
PHASE I ENVIRONMENTAL SITE ASSESSMENT

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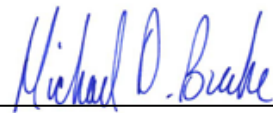
**40-36 24th Street
Long Island City, New York**

Prepared For:

**Soka Gakkai International - USA
606 Wilshire Boulevard
Santa Monica, CA 90401**

Prepared By:

**Langan Engineering, Environmental, Surveying
and Landscape Architecture, D.P.C.
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, NY 10001**



**Michael D. Burke, CHMM
Principal/Vice President**

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LANGAN

TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
1.0 INTRODUCTION	1
1.1. Scope of the ESA	1
1.2. Assumptions, Limitations, and Exceptions	3
2.0 SITE DESCRIPTION	4
2.1. Location and Description	4
2.2. Description of Site Improvements	5
2.3. Title Records	5
3.0 USER PROVIDED INFORMATION	6
3.1. User Questionnaire	6
3.2. Owner/Operator Questionnaire	6
3.3. Previous Environmental Reports	6
4.0 ENVIRONMENTAL RECORDS	8
4.1. Federal Agency Database Findings	10
4.2. State Agency Database Findings	12
4.3. Other Database Findings	17
4.4. Local Regulatory Agency Findings	17
4.5. Physical Setting Sources	18
4.5.1. Topography	18
4.5.2. Geology	18
4.5.3. Hydrology	19
4.6. Historical Use Information	20
4.6.1. Aerial Photographs.....	20
4.6.2. Sanborn Fire Insurance Maps.....	20
4.6.3. Historical USGS Topographic Quadrangles.....	21
4.6.4. City Directories	21
4.6.5. Environmental Lien Search	22
5.0 SITE RECONNAISSANCE	23
5.1. General Site Setting and Reconnaissance Observations	23
5.2. Pits, Ponds, Lagoons	24
5.3. Pools of Liquid	24
5.4. Storm Drains, Wells, and Cisterns	24
5.5. Transformers and Other Suspect Equipment	24
5.6. Storage Containers, Drums, and Chemical Storage Areas	24
5.7. Sewage Ejector Pits and Sumps	24
5.8. Waste Generation, Storage, and Disposal	25
5.9. Air Emissions or Wastewater Discharges	25

5.10. USTs or ASTs.....	25
5.11. Monitoring Wells or Remedial Activities	25
5.12. Stained or Discolored Soil	25
5.13. Leachate or Seeps	25
5.14. Adjoining and Surrounding Property Uses.....	26
5.15. Conclusions.....	26
6.0 INTERVIEWS	27
6.1. Site Owner	27
6.2. Site Occupants.....	27
6.3. Owners/Tenants of Adjoining Properties	27
7.0 ADDITIONAL SERVICES	28
7.1. Radon	28
7.2. ACM, LBP, and PCBs.....	28
8.0 DEVIATIONS AND DATA GAPS	29
8.1. Deviations	29
8.2. Data Gaps.....	29
9.0 FINDINGS, OPINIONS, AND CONCLUSIONS.....	30
10.0 REFERENCES	33
11.0 STATEMENT OF QUALIFICATIONS AND SIGNATURES.....	34

FIGURES

Figure 1	Site Location Map
Figure 2	Recognized Environmental Conditions Map

APPENDICES

Appendix A	Site Reconnaissance Photographs
Appendix B	User/Client Questionnaire
Appendix C	Previous Environmental Reports
Appendix D	Environmental Data Resources Inc.™ Report
Appendix E	Freedom of Information Act Requests
Appendix F	New York City Department of Building Records
Appendix G	New York City Planning Commission Zoning Map
Appendix H	Aerial Photographs
Appendix I	Sanborn Fire Insurance Maps
Appendix J	Historical USGS Topographic Quadrangle Maps
Appendix K	City Directory Abstract
Appendix L	Environmental Lien Search
Appendix M	Resumes

EXECUTIVE SUMMARY

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) was retained by Soka Gakkai International - USA (the User) to prepare a Phase I Environmental Site Assessment (ESA) for the property located at 40-36 24th Street in the Long Island City neighborhood of Queens, New York (the Subject Property). The Subject Property is identified on the Queens County Tax Map as Block 408, Lot 38, and is situated near the southeast corner of the city block bound by 40th Avenue to the north, 24th Street to the east, 41st Avenue to the south, and 23rd Street to the west. The 7,500-square-foot parcel is improved with a vacant two-story residential building with full cellar, and a vacant L-shaped former industrial building with a partial second story. The northeastern corner and southern part of the parcel are vacant and covered by overgrown vegetation and household refuse.

This Phase I ESA was conducted in accordance with ASTM International (ASTM) Standard Practice for Environmental Site Assessments E1527-13 and the United States Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) Rule, for the purpose of identifying recognized environmental conditions (REC), historical RECs (HREC), controlled RECs (CREC) and business environmental risks (BER). There were no HRECs or CRECs identified at the Subject Property.

RECs

A REC is defined by ASTM E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The Phase I ESA identified the following RECs:

REC 1 – Underground Storage Tank (UST) at the Subject Property

According to previous environmental reports reviewed as part of this Phase I ESA, one 1,000-gallon fuel oil UST is located at the Subject Property. During the site reconnaissance, a fill port and vent pipe were observed in the 24th Street sidewalk adjacent to the Subject Property and two oil-burning furnaces were observed in the on-site buildings. In addition, the May 2017 geophysical survey identified a potential UST in the northeastern yard directly east of the L-shaped former industrial building. Undocumented spills or releases associated with the UST may have adversely affected soil, groundwater, and soil vapor beneath the Subject Property.

REC 2 – Historical Site Operations

Historical uses of the Subject Property include electroplating (1934-2006), dress manufacturing (1962), and chemical manufacturing (1965-1976). Undocumented spills or releases of solvents, heavy metals, and/or other chemicals or hazardous substances associated with these uses may have adversely affected soil, groundwater, and soil vapor beneath the Subject Property.

REC 3 – Current and Historical Use of Adjoining and Surrounding Properties

Current and historical use of adjoining and surrounding properties include an adjacent gasoline station with known petroleum impacts to soil and groundwater (1970-2014) and adjoining and nearby drycleaners that were identified as Resource Conservation and Recovery Act (RCRA) generators of halogenated solvents. These uses may have resulted in inadvertent releases of petroleum products, solvents, or other hazardous substances that may have affected soil vapor or groundwater at the Subject Property.

BER

A BER is defined by ASTM E1527-13 as a risk that can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate not necessarily limited to those environmental issues required to be investigated in this practice. The following BERs were identified for the Subject Property:

BER 1 – Historic Fill

The May 2017 Phase II Environmental Site Investigation (ESI) identified historic fill to depths of 3 to 6 feet below grade surface (bgs). Historic fill contains contaminant concentrations above applicable regulatory levels and at potentially hazardous concentrations. The presence of this material will require implementation of soil handling and management procedures during site redevelopment to address excavation, re-use, handling, and off-site disposal, and there may be associated cost premiums.

BER 2 – E-Designation

The Subject Property is E-Designated for Hazardous Materials and Air Quality (E-218 and City Environmental Quality Review [CEQR] No. C080429ZMQ), and any future redevelopment is subject to review and approval by the New York City Mayor's Office of Environmental Remediation (OER). A remedial investigation and subsequent reporting obligations are required for OER to issue a Notice to Proceed (NTP), which is a prerequisite for a building permit from the New York City Department of Buildings (NYCDOB).

De Minimis Conditions

A de minimis condition is defined as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The following de minimis condition was identified for the Subject Property:

Petroleum-like staining was observed on the floor in the residential building's furnace room.

