

October 12, 2023  
Project 130000

Consulting  
Engineers and  
Scientists

**VIA email: [michael.belveg@dec.ny.gov](mailto:michael.belveg@dec.ny.gov)**

Mr. Michael Belveg  
NYSDEC, Division of Environmental Remediation  
615 Erie Boulevard West  
Syracuse, NY 13204

Dear Mr. Belveg:

**Re: Addendum to Remedial Investigation Work Plan  
UniFirst Corporation  
103 Luther Ave (113 7<sup>th</sup> North St), Liverpool, New York  
NYSDEC Site No. C734152**

This letter constitutes an addendum to the approved Remedial Investigation Work Plan (RIWP) for the above-referenced site, which is being investigated under the New York State Department of Environmental Conservation (NYSDEC) Brownfields Cleanup Program (BCP) (Site No. C734152). The RIWP for the Site was submitted in April 2022 and approved by NYSDEC by letter dated June 6, 2022. This RIWP addendum documents UniFirst's plans for additional or alternate off-property investigation locations. At your request, these additional locations are proposed because UniFirst has been unable to complete the originally planned off-property investigations due to lack of access to the third party-owned property on which the investigation was planned.

## **1. Background**

The Site is located on UniFirst's property at 113 7<sup>th</sup> North Street, also known as 103 Luther Avenue (Section 086, Block 02, Lot 02.1), in Liverpool, New York (**Figs. 1 and 2**). The Site is currently made up of the industrial laundry facility parcel and several adjacent parcels along Luther Avenue that UniFirst acquired over the years and used primarily for offices and storage space.

UniFirst operated in the former industrial laundry facility (at the location labeled "former laundry facility building" on **Fig. 2**) from mid-1960s through 2022. Historically, tetrachloroethylene (PCE), the principal constituent of concern, had been used in the dry-cleaning process within the former facility building. UniFirst ceased its dry-cleaning operations and use of PCE by 1987 and does not store PCE at the Site.

Between 2020 and 2023, UniFirst constructed a new 55,700 square foot one-story laundry building on the Property. GEI Consultants, Inc., P.C. (GEI) conducted preliminary subsurface investigations to support UniFirst's construction and proactively investigate and characterize the

nature and extent of impacts potentially related to the former dry-cleaning operations, ultimately to support the remedial investigation under Environmental Conservation Law (ECL) Article 27, Title 14 (BCP). As described in prior submittals to the NYSDEC, including the RIWP, certain impacts to soil and groundwater were identified as a result, and UniFirst entered the BCP. A remedial investigation was planned as described in the April 2022 RIWP. This investigation includes soil and soil gas sampling and groundwater monitoring throughout the UniFirst property and on the adjacent property to the southeast of the UniFirst property at 109 7<sup>th</sup> North Street. This adjacent property is a flooring showroom owned by a third party, and is currently understood to be immediately downgradient from UniFirst's former facility.

While the investigations making up the portion of the RIWP scope within the UniFirst property boundaries are largely complete, UniFirst has been unable to negotiate access to this adjacent parcel for the purposes of completing the planned off-property remedial investigation scope of work despite significant attempts, including involvement of the NYSDEC. As a result, a modified investigation scope is proposed herein, with the objective of obtaining data and information related to downgradient conditions from more readily accessible downgradient areas. The results will facilitate further evaluation of the need to perform some or all of the previously proposed RIWP components on the 109 7<sup>th</sup> North Street property.

## **2. Addendum Scope of Work**

### **2.1 Overview**

The off-property remedial investigation activities originally planned in the RIWP consisted of advancing three soil borings to 20 feet on the 109 7<sup>th</sup> North Street property, finishing each as a water table monitoring well, collecting two soil vapor samples below the slab of the existing building, and sampling groundwater from the new monitoring wells. However, as discussed above, UniFirst has been unable to obtain access to perform these activities. During a call with UniFirst and GEI on July 20, 2023, you suggested that UniFirst evaluate the potential for performing downgradient evaluations along the 7<sup>th</sup> North Street right-of-way as an alternative to the RIWP-proposed investigations on the adjacent property in consideration of the access issues.

GEI retained Warren Ramie Surveying on behalf of UniFirst to research and field-locate the right-of-way boundary along 7<sup>th</sup> North Street, with the goal of determining if space is available within the right-of-way to allow for implementation of the scope suggested by NYSDEC. As shown on **Fig. 2**, the right-of-way allows for soil boring and well placement within the grassy shoulder of 7<sup>th</sup> North Street. As such, UniFirst and GEI plan to proceed with this alternate plan. As further discussed below, soil and groundwater investigations will be performed at one right-of-way location adjacent to the southeastern-most corner of the UniFirst property (i.e., an alternative to originally proposed boring B409 and monitoring well MW11) and two right-of-way locations between the 7<sup>th</sup> North Street pavement and the properties located at 109 and 107 7<sup>th</sup> North Street (i.e., alternatives to originally proposed borings B410 and B411 and monitoring wells MW12 and MW13).<sup>1</sup>

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<sup>1</sup> These sample IDs (B409, B410, B411, MW11, MW12, and MW13) appear in the 2022 RIWP associated with the proposed locations on the 109 7<sup>th</sup> North Street property. However, as the 109 7<sup>th</sup> North Street investigations cannot be completed at this time, the associated IDs are being reassigned to these alternate locations. If the 109 7<sup>th</sup> North Street property is investigated in the future per the 2022 RIWP or any modifications thereto, new sample IDs will be assigned to the 109 7<sup>th</sup> North Street locations.

