

Ms. Veronica Kreutzer Project Manager NYSDEC 700 Delaware Ave. Buffalo, NY 14209-2202 Arcadis U.S., Inc. 50 Fountain Plaza Suite 360 Buffalo, NY 14202 United States Phone: 716 667 0900 www.arcadis.com

Date: April 26, 2024 Our Ref: 30222114 Subject: BCP Site #B00164: BUDC – Hanna Furnace Sub-Parcel 3 Site Management 2024 Periodic Review Report and IC/EC Certification

Dear Ms. Kreutzer,

Please find enclosed the electronic submittal of the 2024 Periodic Review Report and IC/EC Certification for the Buffalo Urban Development Corporation (BUDC) Hanna Furnace Sub-Parcel 3 (#B00164) Brownfield Cleanup Program Site in Buffalo, New York. The Periodic Review Report has been prepared in accordance with the DER-10 *Technical Guidance for Site Investigation and Remediation* and the Site Management Plan (Arcadis, 2022).

Please do not hesitate to contact Rebecca Gandour, Executive Vice President at BUDC, at (716) 362-8378 or me at (315) 671-9545 if you have any questions.

Sincerely, Arcadis U.S., Inc.

Michael Higgins Jr.

Michael Higgins, PE Principal Engineer

Email: Michael.Higgins@arcadis.com Direct Line: 315.671.9545

CC. Rebecca Gandour, BUDC Andrei Romei, Arcadis Luke Goetz, Arcadis

Enclosures:

2024 Periodic Review Report



Buffalo Urban Development Corp.

# **Periodic Review Report**

### Hanna Furnace Subparcel 3

Buffalo, New York BCP Site #B00164

April 2024

### **Periodic Review Report**

Hanna Furnace Subparcel 3

April 2024

#### **Prepared By:**

Arcadis of New York, Inc. 50 Fountain Plaza, Suite 360 Buffalo, NY 14202 United States Phone: 716 667 0900

#### **Prepared For:**

Rebecca Gandour Executive Vice President Buffalo Urban Development Corp. 95 Perry Street, Suite 404 Buffalo, New York 14203

Our Ref: 30222114

Michael Higgins Jr.

Michael Higgins, PE Principal Engineer

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# Contents

E	xecutive	e Summary	1
1	Site	Overview	2
	1.1	Site Location and Description	2
	1.2	Summary of Remedial Actions	2
2	Ren	nedy Performance	3
3	IC/E	C Plan Compliance Report	4
	3.1	Soil Cover Systems	4
	3.2	Excavation Work Plan	4
	3.3	Site Use Restrictions	4
	3.4	Groundwater Use Restrictions	4
	3.5	Institutional Controls/Engineering Controls Conclusions and Recommendations	5

## **Figures**

Figure 1. Site Location Map Figure 2. Buffalo Lakeside Commerce Park Parcel Map Figure 3A and 3B. Site Cover System Inspection Photographs

# **Appendices**

- A. Environmental Inspection Form
- B. Institutional and Engineering Controls Certification Form
- C. Photograph Log

# **Executive Summary**

Arcadis of New York, Inc. (Arcadis) has prepared this Periodic Review Report (PRR) for the Hanna Furnace Sub-Parcel 3 (Site) Development as a requirement of the New York State Department of Environmental Conservation (NYSDEC). The Site is part of the Union Ship Canal Public Open Space known as Buffalo Lakeside Commerce Park (BLCP) in Buffalo, New York. The site was remediated in accordance with State Assistance Contract (SAC) # C3-03-218, Site # B00164, which was executed on February 17, 2005, and last amended on December 8, 2010.

The City of Buffalo and County of Erie entered a SAC with the NYSDEC to remediate the site and required the Remedial Party, to investigate and remediate contaminated media at the site. The site Investigation (SI) determined that elevated levels of Semi Volatile Organic Compounds (SVOCs) are present in the site's soils. Those elevated levels were above the concentrations allowed for commercial use as established in the Explanation of Significant Difference (February 2017), prepared by the NYSDEC, for passive recreational areas. The groundwater beneath the site has elevated pH levels and dissolved metals with the primary dissolved metal being sodium and isolated cases of iron, antimony, arsenic, lead, magnesium, and manganese. SVOCs consisting primarily of phenols were also found in the groundwater. The canal sediments had levels of SVOCs (primarily carcinogenic polyaromatic hydrocarbons [cPAHs]), several metals, and polychlorinated biphenyls (PCBs).

The site contains contamination left after completion of the remedial action. Engineering controls (ECs) and institutional controls (ICs) have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to promote protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Erie County Clerk requires compliance Site Management Plan (SMP) (March 2022) and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This PRR was developed in accordance with SMP requirements to ensure that all site ECs and ICs remain in compliance.

The cover system inspection indicates that the various cover system components are in-place and functioning as intended. A few areas of the existing soil cover system require minor action to prevent the functionality and effectiveness of the cover system from being compromised over time. As provided in the SMP, the site owner is obligated to comply with the Excavation Work Plan, Site Use Restrictions, Groundwater Use Restrictions, Sitewide Inspections, and the Environmental Easement.

# **1** Site Overview

### **1.1** Site Location and Description

The site is located in the City of Buffalo, County of Erie, New York and is identified as Parcel Number 3 in Lot 18 in the Ogden Gore Track, Township Number 10, Range Number 8. The site is an approximately 22-acre area bounded by vacant property of Parcel 4 of the Buffalo Lakeside Commerce Park to the north, Ship Canal Parkway to the south and east, and Commerce Drive and Fuhrmann Boulevard to the west. The site is located in the middle of the Buffalo Lakeside Commerce Park (BLCP). Site location and boundaries are provided on Figures 1 and 2.