Non-ASTM Environmental Considerations

A Non-ASTM Scope Consideration is identified by ASTM E1527-13 as an environmental issue or condition at a property that parties may wish to assess in connection with commercial real estate that are outside the scope of ASTM E1527-13. The following Non-ASTM Scope Consideration was identified for the Subject Property:

The building was constructed circa 1936, potentially with asbestos-containing material (ACM), lead-based paint (LBP), or polychlorinated biphenyls (PCB)-containing materials. An intrusive survey to identify ACM, LBP and PCB-containing material was not conducted as part of this Phase I ESA.

1.0 INTRODUCTION

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) was retained by Soka Gakkai International – USA (the User) to prepare a Phase I Environmental Site Assessment (ESA) for the property located at 40-36 24th Street in the Long Island City neighborhood of Queens, New York (the Subject Property). This Phase I ESA was performed for the User as part of the User's due diligence prior to a planned purchase of the Subject Property, and in general accordance with ASTM International's (ASTM) Standard E1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) and the United States Environmental Protection Agency's (USEPA) All Appropriate Inquires (AAI) Rule. The purpose of this Phase I ESA is to accomplish the following:

1. Identify Recognized Environmental Conditions (RECs) in connection with the Subject Property, as defined in The Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, which states: The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.
2. Provide services consistent with the USEPA's Title 40 Code of Federal Regulations (CFR) Part 312 Subpart C Standards and Practices §312.20 AAI Rule.

1.1. Scope of the ESA

This Phase I ESA was conducted using a standard of good commercial and customary practice that is consistent with ASTM E1527-13. No significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 were made in connection with this report, as described below in Section 8.0. In general, the scope of this assessment consisted of obtaining information from the User; reviewing reasonably ascertainable information and environmental data relating to the Subject Property; reviewing maps and records maintained by federal, state, and local regulatory

agencies; interviewing persons knowledgeable about the Subject Property; and conducting a site inspection. The specific scope of this assessment included the following:

1. A site reconnaissance to characterize conditions and assess the Subject Property's location with respect to adjoining and surrounding property uses and natural surface features. The reconnaissance included the surrounding roads and observations of surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties. The site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Subject Property and then progressing to adjoining and surrounding properties. Photographs taken as part of the site reconnaissance are included in Appendix A.
2. A review of the responses to the User/Client Questionnaire. The completed questionnaire is included in Appendix B. An Owner/Operator Questionnaire was requested, but no responses were received.
3. A review of previous environmental reports completed for the Subject Property. A copy of the reports are included in Appendix C.
4. A review of environmental databases maintained by the USEPA, state, and local agencies within the approximate minimum search area. The environmental database report was provided by Environmental Data Resources, Inc. (EDR), and is included in Appendix D.
5. Filing of Freedom of Information Act (FOIA) requests with federal, state, and local agencies. Copies of the FOIA requests are included in Appendix E.
6. A review of New York City Department of Buildings (NYCDOB) records and a Planning Commission Zoning Map. Available NYCDOB records and the Zoning Map are included in Appendices F and G, respectively.
7. A review of physical characteristics of the Subject Property through a review of referenced sources for topographic, geologic, soils, and hydrologic data.
8. A review and interpretation of aerial photographs, Sanborn® Fire Insurance Maps (Sanborn® Maps), historical topographic maps, and city directories to identify previous activities on and in the vicinity of the Subject Property. Copies are included in Appendices H, I, J, and K respectively.
9. A review of an environmental lien search for the Subject Property. A copy of the environmental lien search report is included in Appendix L.

10. A review of published radon occurrence maps to evaluate whether the Subject Property is located in an area with a propensity for elevated radon levels.

1.2. Assumptions, Limitations, and Exceptions

This Phase I ESA report was prepared for Soka Gakkai International – USA for the Subject Property. The report is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings. Langan cannot assume responsibility for use of this report for any property other than the Subject Property addressed herein, or by any other third party, without a written authorization from Langan.

Langan's scope of services, which is described in Section 1.1, was limited to that agreed to with the User and no other services beyond those explicitly stated are implied. The services performed and agreed upon for this effort comports to those prescribed in the ASTM Standard E1527-13. Intrusive sampling (i.e., soil borings and groundwater sampling) was not performed as part of this Phase I ESA.

This Phase I ESA was not intended to be a definitive investigation of possible environmental impacts at the Subject Property. The purpose of this investigation was limited to determining if there are any RECs affecting the Subject Property. It should be understood that even the most comprehensive Phase I ESA might fail to detect environmental liabilities at particular Subject Property. Therefore, Langan cannot "insure" or "certify" that the Subject Property is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

The conclusions, opinions, and recommendations provided in this report are based solely on the specific activities as required for the performance of ASTM E1527-13 and are intended exclusively for the purpose stated herein, at the specified Subject Property, as it existed at the time of our site visits.

2.0 SITE DESCRIPTION

2.1. Location and Description

The Subject Property is located at 40-36 24th Street in the Long Island City neighborhood of Queens, New York. The Subject Property is identified on the Queens County Tax Map as Block 408, Lot 38, and is situated near the southeast corner of the city block bound by 40th Avenue to the north, 24th Street to the east, 41st Avenue to the south, and 23rd Street to the west. The 7,500-square-foot parcel is improved with a two-story residential building with full cellar and an L-shaped former industrial building with a partial second story. The northeastern corner and southern portion of the parcel are unimproved and covered by overgrown vegetative and household refuse. A Subject Property Location Map is included as Figure 1.

According to the United States Geological Survey (USGS) Central Park Quadrangle 7.5-minute Series Topographic Map, the Subject Property sits at an elevation of about 30 feet above mean sea level (msl). Based on visual observations of the surrounding area during the site reconnaissance, the Subject Property is located within an urban area characterized by multiple-story industrial, commercial, and residential buildings and parking lots/garages. The surrounding area slopes gradually to the northwest towards the East River. Site reconnaissance photographs are included in Appendix A.

Surrounding property usage is summarized in the following table:

Direction	Block	Lot	Adjoining Properties	Surrounding Properties
North	408	37	Two-story residential building	One-story industrial building followed by multi-story residential buildings and parking lots/garages
East	407	11	24th Street followed by a one-story industrial building (Sigma Metal)	Single- and multi-story industrial and residential buildings
South	408	1	Two-story, non-descript industrial building	41st Avenue followed by multi-story residential buildings
West	408	5	Currently under construction to become a multi-story, mixed-use commercial/residential building	23rd Street followed by single- and multi-story industrial and commercial buildings and parking lots/garages
		9	Two-story, non-descript industrial building	

2.2. Description of Site Improvements

Improvements at the Subject Property are summarized in the following table:

Site Improvements	
Size of the Subject Property	7,500 square feet
Buildings/Spaces/Structures	One two-story residential building with full cellar, and one L-shaped former industrial building with a partial second story
Surface Water	None
Potable Water Source	Municipal
Sanitary and Storm Sewer Utilities	Municipal
Electrical Utilities	Con Edison
Construction Completion Date	1936 (estimate)
General Construction Type	Brick and concrete masonry
Cooling and Ventilation System Type	Window air conditioners
Heating System Type	Oil-burning furnace and boiler connected to radiators
Emergency Power	None

2.3. Title Records

Langan researched ownership records for the Subject Property on the Automated City Register Information System (ACRIS) website (<https://a836-acris.nyc.gov/DS/DocumentSearch/Index>). According to ACRIS, the Subject Property is owned by Eastone 4036 24th Street Management LLC. Not all prior deed records could be obtained via ACRIS; however, available title information is summarized below.

Date	Document Type	First Party	Second Party
03/18/1986	Deed	Roy Gussow.	Roy and Mary Gussow
10/01/2002	Deed	Roy and Mary Gussow	Jill Gussow and Olga Mimi
11/19/2015	Deed	Olga Hauptman, Mimi Gussow, and Jill Gussow	Eastone 4036 24th Street Management LLC

Langan's review of ownership/occupant records did not reveal RECs associated with the property.