## **2.2 Objectives**

To achieve the RIWP objective to further investigate and characterize “the nature and extent of the contamination at and/or emanating from the brownfield site,” the RIWP scope addendum for off-property work includes the following:

- Mobilization and access.
- Soil boring installations and soil sampling.
- Groundwater monitoring well installation and development.
- Groundwater sampling at new monitoring well locations.

Field work will proceed as identified in the previously submitted and approved RIWP and will be performed in accordance with the Field Sampling Plan (FSP) methods in Appendix F of the RIWP. Analytical sampling will be performed in accordance with the Quality Assurance Project Plan (QAPP) included in Appendix G of the RIWP. The Community Air Monitoring Plan (CAMP) will be implemented during ground-intrusive field activities (Appendix H of the RIWP). The GEI Health and Safety Plan (HASp) is in Appendix I of the RIWP. The proposed sampling locations for the alternate off-property RIWP scope are depicted on **Figs. 3 and 4** and the sampling scope of work is described in **Tables 1 and 2** of these addendums.

## **2.3 Mobilization and Site Access**

UniFirst has notified the Onondaga County of its plans and has applied for a “Work in the Right-of-Way” permit from the Onondaga County Department of Transportation. On UniFirst’s behalf, GEI has also notified the Town of Salina of its plans and was informed that no permit or agreement is necessary through the Town. The Work in the Right-of-Way permit will be in place prior to mobilizing.

The proposed sampling locations will be pre-marked prior to commencement of field activities. Each soil boring/monitoring well location will be marked by GEI with white paint and the drilling subcontractor will contact the New York State one-call center (“Dig Safely NY”) to request that all utilities be located and marked prior to commencing subsurface work. Additionally, the drilling subcontractor will utilize air-knife vacuum excavation to a depth of 6 feet at all investigation locations for underground utility protection. Field adjustments to the investigation locations may be made to avoid utilities, if encountered.

## **2.4 Soil Boring Installations and Soil Sampling**

Soil borings will be advanced at the three locations identified on **Fig. 3**. B409 will be advanced to a depth of 20 feet below grade, while B410 and B411 will be advanced to 40 feet below grade. Although the RIWP indicated that the off-property borings were to terminate at 20 feet below grade, UniFirst has elected to proactively investigate deeper soils at the two further downgradient locations based on data collected to date, which suggest that impacts extend deeper than 20 feet below grade beneath the former laundry facility.

A GEI representative will be present to coordinate drilling, document the borings’ advancement, field screen soils for total organic vapor (TOV), and collect soil samples for analytical and field tests (as necessary). Soil descriptions will be recorded in boring logs. Soil will be screened continuously to the boring termination depth for TOV concentration using a photoionization detector (PID) equipped with a 11.7 electron volt (eV) bulb, and for visual and olfactory

indications of environmental impacts (e.g., staining and odor). If the PID registers a TOV concentration of 100 parts per million (ppm) or higher, that soil will be screened for the potential presence of non-aqueous phase liquid (NAPL), as further described in Section 5.2 of the RIWP.

Soil samples will be collected and sent for laboratory analysis of volatile organic compounds (VOCs) by EPA Method 8260, semi volatile organic compounds (SVOCs) by EPA Method 8270D, polychlorinated biphenyls (PCBs) by EPA Method 8082A, pesticides/herbicides by EPA Methods 8081B/8151A, total cyanide by EPA Method 9010C/9012B, target analyte list (TAL) metals by EPA Methods 6010D/6020, and per- and polyfluorinated substances (PFAS) by modified EPA Method 1633.<sup>2</sup> The soil sampling and analysis plan is detailed in **Table 1**. Analyses will be performed by a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory.

As indicated in **Table 1**, certain soil samples will be sent to the laboratory for immediate analysis, while others will be sent on hold. Specifically, two of the four intervals within each shallow boring will be analyzed immediately, and the remaining two will be held at the laboratory pending the initial results. Similarly, four of the eight intervals within each deep boring will be analyzed immediately, and the remaining four will be held at the laboratory pending the initial results. If one or more constituents are detected above applicable soil standards in the shallower interval during initial analyses, the deeper held sample will be released for analysis of the applicable parameter group. This approach is consistent with the original scope of the soil investigations proposed as part of the NYSDEC-approved RIWP. As was the case for the April 2022 RIWP, the number of samples collected and the samples to be analyzed immediately versus held may vary based on field conditions.

Following the collection of subsurface soil samples, groundwater monitoring wells will be installed as described in Section 2.5. Drill cuttings will be properly stored on Site for off-Site transportation and disposal.