### 1.2 Summary of Remedial Actions

The site was remediated in general accordance with the NYSDEC-approved Record of Decision (ROD) dated February 2005, with the exception of the reduced requirement for a one-foot minimum clean cover placement. At the time that the ROD was issued, the 6 NYCRR Part 375 regulations did not distinguish between active and passive recreational site uses. Regulations now allow that 12 inches of clean soil cover is protective for passive recreational sites. Given the passive recreational use of the site, the remedy outlined in the ROD was modified to a soil cover system consisting of a 1-foot minimum thickness to prevent human exposure to remaining contaminated soil/fill at the site as detailed in the *Explanation of Significant Difference* (February 2017) prepared by the NYSDEC.

The following is a summary of the Remedial Actions performed at the site:

- 1. Excavation of soil/fill exceeding Site-Specific Action Levels.
- Construction and maintenance of a soil cover system consisting of one foot of clean soil on site to
  prevent human exposure to remaining contaminated soil/fill remaining at the site. A one-foot stone
  aggregate cover was also placed over the sediment within the canal to prevent direct contact to
  contaminated canal sediments.
- 3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the site.
- 4. Development and implementation of a SMP for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional Controls (IC) and Engineering Controls (EC), (2) inspections and maintenance and (3) periodic reporting.

Remedial activities were completed at the site in September 2011. After completion of the remedial activities described in the Remedial Work Plan, some contamination was left in the subsurface at this site.

In 2016, site cover system thickness evaluations were conducted in accordance with the Work Plan dated August 2, 2016. The soil cap was observed throughout the site at depths ranging from 11 to 32 inches below ground surface (estimated cap thickness of 11 to 14 inches) and an orange demarcation fabric was also observed throughout the site below the cap material in 39 of the 44 soil borings.

A SMP was prepared and submitted to NYSDEC in Aprill 2022 to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36.

# 2 Remedy Performance

This is the first annual PRR inspection since development and execution of the SMP in 2022. Site inspection activities consist of a visual site walk-through to observe and photograph the integrity of the cover systems including sloughing, cracks, settlement, erosion, distressed vegetation, and damage to the cover system.

Site inspection activities were conducted on April 12, 2024, following a heavy rain event of approximately 1-2 inches. Inspection activities indicate that the various cover system components, including soil cover and asphalt, are functioning as intended. Some minor vehicle rutting was observed adjacent to the south parking areas as well as some minor ponding/water accumulation along the edges of the site parcel. Additional details of these deficiencies can be found in Section 3.5; and the inspection and certification forms are included in Appendices A and B. Inspection photographs are included as Appendix C and Figure 3.

# 3 IC/EC Plan Compliance Report

Institutional Controls and Engineering Controls (IC/EC) currently enacted at the site include the following, as described in the SMP:

- Soil Cover Systems
- Excavation Work Plan
- Site Use Restrictions
- Groundwater Use Restrictions

### 3.1 Soil Cover Systems

Exposure to remaining contamination in soil/fill at the site is prevented by a soil cover system placed over the site. This cover system is comprised of a minimum of 12 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs. There is an orange mesh demarcation material between the clean cover and the remaining contaminated soil. The Excavation Work Plan (EWP) that is attached as Appendix B to the SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated, or temporarily removed, and any underlying remaining contamination is disturbed.

### 3.2 Excavation Work Plan

The site has been remediated for commercial use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the EWP that is attached as Appendix B to the SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site.

### 3.3 Site Use Restrictions

The use of the site is limited to park space provided that long-term ECs and ICs are employed. Under Part 375 regulations, "commercial use" includes passive recreational areas (i.e., parks) without areas such as playgrounds and athletic fields. The property cannot be used for a higher level of use such as residential without additional remediation and amendment of the Environmental Easement. Activities that will disturb the remaining contaminated material on the property must be conducted in accordance with the SMP. No vegetable gardens or farming is permitted on the property.

### 3.4 Groundwater Use Restrictions

Use of the groundwater on site is prohibited without treatment rendering it safe for the intended use.

# 3.5 Institutional Controls/Engineering Controls Conclusions and Recommendations

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after severe weather conditions that may affect ECs. During these inspections, an inspection form will be completed. The form will compile sufficient information to assess the following:

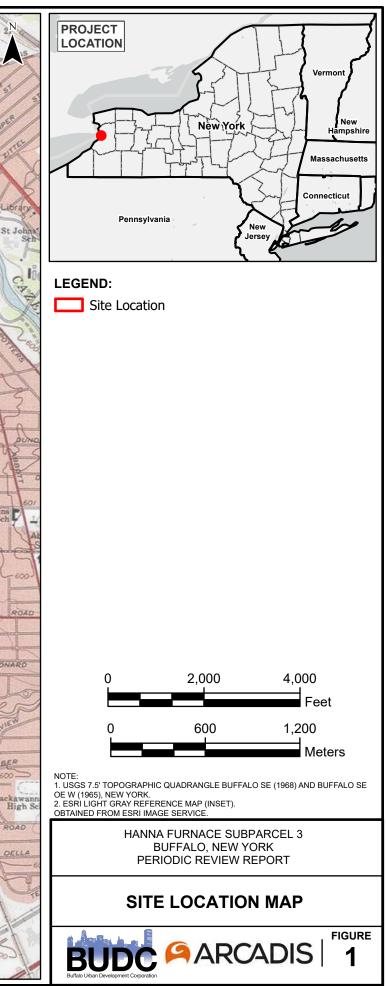
- Compliance with all ICs, including site usage.
- An evaluation of the condition and continued effectiveness of the site cover system and canal walls.
- General site conditions at the time of the inspection.

