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November 2, 2015
File No. 12.0076387.00

H. Nelson Chan
Senior Project Manager
Real Estate & Economic Development
Asian Americans for Equality, Inc.
2 Allen Street, 7th Floor
New York, NY 10002

Re: Phase I Environmental Site Assessment
Beach 53rd and 54th Street Properties,
Block 15890, Lots 54, 55, 58, 62, 64, 66, and 69
Far Rockaway, New York 11428

Dear Mr. Chan:

In accordance with our proposal dated July 31, 2015, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Phase I Environmental Site Assessment Report for the above-referenced property ("Site"). GZA completed this Phase I Environmental Site Assessment Report in general accordance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process (E 1527-13).

We hope this satisfies your present needs. If you need additional information, please call Ben Alter at (973) 774-3309.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Reinbill Maniquez
Assistant Project Manager

Benjamin Alter
Senior Vice President
Environmental Professional

John M. Gavras
Consultant Reviewer

Enclosure: Report



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**PHASE I ENVIRONMENTAL SITE ASSESSMENT
BEACH 53RD AND 54TH STREETS PROPERTIES
BLOCK 15890
LOTS 54, 55, 58, 62, 64, 66, AND 69
FAR ROCKAWAY, NEW YORK**

PREPARED FOR:

Asian Americans for Equality, Inc.
2 Allen Street, 7th Floor
New York, NY 10002

PREPARED BY:

GZA GeoEnvironmental, Inc.
55 Lane Road, Suite 407
Fairfield, New Jersey 07004

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1.0 INTRODUCTION

This report presents the field observations, results, and opinions of a Phase I Environmental Site Assessment conducted by GZA GeoEnvironmental, Inc. (GZA) for the Asian Americans for Equality, Inc. (the Client) for the property located in Beach 53rd and Beach 54th Street, Far Rockaway, New York (Site). . The Site is comprised of properties with the following addresses:

- 53-01 Beach Channel Drive (Lot 66)
- 53-05 Beach Channel Drive (Lot 64)
- 53-13 Beach Channel Drive (Lot 62)
- 53-15 Beach Channel Drive (Lot 58)
- 366 Beach 54th Street (Lot 55)
- 360 Beach 54th Street (Lot 54)
- No address - Vacant Lot at Beach 53rd Street (Lot 69)

This report was prepared in accordance with the limitations presented in **Section 14.0**, and with the terms and conditions of our proposal dated July 31, 2015 that are included in **Appendix A**. This report is subject to modification if GZA or any other party develops subsequent information.

1.1 REASON FOR PERFORMING THE PHASE I ENVIRONMENTAL SITE ASSESSMENT

It is GZA's understanding that we conducted this Phase I Environmental Site Assessment as part of environmental due diligence efforts. We understand that the purpose of the Phase I Environmental Site Assessment report will be to assist the User of this report in qualifying for Landowner Liability Protection (LLP) against CERCLA liability and that the lender(s) will require the Phase I Environmental Site Assessment in connection with financing the purchase and/or construction of the project. We understand that this Phase I Environmental Site Assessment is funded neither by a federal grant under the EPA Brownfield Assessment and Characterization Program nor by the US Small Business Administration. As such, this Phase I Environmental Site Assessment does not include an evaluation of controlled substances.

1.2 PROJECT OBJECTIVES

GZA designed the Scope of Services described below in general conformance with the ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process - E1527-13 (ASTM E1527-13). The objectives of this Phase I Environmental Site Assessment were:

- To render an opinion as to whether surficial or historical evidence indicates the presence of recognized environmental conditions which could result in the presence of hazardous materials in the environment, as defined in ASTM E1527-13; and
- To permit the User of this assessment to satisfy one of the requirements to qualify for certain Landowner Liability Protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).



1.3 DEFINITIONS

As defined by ASTM E1527-13, a Recognized Environmental Condition (REC) indicates “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.”

A “*de minimis*” condition, as defined by ASTM E1527-13, is “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.” ASTM E1527-13 does not consider *de minimis* conditions RECs.

The term “Controlled REC” (CREC) applies to a site that reached regulatory closure with the implementation of an engineering control, such as an impermeable cap, and/or an institutional control, such as a deed restriction or property use restriction.

As defined by ASTM Standard Practice E1527-13, a “historical recognized environmental condition” (HREC) is “a past release of any hazardous substances or petroleum products that occurred in connection with the property and was addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).” An HREC typically is not a REC. However, if regulatory standards changed since the HREC achieved closure, and the data used to close the case indicate contaminant concentrations above the current regulatory standard, then we will identify the HREC as a REC in the conclusions Section of this Phase I Environmental Site Assessment Report.

1.4 SCOPE OF SERVICES

We completed the Phase I Environmental Site Assessment in general conformance with ASTM E1527-13 and GZA's proposal for services. GZA's Scope of Services consisted of the following activities:

- Review of federal and state regulatory agency databases identified by ASTM for the Site and a selected radius around the Site;
- Contact with local environmental regulatory agencies to inquire about environmental conditions at the Site and in its vicinity;
- Review of the Site history through available ASTM Standard Historical Sources;
- A Site reconnaissance to make surficial observations for evidence of recognized environmental conditions;
- A reconnaissance of the Site vicinity;
- A review of adjoining properties to identify the potential use of hazardous materials;
- An interview with the Key Site Manager, as well as certain other available occupants and major tenants, regarding the current and past Site usage and facility operations; and
- The preparation of this report of our findings.

The Phase I Environmental Site Assessment does not include an evaluation of potential environmental issues or conditions that ASTM E 1527-13 considers non-scope considerations.



2.0 DESCRIPTION OF SITE AND VICINITY

GZA obtained the following information resulting from its Site reconnaissance, its research, and from interviews with people knowledgeable about the Site. Presented in **Appendix B** are photographs depicting Site conditions during GZA’s reconnaissance.

2.1 SITE LOCATION

The Site is located on the south side of Beach Channel Drive between Beach 53rd and Beach 54th Streets in the Edgemere neighborhood of Far Rockaway, New York. Provided on **Figure 1** is a Site location map.

2.2 SITE DESCRIPTION AND USE

The Site is legally identified as Block 15890, Lots 54, 55, 58, 62, 64, 66, and 69 in the Borough of Queens, New York. Provided on **Figure 2** is a Site Plan. The Site has a total approximate area of 0.85 acres, and the Site is comprised of the following lots:

Block	Lot	Lot Dimension (feet)	Lot Area (square feet)	Year Building was Built	Most Recent Use
15890	54	30' x 100'	3,000	1990	Laundromat
	55	30' x 100'	3,000	1990	Bodega/ Retail Store
	58	80' x 105.32'	8,375	~ 1950	Liquor Store Bodega/Retail Store
	62	40.01' x 105.95'	4,225		Vacant
	64	40.01' x 106.58'	4,252	1990	Chinese Restaurant Liquor Store
	66	40.01' x 107.22'	4,277	1990	Check Cashing Bodega/ Retail Store
	69	100' x 100'	10,000		Vacant

The Site has had several recent uses as indicated in the table above. In October 2012, Hurricane Sandy severely damaged the properties resulting in their abandonment. During GZA’s Site reconnaissance on October 6, 2015, the buildings were unoccupied and in severe disrepair.

