowing, vegetation degradation, or any other issues of concern. A certified copy of the annual summary of inspections report will be provided to the Town of Greece by the first of December of each year the permit is open.

Several erosion control practices will be utilized during construction by the contractor under direct supervision by the owner and a qualified SWPPP observer (S.W.T.). These practices are explained below and shown in detail in the appendix of this report and the construction plans.

- Silt Fence → Silt fencing shall be installed at the toe of all slopes along the perimeter of the disturbed areas and at the toe of slope for any soil stock pile areas. Also, a row of silt fence will be installed around the perimeter of all wetlands in an effort to delineate its boundary. The fencing will be installed in accordance with the NYSDEC construction standards and at the instruction of this plan. The silt fencing shall be buried in the ground at least 6 inches. The contractor shall provide continued monitoring to ensure the silt fencing remains intact, and shall repair as needed. When the silt buildup is greater than 1/3 the height of the fence the contractor shall remove and dispose of the silt.

- Stabilized Construction Entrance → The project entrance shall serve as the construction entrance to the project and shall be installed according to the details of this plan. The contractor shall ensure that mud is not tracked onto the adjacent roadways and that the stone entrance properly removes mud and debris from construction vehicles.

- Sediment Basin→ the proposed infiltration basins shall serve as a temporary sediment basin during construction. A temporary outlet pipe will be installed to allow runoff to exit the basin. The SMA area shall be undercut a minimum of 3 ft. below the temporary pipe to provide a settling area for the runoff. Prior to final site stabilization, the sediment shall be removed from the facility.

- Drop Inlet Protection → All field inlets and catch basins shall have inlet protection in accordance with the detail the Appendix. Drop Inlet protection can be removed from catch basins in the roadway when the sub base is installed, and from the field inlets when the adjacent area is brought to final grade and stabilized.

- Seeding and Stabilization → The contractor shall seed and stabilize all disturbed areas not to be worked for 7 days within 7 days of the last disturbance.

Stabilization measures may include but are not limited to straw mulching, wood chip mulching, jute mesh and hydroseeding. The SMA and adjacent areas shall be stabilized immediately following their shaping and installation.

All embankments greater than 3:1 shall be stabilized with jute mesh.

- Check Dam → 24-inch-high stone check dams will be installed in all temporary and permanent diversion swales. The check dams will be installed every 2 vertical feet. Once the site is stabilized, these check dams will be removed.

- Truck Washdown Area → A truck washdown area will be provided adjacent to the construction entrance. This area will be constructed such that it drains to a sediment basin immediately adjacent prior to discharging offsite.

  Additional measures may be required during construction at the guidance of the owner or certified SWPPP observer. The contractor shall begin to make all adjustments to the erosion control within 24 hours of receipt of any deficiencies. During construction, the owner will be responsible for providing reports twice a week to the Town of Greece by a qualified observer in accordance with the GP-0-15-002.

  Any modifications to the SWPPP will be reported to the Town in writing prior to implementation. See Appendix A for additional SWPPP information.

  The owner is responsible for having a qualified operator on site at all times who has at least 4 hours of erosion control training in accordance with the GP-0-15-002. Once the site has achieved 80% stabilization and ground cover, the Town shall be required to sign off on the Notice of Termination (NOT) prior to submission to the NYSDEC. Removal of all temporary erosion and sediment control practices is required prior to demobilization.

7.0 POST CONSTRUCTION

The owner of the subject project will be responsible for all post construction practices. The contact information for the owner is illustrated on the cover of this plan as well as the design plans for the project. The post construction practices include performing annual inspections of the SMA to ensure proper working conditions and ensure continual stabilized cover of all project areas to 80% cover, minimum. All applicable inspection and maintenance activities shall continue until the 80% cover is met. Any silt removal will be disposed either off site or on site and immediately stabilized in accordance with the practices of this plan.

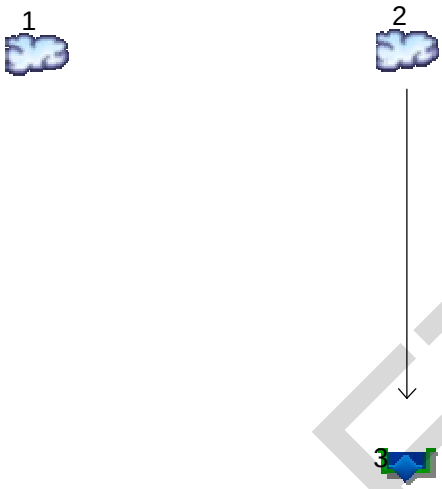
Additionally, annual monitoring of the storm sewer structures will be provided by the owner to ensure that they are functioning properly. These inspections will be certified by a Professional Engineer and a copy of the inspection report will be furnished to the Town of Greece.

8.0 SUMMARY

The proposed project requires stormwater management practices which conform to NYSDEC regulations. The proposed stormwater management areas will also result in a net decrease in peak runoff from the site while meeting the NYSDEC requirements for Runoff Reduction, Water Quality and Channel Protection. The proposed site reduces the existing rate of runoff for all studied storm events. Continued monitoring of the practices included in this plan will be provided by the owner and a designated SWPPP Inspector.

The following appendices of this report illustrate the additional requirements and specifications for stormwater pollution prevention. All practices included in this report and incorporated in the proposed project have been designed in compliance with the NYS Storm Water Design Manual and NYS Standards and Specifications for Erosion and Sediment Control.

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	SCS Runoff	EX-DA
2	SCS Runoff	PR-DA
3	Reservoir	SMA

Hydrograph Return Period Recap

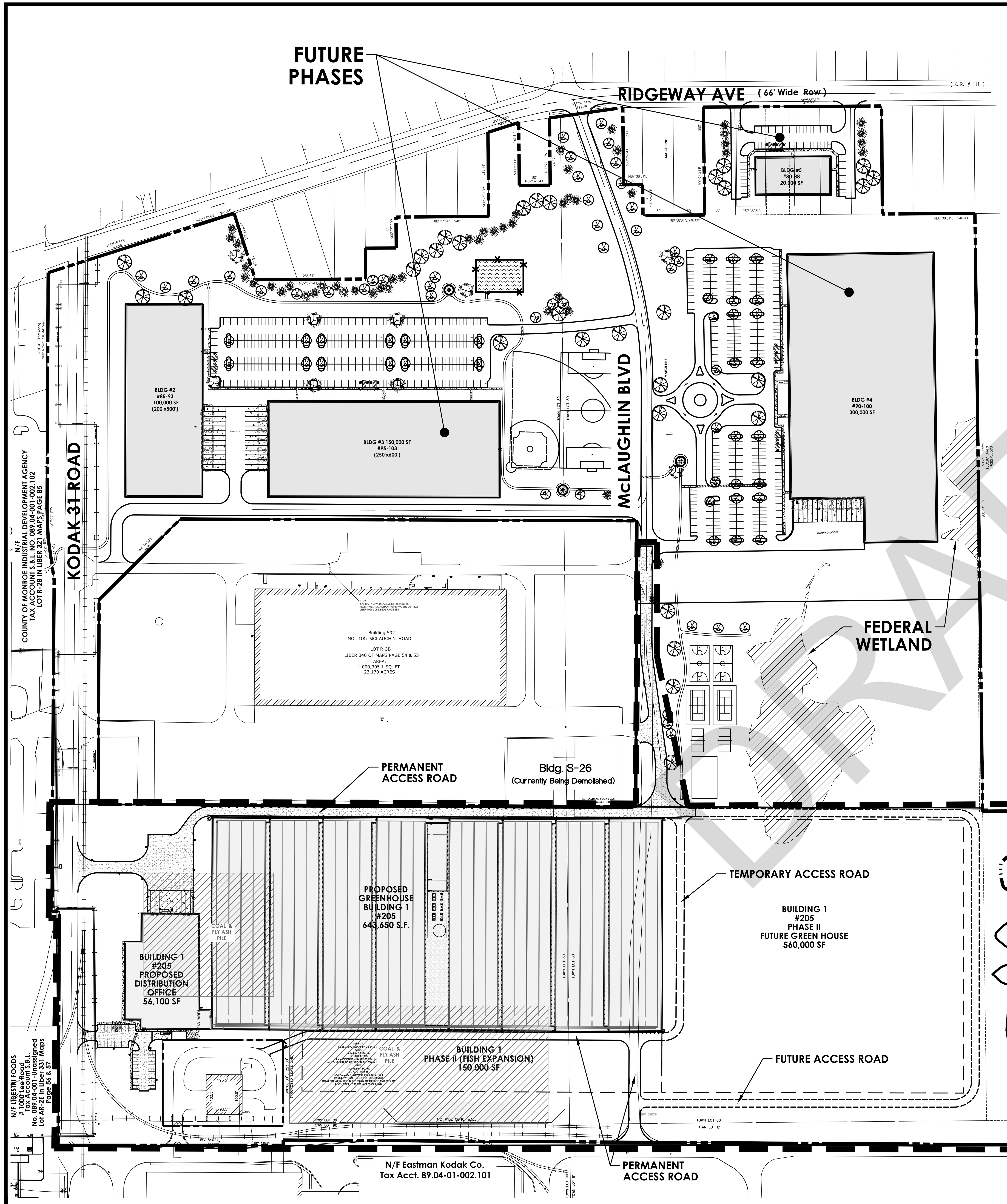
Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)							Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	SCS Runoff	------	28.24	42.53	-------	-------	94.32	-------	179.44	230.02	EX-DA
2	SCS Runoff	------	69.95	86.34	-------	-------	137.21	-------	210.18	250.82	PR-DA
3	Reservoir	2	2.903	3.423	-------	-------	23.18	-------	31.22	93.46	SMA