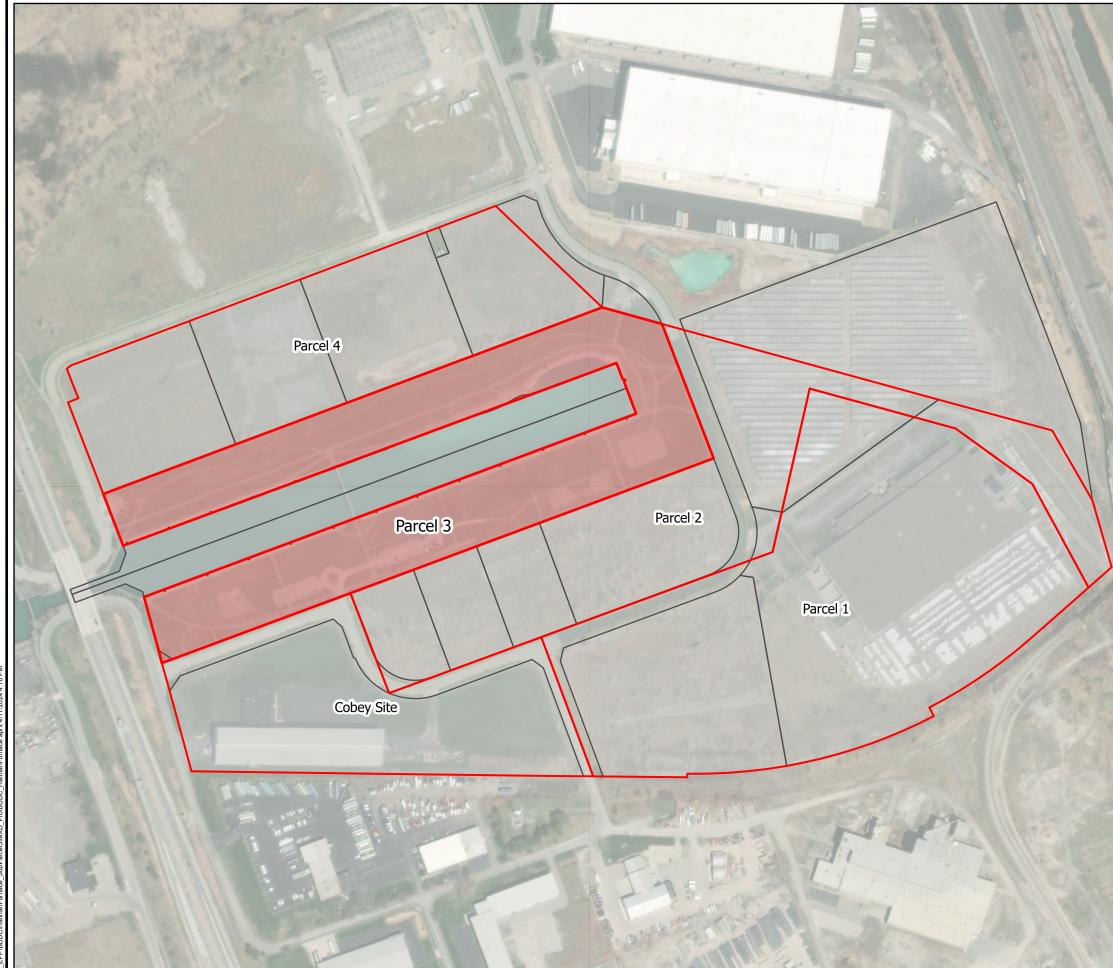
All IC/ECs for the site have been implemented in accordance with the DEC-approved SMP and Environmental Easement. The sitewide inspection was conducted after a weather event resulting in approximately 1-2 inches of rainfall in the 24 hours previous to inspection. A summary of the observational findings from the most recent site inspection are provided below with references to the respective photos of the findings which can be found in Appendix C:

- Some minor ponding due to the recent rainfall was noted in gravel pathways installed in the northern portion
  of the site and in soil along the southern and northern site boundaries (see Photographs 18 and 28). Future
  observations or inspections under dry conditions should be noted to assess the degree of surface water
  accumulation.
- Minor rutting was observed in soil adjacent to the south parking area (see Photographs 10, 15, and 17) as a
  result of unauthorized vehicular traffic and/or site maintenance. It is recommended that areas be filled and reseeded with NYSDEC-approved materials as part of general site maintenance to prevent long-term
  deterioration of the cover systems.
- Evidence of historical deterioration and pitting along the top of the canal wall was observed on the north side of the canal due to the age of the wall. No indications of canal wall settling, cracking, or deflection were observed during visual inspections (see Photographs 29 and 30). Additional attention should be applied to this area during future annual inspections to track any excessive deterioration.