2.3 ADJOINING PROPERTIES

The following table lists the properties that adjoin the Site and describes their current use.

Direction from the Site	Street Address	Block/Lot	Owner	Property Use
North	51-32 Beach Channel Drive	16001/2	NYCHA	Ocean Bay Apartments Housing Complex with Ten 9-story buildings
East	51-15 Rockaway Beach Blvd.	15843/1	Congregation Zichron	Peninsula Hospital Center
West	301 Beach 54 th Street	158992/1	NYCHA	Ocean Bay Apartments



Direction from the Site	Street Address	Block/Lot	Owner	Property Use
				Housing Complex with Seven 6-story buildings
South	3-57 Beach 53 rd Street	15890/42	Lincoln Associates L	Lawrence Nursing Care Center

2.4 VICINITY PROPERTIES

As part of GZA's Phase I ESA, GZA performed a reconnaissance of the Site vicinity from public areas and reviewed the City of New York, Department of City Planning Zoning Maps. The Site vicinity is primarily zoned as residential (R5) with some commercial properties (C1-2). Residences are generally multi-story buildings included in the NYCHA housing complexes located north and west. Commercial establishments are generally located along Beach Channel Drive.

3.0 ENVIRONMENTAL SETTING

This section provides information regarding the general physiographic, hydrologic, and soil conditions in the area of the Site.

3.1 REGIONAL PHYSIOGRAPHY

The United States Geological Survey (USGS) 7.5 Minute Series Topographic Map for the Far Rockaway, New York Quadrangle dated 2013 indicates that the Site is at an elevation of 6 feet above mean sea level (MSL) relative to the National Geodetic Vertical Datum. Several bodies of water surround the Site, which is located in the Rockaway Peninsula, which is generally flat. Little Bay is approximately 0.27 miles northwest of the Site while Norton Basin is approximately 0.25 northeast of the Site. The Atlantic Ocean is located approximately 0.40 miles south of the Site (See **Figure 1**).

3.2 GEOLOGIC, HYDROGEOLOGIC AND HYDROLOGIC CONDITIONS

Bedrock in the Site area is located more than 1,100 feet below MSL. According to the USGS Water Resources Investigations Report 77-34 (Soren, 1978), the regional geology is comprised of sequences of Upper Pleistocene unconsolidated sediments (i.e. unsorted sand, gravel, cobbles and boulders within a clayey silt matrix) underlain by the Raritan Formation of Cretaceous age deposits of continental origin (i.e. stratified light to dark grey and red beds and lenses of clay, silt and sand with some lignite and pyrite). Precambrian metamorphic bedrock underlying the region is comprised of folded and faulted gneisses and schists.

According to the U.S. Department of Agriculture (USDA) Soil Conservation Service data contained in the Radius Map Report provided by Environmental Data Resources (EDR), which is a third-party database search firm, the dominant soil composition in the Site area is sandy loam and sand. Deeper soil reportedly is comprised of gravelly coarse sand.

Groundwater typically occurs within the unconsolidated soil and at a depth of approximately 6 feet below ground surface (bgs). We anticipate groundwater to flow radially away from the Site towards



the nearest bodies of water: Little Bay to the northwest, Norton Basin to the northeast, and the Atlantic Ocean to the south. However, localized gradients within the vicinity of the Site might vary due to subsurface underground utilities or heterogeneous subsurface conditions. We note that the Site is a commercial building on public water. The groundwater beneath the Site is not a drinking water aquifer.

4.0 HISTORICAL USE INFORMATION

We evaluated the Site history from ASTM Standard Historical Sources, available files from EDR, which is a third-party database search firm, the New York City Department of Finance, the New York City Searchable Property Environmental E-Database (SPEED), and the New York City Open Accessible Space Information System (OASIS), as well as interviews with knowledgeable parties. Provided in this Section is a historical summary of the Site, and presented in the following subsections is specific information obtained from ASTM Standard Historical Sources.

4.1 AERIAL PHOTOGRAPH REVIEW

GZA reviewed aerial photographs for the Site that EDR compiled. Copies of these photographs are included in **Appendix C**. The table below contains GZA’s description of the Site and vicinity properties as shown in the aerial photographs.

Year	Scale	Description of Site	Description of Vicinity
1924	1"=500"	The Site appears to be undeveloped.	The Site is located in an undeveloped marshland. There is dense residential development along the Shore Front Parkway, further south of the Site.
1951 to 1954	1" = 500'	Lot 58 of the Site contains a rectangular-shaped building and Lots 64 and 66 contain a triangular-shaped structure. The rest of the Site is open parking space.	The Site is located in a sparsely developed area. A housing complex is west of the Site. Dense residential development is along the Shore Front Parkway, further south of the Site. Areas north and east of the Site are partitioned but undeveloped.
1961 to 1966	1" = 500'	The Site remained relatively unchanged from 1984.	The surrounding area is highly urbanized. There are housing complexes west and north of the Site. The area to the east contains a hospital. Dense residential development is along the Shore Front Parkway, further south of the Site.
1975 to 1984	1" = 500'	The Site remained relatively unchanged from 1966.	A multi-story building (current nursing home) adjoins the Site to the south. There no more dense residential development along Shore Front Parkway. The rest of the surrounding area is relatively unchanged from 1966.
1994 to 2006	1" = 500'	Lots 64 and 66 contain a 1-story commercial building. Lots 55 and 54 contain a 1-story commercial building. The rest of the Site is relatively unchanged from 1984.	The surrounding area is relatively unchanged from 1984.



Year	Scale	Description of Site	Description of Vicinity
2009 to 2011	1" = 500'	The Site is relatively unchanged from 2006.	The surrounding area is relatively unchanged from 2006.

4.2 FIRE INSURANCE MAPS

GZA reviewed historical fire insurance maps provided by EDR; copies of these maps are included in **Appendix D**. The table below contains GZA's description of the Site and vicinity properties as shown on the historical fire insurance maps.

Year	Target Properties						
	Lot 54	Lot 55	Lot 58	Lot 62	Lot 64	Lot 66	Lot 69
1933	Vacant	Vacant	Filling Station (with five gas tanks)	Vacant	Vacant	Vacant	Vacant
1951	Vacant	Vacant		Vacant	Vacant	Vacant	Vacant
1981-1983	Vacant	Vacant	Health Center	Vacant	Vacant	Vacant	Vacant
1985-1988	Parking Space			Used Auto Lot			Vacant
1990-1992	Commercial Establishments		Dental Office	Vacant	Commercial Establishments		Vacant
1993-2006			Commercial Establishments	Vacant			Vacant

We further discuss in Section former filling station with five gas tanks on Lot 58.

4.3 PROPERTY TAX FILES

GZA searched the New York City Department of Finance ACRIS, which provides property records for 1972 through 2014, for records pertaining to the Site. The following table presents a summary of the records found and reviewed for the Site for the past five years.