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	28.24	2	746	193,624	------	------	------	EX-DA
2	SCS Runoff	69.95	2	758	523,933	------	------	------	PR-DA
3	Reservoir	2.903	2	1228	458,415	2	506.29	405,437	SMA

Appendix D – Site Development Plans (Cover Sheet and Stormwater Management Plan) by Passero Associates



SITE DEVELOPMENT PLANS FOR

LIDESTRI ECO-INDUSTRIAL PARK

PHASE 1

TOWN OF GREECE, MONROE COUNTY, NEW YORK

P.N. 20101073.0025

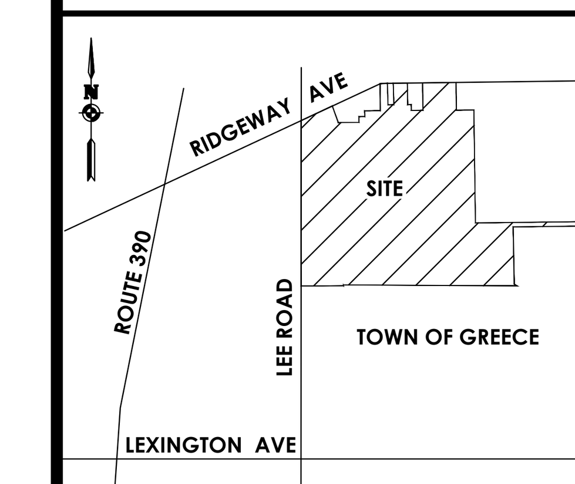
GENERAL INDUSTRIAL (IG) ZONING ANALYSIS		
CRITERIA	REQUIRED	PROPOSED
MAXIMUM BUILDING HEIGHT	N/A	N/A
FRONT BLDG. SETBACK FROM ROW FROM PRIVATE DR. ℄	100' FROM ROW 100' PRIVATE DR ℄	>100' FROM ℄
SIDE BLDG. SETBACK	100' RESIDENTIAL 25' NON-RESIDENTIAL	N/A' RESIDENTIAL 25' NON-RESIDENTIAL
REAR BLDG. SETBACK	25' NON-RESIDENTIAL 100' RESIDENTIAL	25'
LOT COVERAGE	N/A	28.8%
MINIMUM BLDG. AREA	1,000 SF	663,750 SF
MINIMUM LOT AREA	3 ACRES	70.2 ACRES
PARKING SPACES *	1 SPACE/EMPLOYEE	1 SPACE/EMPLOYEE
PARKING SETBACK FROM RESIDENTIAL	50'	>1000'
MINIMUM SPACE SIZE	9'X18'	9'X18'

SITE DATA

1. PARCEL ADDRESSES (TAX ID #):
   50 McLAUGHLIN BLVD (89.04-1-3.2)
2. TOTAL PARCEL AREA: 123.6 acres (44% IMPERVIOUS COVER)
   PROJECT AREA: 57.39± acres (28.8% IMPERVIOUS COVER)
   (INCLUDES FUTURE EXPANSION)
3. ZONING: GENERAL INDUSTRIAL (IG)
4. CURRENT USE: VACANT INDUSTRIAL
5. PROPOSED USE: INDUSTRIAL PARK
6. THERE ARE FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY. WETLANDS DELINEATED BY TES, JULY 2016.
7. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY.
8. THERE IS NO FLOOD PLAIN ON THIS PARCEL PER FIRM 36055C0183G.
9. WATER WILL BE PROVIDED BY RED ROCHESTER
10. ELECTRIC SERVICE WILL BE SUPPLIED BY RED ROCHESTER.
11. GAS SERVICE WILL BE SUPPLIED BY RG&E.
12. SANITARY SEWER WILL BE PROVIDED BY MCPW
13. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE TOWN OF GREECE, NY.
14. DISTANCE TO RTS BUS STOP: ONSITE (150 MCLAUGHLIN RD)

DRAWING INDEX

PASSERO ASSOCIATES
Engineering • Architecture
www.passero.com



LOCATION SKETCH
N.T.S.

Client:
RIDGEWAY PROPERTIES
815 W. Whitney Rd.
Fairport, NY 14450

Passero Associates
242 West Main Street, Suite 100
Rochester, New York 14614
(585) 325-1000
Fax: (585) 325-1691

Principal-in-Charge John F. Caruso, P.E.
Project Manager David L. Cox, P.E.
Designed by Matthew Newcomb

Revisions

No.	Date	By	Description
1	2/20/17	DC	Revised per agency comments.

COVER

LIDESTRI
ECO-INDUSTRIAL PARK
PHASE 1

TOWN OF GREECE, MONROE COUNTY, NY

Project No. 20101073.0025

Drawing No. C 101 | Sheet No. 1

Scale: 1" =150'

Date SEPTEMBER 2016

Z:\2010\20101073\20101073.0025\DRAWINGS\ENGINEERING\20101073.0025 COVER.DWG 2/24/2017 9:24 AM David Cox

STANDARD SANITARY SEWER EXTENSION NOTES:

1. MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER DAY FOR THE SANITARY SEWER. IF AN AIR TEST IS USED, THE TEST AS A MINIMUM SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM DESIGNATION C828-86 ENTITLED PRACTICE FOR LOW-PRESSURE AIR TEST OF VITRIFIED CLAY PIPE LINES. SANITARY MANHOLES SHALL BE VISUALLY INSPECTED AND TESTED FOR LEAKAGE BY EXFILTRATION OR VACUUM. VACUUM TESTING OF MANHOLES SHALL COMPLY WITH THE METHOD OUTLINED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION - TECHNICAL INFORMATION PAMPHLET (TIP) NO. 15 (LATEST REVISION).
2. FLOOR DRAINS, IF CONSTRUCTED IN THE PROJECT, MUST BE CONNECTED TO THE SANITARY SEWER. NOTE: FLOOR DRAINS DO NOT INCLUDE FOUNDATION OR FOOTER DRAINS INSTALLED TO INTERCEPT UNCONTAMINATED GROUND WATER. ALL DISCHARGES FROM THE FLOOR DRAINS TO THE SANITARY SEWER MUST COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR THE MONROE COUNTY SEWER USE LAW.
3. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
4. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER LINES SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN PIPE SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PIPELINE PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS PIPES AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS.

HORIZONTAL SCALE
60 0 30 60 120
SCALE: 1"=60'

POND STAGE/STORAGE ELEVATION TABLE

STORM EVENT	ELEVATION
1 YR	506.29
2 YR	506.82
10 YR	507.63
50 YR	509.29
100 YR	509.82

NORMAL WATER SURFACE ELEV=504.0
OUTLET STRUCTURE TOP OF GRATE=507.0
EMERGENCY SPILLWAY ELEV=509.3

CONTOUR ELEVATION	STORAGE (CF)
504	0
505	169,139
506	350,223
507	541,374
508	747,280
509	964,093
510	1,183,278
510.5	1,294,605

LEGEND:

- PROPERTY BOUNDARY
- R.O.W.
- EXISTING CENTER LINE ROAD
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED SIGN
- PROPOSED LIGHT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SILT FENCE
- PROPOSED STORM SEWER, INLET MH, CB & END SECTION
- EXISTING STORM SEWER & MH
- PROPOSED WATER SERVICE W/ HYDRANT & VALVE
- EXISTING WATER SERVICE & VALVE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- EXISTING ELECTRIC LINE & POLE
- EXIST. LIGHT POLE
- EXIST. ELECTRIC MANHOLE
- EXIST. ELECTRIC HANDHOLE
- EXIST. GAS VALVE
- EXIST. GAS MAIN
- EXIST. WATER MAIN
- EXIST. ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED STONE CHECK DAM
- PROPOSED INLET PROTECTION
- PROPOSED TREE/BRUSH LINE
- EXISTING TREE/BRUSH LINE
- SILT FENCE

MATCH TO SHEET C113

TEMPORARY SWALE
TEMPORARY 3' DEEP SEDIMENT BASIN
257 LF 30" HDPE STM.@ 4.68%
DA-4 (6' DIA INLET MH) TG=517.20 W INV=506.11 S INV=506.11
FUTURE ACCESS ROAD. (NOT INCLUDED IN PHASE 1)
FUTURE STORM PIPE. (NOT INCLUDED IN PHASE 1)
TEMPORARY SWALE
DA-2 (6' DIA INLET MH) TG=518.10 W INV=504.77 E INV=504.77
380 LF 24" HDPE STM.@ 0.40%
SILT FENCE (TYP)
355 LF 36" HDPE STM.@ 0.30%
180 LF 36" HDPE STM.@ 0.30%
DA-3 (6' DIA INLET MH) TG=518.10 N INV=505.84 E INV=505.84
INLET PROTECTION (TYP)
DA-1 (8' DIA INLET MH) TG=518.10 W INV=504.23 N INV=504.23 E INV=504.23
114 LF 48" HDPE STM.@ 0.20%
DA 48" END SECTION INV=504.00
PLUNGE POOL
EMERGENCY SPILLWAY ELEV=509.30
SPILLWAY ELEVATION=506.0
SPILLWAY ELEVATION = 513.0
6" UNDERDRAIN INV=509.00
INFILTRATION BASIN
OS-1 (4' DIA INLET MH) TG=507.00 NE INV=504.00
OS-2 (3'x3' CB) TG=512.50 S INV=509.00
87 LF 18" HDPE STM.@ 0.32%
OS-2.1 3'x3' CB INV=508.72
DB 36" END SECTION INV=511.00
DB-1 (6' DIA INLET MH) TG=517.70 S INV=511.30 E INV=511.30
49 LF 36" HDPE STM.@ 0.61%
DB-3 (6' DIA INLET MH) TG=527.00 W INV=520.66 E INV=520.66
180 LF 36" HDPE STM.@ 0.39%
DB-2 (6' DIA INLET MH) TG=517.50 W INV=512.00 N INV=512.00
SPILLWAY ELEVATION = 512.0
100 YR STORM ELEVATION = 509.82
DEEP POOL
DB-4 (6' DIA INLET MH) TG=527.00 W INV=519.67 E INV=521.27
287 LF 30" HDPE STM.@ 0.30%
300 LF 36" HDPE STM.@ 0.20%
182 LF 36" HDPE STM.@ 4.77%
190 LF 18" PVC SAN @ 3.50%
COAL ASH AND FLY ASH RELOCATION AREA. CONTRACTOR TO CAP WITH 2' OF CLEAN FILL, SEED AND STABILIZE AREA.
SB-1 (5' DIA MH) RIM=525.30 W INV=509.34 E INV=509.24
386 LF 18" PVC SAN @ 0.56%
380 LF 18" PVC SAN @ 1.90%
SILT FENCE (TYP)
TEMPORARY SWALE
CORE AND CONNECT PROPOSED 18" SANITARY SEWER PIPE TO EXISTING MANHOLE AT INV=502.00 RECONSTRUCT BENCH AS NECESSARY
PROPOSED 100 YR STORM ELEVATION
EXISTING 100 YR STORM ELEVATION
21" HDPE INV=503.00
OS-1.1 24" END SECTION INV=503.39
121 LF 24" HDPE STM.@ 0.50%
PHASE 1 LIMITS FOR ROAD CONSTRUCTION
HEAVY DUTY PAVEMENT SECTION
STORM PIPE INCLUDED IN PHASE 1
DF-1 15" END SECTION INV=515.70
DF-2 15" END SECTION INV=520.00
260 LF 15" HDPE STM.@ 1.65%
PH2-D
MATCH TO SHEET C104
Cooling Towers
GUY POLE OH WIRE E.