## ***2.5 Groundwater Monitoring Well Installation and Development***

While three water-table monitoring wells were originally planned for installation on the 109 7<sup>th</sup> North Street property, five new permanent wells are planned as part of this RIWP addendum. The wells will be identified as MW11, MW12S, MW12I, MW13S, and MW13I and their locations are shown on **Fig. 4**. The three shallow wells (MW11, MW12S, and MW13S) will be screened approximately 5 to 15 feet deep (at the water table) and the two deeper wells (MW12I and MW13I) will be screened approximately 25 to 35 feet deep (with the top of screen set at the silt/sand interface). Again, although the RIWP included only three water table wells at the 109 7<sup>th</sup> North Street property, UniFirst has elected to proactively install two additional deeper wells at the further downgradient locations. The actual well depth and construction will depend on Site conditions encountered, such as thickness of the saturated zone, observed stratigraphy and the presence, location, and thickness of NAPL, if encountered.

Construction will consist of a 10-foot long, 2-inch diameter Schedule-40 polyvinyl chloride (SCH-40 PVC) 0.010-inch slotted well screen threaded to solid SCH-40 PVC riser pipe to the ground surface and a 1-foot sump. Chemically inert silica sand will be backfilled from the bottom of the sump to at least 1 foot above the top of the screen. A bentonite seal will be placed above the screen and sand pack.

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<sup>2</sup> The non-VOC parameters are included for completeness of the Remedial Investigation dataset. On-property sampling has shown that these parameters are not Site constituents of concern but are included nevertheless to comply with NYSDEC Remedial Investigation guidelines.

Where possible, the bentonite seal will be a minimum of 24-inches thick, except in those instances where the top of the well screen is near to the ground surface. The remainder of the annular space will be filled with a bentonite cement grout up to the ground surface. Monitoring wells will be finished with an expanding well cap and flush-mounted protective cover.

Following installation, monitoring wells will be developed and monitored for drawdown and recovery. Development will be performed by alternately surging and pumping for a maximum of 1 hour, or until the turbidity of the development water is less than 50 nephelometric turbidity units (NTUs), or until a maximum of ten well volumes have been removed per the FSP (Appendix F of the RIWP). A field turbidity meter will be used to monitor NTU levels. Well development fluids will be pumped into 55-gallon drums and properly stored on Site for off-Site transportation and disposal.

Also following installation, a New York State Licensed Land Surveyor will survey all of the existing permanent monitoring wells, including both the on- and off-property wells, as described in the RIWP. The monitoring wells will be used to estimate groundwater flow directions and for analytical sampling, as discussed in the RIWP and Section 2.6 below.

## **2.6 Monitoring Well Sampling**

The five new off-property groundwater monitoring wells will be sampled as part of a comprehensive event that will include all of the on- and off-property wells, as further described in the RIWP. As with the soil sampling described above and in the RIWP, the groundwater samples will be analyzed for VOCs, SVOCs, PCBs, pesticides/herbicides, cyanide, TAL metals, and PFAS. Analyses will be performed by a NYSDOH ELAP-certified laboratory. The off-property groundwater sampling scope of work is presented in **Table 2**.

Each monitoring well will be purged and sampled using low flow groundwater sampling procedures, as described in the FSP (Appendix F of the RIWP). To allow conditions in the surrounding formation to stabilize, groundwater samples will be collected no sooner than two weeks following installation and development. Field parameters will be monitored and recorded during sampling including pH, oxidation reduction potential, specific conductance, dissolved oxygen, and temperature. Well purge fluids will be pumped into 55-gallon drums and properly stored on Site for off-Site transportation and disposal.

## **3. Schedule**

Off-property drilling and well installation is scheduled to take place the week of October 30, 2023. Groundwater sampling (both on- and off-property) will occur in November or December 2023.

Additionally, a revised BCP project schedule for implementation of Site-wide response action activities is provided below. This schedule was first presented in the RIWP, but is revised herein to reflect updates resulting from construction and access delays. As such, this schedule includes updates related to additional Site activities not otherwise discussed herein.

<b>Task/Goal</b>	<b>Original Estimated Schedule (from RIWP)</b>	<b>Revised Estimated Schedule</b>	<b>Status</b>
1. Implementation of RIWP	November– January 2021	Completion November 2023 <sup>1</sup>	Ongoing
2. Submittal of an Interim Remedial Measure Work Plan (IRMWP) to address impacts within Phase 2 construction area	February 2022	None	Complete
3. Implementation of the Interim Remedial Measures (IRMs) <sup>2</sup>	May 2022	Completion November 2023	Ongoing
4. Submit Construction Completion Reports related to IRMs <sup>2</sup>	July 2022	February 2024	Pending
5. Submit RIR, RIR Fact Sheet and Remedial Action Work Plan (RAWP)	December 2022	June 2024	Pending
6. Approval of RAWP	March 2023	Summer 2024	Pending
7. Begin Implementation of RAWP	May 2023	Fall 2024	Pending
8. Final Engineering Report (FER) and Site Management Plan (SMP)	December 2023	Summer 2025	Pending
9. Certificate of Completion (COC) Issued	June 2024	Fall 2025	Pending

**Notes:**

1. Additional field investigations may be required based on the results of the planned off-property investigations, potentially resulting in prolonging the schedule further.