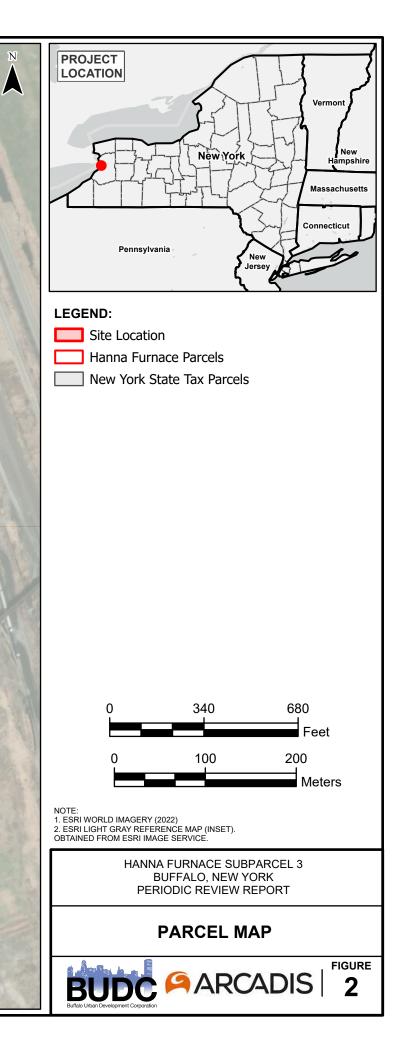
# **Figures**

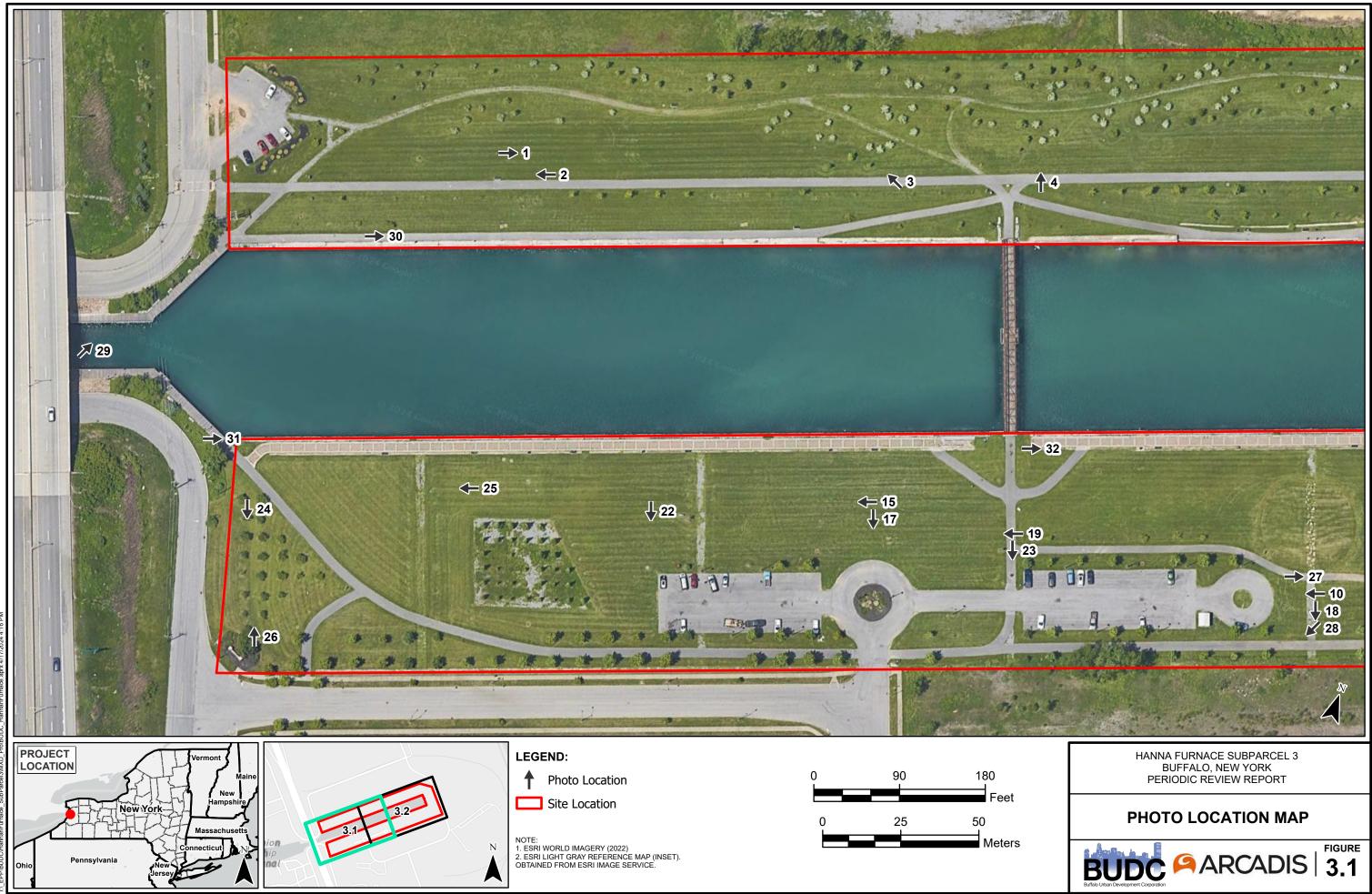


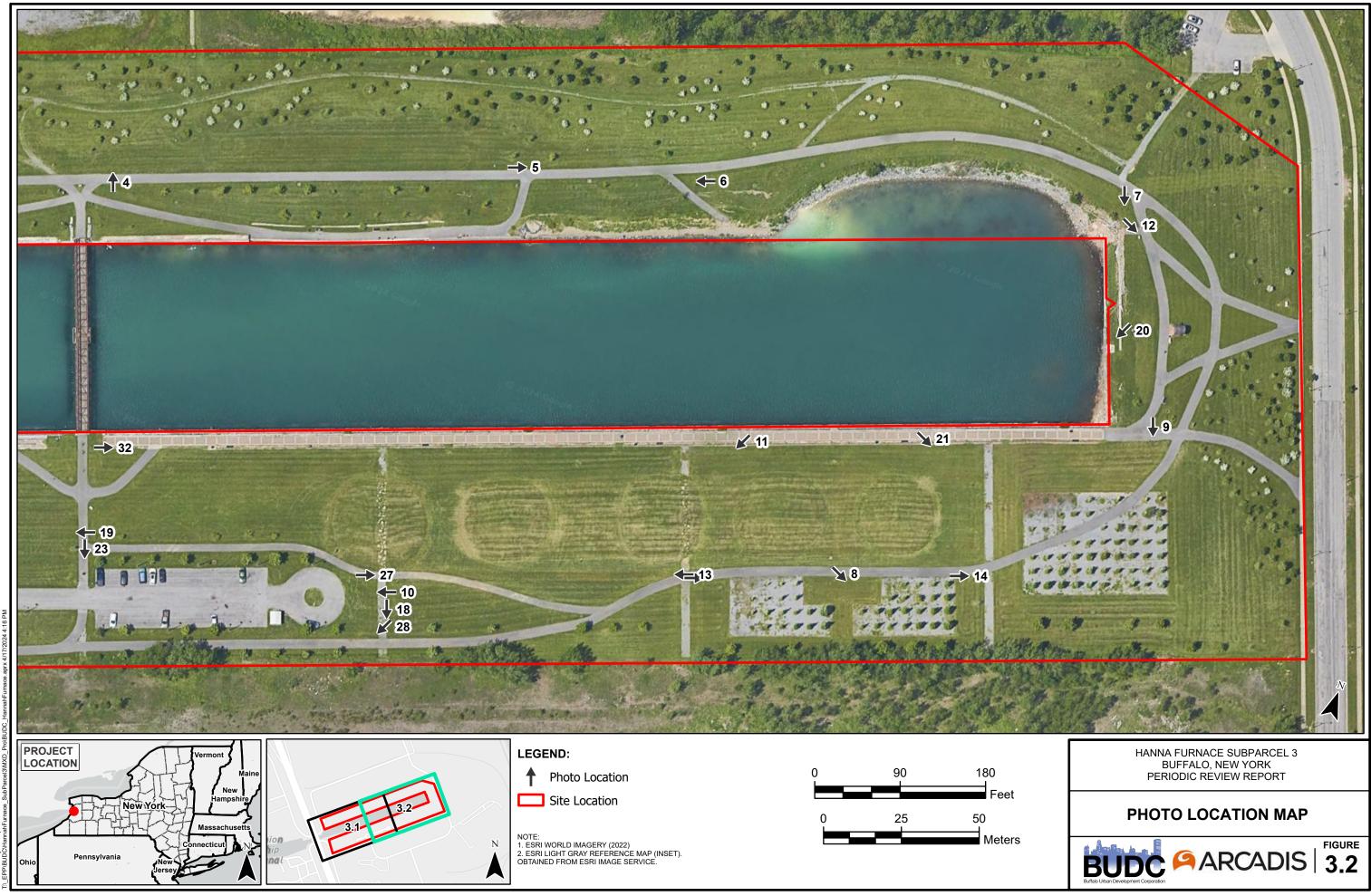




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**Environmental Inspection Form** 

Site Name: Hanna Furnace S	ub-Parcel 3	_Site Number:_	B00164	
Inspection Date: 4/12/24				
Property Address: Two Shi	o Canal Parkway			
Site Owner: Buffalo Urban D	evelopment Corporation	on		
Property ID: (Tax Assessment	Map) Section-Block-	Lot Nos: 132.19-	1-4.11	
Total Site Acreage: 21.2 acre	<u>s</u>			
Weather during inspection:	0-degree F, cloudy, w	indy, rain		
SIGNATURE				
The findings of this inspection we identified and implementation wa		· ·	el, corrective actio	ons were
Inspectors Signature: L. Goetz		Date: 4/12/24	<u>l</u>	
Next Scheduled Inspection:	pring 2025			
Illegal Dumping			Yes	No
				X
1. Is there evidence of illegal du	mping?			X
	COVER & VEC	<b>ETATION</b>		
			Yes	No
2. Final cover in acceptable con	dition?		<u>     X     </u>	
Is there evidence of slo	ughing, <u>erosion</u> , pondi	ng or settlement	$X = X^1$	
Is there evidence of <u>un</u>	i <b>ntended traffic</b> ; rutti	ng?	<u>X<sup>2</sup></u>	
Is there evidence of dis	tressed vegetation/turf	?		Х
3. Final cover sufficiently cover	s soil/fill material?		X	
Are there cracks visible	in the soil or paveme	nt?		Х
Is there evidence of ero	sion in the stormwater	channels	X	
or swales?				

#### CANAL WALL

		Yes	No
4.	Canal wall in acceptable condition?	<u>X<sup>3</sup></u>	
	Is there evidence of excess pitting, erosion or settlement?		X
	Are there tension cracks visible in the concrete?		X
	Canal wall or parts of wall are visually out of plumb,		X
	tilting or deflecting?		
	Other signs of damage or deterioration?		X
	Describe:		

Displacement of canal wall mark from prior inspection? <u>NA</u> in.

#### ACTIVITY ON SITE

		Yes	No
5.	Any activity on site that mechanically disturbed soil cover?		X

#### ADDITIONAL FACILITY INFORMATION

*Development on or near the site?* (Specify size and type: e.g., residential, 40 acres, well and septic)