Sanitary Sewer Approval

Monroe County Department of Public Health

These plans for Public Sanitary Sewer Extension / Improvement are hereby approved pursuant to Article 17 of the NYS Environmental Conservation Law subject to conditions of Approval

Director of Public Health

By Public Health Engineer Date

NORTHWEST QUADRANT PURE WATER DISTRICT

PLANNING BOARD APPROVAL

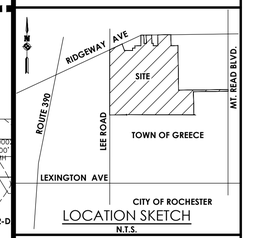
APPROVED BY _____ DATE
RED ROCHESTER (WATER SUPPLIER)

APPROVED BY _____ DATE
COMMISSIONER OF PUBLIC WORKS

APPROVED BY _____ DATE
TOWN ENGINEER

APPROVED BY _____ DATE
FIRE MARSHAL

PASSERO ASSOCIATES
Engineering • Architecture
www.passero.com



LOCATION SKETCH
N.T.S.

Client:
RIDGEWAY PROPERTIES
815 W. Whitney Rd.
Fairport, NY 14450

Passero Associates
242 West Main Street, Suite 100 (585) 325-1000
Rochester, New York 14614 Fax: (585) 325-1691
Principal-in-Charge John F. Caruso, P.E.
Project Manager David L. Cox, P.E.
Designed by Matthew Newcomb

STATE OF NEW YORK · JOHN F. CARUSO · LICENSED PROFESSIONAL ENGINEER

Revisions

No.	Date	By	Description
1	2/20/17	DC	Revised per agency comments.

STORMWATER MANAGEMENT PLAN

LIDESTRI
ECO-INDUSTRIAL PARK
PHASE 1

TOWN OF GREECE, MONROE COUNTY, NY

Project No. 20101073.0025

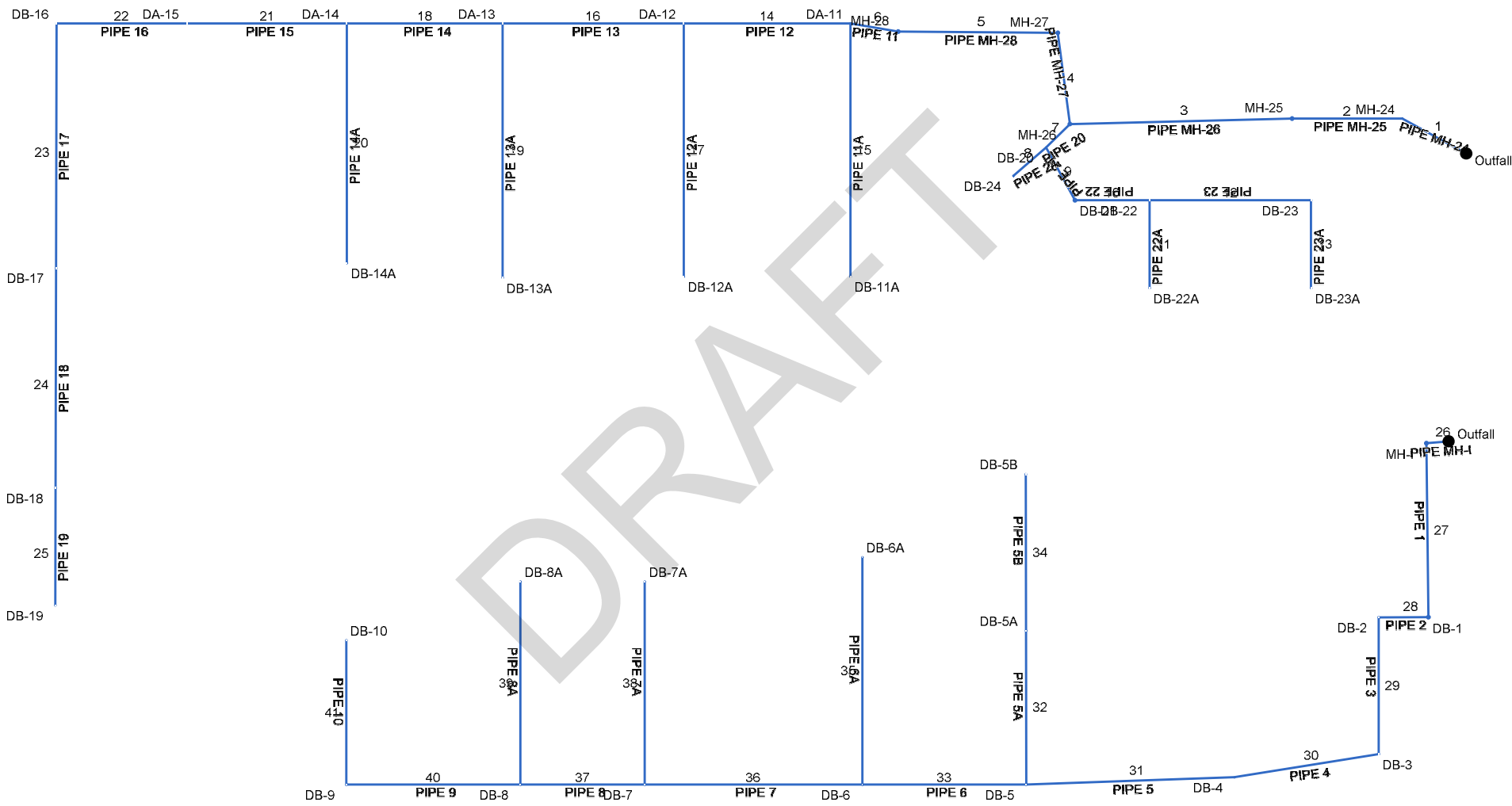
Drawing No. C106 | Sheet No. 6

Scale: 1" = 60'

Date SEPTEMBER 2016

Appendix E – Storm Drainage Model Output

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Li-Cycle ROCH DFS SS.stm	Number of lines: 41	Date: 10/19/2021

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	108.8	-160.8	None	0.00	0.00	0.00	0.0	503.85	0.31	504.19	48	Cir	0.010	0.38	518.19	PIPE MH-24
2	1	177.3	-19.2	MH	0.00	0.00	0.00	0.0	504.19	0.50	505.08	42	Cir	0.010	0.15	519.08	PIPE MH-25
3	2	357.4	-0.9	MH	0.00	0.00	0.00	0.0	505.08	0.51	506.90	42	Cir	0.010	0.99	519.00	PIPE MH-26
4	3	95.2	79.1	MH	0.00	0.00	0.00	0.0	506.90	0.58	507.45	42	Cir	0.010	0.98	517.21	PIPE MH-27
5	4	257.0	-77.9	MH	0.00	0.00	0.00	0.0	507.45	0.50	508.73	36	Cir	0.010	0.15	525.96	PIPE MH-28
6	5	77.1	5.8	Grate	0.00	0.20	0.90	5.0	511.23	0.51	511.62	30	Cir	0.010	1.50	526.40	PIPE 11
7	3	45.4	-31.0	Grate	0.00	0.01	0.90	5.0	512.56	0.51	512.79	24	Cir	0.010	1.50	527.50	PIPE 20
8	7	60.0	2.9	Grate	0.00	1.00	0.90	5.0	522.78	0.50	523.08	15	Cir	0.010	1.00	527.50	PIPE 24
9	7	71.3	-98.9	MH	0.00	0.00	0.00	0.0	522.53	0.50	522.89	18	Cir	0.010	0.79	528.60	PIPE 21
10	9	120.0	-49.2	Grate	0.00	0.80	0.90	5.0	522.89	0.51	523.50	18	Cir	0.010	1.50	528.00	PIPE 22
11	10	90.0	90.0	Grate	0.00	0.50	0.90	5.0	523.75	0.50	524.20	15	Cir	0.010	1.00	528.50	PIPE 22A
12	10	259.8	0.0	Grate	0.00	0.20	0.90	5.0	523.75	0.50	525.05	15	Cir	0.010	1.50	529.50	PIPE 23
13	12	90.0	90.0	Grate	0.00	0.10	0.90	5.0	525.05	0.50	525.50	15	Cir	0.010	1.00	529.50	PIPE 23A
14	6	268.4	-6.1	Grate	0.00	0.45	0.90	5.0	511.62	0.46	512.85	30	Cir	0.010	1.50	526.50	PIPE 12
15	6	258.9	-96.1	Grate	0.00	2.00	0.90	5.0	518.62	0.50	519.91	18	Cir	0.010	1.00	525.50	PIPE 11A
16	14	291.2	0.0	Grate	0.00	0.40	0.90	5.0	512.85	0.44	514.12	30	Cir	0.010	1.50	526.50	PIPE 13
17	14	258.9	-90.0	Grate	0.00	2.10	0.90	5.0	518.35	0.50	519.64	18	Cir	0.010	1.00	525.50	PIPE 12A
18	16	250.7	0.0	Grate	0.00	0.50	0.90	5.0	514.62	0.51	515.91	24	Cir	0.010	1.50	526.40	PIPE 14
19	16	260.0	-90.0	Grate	0.00	2.20	0.90	5.0	518.62	0.50	519.92	18	Cir	0.010	1.00	525.50	PIPE 13A
20	18	245.0	-90.0	Grate	0.00	2.50	0.90	5.0	518.41	0.50	519.63	18	Cir	0.010	1.00	525.50	PIPE 14A
21	18	257.0	0.0	Grate	0.00	1.50	0.90	5.0	516.41	0.60	517.96	18	Cir	0.010	0.50	526.40	PIPE 15
22	21	210.0	0.0	Grate	0.00	0.30	0.90	5.0	517.96	0.50	519.01	18	Cir	0.010	1.50	526.40	PIPE 16
23	22	250.0	-89.8	Grate	0.00	1.70	0.90	5.0	519.26	0.50	520.51	15	Cir	0.010	0.50	527.50	PIPE 17