3.0 USER PROVIDED INFORMATION

3.1. User Questionnaire

Per ASTM E1527-13, a User questionnaire was provided to the User to inquire about specialized information related to the Subject Property. John Moore of Soka-Gakkai International – USA, completed the user questionnaire. Mr. Moore stated that he is not aware of any environmental cleanup liens, land use limitations, chemical releases, or spills at the Subject Property. According to Mr. Moore, the purchase price of the Subject Property reasonably reflects fair market value and is not attributable to any contamination known or believed to be present at the Subject Property. The completed User questionnaire is included in Appendix B.

3.2. Owner/Operator Questionnaire

A questionnaire was also provided to the Subject Property Owner/Operator, but a completed questionnaire was not received.

3.3. Previous Environmental Reports

The following previous environmental reports were reviewed as part of this Phase I ESA. A copy of each report is included in Appendix C.

April 17, 2015 Environmental Assessment prepared by Cider Environmental (Cider)

Cider completed an Environmental Assessment for the Subject Property in April 2015 that identified the following environmental conditions associated with the Subject Property:

- The potential presence of a 1,000-gallon fuel oil underground storage tank (UST);
- The western portion of the Subject Property was historically used for electroplating from about 1936 to 2006;
- The Subject Property is E-Designated;
- The southwestern-adjointing property was historically used as a gas station from about 1936 to 2006; and
- The western-adjointing property was historically used for chemical manufacturing from about 1970 to 1996.

April 20, 2015 Phase I Environmental Site Assessment prepared by Cider

Cider prepared a Phase I ESA for the Subject Property in accordance with ASTM E-1527-13. Based on their findings, Cider identified the following RECs:

- The potential presence of one 1,000-gallon fuel oil UST on the Subject Property associated with the fuel oil fill port and vent pipe observed in the 24th Street sidewalk adjacent to the eastern side of the Subject Property.
- The western part of the Subject Property was historically used for electric plating manufacturing from at least 1934 to 2006.
- The Subject Property is noted as E-Designated and any future redevelopment of the parcel will require oversight by the New York City Mayor's Office of Environmental Remediation (OER).
- The western-adjoining property was historically used for chemical and paint manufacturing from 1970 to 1996.

Conclusions

Langan's review of previous environmental reports revealed the following RECs and Business Environmental Risk (BER):

- REC: The potential presence of one UST beneath the Subject Property associated with the fuel oil fill port and vent pipe observed in the 24th Street sidewalk was identified in both reports. Undocumented spills or releases from the UST may have adversely affected soil, groundwater, and/or soil vapor beneath the Subject Property.
- REC: Historical use of the Subject Property between 1934 and 2006 for electroplating was identified in both reports. The use of chlorinated solvents and heavy metals are typically associated with electroplating. Undocumented spills or releases of such compounds or other hazardous substances associated with electroplating may have adversely affected soil, groundwater, and/or soil vapor beneath the Subject Property.
- BER: The Subject Property is E-Designated, and any future redevelopment is subject to review and approval by OER. A Remedial Investigation, the plan for which must be approved by OER, and subsequent reporting obligations are required for OER to issue a Notice to Proceed (NTP), which is a prerequisite for a building permit from the NYCDOB.

4.0 ENVIRONMENTAL RECORDS

A regulatory database search was provided by EDR and is included in Appendix D. The EDR Report provides a listing of sites identified on select federal and state standard source environmental databases within the approximate search radius specified by ASTM E1527-13. Langan reviewed each environmental database on a record-by-record basis to evaluate whether the identified sites represent a potential for environmental impact to the Subject Property. Langan also reviewed "Orphan Sites" listed within the report. Orphan Sites are those sites that could not be mapped due to inadequate address information. Any Orphan Sites that were identified by Langan within the ASTM search radii, either during the site reconnaissance or by cross-referencing to mapped listings, are addressed in the discussion below.

The following table lists the number of sites identified in standard and additional environmental record databases, within the prescribed search radius and appearing in the EDR Report.

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	Minimum Search Area	Subject Property Listed	Number of Sites Within Minimum Search Area
USEPA DATABASES			
National Priorities List (NPL) (12/05/2016)	1 Mile Radius	No	0
Delisted NPL (12/05/2016)	1 Mile Radius	No	0
Superfund Enterprise Management System (SEMS, formerly CERCLIS) and SEMS-Archive (formerly known as CERCLIS-NFRAP) (10/10/2016)	1/2 Mile Radius	No	0
Resource Conservation and Recovery Act (RCRA) Corrective Reports (CORRACTS) (12/12/2016)	1 Mile Radius	No	3
RCRA Treatment, Storage, and Disposal Facilities (TSDF) (12/12/2016)	1/2 Mile Radius	No	0
RCRA Generators (Large Quantity Generator [LQG], Small Quantity Generator [SQG], Conditionally Exempt Small Quantity Generator [CESQG], Non-Generators [NonGen]) (12/12/2016)	Subject Property and Adjoining Properties	No	2
Facility Index System (FINDS) (07/15/2016)	Subject Property	No	0

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	Minimum Search Area	Subject Property Listed	Number of Sites Within Minimum Search Area
USEPA DATABASES			
Environmental Response Notification System (ERNS) (09/26/2016)	Subject Property	No	0
Federal Engineering Controls (US ENG CONTROLS) Sites Lists (11/15/2016)	Subject Property	No	0
Federal Institutional Controls (US INST CONTROLS) Sites Lists (11/15/2016)	Subject Property	No	0
NYSDEC DATABASES			
Inactive Hazardous Waste Disposal Sites (SHWS) (11/14/2016)	1 Mile Radius	No	18
Solid Waste or Landfill Facilities (SWF/LF) (01/04/2017)	1/2 Mile Radius	No	4
Leaking Storage Tanks (LTANKS) (02/06/2017)	1/2 Mile Radius	No	63
SPILLS Information Database (NY SPILLS) (02/06/2017)	1/8 Mile Radius	No	23
New York Engineering Controls (NY ENG CONTROLS) Sites Lists (11/14/2016)	Subject Property	No	0
New York Institutional Controls (NY INST CONTROLS) Sites Lists (11/14/2016)	Subject Property	No	0
NY Voluntary Cleanup Program (VCP) (11/14/2016)	1/2 Mile Radius	No	5
NY Brownfields (11/14/2016)	1/2 Mile Radius	No	18
Solid Waste Disposal Sites Registered Recycling Facility List (SWRCY) (01/04/2017)	1/2 Mile Radius	No	0
Chemical Bulk Storage (CBS) UST and Aboveground Storage Tanks (AST) Databases (12/28/2016)	Subject Property and Adjoining Properties	No	0
Major Oil Storage Facilities (MOSF) UST and AST Databases (12/28/2016)	Subject Property and Adjoining Properties	No	0
Registered and Historical Drycleaners (NY DRYCLEANERS) and EDR US Historical Cleaners (10/27/2016)	1/4 Mile Radius	No	8

DATABASE RECORD SUMMARY			
Database Reviewed (Date of government version)	Minimum Search Area	Subject Property Listed	Number of Sites Within Minimum Search Area
USEPA DATABASES			
Petroleum Bulk Storage Facilities (PBS) UST and AST Databases (12/28/2016)	Subject Property and Adjoining Properties	No	2
EDR (PROPRIETARY) DATABASES			
EDR Former Manufactured Gas Plant (MGP) Sites (N/A)	1 Mile Radius	No	0

NYSDEC – New York State Department of Environmental Conservation

N/A – Not Applicable; databases are reviewed as part of the Phase I ESA but not required as per ASTM E1527-13.

A description of the reviewed databases is provided in the EDR Report (Appendix D). A summary of sites identified within the minimum search area is presented below.

