April 12, 2023

Jahan Reza, P.E.
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Circle Road
Stony Brook, NY 11790

Re: **Elks Plaza, Freeport**
NYSDEC Site No. 130193
Per and Polyfluoroalkyl Substances

Dear Mr. Reza:

Seacliff Environmental Geology PC (Seacliff) has prepared this work plan to sample three on-site monitoring wells to determine the concentrations of Per- and Polyfluoroalkyl Substances (PFAS) as per your letter dated January 23, 2023.

Introduction-

As you point out in your letter, PFOA and PFOS (substances in the PFAS family) were, by Rule 6 NYCRR Part 597, identified as hazardous substances effective March 3, 2017. As of December 2018, the NYS Drinking Water Quality Council recommended a maximum contaminant level (MCL) of 10 parts per trillion (ppt) for both PFOA and PFOS. In November 2021 New York proposed Ambient Water Quality Values for PFOS of 6.7 ppt and PFOA of 2.7 ppt.

The New York State Department of Environmental Conservation (NYSDEC) conducted sampling for PFAS at Elk Plaza in August 2018. This sampling event indicated concentrations of PFOA and PFOS in exceedance of November 2021 values. Concentrations increased as groundwater passed through the site in a south-southeasterly direction. This indicates there may be a source of PFAS contributing to the increasing concentrations across the site. The NYSDEC is requesting sampling and analysis of PFAS at the Elks Plaza site from monitoring wells MW-1, MW-2, and MW-3 (Figure 1).

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Sampling Methodology-

Seacliff will follow the procedures laid out in the *NYSDEC DER November 2022 SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) under NYSDEC's Part 375 Remedial Programs*. In addition, NYSDEC DER-10 specifies technical guidance applicable to DER's remedial programs. Given the prevalence and use of PFAS, DER has developed "best management practices" specific to sampling for PFAS.

Prior to sampling, a Solinst Model 101 electronic water level probe will be used to determine the depth to groundwater in each well. Seacliff will purge and sample the wells using a peristaltic pump with individual well- dedicated HDPE tubing. Each monitoring well will be purged a minimum of three casing volumes to ensure representative samples from the formation surrounding the wells and to eliminate standing water in the wells.

Decontamination of sampling materials between wells is not anticipated except for the water level probe. A two- step decontamination using Alconox™ and clean, PFAS-free water will be used for cleaning the probe. Sampling personnel will don new nitrile gloves prior to each sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Temperature, pH, dissolved oxygen, turbidity, and specific conductivity measurements will be collected and recorded during and at the conclusion of purging. Individual well sampling logs will be prepared. Additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability.

Seacliff will use laboratory-supplied containers. A label shall be attached to each sample container with a unique identification. Each sample will be included on the chain of custody (COC). Immediately after collection each sample will be placed in a cooler maintained at 4 ± 2º Celsius using ice.

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Seacliff will hand deliver the samples to York Analytical Laboratories (NYSDOH # 10854). The NYSDEC Division of Environmental Remediation (DER) currently requires analysis for 21 Per- and Polyfluoroalkyl Substances (PFAS) for DER remedial programs. Advances in analytical methodology will allow for the reporting of additional analytes. As a result, DER has updated its PFAS Analyte List to now include 40 PFAS chemicals for DER remedial programs. As of November 1, 2022, DER requires the use of EPA Method 1633 for analysis of PFAS in all environmental media (not drinking water). Seacliff will request Category B deliverables should a Data Usability Report (DUSR) be required.

The following precautions will be applicable for groundwater sampling personnel:

- No materials containing Teflon will be used.
- No Post-it notes will be used.
- No ice packs -only water ice or dry ice.
- Sampling gloves worn will be powder free nitrile.
- No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
- No stain repellent or waterproof treated clothing; these are likely to contain PFAs.
- Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
- Wash hands after handling any food containers or packages as these may contain PFAs.
- Keep pre-wrapped food containers and wrappers isolated from the samples.
- Wear clothing washed at least six times since purchase.
- Wear clothing washed without fabric softener.
- Avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling.
- Sunscreen or insect repellent should not contain ingredients with “fluor” in their name.
- Apply any sunscreen or insect repellent well downwind from all materials.
- Hands must be washed after touching any of these products.

Schedule-

The sampling will be scheduled within 21 days of work plan approval.

The reporting of the results will include laboratory data, tabulated data, site figure, and discussion of the results compared to the recommended MCLs. This report will be submitted within 60 days of receipt of results of the analytical data from the laboratory.