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Date: 10/19/2021

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
24	23	225.0	0.0	Grate	0.00	1.60	0.90	5.0	520.51	0.50	521.64	15	Cir	0.010	0.50	527.50	PIPE 18
25	24	120.0	0.0	Grate	0.00	0.30	0.90	5.0	521.64	0.50	522.24	15	Cir	0.010	1.00	528.00	PIPE 19
26	End	35.8	176.8	MH	0.00	0.00	0.00	0.0	510.49	3.18	511.63	36	Cir	0.010	1.00	518.00	PIPE MH-I
27	26	177.9	-87.8	MH	0.00	0.00	0.00	0.0	511.83	0.19	512.16	36	Cir	0.010	1.00	518.33	PIPE 1
28	27	80.0	90.9	Grate	0.00	0.20	0.90	5.0	512.16	0.40	512.48	36	Cir	0.010	1.50	528.50	PIPE 2
29	28	140.0	-90.0	Grate	0.00	0.20	0.90	5.0	512.48	0.40	513.04	36	Cir	0.010	1.49	527.50	PIPE 3
30	29	233.5	84.3	Grate	0.00	1.00	0.90	5.0	513.04	0.40	513.97	36	Cir	0.010	0.50	527.50	PIPE 4
31	30	335.0	4.5	Grate	0.00	0.90	0.90	5.0	513.97	0.40	515.31	36	Cir	0.010	1.50	527.50	PIPE 5
32	31	157.5	91.2	Grate	0.00	0.80	0.90	5.0	520.81	0.40	521.44	18	Cir	0.010	0.50	527.50	PIPE 5A
33	31	263.8	1.3	Grate	0.00	1.10	0.90	5.0	515.31	0.40	516.37	36	Cir	0.010	1.50	526.50	PIPE 6
34	32	160.0	0.0	Grate	0.00	1.70	0.90	5.0	521.44	0.40	522.08	18	Cir	0.010	1.00	527.50	PIPE 5B
35	33	232.5	90.0	Grate	0.00	0.90	0.90	5.0	520.62	0.40	521.55	15	Cir	0.010	1.00	527.50	PIPE 6A
36	33	350.0	0.0	Grate	0.00	0.60	0.90	5.0	516.37	0.40	517.77	36	Cir	0.010	1.50	526.50	PIPE 7
37	36	200.0	0.0	Grate	0.00	0.60	0.90	5.0	518.27	0.40	519.07	30	Cir	0.010	1.50	526.50	PIPE 8
38	36	207.5	90.0	Grate	0.00	1.70	0.90	5.0	519.27	0.40	520.10	18	Cir	0.010	1.00	526.00	PIPE 7A
39	37	207.5	90.0	Grate	0.00	1.10	0.90	5.0	520.57	0.40	521.40	18	Cir	0.010	1.00	526.00	PIPE 8A
40	37	280.0	0.0	Grate	0.00	1.10	0.90	5.0	519.57	0.40	520.69	24	Cir	0.010	1.50	526.80	PIPE 9
41	40	147.5	90.0	Grate	0.00	1.30	0.90	5.0	521.19	0.40	521.78	18	Cir	0.010	1.00	526.50	PIPE 10

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Date: 10/19/2021

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	PIPE MH-24	58.03	48	Cir	108.8	503.85	504.19	0.312	506.12	506.48	n/a	506.48	End	None
2	PIPE MH-25	59.34	42	Cir	177.3	504.19	505.08	0.502	506.48	507.49	0.16	507.49	1	Manhole
3	PIPE MH-26	62.05	42	Cir	357.4	505.08	506.90	0.509	507.49	509.37	n/a	509.37	2	Manhole
4	PIPE MH-27	59.79	42	Cir	95.2	506.90	507.45	0.578	509.37	509.75	n/a	509.75	3	Manhole
5	PIPE MH-28	61.75	36	Cir	257.0	507.45	508.73	0.498	509.75	511.15	n/a	511.15	4	Manhole
6	PIPE 11	62.17	30	Cir	77.1	511.23	511.62	0.506	511.73	512.05	n/a	513.51	5	Grate
7	PIPE 20	8.90	24	Cir	45.4	512.56	512.79	0.507	510.11	510.20	n/a	510.67	3	Grate
8	PIPE 24	5.31	15	Cir	60.0	522.78	523.08	0.500	510.83	511.03	n/a	511.18	7	Grate
9	PIPE 21	5.53	18	Cir	71.3	522.53	522.89	0.505	510.67	510.78	n/a	510.97	7	Manhole
10	PIPE 22	5.64	18	Cir	120.0	522.89	523.50	0.508	511.18	511.03	n/a	511.03	9	Grate
11	PIPE 22A	2.65	15	Cir	90.0	523.75	524.20	0.500	510.97	511.13	n/a	511.48	10	Grate
12	PIPE 23	1.26	15	Cir	259.8	523.75	525.05	0.500	511.48	511.52	n/a	511.52	10	Grate
13	PIPE 23A	0.53	15	Cir	90.0	525.05	525.50	0.500	511.48	512.06	n/a	512.06	12	Grate
14	PIPE 12	54.93	30	Cir	268.4	511.62	512.85	0.458	512.06	512.29	n/a	512.29	6	Grate
15	PIPE 11A	10.61	18	Cir	258.9	518.62	519.91	0.498	513.51	514.32	n/a	515.47	6	Grate
16	PIPE 13	46.17	30	Cir	291.2	512.85	514.12	0.436	513.51	513.85	n/a	514.03	14	Grate
17	PIPE 12A	11.15	18	Cir	258.9	518.35	519.64	0.498	515.47	517.00	n/a	518.66	14	Grate
18	PIPE 14	36.13	24	Cir	250.7	514.62	515.91	0.515	515.47	515.84	n/a	516.03	16	Grate
19	PIPE 13A	11.68	18	Cir	260.0	518.62	519.92	0.500	518.66	519.63	n/a	520.66	16	Grate
20	PIPE 14A	13.27	18	Cir	245.0	518.41	519.63	0.498	518.66	519.07	n/a	519.28	18	Grate
21	PIPE 15	23.73	18	Cir	257.0	516.41	517.96	0.603	520.66*	521.16*	n/a	521.44	18	Grate
22	PIPE 16	17.54	18	Cir	210.0	517.96	519.01	0.500	520.66*	521.21*	n/a	521.37	21	Grate
23	PIPE 17	16.51	15	Cir	250.0	519.26	520.51	0.500	521.37*	522.06*	n/a	522.73	22	Grate
24	PIPE 18	9.00	15	Cir	225.0	520.51	521.64	0.502	522.73*	523.50*	n/a	524.31	23	Grate

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Run Date: 10/19/2021

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	PIPE 19	1.59	15	Cir	120.0	521.64	522.24	0.500	524.31*	524.51*	n/a	524.75	24	Grate
26	PIPE MH-I	44.40	36	Cir	35.8	510.49	511.63	3.184	524.31*	525.29*	n/a	525.89	End	Manhole
27	PIPE 1	45.41	36	Cir	177.9	511.83	512.16	0.185	525.89*	525.93*	n/a	525.96	26	Manhole
28	PIPE 2	45.88	36	Cir	80.0	512.16	512.48	0.400	525.89*	526.18*	n/a	526.37	27	Grate
29	PIPE 3	46.00	36	Cir	140.0	512.48	513.04	0.400	512.37	513.84	n/a	513.84	28	Grate
30	PIPE 4	46.68	36	Cir	233.5	513.04	513.97	0.398	514.83	515.35	n/a	516.03	29	Grate
31	PIPE 5	45.04	36	Cir	335.0	513.97	515.31	0.400	516.03	516.27	n/a	517.32	30	Grate
32	PIPE 5A	12.74	18	Cir	157.5	520.81	521.44	0.400	517.32	517.74	n/a	518.78	31	Grate
33	PIPE 6	33.72	36	Cir	263.8	515.31	516.37	0.402	518.78*	519.50*	n/a	519.86	31	Grate
34	PIPE 5B	9.02	18	Cir	160.0	521.44	522.08	0.400	519.86	520.82	n/a	521.92	32	Grate
35	PIPE 6A	4.78	15	Cir	232.5	520.62	521.55	0.400	521.92	522.04	n/a	522.11	33	Grate
36	PIPE 7	28.05	36	Cir	350.0	516.37	517.77	0.400	521.92*	522.30*	n/a	522.81	33	Grate
37	PIPE 8	19.01	30	Cir	200.0	518.27	519.07	0.400	522.11*	522.36*	n/a	522.68	36	Grate
38	PIPE 7A	9.02	18	Cir	207.5	519.27	520.10	0.400	522.68*	522.82*	n/a	522.93	36	Grate
39	PIPE 8A	5.84	18	Cir	207.5	520.57	521.40	0.400	522.81*	523.56*	n/a	523.80	37	Grate
40	PIPE 9	12.13	24	Cir	280.0	519.57	520.69	0.400	522.81*	523.16*	n/a	523.51	37	Grate
41	PIPE 10	6.90	18	Cir	147.5	521.19	521.78	0.400	523.51*	523.61*	n/a	523.77	40	Grate

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Run Date: 10/19/2021

NOTES: Return period = 10 Yrs. ; *Surcharged (HGL above crown).