2. The IRMs referenced in this schedule include both the IRM related to Phase 2 construction (consisting of a vapor mitigation system and groundwater treatment within the source area, consistent with the IRMWP identified in Item 2 of this schedule table) and the IRM related to Phase 1 construction (consisting of a vapor mitigation system, consistent with an IRMWP submitted in October 2022 and approved by NYSDEC on November 23, 2022).

**4. Closing**

Please review and provide comments or approval by October 23, 2023, if possible. In the meantime, please feel free to contact Jeff Holden at 607-216-8956 with any questions or to discuss.

Thank you again for your assistance in identifying an alternate plan for downgradient investigations at this Site.

Sincerely,

GEI CONSULTANTS, INC.



Jeffrey S. Holden, P.E.  
Project Manager / Senior Engineer



Wendy L. Moore, P.E.  
Project Engineer

WLM/JSH:tc

Enclosures:

- Table 1. Off-Property Soil Sampling Scope of Work
- Table 2. Off-Property Groundwater Sampling Scope of Work
- Fig. 1. Site Location Map
- Fig. 2. Site Plan
- Fig. 3. Addendum to Planned Remedial Investigation (Soil)
- Fig. 4. Addendum to Planned Remedial Investigation (Groundwater)

- c: Johnathan Robinson, NYSDOH  
Timothy Cosgrave, UniFirst Corporation  
Catherine Malagrida, UniFirst Corporation  
Ileen Gladstone, GEI Consultants

## Tables

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**Table 1. Off-Property Soil Sampling Scope of Work**  
**Remedial Action Work Plan Addendum**  
**UniFirst Liverpool**  
**Liverpool, NY**

Sample ID	Sampling Interval							
	Silt/Sand Interface*							
composite depth (ft bgs):	0-5	10-12	14-16	18-20	20-25*	25-30*	30-35*	35-40
discrete depth (ft bgs):	2.5	11	15	19	22.5*	27.5*	32.5*	37.5
B409	X	X (H)	X	X (H)	--	--	--	--
B410	X	X (H)	X	X (H)	X	X (H)	X	X (H)
B411	X	X (H)	X	X (H)	X	X (H)	X	X (H)

**Notes:**

\* = Exact depth of the silt/sand interface will vary depending on location, but is expected to be found at approximately 20 to 25 feet below grade. VOC sample from applicable interval will be collected from immediately below the interface and analyzed immediately. Adjustments may be made to the plan for held samples if the interface falls in the 25- to 30-foot interval.

ft bgs = feet below ground surface

X = Collect sample for full suite of chemical classes included in NYSDEC 6 NYCRR Part 375 guidance and the Sampling, Analysis, and Assessment of PFAS guidance, including a discrete VOC sample and a composite of the sampling interval for SVOCs, PCBs, pesticides/herbicides, total cyanide, total metals, and PFAS. Samples without an "(H)" designation will be analyzed immediately. Samples with an "(H)" designation will be sent to the laboratory on hold for potential future analysis.

1. A series of non-aqueous phase liquid (NAPL) field tests will be performed on any interval displaying a PID of 100 ppm or greater, as further described in the 2022 RIWP text. Additional intervals may be selected for laboratory VOC analysis based on the results of the field tests.
2. Intervals may be adjusted during the field event based on field conditions and observations.
3. Quality assurance/quality control samples will be collected in accordance with the Quality Assurance Project Plan included in the 2022 RIWP.
4. B409 will be advanced to 20 feet below grade, while borings B410 and B411 will be advanced to 40 feet below grade.
5. The boring IDs identified in this table (i.e., B409, B410, and B411) appear in the 2022 RIWP associated with proposed locations on the 109 7th North Street property. However, as these locations are currently inaccessible, the associated IDs are being reassigned to these alternate locations. If the 109 7th North Street property is investigated in the future, new sample IDs will be assigned to those locations.

**Table 2. Off-Property Groundwater Sampling Scope of Work**  
**Remedial Action Work Plan Addendum**  
**UniFirst Liverpool**  
**Liverpool, NY**