4.1. Federal Agency Database Findings

The Subject Property and/or sites within the respective minimum search areas as specified by ASTM E1527-13 were not listed in the following federal agency databases: NPL, delisted NPL, SEMS, SEMS-archive, RCRA TSD, FINDS, ERNS, US ENG CONTROLS, and US INST CONTROLS.

RCRA CORRACTS

The RCRA generators/transporters database is USEPA’s comprehensive information system, providing access to data supporting the RCRA of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database included selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. RCRA CORRACTS is a listing of these RCRA generators with Corrective Action Activity. The Subject Property was not listed in the CORRACTS database; however, three sites were identified within the minimum search area of 1 mile. All sites are located hydraulically down-gradient and over 2,500 feet from the Subject Property; therefore, the three sites identified in the minimum search area are not considered RECs.

RCRA Generators

The RCRA Generators database is USEPA's comprehensive information system, providing access to data supporting the RCRA of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA. LQGs generate over 1,000 kilograms of hazardous waste or over 1 kilogram of acutely hazardous waste per month; SQGs generate between 100 and 1,000 kilograms of hazardous waste per month; CESQGs generate less than 100 kilograms of hazardous waste or less than 1 kilogram of acutely hazardous waste per month; and RCRA Non-Gen are former hazardous waste generators. The Subject Property was not listed in the RCRA databases; however, two adjoining properties were identified and are discussed in more detail below:

- **Site Name:** Queensboro Cleaners
Site Address: 40-35 24th Street
Site Location: eastern-adjoining property across 24th Street
Description: The site was listed in the RCRA-CESQG and RCRA-NonGen databases with USEPA ID NY0000082875 in December 1993 and January 2006, respectively. Identified hazardous waste codes generated included D000 (not defined) and F002 (spent halogenated solvents). One RCRA violation was identified in September 2000, and following an on-site inspection by the USEPA, the site achieved compliance in January 2001. The site was also listed in the NY Manifest database for the transport of listed hazardous waste F002 from 1995 to 1998, and in the NY Drycleaners database under facility ID 2-6304-00510, which is listed as being shutdown. A dry cleaning facility was not observed at this address during Langan's site reconnaissance. Historical use of this site is considered a REC because of the noted RCRA violation and the site's location about 50 feet hydraulically up-gradient of the Subject Property.
- **Site Name:** Monica Gas Enterprises
Site Address: 23-01 41st Avenue
Site Location: western-adjoining property
Description: The site was listed in the RCRA-SQG and RCRA-NonGen databases with USEPA ID NYR000059444 in August 1998 and January 2006, respectively. Identified hazardous waste codes generated included D001 (ignitable waste) and D018 (benzene). No RCRA violations were reported. The site was also listed in the NY Manifest database for the transport of characteristic hazardous benzene in 1998, as well as, the Spills, LTANKS, and PBS databases, which are described in the sections below. This site was observed to be under construction during Langan's site reconnaissance. As discussed below under Spills Database, this site is considered a REC because of

documented contamination remaining beneath the site and its location with respect to the Subject Property.

4.2. State Agency Database Findings

The Subject Property and/or sites within the respective minimum search areas as specified by ASTM E1527-13 were not listed in the following state agency databases: NY ENG CONTROLS, NY INST CONTROLS, SWRCY, CBS, and MOSF.

SHWS Database

The SHWS records are the states' equivalent to SEMS and may or may not already be listed on the federal SEMS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The Subject Property was not listed in the SHWS database; however, 18 SHWS sites (including two Orphan Sites) were identified within the minimum search area of 1 mile. All sites are located over 1,200 feet from the Subject Property, and therefore, are not considered RECs.

SWF/LF Database

The SWF/LF database is a comprehensive listing of state-permitted/recorded solid waste facilities. The Subject Property was not listed in the SWF/LF database; however, four sites were identified within the minimum search area of 1/2 mile. All sites are located hydraulically down-gradient and over 1,500 feet from the Subject Property and are therefore not considered RECs.

Leaking Storage Tanks Database

The LTANKS database contains an inventory of reported leaking storage tank incidents, including leaking USTs and ASTs. The minimum search area for the LTANKS database includes the Subject Property and any sites within a 1/2-mile radius. The Subject Property is not listed in the LTANKS database. Sixty-three sites within the minimum search area were listed in the database. The listed incidents were primarily caused by tank test failures, tank failures, and tank overfills, and all but two of the LTANKS listings associated with the surrounding sites have been granted closed status by the NYSDEC, indicating that NYSDEC is satisfied with spill remediation. The remaining two sites, with open LTANKS listings, are located hydraulically down-gradient and over 2,000 feet from the Subject Property; therefore, these listings are not considered RECs.

Spills Database

The Spills database, maintained and updated by NYSDEC, is an inventory of sites where spills have been identified and reported to the NYSDEC. The Subject Property was not listed in the Spills database; however, 23 spills associated with sites within the minimum search area of 1/8 mile were identified. All but two of the spills associated with the surrounding sites have been granted closed status by the NYSDEC, indicating that NYSDEC is satisfied with spill remediation. Nineteen spills are not considered RECs based on their distance and location relative to the Subject Property, the nature of the associated spills, and/or the closed status of the associated spills. The remaining four spills, three of which are associated with the western-adjointing property (Monica Gas Enterprises located at 23-01 41st Avenue), are discussed below.

- **Site Name:** MAMM Realty
Site Address: 25-17 41st Ave
Site Location: 500 feet east/southeast of the Subject Property
Spill Number: 9803835
Spill Date: June 25, 1998 (spill remains open)
Description: This spill was recorded with the NYSDEC following the discovery of petroleum-impacted soil during the removal of one UST in June 1998. The petroleum-impacted soil was reportedly excavated and stockpiled following tank removal; details regarding the size and contents of the tank were not documented in the EDR Report. According to the PBS listing for the site (PBS No. 2-603539), one 1,000-gallon, No. 2 fuel oil UST, one 275-gallon, waste oil UST, and three 550-gallon, gasoline USTs were removed from the site in June 1998. NYSDEC did not receive the results of endpoint samples collected during tank removal and therefore, the spill remains open. This listing is not considered a REC because of the documented removal of USTs and petroleum-impacted soil in June 1998 (i.e., the source was removed about 19 years ago).
- **Site Name:** Gulf Station (also known as Monica Gas Enterprises)
Site Address: 23-01 41st Avenue
Site Location: western-adjointing property
Spill Number: 9611967
Spill Date: January 3, 1997 (closed on January 10, 1997)
Description: This spill was recorded with the NYSDEC following the release of 25 gallons of gasoline to the NYC sewer system during a gasoline delivery. NYSDEC noted that corrective action was taken and the spill was closed on January 10, 1997. This listing does not constitute a REC.

- **Site Name:** Lot 5, Tax Block 408 (also known as Monica Gas Enterprises)
Site Address: 23-01 41st Avenue
Site Location: western-adjoining property
Spill Number: 1008574
Spill Date: November 16, 2010 (closed on August 9, 2011)
Description: This spill was recorded with the NYSDEC following receipt of a complaint from the neighboring property regarding odors inside their building whenever gasoline is delivered to the site. During their site visit, NYSDEC did not note any gasoline-like odors in the neighboring building, and NYSDEC confirmed that the on-site vapor recovery system was functioning as intended. This listing does not constitute a REC.
- **Site Name:** Former Gulf Gas Station (also known as Monica Gas Enterprises)
Site Address: 23-01 41st Avenue
Site Location: western-adjoining property
Spill Number: 1410817
Spill Date: February 10, 2015 (closed on September 6, 2016)
Description: This spill was recorded with the NYSDEC following the discovery of petroleum-impacted soil during the removal of ten USTs ranging in size from 550 to 4,000 gallons (PBS ID 2-480274). UST removal was performed in support of redevelopment of the site into a mixed-use commercial/residential building; the site was under construction during Langan's site reconnaissance. The site remedy, which was implemented under OER's E-Designation program, included the excavation of petroleum-impacted soil to 10 feet below grade surface (bgs) and application of Oxygen Release Compound (ORC[®]) to the groundwater. NYSDEC closed the spill on September 6, 2016; however, post-excavation endpoint samples identified concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) above their respective Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375 Restricted Use Restricted-Residential Soil Cleanup Objectives. Because of documented contamination remaining beneath the site and the site's location with respect to the Subject Property, this listing is considered a REC.