If you prefer, the laboratory report and associated spreadsheet can be submitted for your review prior to the report submittal.

Please call or email me if you have any questions.

Seacliff Environmental Geology PC

James M. DeMartinis

James M. DeMartinis P.G.
Senior Hydrogeologist

CC Lois Reisman
Karen Tyll PE

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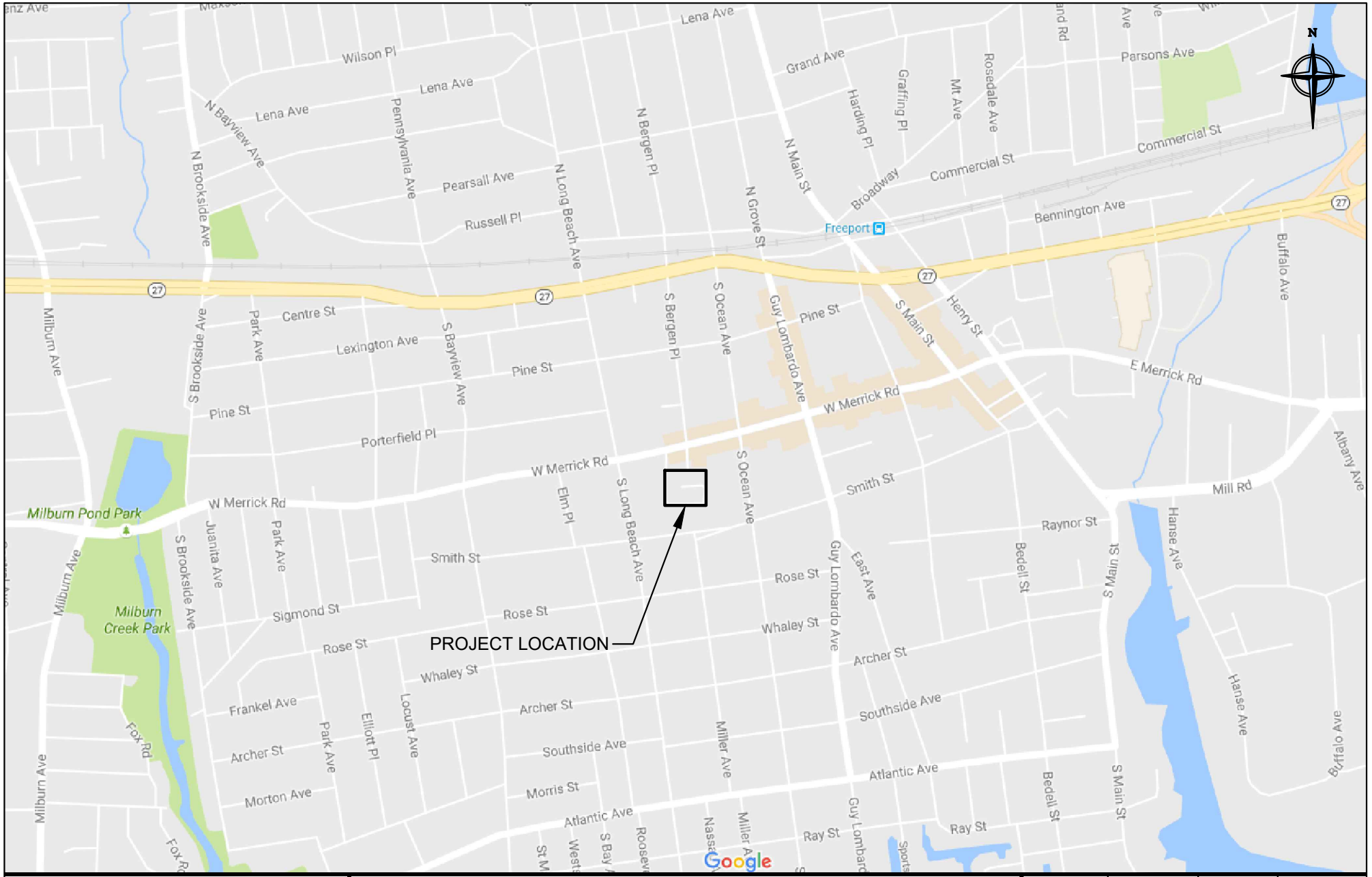

PREPARED BY:

Seacliff ENVIRONMENTAL

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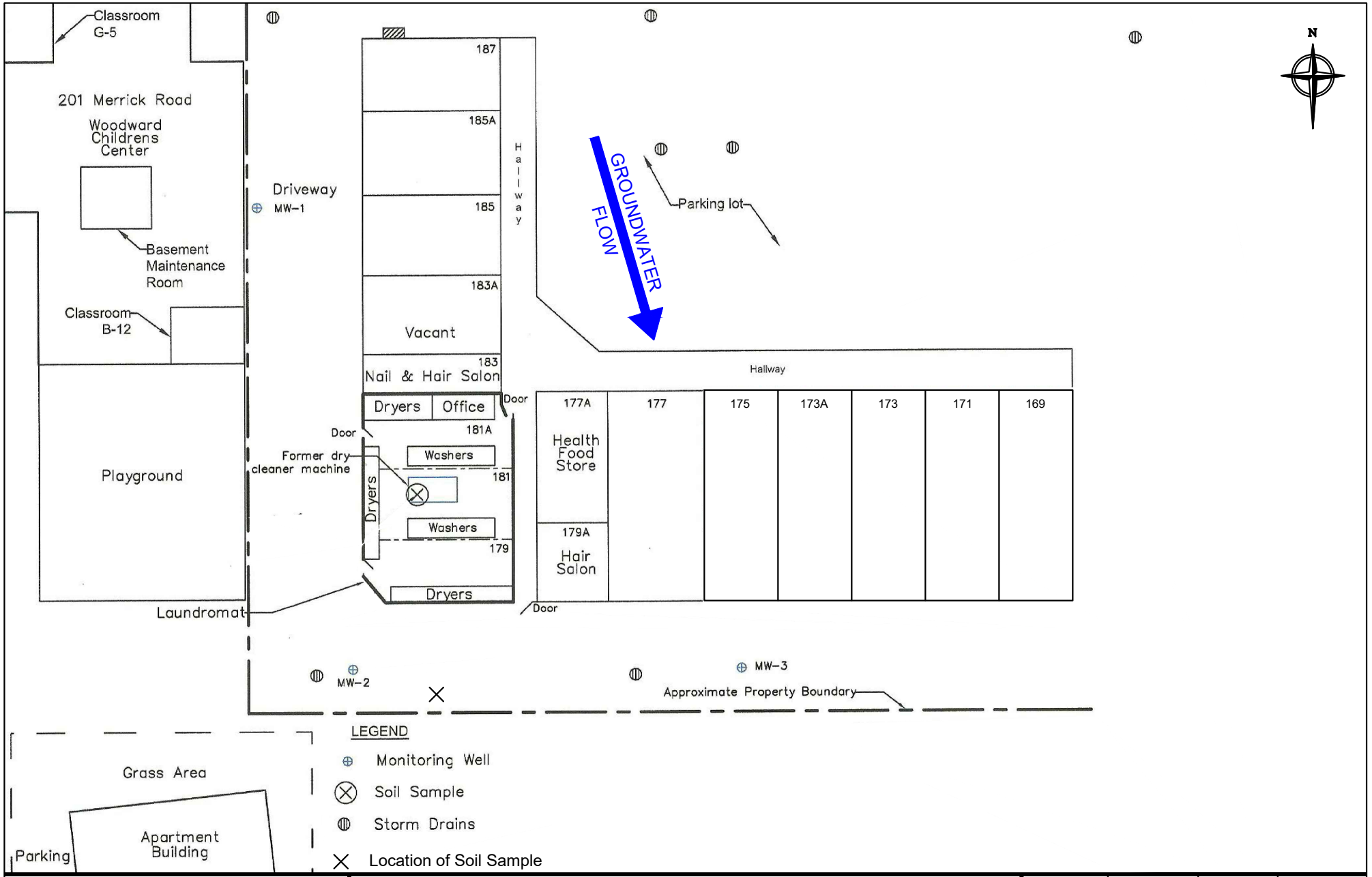
TITLE:

SITE LOCATION MAP

Elks Plaza, LLC
157-189 W. Merrick Road
Freeport, New York

DWN:	SCALE:	DATE:	PROJECT NO.:
LR	1" = 1000'	09-29-16	Elks
CHKD:	APPD:	REV.:	NOTES:
JMD	JMD	-	-

FIGURE NO.: 1



PREPARED BY:	TITLE:				
Seacliff ENVIRONMENTAL	**SITE PLAN** Elks Plaza, LLC 157-189 W. Merrick Road Freeport, New York	DWN: LR	SCALE: 1" = 50'	DATE: 09-29-16	PROJECT NO.: Elks
		CHKD: JMD	APPD: JMD	REV.: -	NOTES: -
		FIGURE NO.: 2			

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