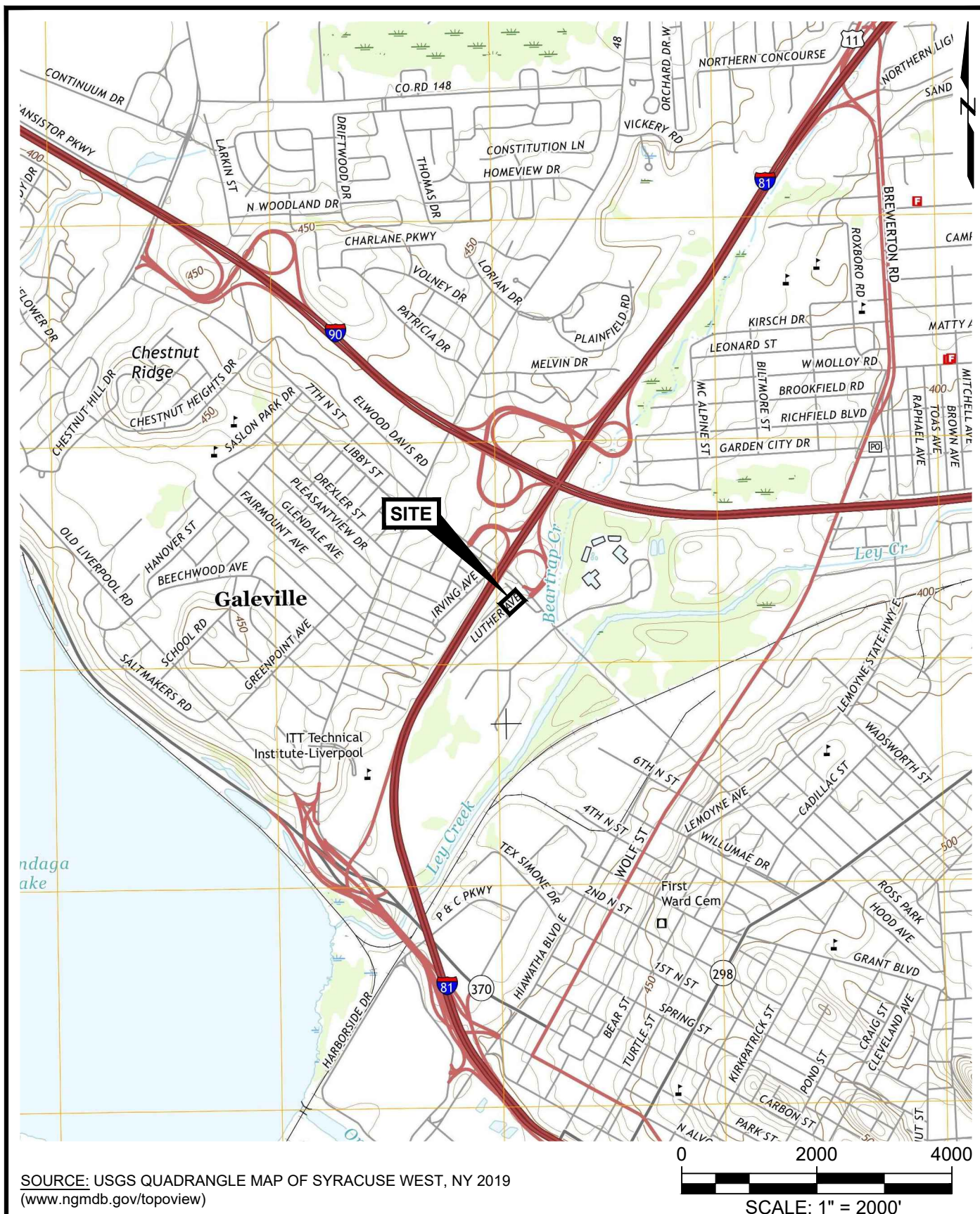
Well ID Sampling Parameter:	Gauge Water Level	VOCs	SVOCs	PCBs	Pest/Herb	Cyanide	TAL Metals	PFAS
MW11	X	X	X	X	X	X	X	X
MW12S	X	X	X	X	X	X	X	X
MW12I	X	X	X	X	X	X	X	X
MW13S	X	X	X	X	X	X	X	X
MW13I	X	X	X	X	X	X	X	X

**Notes:**

1. An "X" indicates that a sample will be collected for the indicated parameter.
2. Quality assurance/quality control samples will be collected in accordance with the Quality Assurance Project Plan (included in the 2022 RIWP).
3. The monitoring well IDs identified in this table (i.e., MW11, MW12, and MW13) appear in the 2022 RIWP associated with proposed locations on the 109 7th North Street property. However, as these locations are currently inaccessible, the associated IDs are being reassigned to these alternate locations. If the 109 7th North Street property is investigated in the future, new sample IDs will be assigned to these locations.

## Figures

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Remedial Investigation Work Plan Addendum  
113 7th North Street  
Liverpool, New York