Voluntary Cleanup Program Database

The VCP uses private funds to remediate contaminated sites to levels allowing for the sites' productive use. The program covers virtually any kind of site and contamination. The Subject Property was not listed in the VCP database; however, five sites were identified within the minimum search area of 1/2 mile. All sites are located over 1,500 feet from the Subject Property and are therefore not considered RECs.

Brownfields Database

Brownfield sites are any real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria, or guidance adopted by the NYSDEC that are applicable based on the reasonably anticipated use of the property, in accordance with applicable regulations. The Subject Property was not listed in the database; however, 18 sites were identified within the minimum search area of 1/2 mile. Sixteen of the sites are hydraulically down-gradient, and therefore, not considered RECs. The remaining two hydraulically up-gradient sites are over 1,200 feet from the Subject Property and are therefore not considered RECs.

NY Drycleaners and EDR Historic Cleaners Databases

The NY Drycleaners database is a listing of registered dry cleaning facilities. The EDR Historic Cleaners database is a proprietary database that is a listing of potential dry cleaner facilities based on a review of business directories. Dry cleaning facilities are associated with the use of tetrachloroethylene (PCE), a solvent that has the potential to infiltrate groundwater and can readily migrate to surrounding properties. The Subject Property was not listed in either the NY Drycleaners or EDR Historical Cleaners databases; however, eight sites were identified within the minimum search area of 1/4 mile. Five of the sites are located hydraulically down-gradient or over 800 feet from the Subject Property and are not considered RECs. One of the remaining sites (Queensboro Cleaners located at 40-35 24th Street) is discussed above in the RCRA Generators Section and is considered a REC. The two remaining sites are associated with the same address and discussed below.

- **Site Name:** Two Mikim Cleaners
Site Address: 40-18 Crescent Street
Site Location: about 250 feet east of the Subject Property
Description: This site was identified as an active drycleaner under facility ID 2-6304-01374 with registration and last inspection dates of August 13, 2001 and May 27, 2008, respectively. This site was also listed in the RCRA-NonGen database under the name "Whole Sale Dry Cleaner" in 2002 and 2006, and identified hazardous waste codes associated with the site included F002 (spent halogenated solvents) and D039 (PCE). One RCRA violation was identified in March 2014, and following an on-site inspection by New York State, the site achieved compliance in January 2015. A dry cleaning facility (CK1 Pro Cleaners) was observed at this address during Langan's site reconnaissance. Historical use of this site is considered a REC because of the noted RCRA violation and the site's location about 230 feet hydraulically up-gradient of the Subject Property.

PBS UST and AST Database

The PBS UST and AST databases contain records of registered USTs and ASTs. A registered PBS UST or AST does not constitute a REC in and of itself; however, properties listed on the UST or AST databases with a reported leak, spill, or release could constitute a REC with respect to the Subject Property. The Subject Property was not listed in the databases; however, two adjoining sites were identified in the UST and AST databases. Both sites are discussed below:

- **Site Name:** 40-44 24th Street LLC
Site Address: 40-44 24th Street
Site Location: southern-adjointing property
Description: This site was identified in the UST and AST databases under facility ID 2-612591. According to the databases, one out-of-service 550-gallon waste oil UST and one out-of-service 5,000-gallon No. 2 fuel oil AST were installed at the site in 1982. The date that both tanks were taken out of service is not noted. There are no known spills associated with the tanks or site and with the exception of an E-Designation, the site was not identified in any other databases and is therefore not considered a REC.
- **Site Name:** Queensboro Autobody Inc. and Himalayan Gas Inc. (also known as Monica Gas Enterprises)
Site Address: 23-01 41st Avenue
Site Location: western-adjointing property
Description: This site, which is also listed in the RCRA Generators, Spills, and LTANKs databases, was identified in the UST database under facility ID 2-480274 with the following tanks listed:

Tank ID	Tank Number	Size (gallons)	Contents	Installation Date	Status (Date)
38892	1	4,000	Gasoline	06/12/1973	Removed (February 16, 2015)
38893	2	2,000	Gasoline	11/07/1974	Removed (February 16, 2015)
38894	3	4,000	Diesel	06/12/1973	Removed (February 16, 2015)
255157	4	550	Gasoline	Unknown	Removed (February 16, 2015)
255158	5	550	Gasoline	Unknown	Removed (February 16, 2015)
255159	6	550	Gasoline	Unknown	Removed (February 16, 2015)

Tank ID	Tank Number	Size (gallons)	Contents	Installation Date	Status (Date)
255160	7	550	Gasoline	Unknown	Removed (February 16, 2015)
255161	8	550	Gasoline	Unknown	Removed (February 16, 2015)
255162	9	550	Gasoline	Unknown	Removed (February 16, 2015)
255163	10	550	Gasoline	Unknown	Removed (February 16, 2015)

This site was also identified in the AST database under facility ID 2-607970 for one 550-gallon waste oil AST with an unknown installation date that was removed on August 9, 2007. As discussed above in the Spills Database Section, spills associated with the tanks have been documented by the NYSDEC. Because of the documented contamination remaining beneath the site and the site's location with respect to the Subject Property, this site is considered a REC.

4.3. Other Database Findings

E-Designation Sites

An E-Designation is a New York City zoning map designation that indicates the presence of an environmental requirement pertaining to potential Hazardous Materials Contamination, Window/Wall Noise Attenuation, or Air Quality impacts on a particular tax lot. E-Designations are established on the Zoning Map by the Department of City Planning (DCP) and City Council as a part of a zoning change/action. The Subject Property is E-Designated for Hazardous Materials and Air Quality (E-218 and City Environmental Quality Review [CEQR] No. C080429ZMQ). Future redevelopment of the Subject Property will require oversight by OER and therefore, this listing is considered a BER.

4.4. Local Regulatory Agency Findings

FOIA Requests

FOIA requests were submitted on April 19, 2017 to the following federal, state, and local agencies via written correspondence:

- New York City Department of Environmental Protection NYCDEP;
- New York City Department of Health (NYCDOH);

- New York City Fire Department (FDNY);
- New York State Department of Health (NYSDOH);
- NYSDEC; and
- USEPA, Region 2.

Complete responses have not yet been received. Should future responses alter the conclusions of this Phase I ESA, an addendum will be issued. Copies of the FOIA requests and any responses received are included in Appendix E.

New York City Department of Buildings

Langan conducted a records search through the NYCDOB online query system on April 20, 2017. The Subject Property is identified as Block 408, Lot 38, with Building Identification Number (BIN) 4436790. The Subject Property has the Department of Finance classification of L9-Loft Buildings. Records for two NYCDOB violations were available pertaining to boilers that were both dismissed. No Certificates of Occupancy were available.

A copy of the NYCDOB records is included in Appendix F.

Zoning Department

According to the New York City Planning Commission Zoning Map 9b, the Subject Property is located within an M1-2/R5B district. The M1-2 district allows light industrial, commercial, office, and hotel uses and often acts as a buffer between residential areas and heavier industrial zones. The R5B district allows a variety of high-density housing. A copy of the zoning map is included in Appendix G.