Document Type	Date Recorded	Description
Lot 54		
Sundry Miscellaneous	12/12/2012	US Department of HUD
Lot 55		
Sundry Miscellaneous	12/12/2012	US Department of HUD
Lot 58		
Discharge of Tax Lien	10/16/2014	Bank of New York Mellon
Sundry Miscellaneous	12/12/2012	US Department of HUD
Lot 62		
Sundry Miscellaneous	12/12/2012	US Department of HUD
Discharge of Tax Lien	9/12/2011	Bank of New York Mellon
Lot 64		
Sundry Miscellaneous	12/12/2012	US Department of HUD
Discharge of Tax Lien	10/21/2011	Bank of New York Mellon
Assignment of Tax Lien	06/29/2010	Bank of New York Mellon



Document Type	Date Recorded	Description
Lot 66		
Sundry Miscellaneous	12/12/2012	US Department of HUD
Discharge of Tax Lien	10/21/2011	Bank of New York Mellon
Assignment of Tax Lien	06/29/2010	Bank of New York Mellon

4.4 RECORDED LAND TITLE RECORDS

No one provided any abstract of title to GZA for review. We obtained general information regarding the history of ownership through information that we reviewed in deeds made available through the New York City Department of Finance, Office of the City Register online deeds search. Records indicated that the current owner for the Site is the New York City Housing Authority (NYCHA).

4.5 HISTORICAL USGS TOPOGRAPHIC MAPS

GZA reviewed historical USGS topographic maps provided by EDR; copies of these maps are included in **Appendix E**. The table below contains GZA’s description of the Site and vicinity properties as shown on the historical topographic maps.

Year	USGS Map Quad	Approximate Scale (feet)	Description of Site	Description of Vicinity
1900	Brooklyn	1:62500	The Site is unmapped and is part of Little Bay.	The surrounding area is generally undeveloped with Little Bay to the north and the Atlantic Ocean to the south.
1924	Brooklyn	1:62500	The Site is unmapped and is as part of Little Bay.	The surrounding area is generally undeveloped with Little Bay to the north and the Atlantic Ocean to the south.
1947	Far Rockaway	1:25000	The Site is partitioned but shown as undeveloped.	The surrounding area is generally urban with partitioned lots. Depicted to the north are portions of Little Bay Marsh as partitioned. Evident along Rockaway Parkway further south of the Site are the New York City elevated rails.
1954	Far Rockaway	1:24000	The Site is partitioned but shown as undeveloped.	The surrounding area is generally urban with partitioned lots. Depicted as Rockaway Airport are portions of Little Bay Marsh to the north. Evident along Rockaway Parkway further south of Site are the New York City elevated rails.
1969	Far Rockaway	1:24000	The Site is partitioned and is in a general urban area	The surrounding area is generally urban. The airport is no longer evident to north is the airport, and housing complexes replaced the airport. The area to the east contains a hospital. Evident along Rockaway Parkway further south of Site are the New York City elevated rails.



4.6 CITY DIRECTORIES

EDR provided a city directory abstract report for the years 1922 through 2013, and the directory is included in **Appendix F**. The abstract report was compiled from several sources including: New York Telephone Company R.L. Polk & Co., New York Telephone Co., NYNEX Information Resource, Hill Donnelly Information Services, and Cole Information Services.

The listings for the target property from 1922 to 2013 contain the following names:

Year	City Directory Entry
360 Beach 54th St. (Lot 54)	
	n/a
366 Beach 54th St. (Lot 55)	
2005	Cash Business Marketing & ATM, Rockaway Express Deli
2000	Mitvz Health Service, Rockaway Deli & Grocery
53-15 Beach Channel Drive (Lot 58)	
2005	Gina Pharmacy
2000	Gina Pharmacy
1991	Arverne Dental Center, Arverne Medical & Dental Center, Doctors of Medical Bldg. of Far Rockaway & Arverne, Far Rockaway Dental, Far Rockaway Medical, Medical Center of Arverne, Medical Center of Far Rockaway
1983	Met Path Inc.
1976	Brodey Louis
1967	Richtone Service Center
53-13 Beach Channel Drive (Lot 62)	
	n/a
53-05 Beach Channel Drive (Lot 64)	
2000	Melvin Restaurant
53-01 Beach Channel Drive (Lot 66)	
1962	Alans Car Mart
3-57 Beach 53rd St. (Lot 69)	
	n/a

There were no City Directory Records found for the years 1922, 1934, 1939, 1945, 1950, 1970, 1996, 2008 and 2013.

The available listing for the adjoining properties contain the following information:

Direction from the Site	Street Address	Block/Lot
West	349 Beach 54 th Street	15892 / 1
Year	City Directory Entry	
2013	City of New York	
2005	Far Rockaway Police Department	
1976	Bonnelli J.	
1970	Arverne Center, Various Doctors	
1967	Arverne Sub Center, Various Doctors	



Direction from the Site	Street Address	Block/Lot
West	339 Beach 54 th Street	15892 / 1
Year	City Directory Entry	
2013	Housing Authority	
2005	Arverne Resident Council	
2000	Arverne Res Cncl	
1970	Superior Arverne Houses	
1962	Queens Public Library	

Direction from the Site	Street Address	Block/Lot
South	350 Beach 54 th Street	15890/42
Year	City Directory Entry	
2013	A Fast Locksmith , Lawrence Nursing Care Center	
2008	Lawrence Nursing Care Center	
2005	Lawrence Nursing Care Center, Various Private Individuals	
2000	Lawrence Nursing Care Center, Various Private Individuals	
1991	Copeland Elizabeth	
1983	Lawrence Nursing Home	
1976	Danneberg Susan, Lawrence Nursing Home	

There were no City Directory Records for 51-32 Beach Channel Drive, which is the adjoining property north of the Site and for 51-15 Rockaway Beach Boulevard, which is the adjoining property to the east.

4.7 BUILDING DEPARTMENT RECORDS

GZA reviewed the New York City Department of Buildings (NYC DOB), Building Information System for the Site. The DOB issued work permits on January 13, 1992 for the *Installation of a dry cleaning store* at Lot 55 by Park Beach Plumbing of Ozone Park, NY. The NYC DOB records are included in **Appendix G**.

4.8 ENVIRONMENTAL LIEN SEARCH AND ACTIVITY USE LIMITATIONS

ASTM identifies a title search for environmental liens as a User Responsibility and recommends that the User provide it to the Environmental Professional for review. The Client did not provide a title search for our review. In GZA's opinion, however, this is not a significant data gap due to a well-documented regulatory history of the property from other sources.

4.9 SITE AND AREA HISTORY SUMMARY

Prior to the 1950s, the Site was undeveloped and was part of the Little Bay Marshland. Major development occurred during the 1950s and the 1960s when the Little Bay marshland was claimed and partitioned into several lots. Several lots were established that included the current lot partition of the Site.