#### **COMMENTS**

- (1) The sitewide inspection was conducted after a weather event resulting in approximately 1 to 2 inches of rainfall in the 24 hours previous to inspection. Some minor ponding was observed in gravel pathways installed in the northern portion of the site and in soil along the southern and northern site (Photographs, 18 and 28).
- (2) Minor rutting was observed in soil adjacent to public parking lot as result of unauthorized vehicular traffic and/or site maintenance (Photographs 10, 15, and 17)

(3) Evidence of historical deterioration and pitting along the top of the canal wall was observed on the north side of the canal due to the age of the wall. No indications of canal wall settling, cracking, or deflection were observed during visual inspections (see Photographs 29 and 30). Additional attention should be applied to this area during future annual inspections to track any excessive deterioration.

#### **ATTACHMENTS**



Institutional and Engineering Controls Certification Form



#### Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No.	Site Details B00164	Box 1		
Sit	Site Name Hanna Furnace Sub-Parcel 3				
City Co Site	Site Address: 2 Ship Canal Parkway Zip Code: 14203 City/Town: Buffalo (C) County: Erie Site Acreage: 21.771				
Re	porting Peric	od: November 28, 2022 to March 28, 2024			
			YES	NO	
1.	Is the inform	mation above correct?			
	If NO, inclu	ide handwritten above or on a separate sheet.			
2.		or all of the site property been sold, subdivided, merged, or undergone a nendment during this Reporting Period?			
3.		been any change of use at the site during this Reporting Period RR 375-1.11(d))?			
4.		ederal, state, and/or local permits (e.g., building, discharge) been issued e property during this Reporting Period?			
		wered YES to questions 2 thru 4, include documentation or evidence nentation has been previously submitted with this certification form.			
5.	Is the site of	currently undergoing development?			
			Box 2		
			YES	NO	
6.		ent site use consistent with the use(s) listed below? al and Industrial			
7.	Are all ICs	in place and functioning as designed?			
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.				
AC	A Corrective Measures Work Plan must be submitted along with this form to address these issues.				
Sig	nature of Ow	vner, Remedial Party or Designated Representative Date			