4.5. Physical Setting Sources

4.5.1. Topography

According to the USGS Central Park Quadrangle 7.5-minute Series Topographic Map, the Subject Property sits at an elevation of about 30 feet above msl. The immediate area surrounding the Subject Property slopes to the northwest and the general topographic gradient of the surrounding area slopes northwest towards the East River.

4.5.2. Geology

Pleistocene glacial activity modified the landscapes and surficial features of Brooklyn, Queens, and the remainder of Long Island. The glaciation scoured upland areas and deposited varying

amounts of till (an unsorted mixture of sand, clay, and boulders) across the lowlands and valleys. The Subject Property is within the bounds of the former glacial Lake Flushing in the Coastal Plain geologic province. Lake Flushing deposits consist of inter-layered fine sand, silt, and clay. Boulder-laden glacial till and below that, bedrock, underlay the lacustrine deposits. Geological surface features (e.g., rock outcroppings) were not observed on the site.

According to the USGS Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and parts of Bergen and Hudson Counties, New Jersey, dated 1994, the site is underlain by the Middle Ordovician to Lower Cambrian Hartland Formation, which generally consists of mica schist and gneissic granite with local occurrences of amphibolite and pegmatite.

Based on the findings of the May 2017 Phase II Environmental Site Investigation (ESI) performed by Langan, historic fill generally consisting of brown, fine-grained sand with varying amounts of silt, gravel, organic material, and concrete was identified from surface grade to depths of about 3 to 6 feet bgs across a majority of the Subject Property's footprint. A fill layer was not identified in the northeastern part of the Subject Property. Native soil, typically consisting of brown, medium- to fine-grained sand with varying amounts of silt, was identified across the site footprint at surface grade or beneath the fill layer, where encountered, to depths of up to about 29 feet bgs (i.e., boring termination). Bedrock was not encountered during the Phase II ESI.

Historic fill found in urban environments typically contains contaminants (e.g., semivolatile organic compounds [SVOCs] or metals) at concentrations above current regulatory levels. The presence of historic fill at the Subject Property will require implementation of soil handling and management procedures during future site redevelopment to address excavation, re-use, handling, and off-site disposal, and therefore, is considered a BER.

4.5.3. Hydrology

Groundwater flow is typically topographically influenced, as shallow groundwater tends to originate in areas of topographic highs and flows toward areas of topographic lows, such as rivers, stream valleys, ponds, and wetlands. A broader, interconnected hydrogeologic network often governs groundwater flow at depth or in the bedrock aquifer. Groundwater depth and flow direction are also subject to hydrogeologic and anthropogenic variables such as precipitation, evaporation, extent of vegetation cover, and coverage by impervious surfaces. Other factors influencing groundwater include depth to bedrock, the presence of artificial fill, and variability in local geology, and groundwater sources or sinks. Based upon surface gradient and the location of the East River, groundwater is inferred to flow toward the northwest.

According to the May 2017 Phase II ESI, groundwater was observed at a depths ranging from about 29 to 30 feet below sidewalk grade.

The current Federal Emergency Management Agency (FEMA) Advisory Base Flood Elevation Maps include new advisory flood zone boundaries and advisory base flood elevations. This map indicates that the Subject Property falls within Zone X, which is determined to be outside the 0.2% annual chance floodplain.

4.6. Historical Use Information

Langan reviewed available historical resources (including aerial photographs, Sanborn® and topographic maps, and city directories) dated 1897 to 2014. Findings of the review are presented below.

4.6.1. Aerial Photographs

Langan reviewed aerial photographs of the Subject Property and surrounding areas for the years 1924, 1941, 1951, 1954, 1961, 1966, 1974, 1980, 1984, 1991, 1994, 2006, 2009, and 2011. The photographs indicate that the Subject Property was located in a densely developed, mixed-use, urban area as early as 1924. The aerial photographs did not reveal any RECs associated with the Subject Property. Copies of aerial photographs are included in Appendix H.

4.6.2. Sanborn Fire Insurance Maps

A search for historical fire insurance maps for the Subject Property and surrounding properties was conducted by EDR and reviewed by Langan. Sanborn® Maps constitute a database of prior site uses of real property for many cities and towns in the United States. Langan reviewed Sanborn® Maps for the Subject Property for the years 1898, 1915, 1936, 1947, 1950, 1970, 1977, 1979, 1980, 1986, 1988 through 1996, and 2001 through 2006. Copies of the maps are included in Appendix I.

Langan's review revealed that the Subject Property was located in a densely developed, mixed-use, urban area since at least 1898. Between 1898 and 1915, the Subject Property was vacant with the exception of a two-story dwelling situated in the southeastern corner. By 1936, the existing on-site buildings (two-story residential building with full cellar and L-shaped former industrial building with a partial second story and no cellar) were constructed on the Subject Property. Between 1936 and 1950, the two-story dwelling is present in the southeastern corner of the Subject Property, an additional two-story office building and one-story building of unspecified use are present in the northeastern corner, and the L-shaped building is labeled "Economic Silver Co." and "electric plating." From 1970 through 2006, the southern portion of

the L-shaped building is labeled “electro plating” and the northern portion is labeled “loft”, the central two-story residential building remains, and the other three buildings have been razed. Undocumented releases or spills of chemicals or hazardous substances associated with the Subject Property’s historical use as an electric plating facility may have adversely affected soil, groundwater, and/or soil vapor beneath the Subject Property; therefore, historical use as an electric plating facility is considered a REC.

From 1915 through 2016, adjacent and surrounding properties were used for manufacturing/ industrial purposes including gas and automobile service stations, a paint manufacturer, a chemical manufacturer, drycleaners, and several machine shops; however, manufacturing/ industrial use does not constitute a REC in and of itself. As discussed above in Sections 4.1 and 4.2, the western-adjointing property (a former gas station) and two hydraulically up-gradient sites (a former drycleaner located at 40-35 24th Street and an active drycleaner located at 40-18 Crescent Street) are considered RECs because of documented contamination (former gas station) and noted RCRA violations (drycleaners).

4.6.3. Historical USGS Topographic Quadrangles

Langan reviewed historical USGS Topographic Quadrangles obtained from EDR for information regarding past uses of the Subject Property. Quadrangle maps were available for the Subject Property for the years 1897, 1898, 1900, 1947, 1956, 1966/1967, 1979, 1995/1997, and 2013.

Based on a review of the historical topographic maps, the Subject Property has been located within a densely developed urban area since at least 1897. From 1897 to 1900, the area between the East River and two blocks east of the Subject Property is depicted as land subject to inundation; by 1947, this area was developed. The historical topographic quadrangles did not reveal evidence of RECs in connection with the Subject Property. Copies of the topographic maps are included in Appendix J.

4.6.4. City Directories

The City Directory Abstract, obtained from EDR, is a review of available business directories, including city, cross-reference, and telephone directories, at approximately five-year intervals for the years spanning 1922 through 2014. The directory was obtained for the Subject Property and surrounding area.

The Subject Property is associated with two street addresses: 40-36 and 40-40 24th Street. Listings for the Subject Property include Economic Silver Co/Economic Plating Works (1934 to 1950), Triboro Mfg Co – Womens Dresses (1962), and Witco Chemical Corp (1965-1976). Undocumented releases or spills of chemicals or hazardous substances associated with the

Subject Property's historical manufacturing/industrial use may have adversely affected soil, groundwater, and/or soil vapor beneath the Subject Property; therefore, as stated above, historical use of the Subject Property is considered a REC.

A copy of the City Directory Abstract report is included in Appendix K.

4.6.5. Environmental Lien Search

Langan contracted EDR to conduct an environmental lien search for the Subject Property. The result of the search, which included a compilation of available data and verification of the findings with the appropriate regulatory authorities, revealed that there are no environmental liens or other Activity and Use Limitations (AUL) associated with the Subject Property. A copy of the Environmental Lien Search is included in Appendix L.