From 1970s to 1980, only Lot 58 was developed, first as a filling station, then as a health center. By the 1990s, Lot 58 was occupied by various commercial establishments up until 2012.

The other lots were utilized from 1983 through 1988 as parking spaces and used car staging, and from 1990 through 2012 by various commercial establishments. In late October 2012, the Site buildings were abandoned sometime after Hurricane Sandy hit the area.

5.0 PREVIOUS SITE INVESTIGATIONS

The property owner provided to GZA a Phase I ESA performed by AECOM in January 2012. In addition, Nova Geophysical Engineering, under subcontract with GZA, performed a geophysical investigation on October 6, 2015.

5.1 PHASE I ENVIRONMENTAL ASSESSMENT JANUARY 2012 -AECOM

This report revealed the presence of three recognized environmental conditions (RECs), as defined under ASTM E1527-13, in connection with the property:

- Billboards on the Lot 54 and 55 properties indicate that a laundromat and a dry cleaner occupied the Site. The Department of Consumer Affairs indicated that they did not issue any permits Department for these two enterprises. The Dry Cleaning Association had no record of a dry cleaner at the Site in on their database. The New York City Department of Finance database provided two work permits for the installation of the drycleaners.
- The Peninsula Hospital Center, which is located at 51-15 Beach Channel Drive and adjoins the Site to the east has a history of leaks and overfills. Although the EDR report mentions corrective action was taken to resolve the issue, there was no mention of groundwater and soil impacts to the surrounding area.
- The 1933 Sanborn Map shows a filling station with five gasoline underground storage tanks (USTs) along Beach Channel Drive on Lot 58. No information was available on the decommissioning / removal of the USTs.

The Site conditions, as reported by AECOM, were consistent with what was observed during the Site reconnaissance. The report is included in **Appendix H**.

5.2 GEOPHYSICAL ENGINEERING SURVEY REPORT OCTOBER 2015 - NOVA GEOPHYSICAL

Nova, under contract with GZA, performed a geophysical engineering survey on October 6, 2015. The survey was limited to the accessible portions of the Site (i.e. the exterior portions of the property, sidewalk, and portions of the vacant lots). The Site buildings were in severe disrepair and were inaccessible. Access to some portions of the vacant lots was also limited due to overgrown trees and shrubs.

Nova utilized a Noggin 250-megahertz ground penetrating radar (GPR) shielded antenna and Dynatel™ Multi-Frequency Detector. The survey identified scattered anomalies located throughout the project Site. Based on their rates and proximity, these anomalies were inconsistent with USTs. The GPR survey identified large anomalies, whose locations were consistent with the location of a former



filling station and its appurtenances. It also located several utilities (sewer, water, electric and gas) and were marked out at the Site. Provided in **Appendix H** is the October 13, 2015 Geophysical Engineering Survey Report prepared by Nova Geophysical Engineering.

6.0 SITE RECONNAISSANCE

The purpose of GZA's Site reconnaissance was to make surficial observations for evidence of recognized environmental conditions that could result in the presence of petroleum impacts or hazardous materials in the environment. GZA's Assistant Project Manager Reinbill Maniquez conducted a reconnaissance of the Site on October 6, 2015. GZA documented its observations, photographed pertinent features or areas of environmental concern, and referenced these items in the text.

According to Tabia Heywot, who is the property manager, the Site is condemned, and Ms. Heywot was advised of the unsafe condition of the building. The Site buildings were observed to be in a state of major disrepair. Some of the Site buildings were not accessed due to safety concerns. Portions of the building roofs were collapsed. Evidence of heavy water damage was observed in the accessible building interior parts. Discarded plastic items and clothes were seen strewn all over the outside of the building.

Selected photographs are included in **Appendix B**, and **Figure 2**, the *Site Plan*, depicts pertinent Site features.

Bulk Storage Tanks and Appurtenances:

Site Feature	Currently Exists?
Aboveground Storage Tanks (ASTs) and associated piping	Yes
Underground Storage Tanks (USTs) and associated piping	No
Silos	No
Rail Car loading and unloading	No
Storage tank filling areas	No
Above ground and below ground pumping stations, sumps and pits and associated piping	No

An approximately 250-gallon aboveground storage tank (AST) of unknown liquid was observed at the yard between the Lot 55 and Lot 58 Buildings. The surrounding area was heavily vegetated so visual indication of spills or staining around the AST was not possible.

Storage and Staging Areas:

Site Feature	Currently Exists?
Storage pads including drum and/or waste storage	No
Surface impoundments and lagoons	No
Dumpsters	No
Hazardous material storage or handling areas	No



Drainage systems and Areas:

Site Feature	Currently Exists?
Floor drains, trenches, sumps and associated piping	No
Oil/water separators	No
Process area sinks and piping which receive process waste	No
Roof leaders when process operations vent to the roof	No
Storm water drains, grates and associated piping	Yes
Drainage swales and culverts	No
Storm water detention ponds	No
Surface water bodies and fire ponds	No

Stormwater drains were observed at the parking area in front of Lot 58. The stormwater drains appear to be in good condition and does not appear to be of an environmental concern.

Discharge and Disposal Areas:

Site Feature	Currently Exists?
Waste water disposal systems including septic systems, leach fields, seepage pits, and dry wells	No
Landfills	No
Sprayfields or landfarms	No
Incinerators	No
Historical fill or any other fill material	No
Open pipe discharges	No
Evidence of dumping	Yes

Evidence of discarded clothes and store equipment was observed outside the buildings, and these do not pose a major environmental concern.

Other Site features, including:

Site Feature	Currently Exists?
Electrical transformers & capacitors	No
Generators	No
Hydraulic equip. (lifts, elevators, compactors, loading dock lifts)	No
Waste treatment areas	No
Discoloration, staining or spillage	Yes
Areas of stressed vegetation	No
Compressor vent discharges	No
Non-contact cooling water discharges	No
Active or Inactive production wells	No
Monitoring wells, former boreholes, or other evidence of former environmental investigation	No

Some of the accessible building interiors were greatly discolored and were observed to have heavy water damage.



7.0 REGULATORY DATABASE REVIEW

This section is based on public information obtained from various federal, state, and local agencies that maintain environmental regulatory databases.

7.1 FEDERAL AND STATE ENVIRONMENTAL RECORD SOURCES

GZA obtained a database report (see **Appendix I**) was provided by EDR from a number of federal and state databases. The following table lists the federal or state lists provided in EDR's report including the search radii used by GZA for evaluating each listing, and the number of properties that appear for each listing within the search radii used by GZA. Descriptions of these databases and the dates that EDR accessed these databases for its report are provided in the EDR report.