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	108.8	0.00	18.36	0.00	0.00	16.52	0.0	14.6	3.5	58.03	104.4	7.84	48	0.31	503.85	504.19	506.12	506.48	508.35	518.19	PIPE MH-24
2	1	177.3	0.00	18.36	0.00	0.00	16.52	0.0	14.0	3.6	59.34	92.66	8.64	42	0.50	504.19	505.08	506.48	507.49	518.19	519.08	PIPE MH-25
3	2	357.4	0.00	18.36	0.00	0.00	16.52	0.0	12.9	3.8	62.05	0.00	8.67	42	0.51	505.08	506.90	507.49	509.37	519.08	519.00	PIPE MH-26
4	3	95.2	0.00	15.75	0.00	0.00	14.18	0.0	10.4	4.2	59.79	0.00	7.76	42	0.58	506.90	507.45	509.37	509.75	519.00	517.21	PIPE MH-27
5	4	257.0	0.00	15.75	0.00	0.00	14.18	0.0	9.7	4.4	61.75	0.00	9.33	36	0.50	507.45	508.73	509.75	511.15	517.21	525.96	PIPE MH-28
6	5	77.1	0.20	15.75	0.90	0.18	14.18	5.0	9.6	4.4	62.17	0.00	7.92	30	0.51	511.23	511.62	511.73	512.05	525.96	526.40	PIPE 11
7	3	45.4	0.01	2.61	0.90	0.01	2.35	5.0	12.7	3.8	8.90	0.00	4.47	24	0.51	512.56	512.79	510.11	510.20	519.00	527.50	PIPE 20
8	7	60.0	1.00	1.00	0.90	0.90	0.90	5.0	5.0	5.9	5.31	0.00	4.48	15	0.50	522.78	523.08	510.83	511.03	527.50	527.50	PIPE 24
9	7	71.3	0.00	1.60	0.00	0.00	1.44	0.0	12.4	3.8	5.53	0.00	3.83	18	0.50	522.53	522.89	510.67	510.78	527.50	528.60	PIPE 21
10	9	120.0	0.80	1.60	0.90	0.72	1.44	5.0	11.9	3.9	5.64	0.00	2.92	18	0.51	522.89	523.50	511.18	511.03	528.60	528.00	PIPE 22
11	10	90.0	0.50	0.50	0.90	0.45	0.45	5.0	5.0	5.9	2.65	0.00	3.67	15	0.50	523.75	524.20	510.97	511.13	528.00	528.50	PIPE 22A
12	10	259.8	0.20	0.30	0.90	0.18	0.27	5.0	8.5	4.7	1.26	0.00	3.31	15	0.50	523.75	525.05	511.48	511.52	528.00	529.50	PIPE 23
13	12	90.0	0.10	0.10	0.90	0.09	0.09	5.0	5.0	5.9	0.53	0.00	2.22	15	0.50	525.05	525.50	511.48	512.06	529.50	529.50	PIPE 23A
14	6	268.4	0.45	13.55	0.90	0.41	12.20	5.0	9.1	4.5	54.93	0.00	1.95	30	0.46	511.62	512.85	512.06	512.29	526.40	526.50	PIPE 12
15	6	258.9	2.00	2.00	0.90	1.80	1.80	5.0	5.0	5.9	10.61	0.00	7.02	18	0.50	518.62	519.91	513.51	514.32	526.40	525.50	PIPE 11A
16	14	291.2	0.40	11.00	0.90	0.36	9.90	5.0	8.5	4.7	46.17	0.00	3.38	30	0.44	512.85	514.12	513.51	513.85	526.50	526.50	PIPE 13
17	14	258.9	2.10	2.10	0.90	1.89	1.89	5.0	5.0	5.9	11.15	0.00	8.43	18	0.50	518.35	519.64	515.47	517.00	526.50	525.50	PIPE 12A
18	16	250.7	0.50	8.40	0.90	0.45	7.56	5.0	8.1	4.8	36.13	0.00	3.55	24	0.51	514.62	515.91	515.47	515.84	526.50	526.40	PIPE 14
19	16	260.0	2.20	2.20	0.90	1.98	1.98	5.0	5.0	5.9	11.68	0.00	6.66	18	0.50	518.62	519.92	518.66	519.63	526.50	525.50	PIPE 13A
20	18	245.0	2.50	2.50	0.90	2.25	2.25	5.0	5.0	5.9	13.27	0.00	3.72	18	0.50	518.41	519.63	518.66	519.07	526.40	525.50	PIPE 14A
21	18	257.0	1.50	5.40	0.90	1.35	4.86	5.0	7.7	4.9	23.73	0.00	4.22	18	0.60	516.41	517.96	520.66	521.16	526.40	526.40	PIPE 15
22	21	210.0	0.30	3.90	0.90	0.27	3.51	5.0	7.3	5.0	17.54	0.00	4.56	18	0.50	517.96	519.01	520.66	521.21	526.40	526.40	PIPE 16

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NOTES:Intensity = 26.08 / (Inlet time + 3.60) ^ 0.69; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
23	22	250.0	1.70	3.60	0.90	1.53	3.24	5.0	7.0	5.1	16.51	0.00	5.35	15	0.50	519.26	520.51	521.37	522.06	526.40	527.50	PIPE 17
24	23	225.0	1.60	1.90	0.90	1.44	1.71	5.0	6.5	5.3	9.00	0.00	5.19	15	0.50	520.51	521.64	522.73	523.50	527.50	527.50	PIPE 18
25	24	120.0	0.30	0.30	0.90	0.27	0.27	5.0	5.0	5.9	1.59	0.00	3.90	15	0.50	521.64	522.24	524.31	524.51	527.50	528.00	PIPE 19
26	End	35.8	0.00	13.20	0.00	0.00	11.88	0.0	13.0	3.7	44.40	0.00	5.09	36	3.18	510.49	511.63	524.31	525.29	513.91	518.00	PIPE MH-I
27	26	177.9	0.00	13.20	0.00	0.00	11.88	0.0	12.5	3.8	45.41	0.00	1.30	36	0.19	511.83	512.16	525.89	525.93	518.00	518.33	PIPE 1
28	27	80.0	0.20	13.20	0.90	0.18	11.88	5.0	12.3	3.9	45.88	0.00	3.46	36	0.40	512.16	512.48	525.89	526.18	518.33	528.50	PIPE 2
29	28	140.0	0.20	13.00	0.90	0.18	11.70	5.0	11.9	3.9	46.00	0.00	9.05	36	0.40	512.48	513.04	512.37	513.84	528.50	527.50	PIPE 3
30	29	233.5	1.00	12.80	0.90	0.90	11.52	5.0	11.2	4.1	46.68	0.00	6.63	36	0.40	513.04	513.97	514.83	515.35	527.50	527.50	PIPE 4
31	30	335.0	0.90	11.80	0.90	0.81	10.62	5.0	10.3	4.2	45.04	0.00	6.70	36	0.40	513.97	515.31	516.03	516.27	527.50	527.50	PIPE 5
32	31	157.5	0.80	2.50	0.90	0.72	2.25	5.0	5.5	5.7	12.74	0.00	6.71	18	0.40	520.81	521.44	517.32	517.74	527.50	527.50	PIPE 5A
33	31	263.8	1.10	8.40	0.90	0.99	7.56	5.0	9.3	4.5	33.72	0.00	6.80	36	0.40	515.31	516.37	518.78	519.50	527.50	526.50	PIPE 6
34	32	160.0	1.70	1.70	0.90	1.53	1.53	5.0	5.0	5.9	9.02	0.00	6.57	18	0.40	521.44	522.08	519.86	520.82	527.50	527.50	PIPE 5B
35	33	232.5	0.90	0.90	0.90	0.81	0.81	5.0	5.0	5.9	4.78	0.00	3.03	15	0.40	520.62	521.55	521.92	522.04	526.50	527.50	PIPE 6A
36	33	350.0	0.60	6.40	0.90	0.54	5.76	5.0	7.7	4.9	28.05	0.00	4.67	36	0.40	516.37	517.77	521.92	522.30	526.50	526.50	PIPE 7
37	36	200.0	0.60	4.10	0.90	0.54	3.69	5.0	6.9	5.2	19.01	0.00	3.70	30	0.40	518.27	519.07	522.11	522.36	526.50	526.50	PIPE 8
38	36	207.5	1.70	1.70	0.90	1.53	1.53	5.0	5.0	5.9	9.02	0.00	2.60	18	0.40	519.27	520.10	522.68	522.82	526.50	526.00	PIPE 7A
39	37	207.5	1.10	1.10	0.90	0.99	0.99	5.0	5.0	5.9	5.84	0.00	3.89	18	0.40	520.57	521.40	522.81	523.56	526.50	526.00	PIPE 8A
40	37	280.0	1.10	2.40	0.90	0.99	2.16	5.0	5.6	5.6	12.13	0.00	3.88	24	0.40	519.57	520.69	522.81	523.16	526.50	526.80	PIPE 9
41	40	147.5	1.30	1.30	0.90	1.17	1.17	5.0	5.0	5.9	6.90	0.00	2.69	18	0.40	521.19	521.78	523.51	523.61	526.80	526.50	PIPE 10