5.0 SITE RECONNAISSANCE

The site reconnaissance was conducted in a systematic manner focusing on the spatial extent of the Subject Property and progressing to the adjoining and surrounding properties. The assessment of the adjoining and surrounding properties was limited to identifying, if possible, any indications of past or current use that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products; noting the general type of current use; the general topography of the surrounding area; and providing a general description of adjoining and surrounding structures.

Michele Rogers of Langan performed the initial site reconnaissance at 10:30 AM on May 1, 2017. A representative of the property owner was not available at the time of the site reconnaissance. Langan's survey crew and a representative of SoftDig, a utility location company, were working at the Subject Property during the site reconnaissance. The weather at the time of the inspection was cloudy and about 60 degrees Fahrenheit (°F).

5.1. General Site Setting and Reconnaissance Observations

The Subject Property is situated on a 7,500-square-foot parcel improved with two vacant buildings: a two-story residential building with full cellar and an L-shaped former industrial building with a partial second story. The southern and northeastern yards make up the remainder of the Subject Property, and evidence of former building foundations was observed in the southern yard. Both yards were covered by overgrown vegetation and household refuse. A makeshift fence constructed of corrugated metal sheeting was installed along the frontage of 24th Street on both sides of the residential building.

The two-story residential building is located in the center of the Subject Property's frontage along 24th Street and extends about halfway into the parcel. Peeling paint and paint chips were observed in the interior of the building, and household refuse piles and evidence of recent habitation were observed on the first and second floors. Water, sewer, gas, and electric utilities were observed entering the cellar in rooms adjacent to the 24th Street frontage, and a boiler and an oil-burning furnace were observed in a room in the northwest corner of the cellar. The furnace was connected to a gas strainer and piping that was routed towards the northeastern yard.

The L-shaped former industrial building with a partial second floor is located in the northwestern portion of the parcel. The southeastern end of the L-shaped building adjoins, but does not connect to, the two-story residential building. The partial second floor was

inaccessible because of unsafe stairways. An oil-burning furnace was observed in the western part of the L-shaped building.

5.2. Pits, Ponds, Lagoons

An about 8-inch-square, opening in the floor slab was observed in the L-shaped former industrial building. There appeared to be an about 3-foot deep crawl space beneath the floor slab; however, because of the size of the opening, the size of the crawl space could not be determined. Staining was not observed on the floor near the opening. Langan did not observe any other pits, ponds, or lagoons on the Subject Property.

5.3. Pools of Liquid

Langan did not observe pools of liquid on the Subject Property.

5.4. Storm Drains, Wells, and Cisterns

Two 1-foot-square openings to a below slab conduit were observed in the cellar of the residential building. Staining was not observed on the floor near the openings. Wells and cisterns were not observed on the Subject Property.

5.5. Transformers and Other Suspect Equipment

Langan did not observe transformers or other suspect equipment on the Subject Property.

5.6. Storage Containers, Drums, and Chemical Storage Areas

At least two dozen containers (less than 5 gallons in capacity) of household chemicals including paint, paint primer, lacquers, hydraulic oil, motor oil, spackle, oven cleaner, lubricants, industrial cleaners, rust remover, metal polish, paint thinners, clarifier, concrete water repellent, insecticides, degreasers, gear oils, rubber coating, grout sealer, shellac, varnishes, drain opener, and denatured alcohol solvent were observed throughout the Subject Property. The most concentrated collection of these containers was observed in a floor-to-ceiling cabinet located in the northwestern portion of the L-shaped former industrial building.

5.7. Sewage Ejector Pits and Sumps

Langan observed a sump in the cellar of the two-story residential building, in the same location as the sanitary sewer main.

5.8. Waste Generation, Storage, and Disposal

Four 55-gallon drums containing household refuse were located in the southeastern corner of the Subject Property. Several piles of household refuse were observed throughout the Subject Property.

5.9. Air Emissions or Wastewater Discharges

Langan did not observe any sources of air emissions or wastewater discharges at the Subject Property.

5.10. USTs or ASTs

The residential building cellar contained an oil-burning furnace connected to a boiler, and the service tag on the furnace indicated it was last serviced in June 2010. Oil supply pipes for the furnace were routed north towards the northeastern yard. A second oil-burning furnace was observed in the western portion of the first floor of the L-shaped building. The SoftDig representative marked-out a potential oil fill line leading from an oil fill port in the 24th Street sidewalk to the northeastern yard and through the L-shaped building. A sealed 6-inch pipe was observed in the floor of the L-shaped building near the end of the oil fill line mark-out, and a valve and two wires were observed sticking up from the concrete floor in the center of the L-shaped building. The geophysical survey performed as part of the May 2017 Phase II ESI identified a potential UST in the northeastern yard directly east of the L-shaped building. No staining or odors were observed around the fill port identified on the 24th Street sidewalk. A vent pipe could be seen extending about 5 feet above the sidewalk against the wall at the northeastern corner of the Subject Property.

5.11. Monitoring Wells or Remedial Activities

Monitoring wells and remedial activities were not observed.

5.12. Stained or Discolored Soil

Minor staining was observed on the concrete floor of the furnace room in the two-story residential building's cellar.

5.13. Leachate or Seeps

Evidence of leachate or seeps was not observed.

5.14. Adjoining and Surrounding Property Uses

The Subject Property is bound by a two-story residence to the north, 24th Street followed by a one-story industrial building (Sigma Metal) to the east, a two-story, non-descript industrial building to the south, and a two-story, non-descript industrial building to the west. The property at the corner of 41st Avenue and 23rd Street, to the west of the Subject Property, was an active construction site and will be developed into a multi-story, mixed-use, commercial/residential building. The property under construction formerly housed a gas station. One monitoring well was observed in the northern sidewalk of 41st Avenue near the corner of 23rd Street adjacent to the active construction site.

5.15. Conclusions

The site reconnaissance identified the following REC and de minimis conditions:

- REC: As previously stated, the potential on-site presence of a UST associated with the fuel oil fill port and vent pipe observed in the 24th Street sidewalk and the oil-burning furnaces observed in both buildings is considered a REC.
- De Minimis Condition: Staining observed on the floor in the residential building's furnace room constitutes a de minimis condition.

6.0 INTERVIEWS

6.1. Site Owner

The Subject Property owner was not interviewed as part of this Phase I ESA.

6.2. Site Occupants

The Subject Property is not occupied. Former occupants were not interviewed as part of this Phase I ESA.

6.3. Owners/Tenants of Adjoining Properties

Owners/tenants of adjoining properties were not interviewed as part of this Phase I ESA.

7.0 ADDITIONAL SERVICES

7.1. Radon

Radon is a colorless, odorless radioactive gas that results from the natural breakdown of uranium minerals in soil, rock, and water, which subsequently enters the atmosphere. It can concentrate in buildings, entering through cracks and other penetrations of a building foundation. Some areas are more likely to have elevated concentrations of radon than others, reflecting subsurface lithological conditions.

The USEPA has established a recommended radon action level of 4.0 pico Curies per liter (pCi/L). According to the USEPA Radon Zone Map, the Subject Property is located in Zone 3, which indicates a predicted average indoor radon screening level less than 2 pCi/L. The NYSDOH maintains a database of radon test results on a local and county level. According to the NYSDOH, 81 radon tests have been conducted in basements in Queens County with results indicating that about 7 percent of basements have radon concentrations above the USEPA action level of 4 pCi/L. Based on this information, it is unlikely that elevated levels of radon gas are present at the Subject Property.

7.2. ACM, LBP, and PCBs

A formal survey to identify asbestos-containing material (ACM), lead based paint (LBP), and polychlorinated biphenyl (PCB)-containing material was not conducted as part of the Phase I ESA. Due to the age of the on-site buildings, ACM, LBP, and PCB-containing materials may be present. If identified, ACM, LBP, and PCB-containing materials must be abated prior to any renovations at or redevelopment of the Subject Property.