Federal and State List	Approximate Minimum Search Distance*	Site and Adjoining Properties	# Sites Within Search Radius	# Open Cases	# Cases Open and Upgradient
NPL	1 mile	0	0	0	0
Delisted NPL	1 mile	0	0	0	0
CERCLIS	½ mile	0	1	1	0
CERCLIS NFRAP	½ mile	0	0	0	0
RCRIS CORRACTS	1 mile	0	0	0	0
RCRIS-TSDF	½ mile	0	0	0	0
RCRIS-LOG/SQG/CESQG	Site and adjoining properties	0	0	0	0
Federal IC/EC Registries	Site only	0	0	0	0
ERNS	Site only	0			
State Equivalent NPL	1 mile	0	0	0	0
State Equivalent CERCLIS (NY SHWS)	½ mile	0	1	0	0
State landfill and/or Solid Waste Disposal Site (SWF/LF)	½ mile	0	1	0	0
Leaking Tanks (NYLTANKS)	½ mile	4	8	0	0
Registered USTs	Site and adjoining properties	0	0	0	0
Registered MOSF	½ mile	0	0	0	0
State IC/EC Registries	Site only	0	0	0	0
Voluntary/Brownfield Cleanup Program Sites	½ mile	0	1	1	0
NYSpills	1/8 mile	3	13	4	3

* The approximate minimum search area for which records must be obtained and reviewed. This may include areas outside the property, and approximate minimum search is measured from the nearest property boundary.
 N/A = Not Applicable



7.2 LISTINGS FOR SITE, ADJOINING PROPERTIES, AND PROPERTIES WITHIN 100 FEET OF THE SITE

The Site was listed in the regulatory database as described below:

Property Name	Federal and State List	Site Address/ Block/ Lot	Description
Channel Breeze Cleaners	RCRA NonGen/NLR, FINDS and NY MANIFEST	366-02 Beach 54 th Street, 15890/55	Dry Cleaning Store

Channel Breeze Cleaners was owned and operated by Agoute Cleaners Inc. and listed as a RCRA NonGen facility. RCRA NonGen facilities do not generate hazardous waste but use regulated materials below reporting thresholds. The Site was also listed in the EPA FINDS and NY MANIFEST list, which track events and activities related to the transport, storage, and treatment of hazardous waste. The Site reportedly utilized spent halogenated solvents in its operations. Dry cleaning operations typically utilize solvents and are often a cause of release of hazardous chemicals to the subsurface. Consequently, this is considered a recognized environmental condition.

The adjoining properties and properties within 100 feet of the Site were listed in the regulatory databases as described below:

Property Name	Federal and State List	Site Address	Elevation, Direction and (Distance from the Site)	Description
Peninsula Hospital Center, Peninsula Nursing and Rehab Center	NY LTANKS NY UST, NY AST NY HIST UST NY Spills, RCRA NonGen/NLR NY MANIFEST	50-15 and 51-15 Beach Channel Drive	Relatively Equal, East (adjoining approx. 100 feet [ft])	History of several leaks and overfills, including a spill that was closed on 06/04/1993.
Edgemere Houses/ Ocean Bay Apartments	NY Spills NY UST NY HIST UST	444 Beach 54 th Street,	Relatively Equal, East (adjoining approx. 30 ft)	History of several leaks and overfills, including spills that were closed on 03/06/2007 and 07/18/2002.
Arverne Houses / Ocean Bay Apartments	NY LTANKS NY Spills RCRA NonGen NLR, NY MANIFEST	55-05 Beach Channel Drive/ 54-15 Beach Channel Drive	Relatively Equal, west-northwest (adjoining approx. 30 ft)	History of several leaks and overfills, including spills that were closed on 03/19/1996, 4/25/1996 and 12/30/2009.
Lawrence Nursing Care/ Lawrence Nursing Home	NY UST, NY AST NY Spills, RCRA NonGen/NLR FINDS	350 Beach 54 th Street	Relatively Equal, South (adjoining approx. 6 ft)	History of several leaks and overfill, including two open spill cases.



7.3 LISTINGS FOR OTHER VICINITY PROPERTIES

The vicinity properties that were listed in the regulatory databases are described below:

Property Name	Federal and State List	Site Address	Elevation, Direction and (Distance from the Site)	Description
Edgemere Landfill	CERCLIS RCRA-SQG NJ Manifest NY Manifest	Beach Channel drive and 49 th Street	Relatively Lower, East (approx. 0.028 mi.)	NYC Department of Sanitation Landfill Inactive as of 1991

The Edgemere Landfill has the following assessment history:

- Soil and groundwater contamination with heavy metals and organics were discovered on March 1, 1983
- A preliminary assessment started in September 1, 1984 and site inspections started in November 1, 1988
- A site reassessment was conducted starting August 7, 2012 and the property is scheduled for further evaluation.

Given their relative distance and direction from the Site and the well-documented regulatory history, GZA does not believe this property impacted the environmental quality of the Site.

Property Name	Federal and State List	Site Address	Elevation, Direction and (Distance from the Site)	Description
LILCO Edgemere Substation	State-equivalent CERCLIS, NYSHWS, NYC VCP	Beach 52 nd St. and Rockaway Beach Blvd.	Relatively Equal or Higher, Southeast (approx. 0.114 mi.)	National Grid Electrical Substation was built in 2004 and was rebuilt 2012. As of 12/02/2014, lead-, benzene-, and PCB-contaminated soils were excavated and replaced with clean fill.

The LILCO Edgemere Substation was listed in the New York State Hazardous Waste Site (NYSHWS), New York’s equivalent to CERCLIS. The data is from the New York State Department of Environmental Conservation’s (NYSDEC’s) Inactive Hazardous Waste Disposal Sites. The property is also listed in the state’s Voluntary Cleanup Program. The Site was properly closed but requires continues management. Given their relative distance and direction from the Site and the well-documented regulatory history, GZA does not believe this property impacted the environmental quality of the Site.

Property Name	Federal and State List	Site Address	Elevation, Direction and (Distance from the Site)	Description
Gara’s Auto Wreckers	NY SWF/LF, NYS PDES	62-22 Alameda Avenue	Relatively Equal or Higher, West	Active Vehicle Dismantling Facility



			northwest (approx. 0.43 mi.)	
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The NY SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. There were no reported violations for the property. Given the regulatory information for the property, GZA does not believe this property impacted the environmental quality of the Site.

7.4 STATE AND LOCAL REGULATORY FILE REVIEW

The New York Leaking Tanks (LTANKS) database lists eight facilities located within the 1/2-mile radius of the Site. All eight LTANKS were reportedly closed. It is GZA’s opinion that the listed LTANKS sites are not anticipated to impact the environmental quality of the Site.

GZA also reviewed the NYSDEC Spill Incidents (NYSPILLS) listings. There are 13 NYSPILLS sites within 1/8 of a mile of the Site. Of the thirteen, four were reportedly not closed. The details of the open Spill Cases are described below:

Property Name	State List	Site Address	Elevation, Direction and (Distance from the Site)	Description
Lawrence Nursing Care	NYSPILLS	350 Beach 54 th Street	Relatively Equal, (adjoining approx. 6 ft)	As of 10/18/2013, open Spill No. 1307416, due to fuel loss from a 5000-gallon UST # 2 fuel oil. UST possibly damaged by Hurricane Sandy.
Lawrence Nursing Home	NYSPILLS	350 Beach 54 th Street	Relatively Equal, (adjoining approx. 6 ft)	As of 7/4/2011, open Spill No. 1104130 due to equipment failure. Free phase product was detected in groundwater
Edgemere Apartments	NYSPILLS	53-21 Beach Channel Drive	Relatively Equal, northeast (adjoining approx. 30 ft)	As of 1/15/2015, open Spill No. 0306202 for former abandoned gas station. Additional investigation is on NYCHA.
NYC Board of Education, PS 105Q	NYSPILLS	420 Beach 51 st Street	Relatively Equal, northeast (approx. 653 feet)	As of 11/1/2012, open Spill No. 1208329 due to tank overflow due to flooding during Hurricane Sandy.