SITE NO. B00164		Box 3
Description of Institut	ional Controls	
Parcel Portion of 132.19-1-4.11	<u>Owner</u> City of Buffalo	Institutional Control
Portion of 132.19-1-4.11		Soil Management Plan IC/EC Plan
		Ground Water Use Restriction Landuse Restriction Site Management Plan Monitoring Plan
Prohibition against use of gro Compliance with a soils mar Use must be maintained as		
		Box 4
Description of Engine	ering Controls	
<u>Parcel</u>	Engineering Control	
Portion of 132.19-1-4.11		
	Cover System	
Site-wide cover system of so	il (minimum 1 foot thick) and asphalt pave	ment.

	Box 5
	Periodic Review Report (PRR) Certification Statements
1.	I certify by checking "YES" below that:
	a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted
	engineering practices; and the information presented is accurate and compete. YES NO
2.	For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:
	(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) 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;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
	Signature of Owner, Remedial Party or Designated Representative Date

#### IC CERTIFICATIONS SITE NO. B00164

Box 6

#### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 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.

<u>rint name</u> at <u>95 Perry St. Sk. 404</u> print name print business address 14203 Buffalo, M (Owner or Remedial Party) am certifying as  $\underline{B}$ for the Site named in the Site Details Section of this form. HULL d. dan

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

#### **EC CERTIFICATIONS**

#### Signature

I certify that all information in Boxes 4 and 5 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.

MICHAEL HIGGINS at BUFFALD, NEW YORK print name print business address am certifying as a for the BUFFALD URBAN DE Remedial Party) 26/24 Signature of , for the Owner or Remedial Party, Stamp Date **Rendering Certification** (Required for PE)