Unifirst Liverpool  
Liverpool, New York



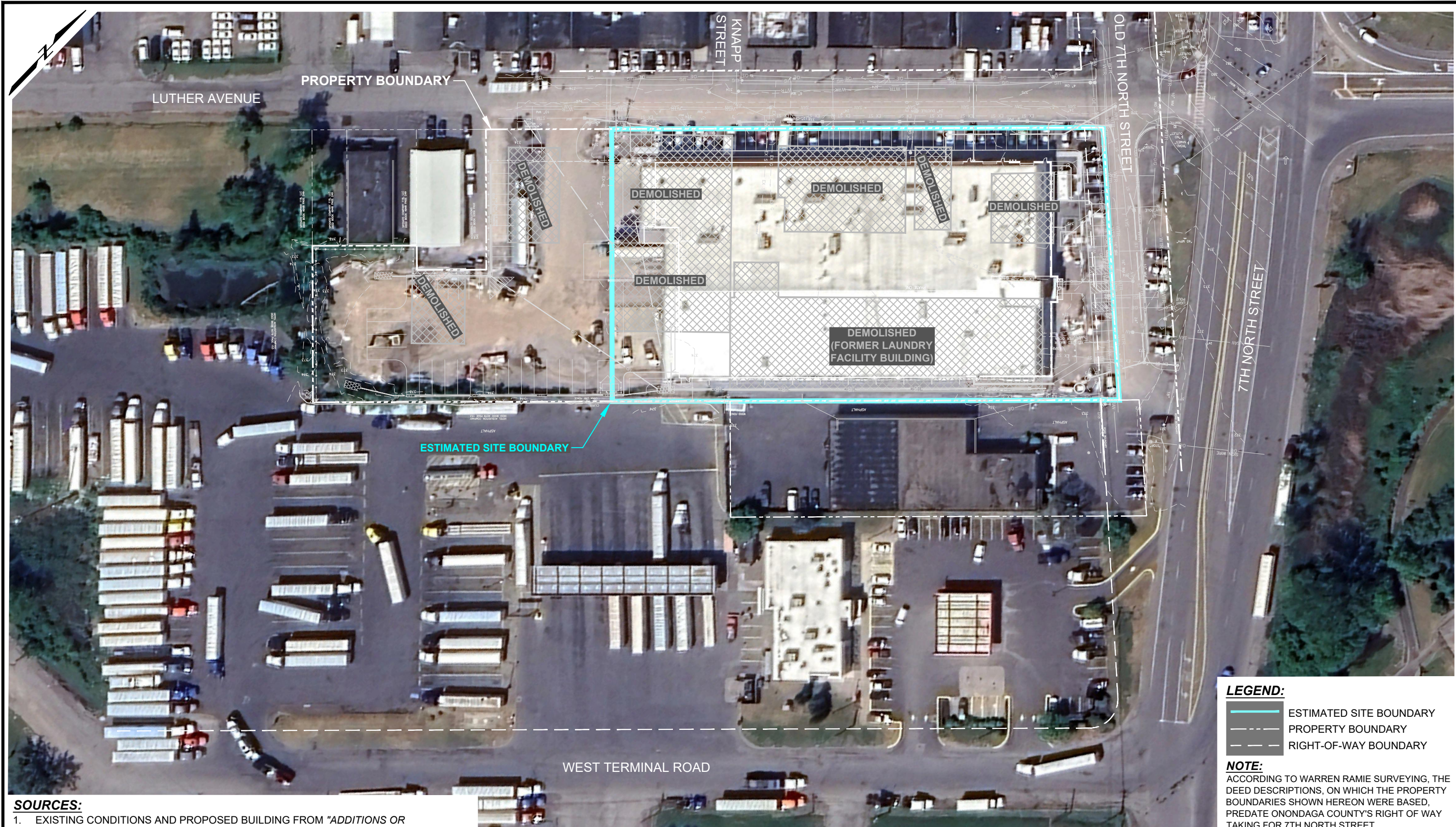
Project 2001642

SITE LOCATION MAP

September 2023

Fig. 1






**SOURCES:**

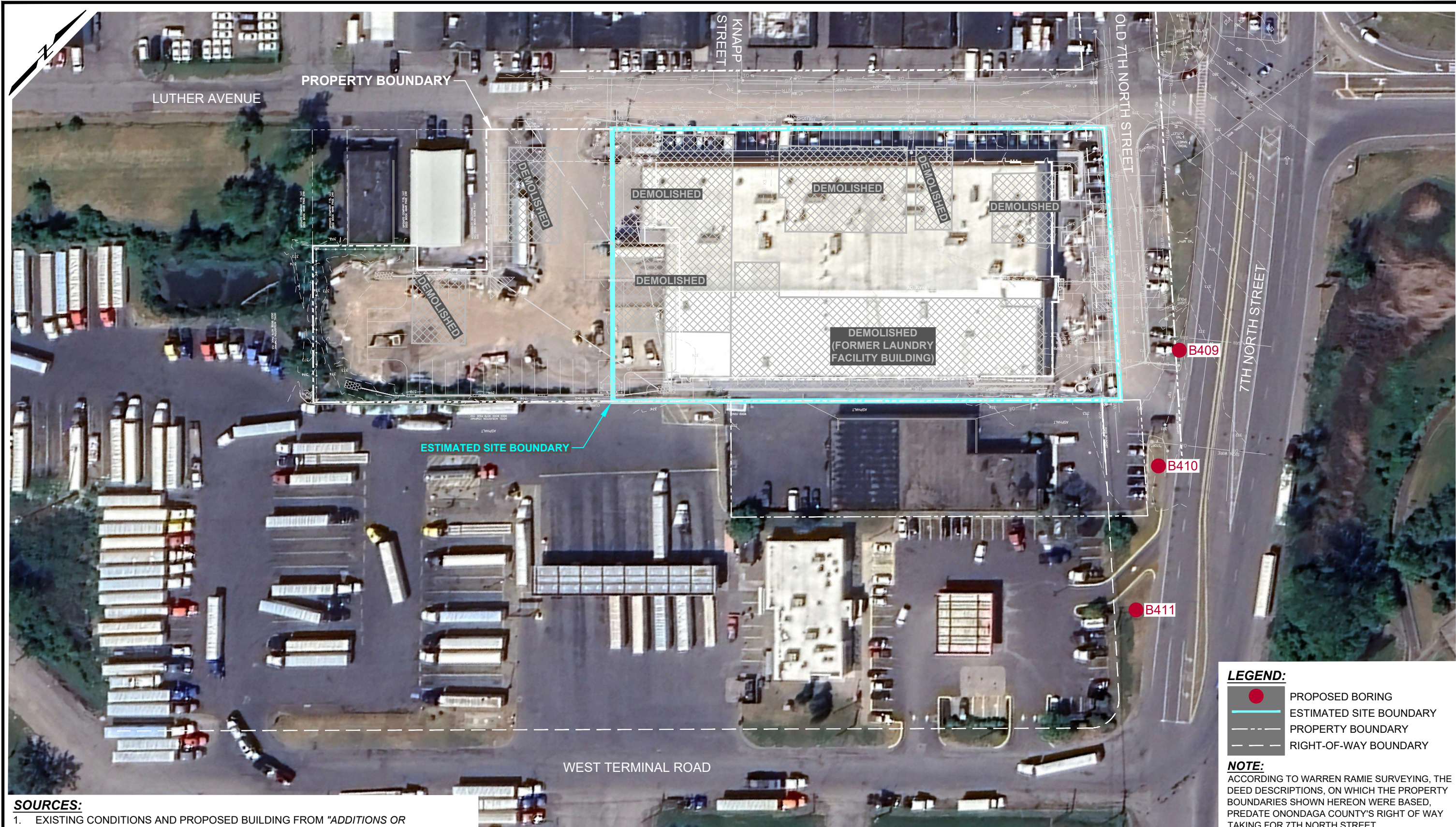
- EXISTING CONDITIONS AND PROPOSED BUILDING FROM "ADDITIONS OR ALTERATIONS TO UNIFIRST, INC. NEW FACILITY, OLD 7th NORTH STREET LIVERPOOL, NEW YORK, SITE PHASING PLAN," SHEETS L-2 REV. 12 DATED 07.05.22. AND L2.1 REV 4 DATED 11.05.19 . PREPARED BY KEPLINGER FREEMAN ASSOCIATES.
- SURVEY OF PROPERTIES SOUTH OF SITE BY WARREN RAMIE, PROVIDED IN A FILE NAMED "WRS 7th North Street Boundary 08.15.23.dwg".
- GOOGLE EARTH PRO AERIAL ©2022 2 GOOGLE LLC, IMAGERY DATED 05/29/2023, ACCESSED ON 9/18/2023.

0 80 160

SCALE: 1" = 80'

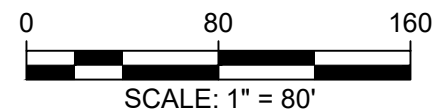
113 7th North Street Liverpool, New York		SITE PLAN	