The Lawrence Nursing Care, Lawrence Nursing Home and Edgemere Apartments adjoins the Site and the open Spill cases poses a material threat to the Site. It is in GZA’s opinion that the open Spills are considered as recognized environmental conditions.

As for the NYC Board of Education PS 105Q, given their relative distance and direction from the Site and its well-documented regulatory history, GZA does not believe this property affected the environmental quality of the Site.



To obtain additional information concerning the possible release of hazardous material or oil at or near the Site, GZA also contacted the following state and local agencies, via the Freedom of Information Act (FOIA) request:

- New York City Fire Department
- New York City Department of Health and Mental Hygiene
- New York City Department of Environmental Protection
- New York State Department of Environmental Conservation
- New York State Department of Health

As of the date of completion of this report, GZA received no response. If any additional records are received later from the above agencies that substantially alter the findings, conclusions, and opinions of this Phase I ESA report, then GZA will issue an addendum. Copies of the correspondences are provided in **Appendix J**.

8.0 INTERVIEWS

GZA interviewed the following people as part of this Phase I Environmental Site Assessment:

- Tabia Heywot - New York City Housing Authority

The information provided by Ms. Heywot is discussed and referenced within the text of this report.

9.0 USER-PROVIDED INFORMATION

GZA requested information from the Client regarding title information, environmental liens, Activity and Use Limitations, and specialized knowledge or commonly known information regarding the Site and, if applicable, the reason for a significantly discounted purchase price. A copy of the User Questionnaire is attached in **Appendix K**.

10.0 NON-ASTM CONSIDERATIONS

The Phase I Environmental Site Assessment does not include an evaluation of potential environmental issues or conditions that, according to ASTM E 1527-13, are considered non-scope considerations (e.g., asbestos containing materials, lead based paint, radon, etc.).



11.0 FINDINGS AND CONCLUSIONS

11.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

We conducted a Phase I Environmental Site Assessment of the Beach 53rd and Beach 54th Street property in conformance with the scope and limitation of ASTM E1527-13.

We note the following recognized environmental conditions in connection with the Site:

- A filling station with five gas tanks occupied the Site (Lot 58) from 1933 to 1951. Old undocumented USTs often fail and pose a material threat to the Site, and therefore, are considered as a recognized environmental condition.
- Channel Breeze Cleaners (Lot 55) was owned and operated by Agoute Cleaners Inc. and listed as a RCRA NonGen facility. Records from the New York City Department of Buildings indicate that the work permit was issued in 1990 for the installation of a dry cleaner at Lot 55. The Site was also listed in the EPA FINDS and NY MANIFEST list, which track events and activities related to the transport, storage, and treatment of hazardous waste, from 1992 to 2006. The Site reportedly utilized spent halogenated solvents in its operations. The presence or likely presence of hazardous substances is considered a recognized environmental condition.
- Three Spills were reported for the adjoining properties; the Lawrence Nursing Care, Lawrence Nursing Home, and Edgemere Apartments. The Spills remain open and have not been closed to the satisfaction of NYSDEC. The release of petroleum products in the subsurface on the adjoining properties indicates a recognized environmental condition.

11.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECS)

This Phase I Environmental Site Assessment revealed evidence of historical recognized environmental conditions for the adjoining properties that includes the following:

- The Peninsula Hospital Center/ Peninsula Nursing and Rehab Center, were listed in the NY LTANKS, NY UST, NY AST, NY HIST UST, NY Spills, RCRA NonGen/NLR, and NY MANIFEST database has had a history of several leaks and overflow, including a Spill that was closed on 06/04/1993.
- The Edgemere Houses/ Ocean Bay Apartments were listed NY Spills, NY UST, NY HIST UST has had a history of several leaks and overflow, including Spills that were closed on 03/06/2007 and 07/18/2002.
- The Arverne Houses / Ocean Bay Apartments were listed in the NY LTANKS, NY Spills, RCRA NonGen NLR, and NY MANIFEST database has had a history of several leaks and overflow, including Spills that were closed on 03/19/1996, 4/25/1996 and 12/30/2009.

11.3 DE MINIMIS CONDITIONS

The water damage to the property and evidence of dumping (i.e. discarded clothes, equipment and plastics) are considered as *de minimis* conditions at the Site.



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11.4 DATA GAPS AND THEIR SIGNIFICANCE

We note the following data gaps in connection with this Phase I Environmental Site Assessment, as defined by ASTM 1527-13.

- A 250-gallon AST was observed at the yard between the Lot 55 and Lot 58 Buildings. No other records were found regarding the contents and use of the AST. Since the area is heavily vegetated and no other records were found, this is considered significant data gap.
- The Client did not provide a title search for our review. In GZA's opinion, however, this is not a significant data gap due to a well-documented regulatory history of the property.
- As of the date of completion of this report, GZA has not received responses from various regulatory agencies. This data gap is not considered significant since the regulatory history of the Site is well documented through other sources.

11.5 NON-ASTM CONSIDERATIONS

No non-ASTM considerations were evaluated as part of GZA's Scope of Work.

11.6 CONSTRUCTION-RELATED CONCERNS

This Phase I Environmental Site Assessment revealed the following construction-related concerns in connection with the proposed Site redevelopment:

- Heavily water-damaged property poses a risk of collapse and exposure to unusual construction conditions such as floodwater and mold.
- Surface soils to be excavated for property development purposes could be impacted due to long-term exposure to the urban environment. Such impacted material that is excavated from a construction site for off-Site disposal is a regulated material and should be managed in accordance with applicable regulations.
- If dewatering is required for construction, groundwater sampling and testing in conformance with NYCDEP sewer discharge permit/approval requirements will be required.



12.0 REFERENCES

GZA reviewed the following references as part of this Phase I Environmental Site Assessment.

- Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, 1994 Baskerville Map.
- Environmental Data Resources, Inc., dated August 24, 2015. The EDR Radius Map Report With Geocheck, Shelton, CT.
- EnviroPro Engineering Testing and Inspection, Phase I Environmental Site Assessment, 1395 to 1407 Myrtle Avenue and 206 Himrod Street, Brooklyn, New York 11237, July 18, 2014.
- New York City Department of Buildings: building permit and actions information (<http://www.nyc.gov/html/dob/html/bis/bis.shtml>).
- New York City Department of Finance ACRIS; property tax assessment information (<http://nycprop.nyc.gov/nycproperty/nynav/jsp/selectbbl.jsp>).
- Roberts-Dolgin, Geneva, The Geology of Staten Island and Western Long Island, Kings and Queens Counties, New York. Environmental, Engineering and Urban Geology in the United States, New York State Geological Survey Open File No. IM1098, July 20-25, 1989.
- Soren, Julian, Subsurface Geology and Paleogeography of Queens County, Long Island, New York, U.S. Department of Interior, February 1978.
- U.S. Department of the Interior Geological Survey, Brooklyn, NY. Quadrangle 7.5 Minute Series (Topographic) Map.
- Water-Table Altitude in Kings and Queens Counties, New York, March 1997.