Box 7

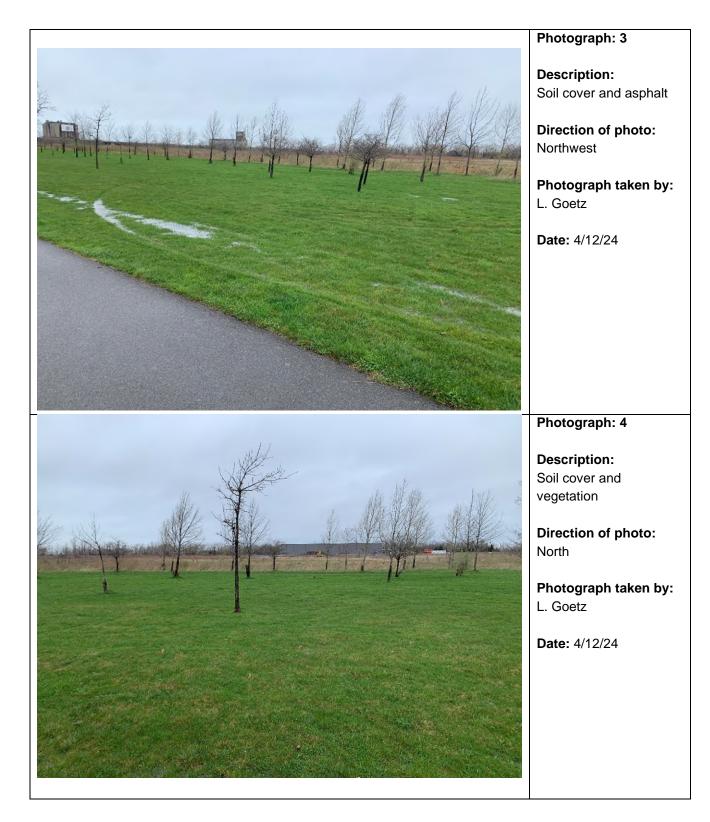


Photograph Log





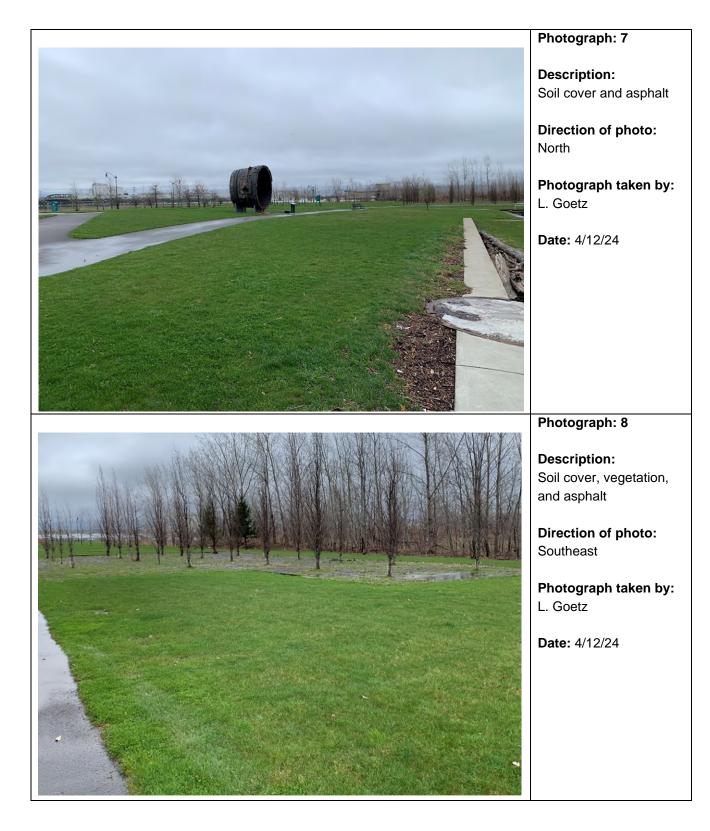




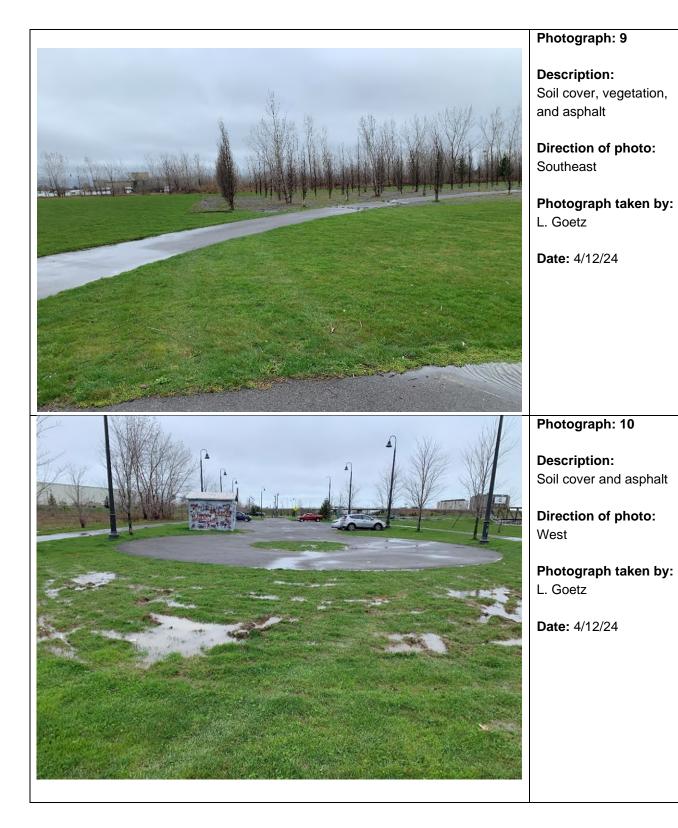
















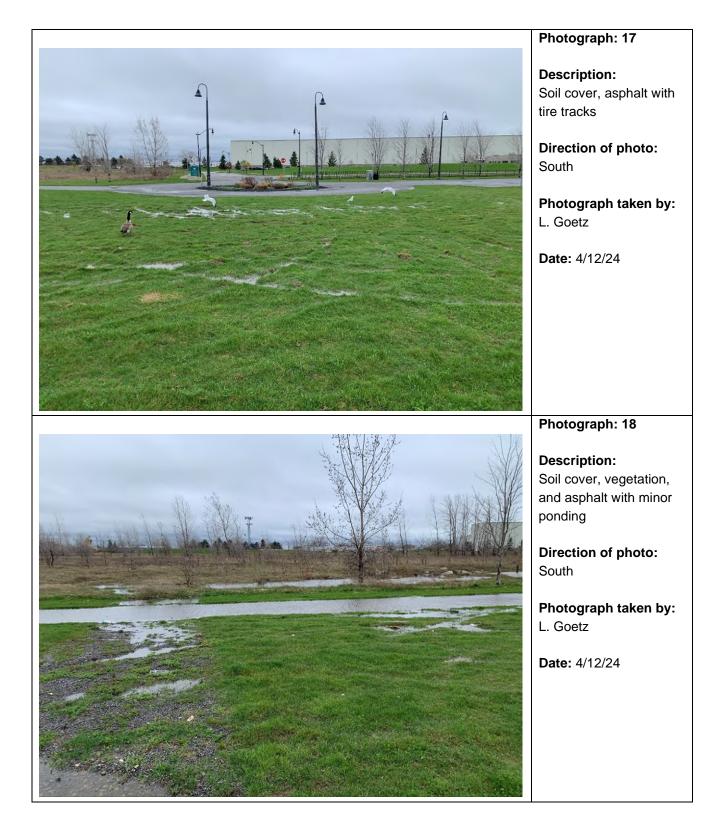








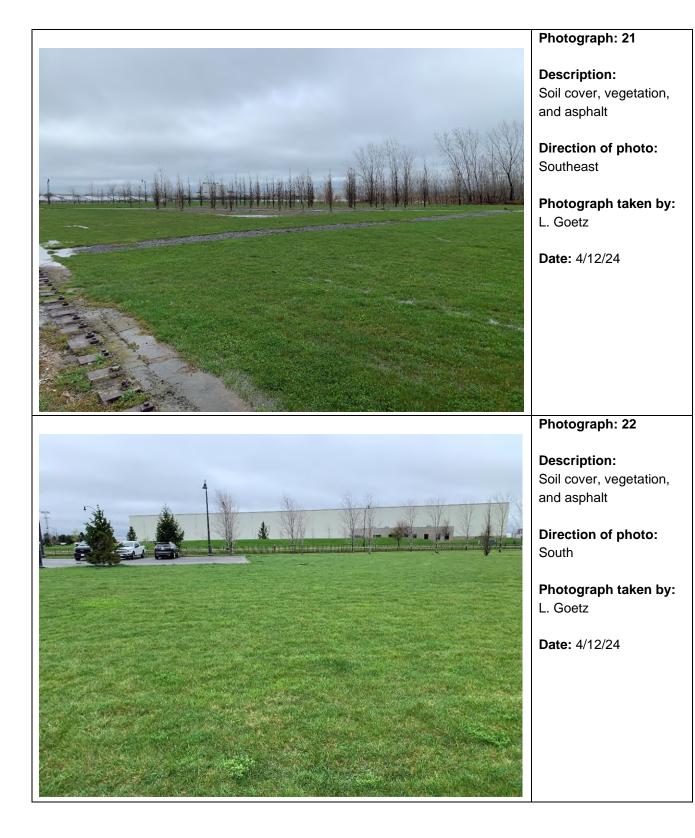