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Run Date: 10/19/2021

NOTES:Intensity = 26.08 / (Inlet time + 3.60) ^ 0.69; Return period =Yrs. 10 ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	48	58.03	503.85	506.12	2.27	7.36	7.88	0.94	507.06	0.000	108.8	504.19	506.48	2.29**	7.44	7.79	0.94	507.43	0.000	0.000	n/a	0.38	n/a
2	42	59.34	504.19	506.48	2.29	6.67	8.89	1.10	507.58	0.000	177.3	505.08	507.49	2.41**	7.07	8.39	1.10	508.59	0.000	0.000	n/a	0.15	0.16
3	42	62.05	505.08	507.49	0.00	0.00	8.78	0.00	507.49	0.000	357.4	506.90	509.37	0.00**	0.00	8.56	0.00	509.37	0.000	0.000	0.000	0.99	n/a
4	42	59.79	506.90	509.37	0.00	0.00	7.45	0.00	509.37	0.000	95.2	507.45	509.75	0.00**	0.00	8.06	0.00	509.75	0.000	0.000	0.000	0.98	n/a
5	36	61.75	507.45	509.75	0.00	0.00	9.56	0.00	509.75	0.000	257.0	508.73	511.15	0.00**	0.00	9.10	0.00	511.15	0.000	0.000	0.000	0.15	n/a
6	30	62.17	511.23	511.73	0.00	0.00	7.92	0.00	511.73	0.000	77.1	511.62	512.05	0.00**	0.00	7.92	0.00	512.05	0.000	0.000	0.000	1.50	n/a
7	24	8.90	512.56	510.11	0.00	0.00	4.48	0.00	510.11	0.000	45.4	512.79	510.20	0.00**	0.00	4.47	0.00	510.20	0.000	0.000	0.000	1.50	n/a
8	15	5.31	522.78	510.83	0.00	0.00	4.48	0.00	510.83	0.000	60.0	523.08	511.03	0.00**	0.00	4.48	0.00	511.03	0.000	0.000	0.000	1.00	n/a
9	18	5.53	522.53	510.67	0.00	0.00	3.71	0.00	510.67	0.000	71.3	522.89	510.78	0.00**	0.00	3.96	0.00	510.78	0.000	0.000	0.000	0.79	n/a
10	18	5.64	522.89	511.18	0.00	0.00	2.03	0.00	511.18	0.000	120.0	523.50	511.03	0.00**	0.00	3.80	0.00	511.03	0.000	0.000	0.000	1.50	n/a
11	15	2.65	523.75	510.97	0.00	0.00	3.47	0.00	510.97	0.000	90.0	524.20	511.13	0.00**	0.00	3.87	0.00	511.13	0.000	0.000	0.000	1.00	n/a
12	15	1.26	523.75	511.48	0.00	0.00	2.52	0.00	511.48	0.000	259.8	525.05	511.52	0.00**	0.00	4.09	0.00	511.52	0.000	0.000	0.000	1.50	n/a
13	15	0.53	525.05	511.48	0.00	0.00	1.19	0.00	511.48	0.000	90.0	525.50	512.06	0.00**	0.00	3.24	0.00	512.06	0.000	0.000	0.000	1.00	n/a
14	30	54.93	511.62	512.06	0.00	0.00	1.37	0.00	512.06	0.000	268.4	512.85	512.29	0.00**	0.00	2.54	0.00	512.29	0.000	0.000	0.000	1.50	n/a
15	18	10.61	518.62	513.51	0.00	0.00	7.02	0.00	513.51	0.000	258.9	519.91	514.32	0.00**	0.00	7.02	0.00	514.32	0.000	0.000	0.000	1.00	n/a
16	30	46.17	512.85	513.51	0.00	0.00	3.38	0.00	513.51	0.000	291.2	514.12	513.85	0.00**	0.00	3.38	0.00	513.85	0.000	0.000	0.000	1.50	n/a
17	18	11.15	518.35	515.47	0.00	0.00	8.43	0.00	515.47	0.000	258.9	519.64	517.00	0.00**	0.00	8.43	0.00	517.00	0.000	0.000	0.000	1.00	n/a
18	24	36.13	514.62	515.47	0.00	0.00	3.55	0.00	515.47	0.000	250.7	515.91	515.84	0.00**	0.00	3.55	0.00	515.84	0.000	0.000	0.000	1.50	n/a
19	18	11.68	518.62	518.66	0.00	0.00	6.66	0.00	518.66	0.000	260.0	519.92	519.63	0.00**	0.00	6.66	0.00	519.63	0.000	0.000	0.000	1.00	n/a
20	18	13.27	518.41	518.66	0.00	0.00	3.72	0.00	518.66	0.000	245.0	519.63	519.07	0.00**	0.00	3.72	0.00	519.07	0.000	0.000	0.000	1.00	n/a
21	18	23.73	516.41	520.66	0.00	0.00	4.22	0.00	520.66	0.000	257.0	517.96	521.16	0.00**	0.00	4.22	0.00	521.16	0.000	0.000	0.000	0.50	n/a
22	18	17.54	517.96	520.66	0.00	0.00	4.56	0.00	520.66	0.000	210.0	519.01	521.21	0.00**	0.00	4.56	0.00	521.21	0.000	0.000	0.000	1.50	n/a