8.0 DEVIATIONS AND DATA GAPS

8.1. Deviations

Langan performed a Phase I ESA of the Subject Property using a standard of good commercial and customary practice that is consistent with ASTM E1527-13 and 40 CFR Part 312 Standards and Practices for the USEPA's AAI. Significant deviations were not made to the above referenced standards.

8.2. Data Gaps

In order to address data gaps, additional sources of information may be consulted. According to AAI, Section 312.20 (g), "to the extent there are data gaps (as defined in section 312.10) in the information developed that affect the ability of persons (including the environmental professional) conducting the all appropriate inquiries to identify conditions indicative of releases or threatened releases such persons should identify such data gaps, identify the sources of information consulted to address such data gaps, and comment upon the significance of such data gaps." According to ASTM E1527-13, Section 8.3.2.3, "historical research is complete when either: (1) the objectives in 8.3.1 through 8.3.2.2 are achieved; or (2) data failure is encountered. Data failure occurs when all standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. If data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, give the reasons for the exclusion."

This Phase I was completed without significant data gaps except that responses to FOIA letters have not been received from all federal, state, and local agencies and the partial second floor of the L-shaped former industrial building was inaccessible because of unsafe stairways. Sufficient information was provided from other sources to enable conclusions regarding RECs at the Subject Property. These data gaps are not expected to alter the results of the Phase I ESA. If information becomes available that alters the conclusions of this report, an addendum will be issued.

9.0 FINDINGS, OPINIONS, AND CONCLUSIONS

This Phase I ESA was conducted in accordance with ASTM E1527-13 and the USEPA AAI Rule. The objective of this Phase I ESA was to identify the presence or likely presence, use, or release on the Subject Property of hazardous substances or petroleum products as defined in ASTM E1527-13 as a REC.

Based on information obtained during the visual inspection of the Subject Property; review of environmental databases and historic information; and contact with federal, state, and local agencies; two on-site RECs, one off-site REC, two BERs, one de minimis condition, and one non-ASTM consideration were identified for the Subject Property. Controlled recognized environmental conditions (CRECs) and historic recognized environmental conditions (HRECs) were not identified.

RECs

A REC is defined by ASTM E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The Phase I ESA identified the following RECs:

REC 1 – UST at the Subject Property

According to previous environmental reports reviewed as part of this Phase I ESA, one 1,000-gallon fuel oil UST is located at the Subject Property. During the site reconnaissance, a fill port and vent pipe were observed in the 24th Street sidewalk adjacent to the Subject Property and two oil-burning furnaces were observed in the on-site buildings. In addition, the May 2017 geophysical survey identified a potential UST in the northeastern yard directly east of the L-shaped former industrial building. Undocumented spills or releases associated with the UST may have adversely affected soil, groundwater, and soil vapor beneath the Subject Property.

REC 2 – Historical Site Operations

Historical uses of the Subject Property include electroplating (1934-2006), dress manufacturing (1962), and chemical manufacturing (1965-1976). Undocumented spills or releases of solvents, heavy metals, and/or other chemicals or hazardous substances associated with these uses may have adversely affected soil, groundwater, and soil vapor beneath the Subject Property.

REC 3 – Current and Historical Use of Adjoining and Surrounding Properties

Current and historical use of adjoining and surrounding properties include an adjacent gasoline station with known petroleum impacts to soil and groundwater (1970-2014) and adjoining and nearby drycleaners that were identified as RCRA generators of halogenated solvents. These uses may have resulted in inadvertent releases of petroleum products, solvents, or other hazardous substances that may have affected soil vapor or groundwater at the Subject Property.

BER

A BER is defined by ASTM E1527-13 as a risk that can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate not necessarily limited to those environmental issues required to be investigated in this practice. The following BERs were identified for the Subject Property:

BER 1 – Historic Fill

The May 2017 Phase II ESI identified historic fill to depths of 3 to 6 feet bgs. Historic fill contains contaminant concentrations above applicable regulatory levels and at potentially hazardous concentrations. The presence of this material will require implementation of soil handling and management procedures during site redevelopment to address excavation, re-use, handling, and off-site disposal, and there may be associated cost premiums.

BER 2 – E-Designation

The Subject Property is E-Designated for Hazardous Materials and Air Quality (E-218 and CEQR No. C080429ZMQ), and any future redevelopment is subject to review and approval by OER. A remedial investigation and subsequent reporting obligations are required for OER to issue a NTP, which is a prerequisite for a building permit from the NYCDOB.

De Minimis Conditions

A de minimis condition is defined as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The following de minimis condition was identified for the Subject Property:

Petroleum-like staining was observed on the floor in the residential building's furnace room.

Non-ASTM Environmental Considerations

A Non-ASTM Scope Consideration is identified by ASTM E1527-13 as an environmental issue or condition at a property that parties may wish to assess in connection with commercial real estate that are outside the scope of ASTM E1527-13. The following Non-ASTM Scope Consideration was identified for the Subject Property:

The building was constructed circa 1936, potentially with ACM, LBP, or PCB-containing materials. An intrusive survey to identify ACM, LBP and PCB-containing material was not conducted as part of this Phase I ESA.

10.0 REFERENCES

The following references were reviewed as part of this Phase I ESA:

1. City Online Register, <https://a836-acris.nyc.gov/DS/DocumentSearch/Index>, retrieved March 31, 2017.
2. Environmental Assessment, prepared by Cider Environmental, dated April 17, 2015
3. Environmental Data Resources, Inc. March 28, 2017. Aerial Photo Decade Package.
4. Environmental Data Resources, Inc. March 28, 2017. Building Permit Report.
5. Environmental Data Resources, Inc. March 28, 2017. City Directory Abstract.
6. Environmental Data Resources, Inc. March 29, 2017. Environmental Lien Search.
7. Environmental Data Resources, Inc. March 28, 2017. Historical Topographic Map Report.
8. Environmental Data Resources, Inc. March 28, 2017. Property Tax Map Report.
9. Environmental Data Resources, Inc. March 28, 2017. Radius Map with GeoCheck.
10. Environmental Data Resources, Inc. March 28, 2017. Sanborn Map Report.
11. Federal Emergency Management Agency Flood Insurance Rate Map.
12. New York City Department of Buildings, Building Information System, <http://www.nyc.gov/html/dob/html/bis/bis.shtml>, retrieved March 31, 2017.
13. New York City Department of Environmental Conservation Bulk Storage Database Search, <http://www.dec.ny.gov/cfm/external/derexternal/index.cfm?pageid=4>, retrieved March 31, 2017.
14. New York City Department of Environmental Conservation Spills Incidents Database Search, <http://www.dec.ny.gov/cfm/external/derexternal/index.cfm?pageid=2>, retrieved March 31, 2017.
15. NYC Oasis Map <http://www.oasisnyc.net/map.aspx>
16. New York City Planning Commission. Zoning Map 9b.
17. Phase I Environmental Site Assessment, prepared by Cider Environmental, dated April 20, 2015
18. United States Environmental Protection Agency Map of Radon Zones, dated September 2014.
19. United States Geological Survey "Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey."

11.0 STATEMENT OF QUALIFICATIONS AND SIGNATURES

Langan declares that, to the best of its professional knowledge and belief, the personnel who performed this Phase I ESA meet the definition of Environmental Professional as defined in Subsection 312-10 of 40 CFR 312 and that they have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. They have developed and performed the AAls in conformance with the standards and practices set forth in 40 CFR Part 312. Resumes outlining the qualifications of the Environmental Professionals who performed this Phase I ESA are included in Appendix M.

**Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.**



Michael D. Burke, CHMM
Principal/Vice President