Information provided by these references is discussed within the text of this Phase I Environmental Site Assessment.

13.0 ENVIRONMENTAL PROFESSIONAL OPINION

I declare, to the best of my professional knowledge and belief, that I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 12; that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property; and that I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312. The signature of the Environmental Professional is contained on the cover letter of this report. The qualifications of the Environmental Professional are attached in **Appendix L**.

14.0 LIMITATIONS

GZA prepared this report on behalf of, and for the exclusive use of the Client for the stated purposes for the subject property ("Site") identified in the Report.

Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions, and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, shall be at that party's sole risk, and without any liability to GZA.



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GZA performed its services to render an opinion on the presence of Recognized Environmental Conditions (RECs) in connection with the Site. We performed our services using that degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. We make no warranty(ies), express or implied.

We based our findings and conclusions on the work conducted as part of the Scope of Services set forth in this Phase I Environmental Site Assessment Report, and reflect our professional judgment. One must not consider our findings and conclusions as scientific certainties and as engineering certainties. Conversely, one must consider our findings and conclusions as our professional opinions concerning the limited data gathered during the course of our work. One might encounter other conditions at the Site than those described in this Phase I Environmental Site Assessment Report.

No environmental site assessment can eliminate the uncertainty of the possible presence of RECs. This Phase I Environmental Site Assessment Report was prepared to help reduce, not to eliminate, such uncertainties. Consistent with ASTM E1527-13, we developed our opinions in light of the constraints imposed by time and budget.

As indicated in this Phase I Environmental Site Assessment Report, we observed for evidence of RECs at the Site and for conditions at adjoining properties that could result in RECs at the Site. We noted observations of the Site and the structures on the Site as indicated within this Phase I Environmental Site Assessment Report. Where access to portions of the Site or to structures on the Site was unavailable or limited, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, in that portion of the Site or structure. In addition, GZA renders no opinion as to the presence of hazardous substances, hazardous waste, or petroleum products, or to the presence of indirect evidence relating to these materials, where direct observation of the interior walls, floors, and/or ceilings of a structure on the Site was obstructed by objects and/or coverings on and/or over such surfaces. We based our opinions on such limited observations. Additionally, some activities or events of interest, at the Site or on adjoining properties, might have been transient and not observable at the time of GZA's Site reconnaissance.

We relied upon information made available by federal, state, and local authorities, the Key Site Manager, and others. We did not attempt to independently verify the accuracy or completeness of that information. We noted any inconsistencies in this information, and we discuss any inconsistencies in this Phase I Environmental Site Assessment Report.

The lender, seller, buyer, or other parties that might become involved with the Site might develop additional opinions or information regarding the RECs identified herein. Such additional opinions or information might not fully support the opinions provided in this Phase I Environmental Site Assessment Report. In the event such additional opinions or information is developed, we recommend retaining GZA to review this material such that we have the opportunity to evaluate and modify, as necessary, the opinions provided in this Phase I Environmental Site Assessment Report.



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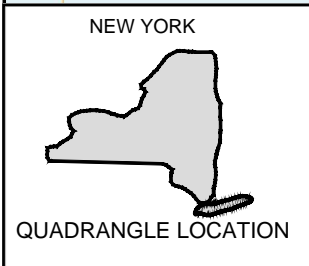
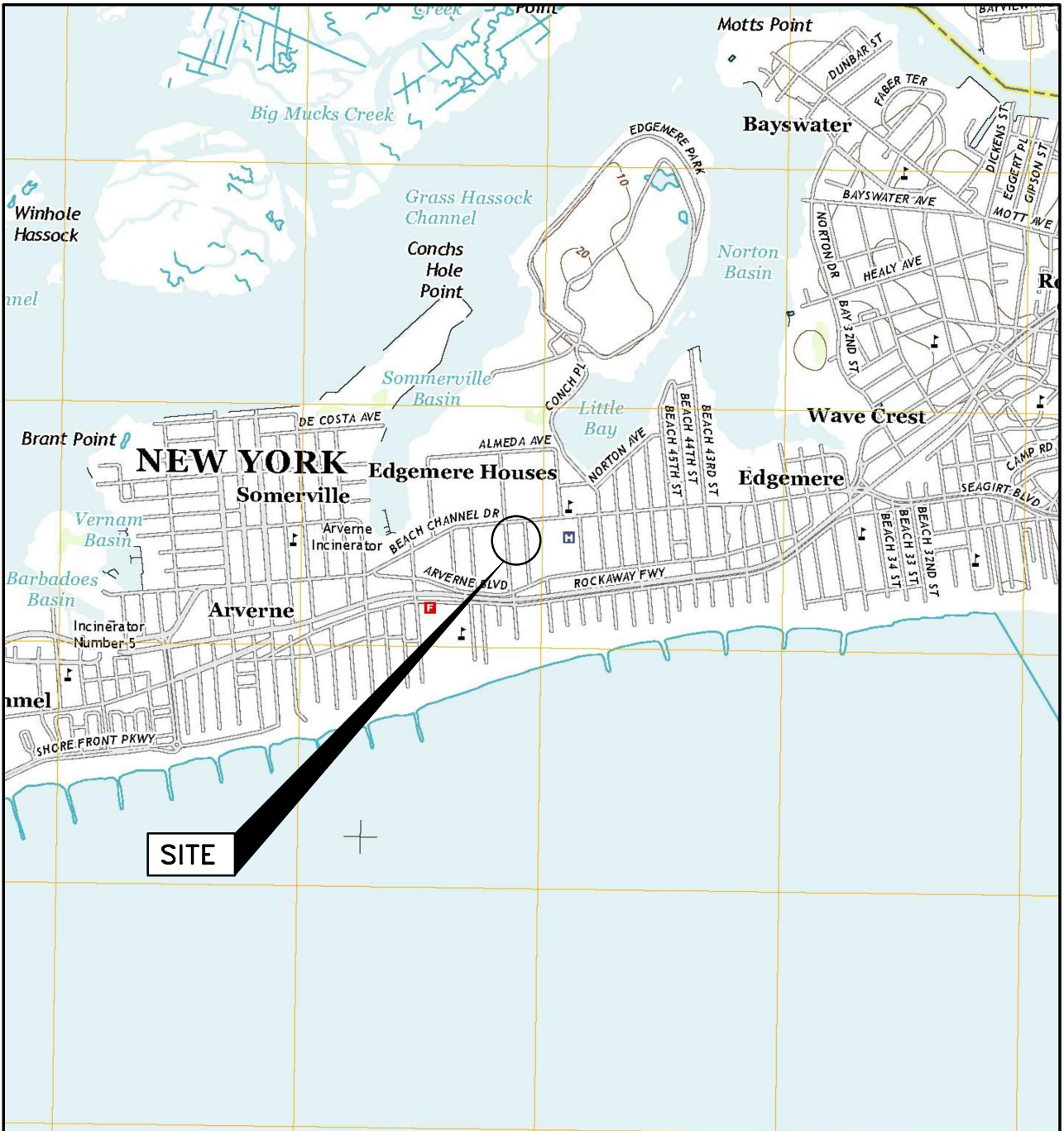
Unless specifically addressed within this Phase I Environmental Site Assessment Report, we rendered no opinion on the compliance of Site conditions or activities with federal, state, and local codes or regulations.