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Run Date: 10/19/2021

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

Hydraulic Grade Line Computations

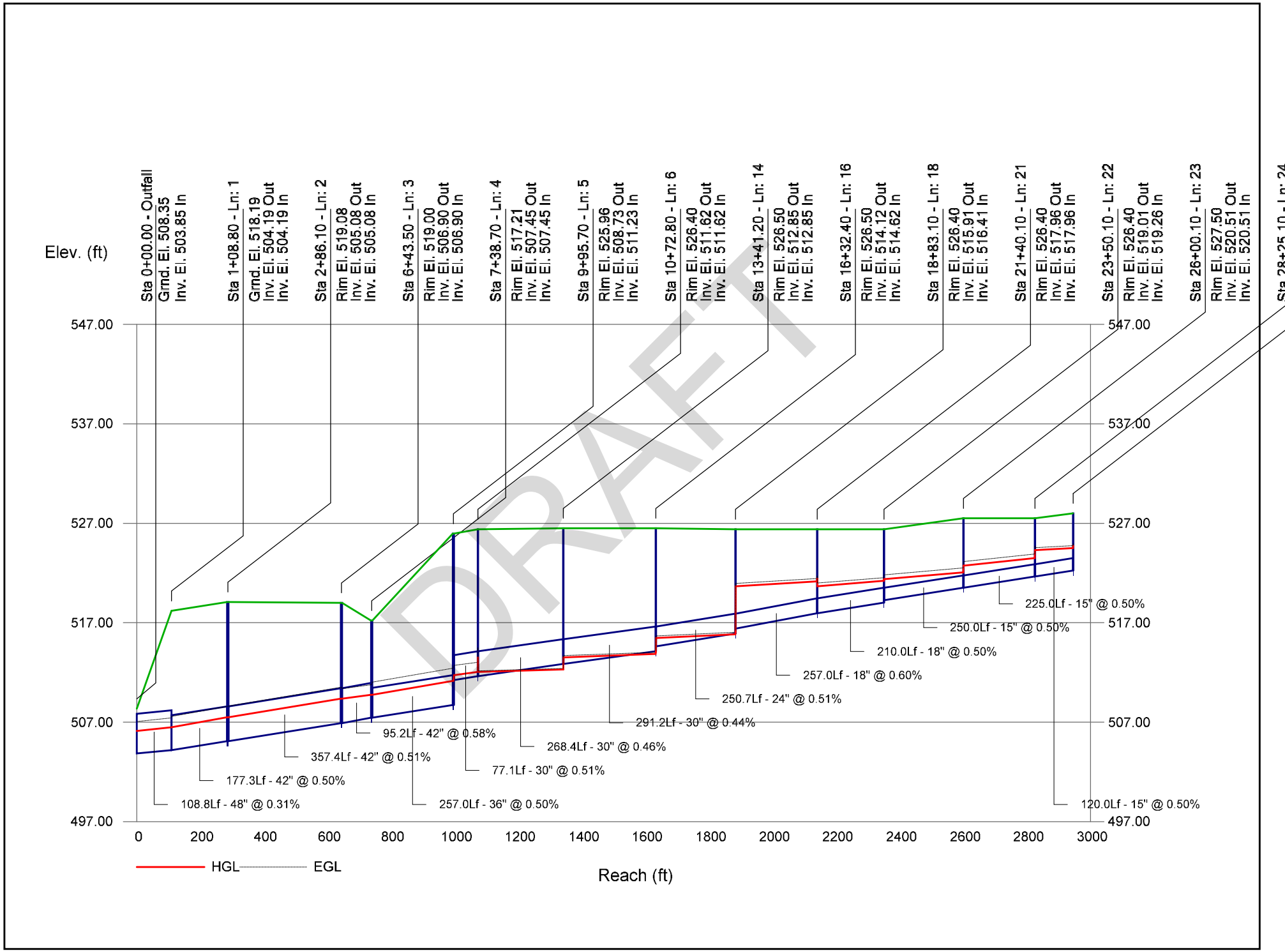
Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
23	15	16.51	519.26	521.37	0.00	0.00	5.35	0.00	521.37	0.000	250.0	520.51	522.06	0.00**	0.00	5.35	0.00	522.06	0.000	0.000	0.000	0.50	n/a
24	15	9.00	520.51	522.73	0.00	0.00	5.19	0.00	522.73	0.000	225.0	521.64	523.50	0.00**	0.00	5.19	0.00	523.50	0.000	0.000	0.000	0.50	n/a
25	15	1.59	521.64	524.31	0.00	0.00	3.91	0.00	524.31	0.000	120.0	522.24	524.51	0.00**	0.00	3.90	0.00	524.51	0.000	0.000	0.000	1.00	n/a
26	36	44.40	510.49	524.31	0.00	0.00	5.09	0.00	524.31	0.000	35.8	511.63	525.29	0.00**	0.00	5.09	0.00	525.29	0.000	0.000	0.000	1.00	n/a
27	36	45.41	511.83	525.89	0.00	0.00	1.30	0.00	525.89	0.000	177.9	512.16	525.93	0.00**	0.00	1.30	0.00	525.93	0.000	0.000	0.000	1.00	n/a
28	36	45.88	512.16	525.89	0.00	0.00	3.46	0.00	525.89	0.000	80.0	512.48	526.18	0.00**	0.00	3.46	0.00	526.18	0.000	0.000	0.000	1.50	n/a
29	36	46.00	512.48	512.37	0.00	0.00	9.85	0.00	512.37	0.000	140.0	513.04	513.84	0.00**	0.00	8.24	0.00	513.84	0.000	0.000	0.000	1.49	n/a
30	36	46.68	513.04	514.83	0.00	0.00	6.63	0.00	514.83	0.000	233.5	513.97	515.35	0.00**	0.00	6.63	0.00	515.35	0.000	0.000	0.000	0.50	n/a
31	36	45.04	513.97	516.03	0.00	0.00	6.70	0.00	516.03	0.000	335.0	515.31	516.27	0.00**	0.00	6.70	0.00	516.27	0.000	0.000	0.000	1.50	n/a
32	18	12.74	520.81	517.32	0.00	0.00	6.72	0.00	517.32	0.000	157.5	521.44	517.74	0.00**	0.00	6.71	0.00	517.74	0.000	0.000	0.000	0.50	n/a
33	36	33.72	515.31	518.78	0.00	0.00	6.80	0.00	518.78	0.000	263.8	516.37	519.50	0.00**	0.00	6.80	0.00	519.50	0.000	0.000	0.000	1.50	n/a
34	18	9.02	521.44	519.86	0.00	0.00	6.57	0.00	519.86	0.000	160.0	522.08	520.82	0.00**	0.00	6.57	0.00	520.82	0.000	0.000	0.000	1.00	n/a
35	15	4.78	520.62	521.92	0.00	0.00	3.03	0.00	521.92	0.000	232.5	521.55	522.04	0.00**	0.00	3.03	0.00	522.04	0.000	0.000	0.000	1.00	n/a
36	36	28.05	516.37	521.92	0.00	0.00	4.67	0.00	521.92	0.000	350.0	517.77	522.30	0.00**	0.00	4.67	0.00	522.30	0.000	0.000	0.000	1.50	n/a
37	30	19.01	518.27	522.11	0.00	0.00	3.70	0.00	522.11	0.000	200.0	519.07	522.36	0.00**	0.00	3.70	0.00	522.36	0.000	0.000	0.000	1.50	n/a
38	18	9.02	519.27	522.68	0.00	0.00	2.60	0.00	522.68	0.000	207.5	520.10	522.82	0.00**	0.00	2.59	0.00	522.82	0.000	0.000	0.000	1.00	n/a
39	18	5.84	520.57	522.81	0.00	0.00	3.89	0.00	522.81	0.000	207.5	521.40	523.56	0.00**	0.00	3.89	0.00	523.56	0.000	0.000	0.000	1.00	n/a
40	24	12.13	519.57	522.81	0.00	0.00	3.88	0.00	522.81	0.000	280.0	520.69	523.16	0.00**	0.00	3.88	0.00	523.16	0.000	0.000	0.000	1.50	n/a
41	18	6.90	521.19	523.51	0.00	0.00	2.69	0.00	523.51	0.000	147.5	521.78	523.61	0.00**	0.00	2.69	0.00	523.61	0.000	0.000	0.000	1.00	n/a

Project File: Li-Cycle ROCH DFS SS.stm | Number of lines: 41 | Run Date: 10/19/2021