Unifirst Liverpool Liverpool, New York		Project 2001642	September 2023
			Fig. 2





**SOURCES:**

1. EXISTING CONDITIONS AND PROPOSED BUILDING FROM "ADDITIONS OR ALTERATIONS TO UNIFIRST, INC. NEW FACILITY, OLD 7th NORTH STREET LIVERPOOL, NEW YORK, SITE PHASING PLAN," SHEETS L-2 REV. 12 DATED 07.05.22. AND L2.1 REV 4 DATED 11.05.19 . PREPARED BY KEPLINGER FREEMAN ASSOCIATES.
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3. GOOGLE EARTH PRO AERIAL ©2022 2 GOOGLE LLC, IMAGERY DATED 05/29/2023, ACCESSED ON 9/18/2023.



**LEGEND:**

- PROPOSED BORING
- ESTIMATED SITE BOUNDARY
- - - PROPERTY BOUNDARY
- - - RIGHT-OF-WAY BOUNDARY

**NOTE:**

ACCORDING TO WARREN RAMIE SURVEYING, THE DEED DESCRIPTIONS, ON WHICH THE PROPERTY BOUNDARIES SHOWN HEREON WERE BASED, PREDATE ONONDAGA COUNTY'S RIGHT OF WAY TAKING FOR 7TH NORTH STREET.