GZA based the opinions expressed in this Phase I Environmental Site Assessment Report on conditions observed during the course of our work on this Site; these conditions might change over time. ASTM E1527-13 states that observations and opinions are only valid for 180 days. After 180 days, updates of portions of this Phase I Environmental Site Assessment Report might be necessary.

\\GZAF\AIRFIELDNJ\Jobs\76350 to 76399\76377, Far Rockaway Phase I-Phase II\Reports\Phase I ESA\FINAL Beach 53rd and Beach 54th St Ph I ESA 11-02-15.docx



FIGURES



SOURCE:
USGS TOPOGRAPHIC MAP: FAR ROCKAWAY, NY (2013)
CONTOUR INTERVAL 10 FT., NAVD-1988, ORIGINAL
SCALE 1:24,000 (1" = 2,000FT)

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BEACH 53RD AND 54TH STREETS PROPERTIES
 EDGEMERE, NY

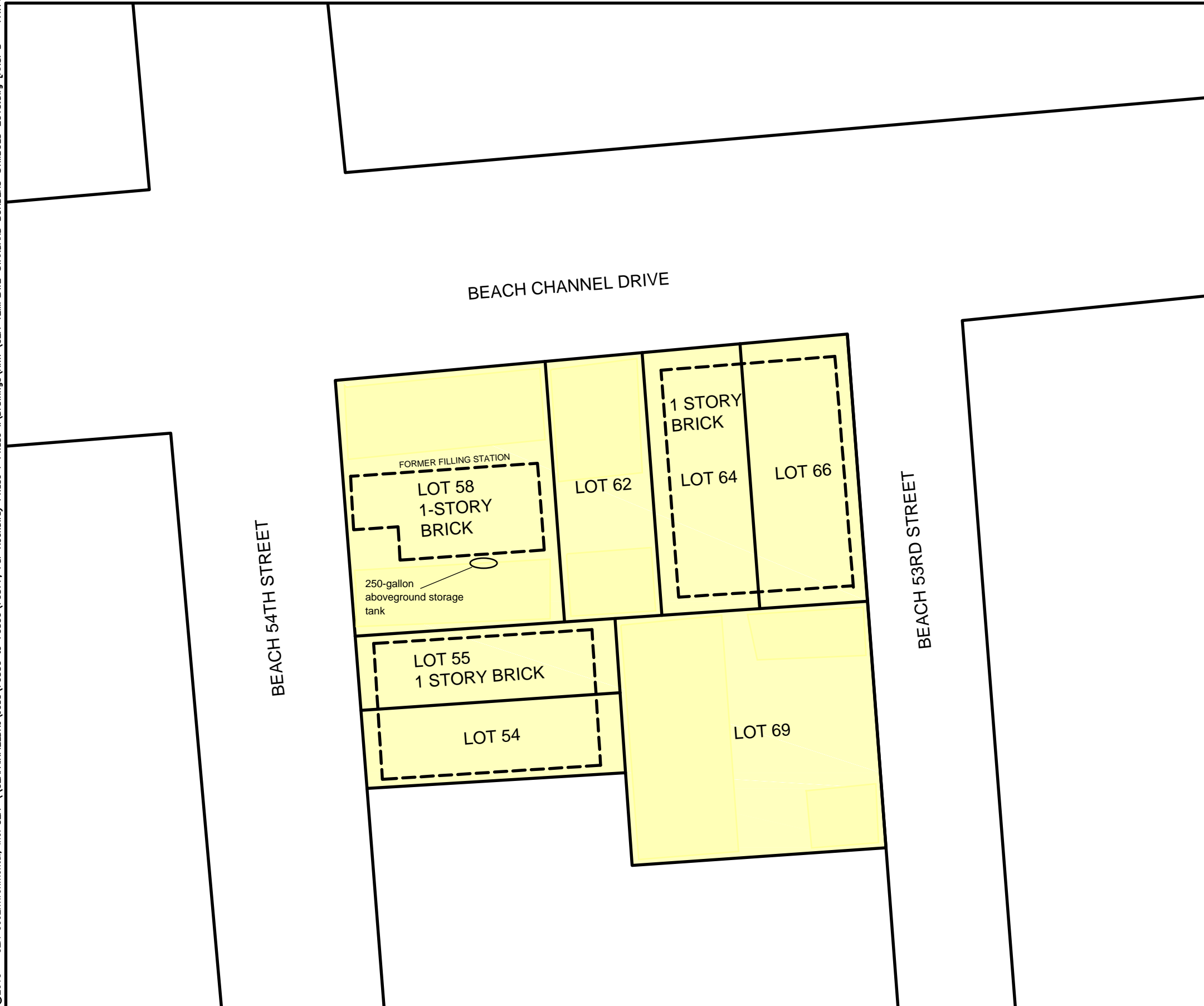
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 GZA GeoEnvironmental, Inc.
 Engineers and Scientists
 www.gza.com

PREPARED FOR:
 AAFE, INC.
 2 ALLEN STREET, 7TH FLOOR
 NEW YORK, NY 10002

SITE LOCATION MAP

PROJ MGR: BA	REVIEWED BY: RM
DESIGNED BY: RM	DRAWN BY: RB
DATE: OCT 2015	PROJECT NO. 12.0076377.00

CHECKED BY: RM	FIGURE 1
SCALE: 1" = 2000'	
REVISION NO.	SHEET NO.



LEGEND:

SITE PROPERTIES

NOTE:

BASE MAP GENERATED FROM CITY OF NEW YORK DEPARTMENT OF FINANCE DIGITAL TAX MAP



NO.	ISSUE/DESCRIPTION	BY	DATE

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BEACH 53RD AND 54TH STREETS PROPERTIES
EDGEMERE, NY

SITE PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
AAFE, INC.
2 ALLEN STREET, 7TH FLOOR
NEW YORK, NY 10002

PROJ MGR: BA	REVIEWED BY: RM	CHECKED BY: RM
DESIGNED BY: RM	DRAWN BY: RB	SCALE: AS SHOWN
DATE: OCT 2015	PROJECT NO. 12.0076377.00	REVISION NO.

FIGURE 2
SHEET NO. 2 OF 2