Notes: ; ** Critical depth. ; c = cir e = ellip b = box

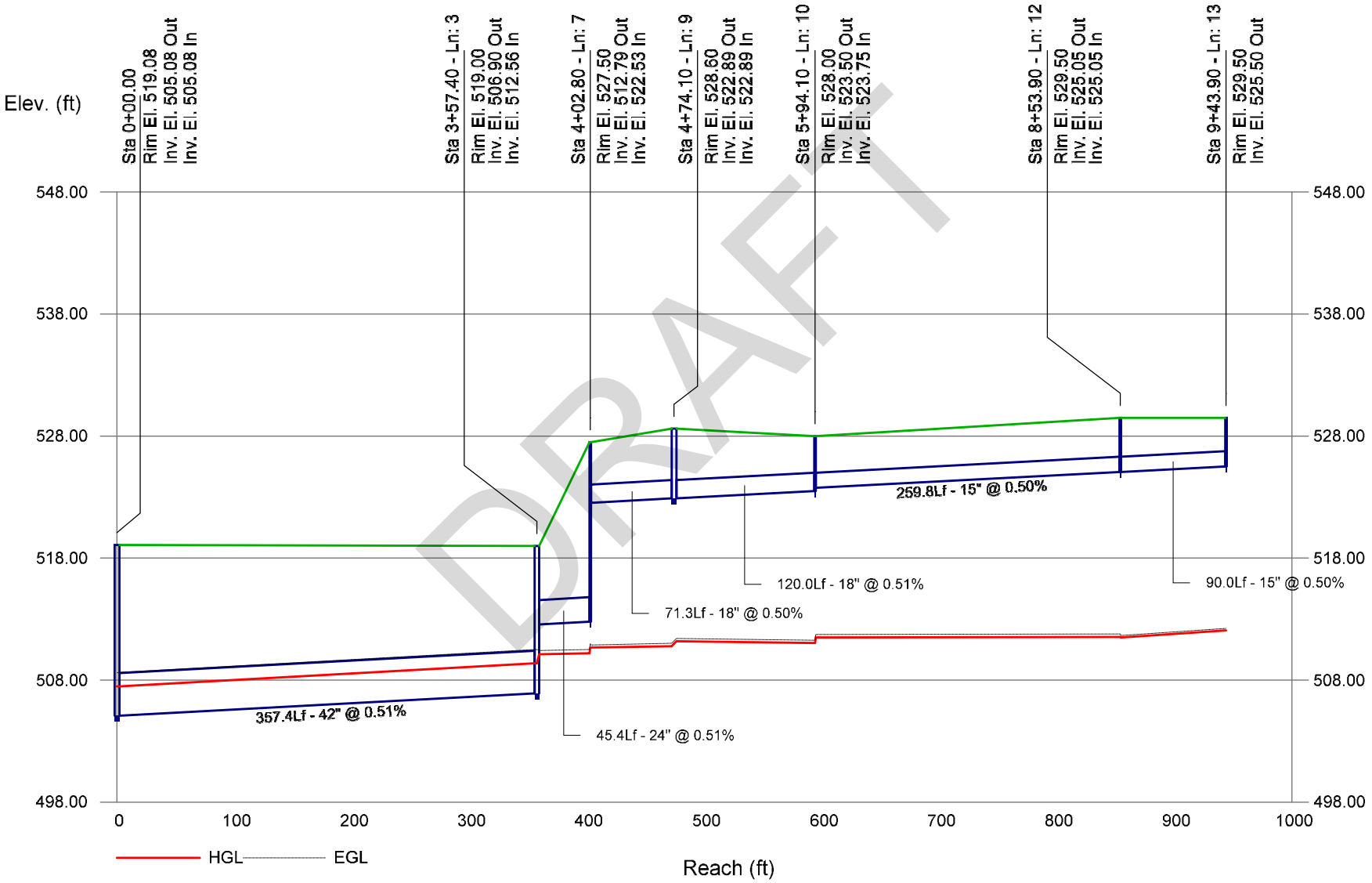
Storm Sewer Profile

Proj. file: Li-Cycle ROCH DFS SS.stm



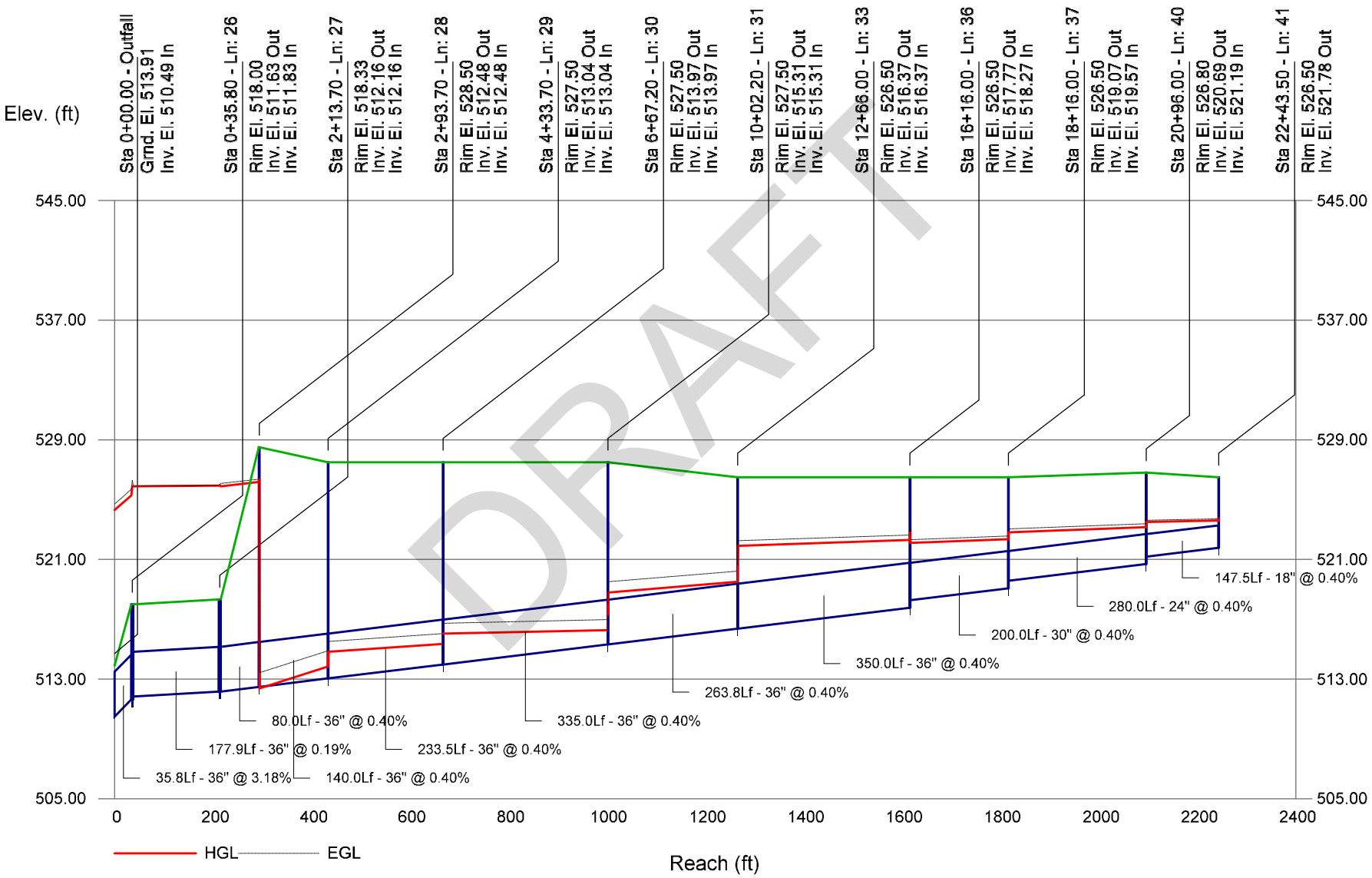
Storm Sewer Profile

Proj. file: Li-Cycle ROCH DFS SS.stm



Storm Sewer Profile

Proj. file: Li-Cycle ROCH DFS SS.stm



APPENDIX I NOTICE OF INTENT FORM

NOI for coverage under Stormwater General Permit for Construction Activity

Alternate Identifier Li-Cycle Commercial Hub 1 **Submission** HPB-BWJ9-6SW85 **Revision** 1 **Form Version** 1.31

Review

This step allows you to review the form to confirm the form is populated completely and accurately, prior to certification and submission.

Please note: Any work you perform filling out a form will not be accessible by NYSDEC staff or the public until you actually submit the form in the 'Certify & Submit' step.

OWNER/OPERATOR INFORMATION

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)
Li-Cycle North America Hub, Inc.

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

Owner/Operator Contact Person First Name
Tim

Owner/Operator Mailing Address
2351 Royal Windsor Blvd, Unit 10

City
Mississauga

State
Ontario, Canada

Zip
L5J2S7

Phone
647-330-0366

Email
tim.johnston@li-cycle.com

Federal Tax ID
38-4167037

PROJECT LOCATION

Project/Site Name
Li-Cycle Commercial Hub 1

Street Address (Not P.O. Box)
205 McLaughlin Blvd

Side of Street
North

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

State
NY

Zip
14606

DEC Region
8

County
MONROE

Name of Nearest Cross Street
Ridgeway Avenue

Distance to Nearest Cross Street (Feet)
None Specified

Project In Relation to Cross Street
South

Tax Map Numbers Section-Block-Parcel
089.04-1-3.21 & 3.22

Tax Map Numbers
None Specified

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

Latitude	Longitude
43.1920511574439	-77.67123093129071

PROJECT DETAILS

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

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

Pre-Development Existing Landuse
Industrial

Post-Development Future Land Use
Industrial

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

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)
41

Total Area to be Disturbed (acres)
41

Existing Impervious Area to be Disturbed (acres)
0

Future Impervious Area Within Disturbed Area (acres)
29

5. Do you plan to disturb more than 5 acres of soil at any one time?
Yes

---

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

A (%)
0

B (%)
0

C (%)
0

D (%)
100

7. Is this a phased project?
No

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

Start Date
12/1/2021

End Date
None Specified

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
On-site Stormwater Detention Pond

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

Other Waterbody Type Off Site Description
Genesee River to Lake Ontario

9b. If "wetland" was selected in 9A, how was the wetland identified?
None Specified

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 an E or F on the USDA Soil Survey?
None Specified

If Yes, what is the acreage to be disturbed?
None Specified

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?
None Specified

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?
No

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

REQUIRED SWPPP COMPONENTS

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

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

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

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

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

SWPPP Preparer
Stephen Mirabello

Contact Name (Last, Space, First)
Mirabello, Stephen

Mailing Address
345 Woodcliff Drive - Second Floor

City
Rochester

State
New York

Zip
14450

Phone
609-403-7564

Email
stephen.mirabello@erm.com

Download SWPPP Preparer Certification Form

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

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Scan the signed form
4) Upload the scanned document

Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification

No files uploaded

Comment
None Specified

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
Perimeter Dike/Swale
Dust Control
Silt Fence
Sediment Traps
Storm Drain Inlet Protection
Stabilized Construction Entrance
Check Dams

Biotechnical
None

Vegetative Measures
Mulching
Seeding
Temporary Swale

Permanent Structural
Land Grading
Rock Outlet Protection

Other
None Specified

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 Specified

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 Specified

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

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 Specified

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

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 Specified

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

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 Specified

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 Specified

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 Specified

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 Specified

CPv Provided (acre-feet)
None Specified

36a. The need to provide channel protection has been waived because:
None Specified

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 Specified

Post-Development (CFS)
None Specified

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)
None Specified

Post-Development (CFS)
None Specified

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

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

If Yes, Identify the entity responsible for the long term Operation and Maintenance
None Specified

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.
Project will utilize to a previously approved and constructed stormwater management area as shown in plans. The current project runoff volume is within capacity of management area.

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 Specified

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)
None Specified

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

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

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)
None Specified

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)
None Specified

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)
None Specified

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)
None Specified

Total Contributing Impervious Acres for Vegetated Swale (RR-5)
None Specified

Total Contributing Impervious Acres for Rain Garden (RR-6)
None Specified

Total Contributing Impervious Acres for Stormwater Planter (RR-7)
None Specified

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)
None Specified

Total Contributing Impervious Acres for Porous Pavement (RR-9)
None Specified

Total Contributing Impervious Acres for Green Roof (RR-10)
None Specified

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)
None Specified

Total Contributing Impervious Acres for Infiltration Basin (I-2)
None Specified

Total Contributing Impervious Acres for Dry Well (I-3)
None Specified

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
None Specified

Total Contributing Impervious Acres for Bioretention (F-5)
None Specified

Total Contributing Impervious Acres for Dry Swale (O-1)
None Specified

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
None Specified

Total Contributing Impervious Acres for Wet Pond (P-2)
None Specified

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
None Specified

Total Contributing Impervious Acres for Multiple Pond System (P-4)
None Specified

Total Contributing Impervious Acres for Pocket Pond (P-5)
None Specified

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
None Specified

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
None Specified

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
None Specified

Total Contributing Impervious Acres for Organic Filter (F-4)
None Specified

Total Contributing Impervious Acres for Shallow Wetland (W-1)
None Specified

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
None Specified

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
None Specified

Total Contributing Impervious Acres for Pocket Wetland (W-4)
None Specified

Total Contributing Impervious Acres for Wet Swale (O-2)
None Specified

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

Total Contributing Impervious Area for Hydrodynamic
None Specified

Total Contributing Impervious Area for Wet Vault
None Specified

Total Contributing Impervious Area for Media Filter
None Specified

"Other" Alternative SMP?
None Specified

Total Contributing Impervious Area for "Other"
None Specified

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 Specified

Name of Alternative SMP
None Specified

OTHER PERMITS

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

If SPDES Multi-Sector GP, then give permit ID
None Specified

If Other, then identify
None Specified

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 Specified

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 Specified

MS4 SWPPP ACCEPTANCE

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?
No

If No, skip question 44

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

MS4 SWPPP Acceptance Form Download

Download form from the link below. Complete, sign, and upload.

MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload

> *No files uploaded*
>
> **Comment**
> *None Specified*

OWNER/OPERATOR CERTIFICATION

The owner/operator must download, sign, and upload the certification form in order to complete this application.

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.

Owner/Operator Certification Form (PDF, 45KB)

Upload Owner/Operator Certification Form

No files uploaded

Comment

None Specified

At least one file is required.

APPENDIX J NYSDEC ACKNOWLEDGEMENT OF NOTICE OF INTENT

SECTION RESERVED FOR STATE ACKNOWLEDGEMENT OF NOTICE OF INTENT

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