113 7th North Street  
Liverpool, New York

Unifirst Liverpool  
Liverpool, New York



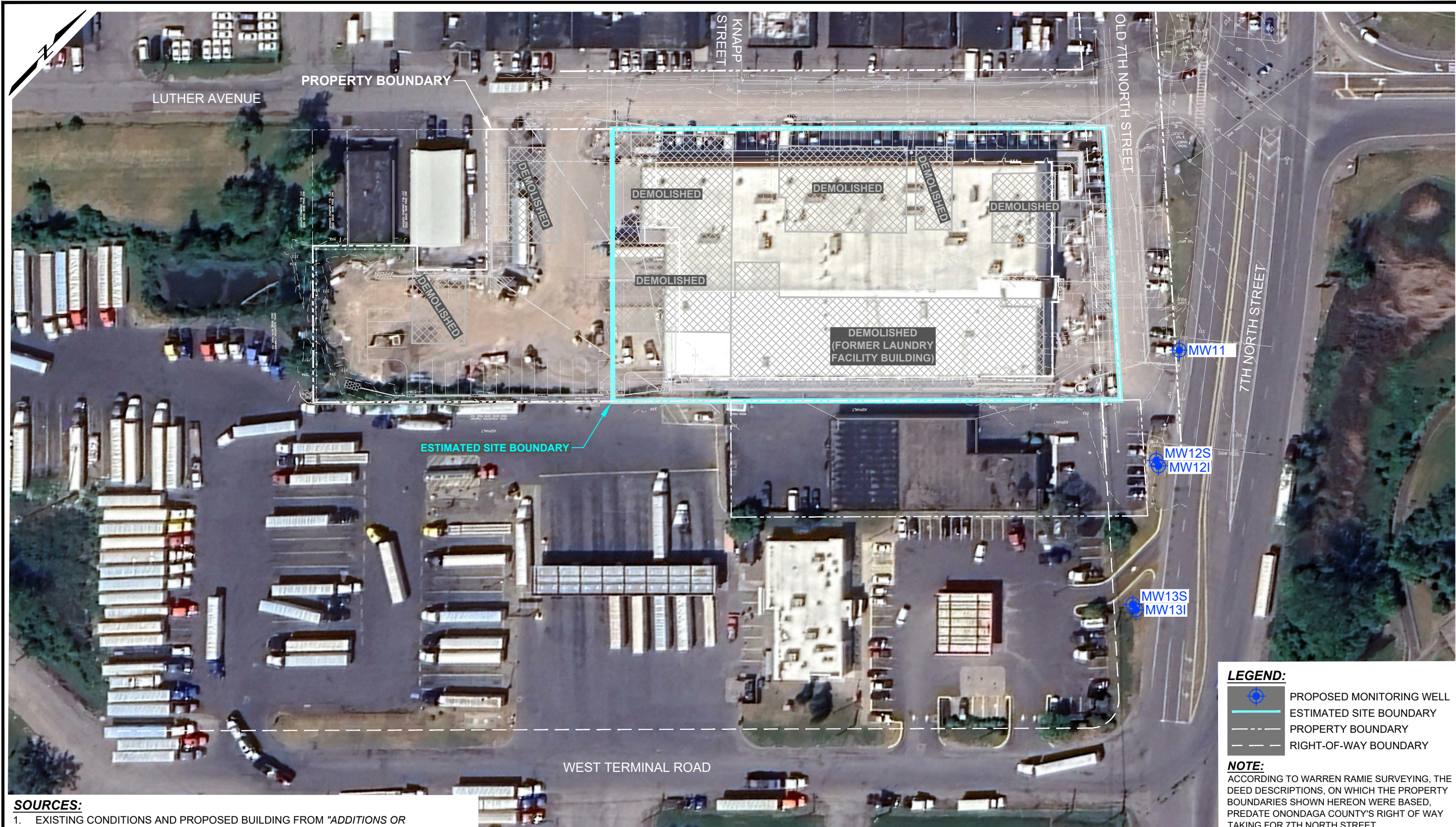
Project 2001642

ADDENDUM TO PLANNED  
REMEDIAL INVESTIGATION  
(SOIL)

September 2023

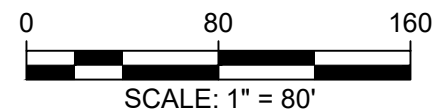
Fig. 3





**SOURCES:**

1. EXISTING CONDITIONS AND PROPOSED BUILDING FROM "ADDITIONS OR ALTERATIONS TO UNIFIRST, INC. NEW FACILITY, OLD 7th NORTH STREET LIVERPOOL, NEW YORK, SITE PHASING PLAN," SHEETS L-2 REV. 12 DATED 07.05.22. AND L2.1 REV 4 DATED 11.05.19 . PREPARED BY KEPLINGER FREEMAN ASSOCIATES.
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3. GOOGLE EARTH PRO AERIAL ©2022 2 GOOGLE LLC, IMAGERY DATED 05/29/2023, ACCESSED ON 9/18/2023.



**LEGEND:**

- PROPOSED MONITORING WELL
- ESTIMATED SITE BOUNDARY
- PROPERTY BOUNDARY
- RIGHT-OF-WAY BOUNDARY

**NOTE:**

ACCORDING TO WARREN RAMIE SURVEYING, THE DEED DESCRIPTIONS, ON WHICH THE PROPERTY BOUNDARIES SHOWN HEREON WERE BASED, PREDATE ONONDAGA COUNTY'S RIGHT OF WAY TAKING FOR 7TH NORTH STREET.

113 7th North Street  
Liverpool, New York

Unifirst Liverpool  
Liverpool, New York



Project 2001642

ADDENDUM TO PLANNED  
REMEDIAL INVESTIGATION  
(GROUNDWATER)

September 2023

Fig. 4