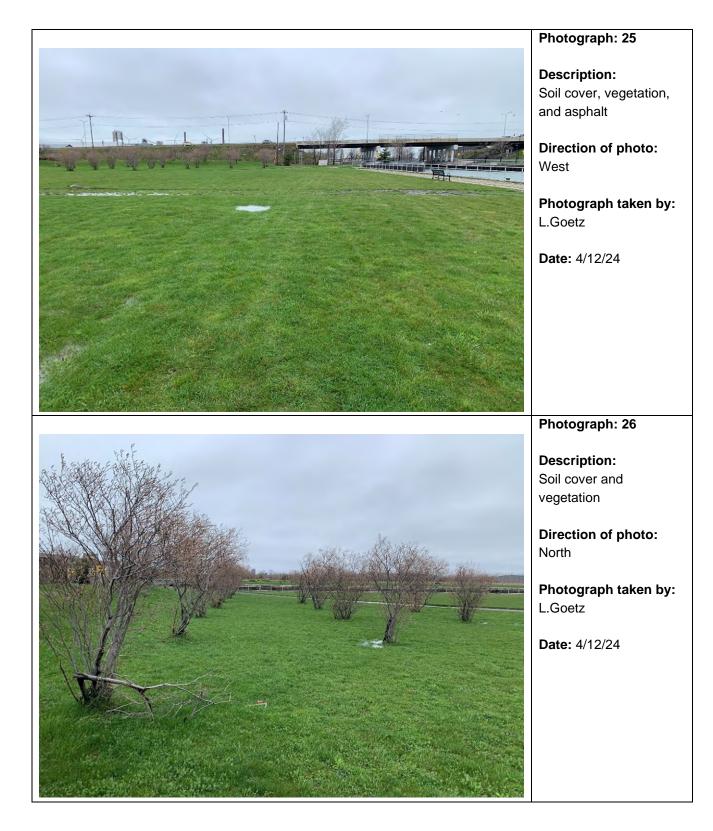








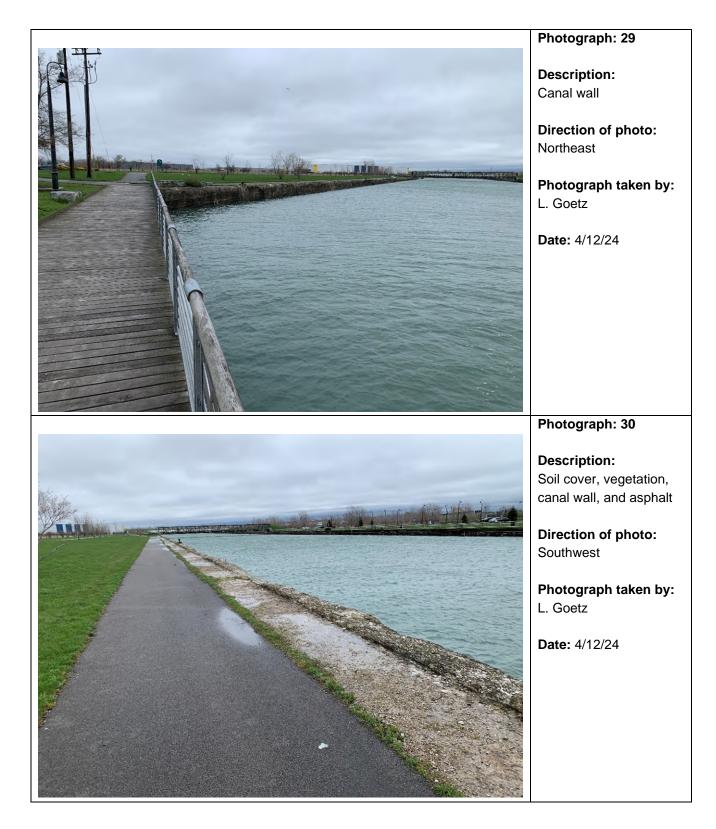




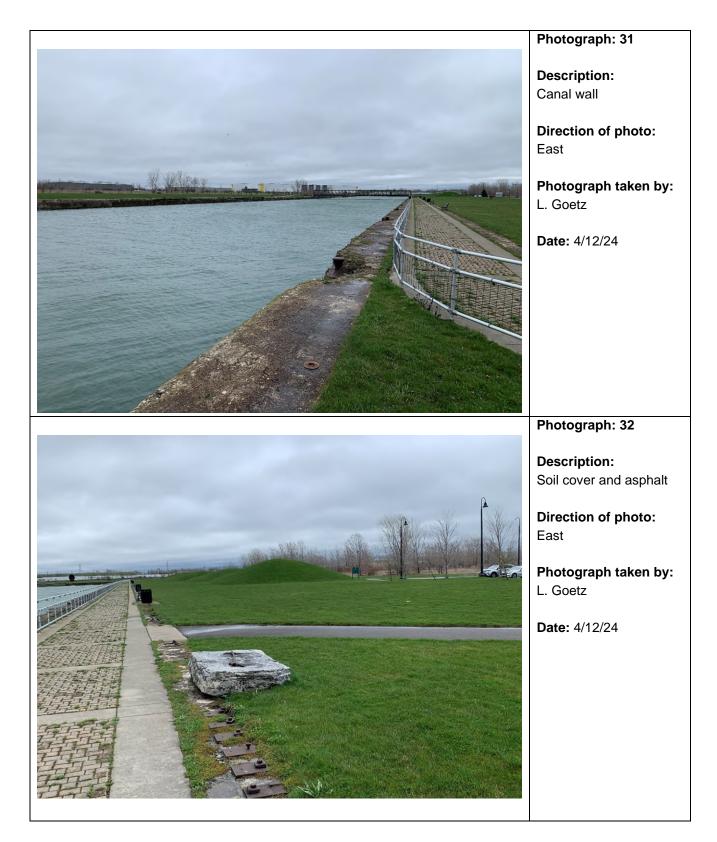












Arcadis of New York, Inc. 50 Fountain Plaza, Suite 360 Buffalo, NY 14202 United States Phone: 716 667 0900 Fax: www.arcadis.com