

South Avenue Retail Development Project

534 SOUTH AVENUE

STATEN ISLAND, RICHMOND COUNTY, NEW YORK

Supplemental Phase 1A Archaeological Documentary Study

CEQR Number 17DCP030R

Prepared for:

JC Dwight, Inc.
271 Madison Avenue, 22nd Floor
New York, NY 10016

Prepared by:



AKRF, Inc.
440 Park Avenue South
New York, NY 10016
212-696-0670

DECEMBER 2016

Management Summary

NYSHPO Project Review Number: *not yet issued*

Involved Agencies: New York City Planning Commission
NYSDEC

Phase of Survey: Supplemental Phase 1A Documentary Study

Location Information

Location: 534 South Avenue, Staten Island, New York
(Block 1707, Lots 1 and 5)

Minor Civil Division: 08501

County: Richmond County

Survey Area

Length: Approximately 381 meters (1,250 feet)

Width: Approximately 381 meters (1,250 feet)

Area: 28.3 acres (1,233,000 square feet)

USGS 7.5 Minute Quadrangle Map: Elizabeth and Arthur Kill

Report Author: Elizabeth D. Meade, M.A., R.P.A.

Date of Report: December 2016

Table of Contents

Management Summary	i
Chapter 1: Introduction and Project Description.....	1
A. Introduction.....	1
B. Previous Archaeological Analysis of the project Site	2
Chapter 2: Methodology and Recent Archaeological Investigations	1
A. Research Goals and Methodology	1
B. Recent Archaeological Investigations in the Vicinity	3
Chapter 3: Environmental and Physical Settings	5
A. Current Conditions.....	5
B. Geology and Topography.....	5
C. Hydrology	6
D. Soils.....	6
Chapter 4: The Precontact Period.....	8
A. Precontact Context	8
B. Precontact Sites in the Vicinity	11
Chapter 5: Historic Period Development and Occupation of the Project Site	13
A. Introduction.....	13
B. Historical Context for Staten Island	14
C. Development History of the Project Site and Map-Documented Structures.....	14
C. Occupants of the Project site.....	17
Chapter 6: Conclusions and Recommendations	199
A. Conclusions.....	19
B. Recommendations	20
References.....	21

Figures

Photographs

Appendix A: Summary of Census Research

List of Figures

- Figure 1:** USGS 7.5 Minute Topographic Map – Elizabeth Quad and Arthur Kill Quad
- Figure 2:** Project Location
- Figure 3:** Wetlands Enhancement Area
- Figure 4:** 1909-1911 Borough of Richmond Topographical Survey
- Figure 5:** 1874 Beers Atlas
- Figure 6:** 1917 Bromley Atlas
- Figure 7:** Areas of Archaeological Sensitivity

List of Photographs

- Photograph 1:** View of the southwest corner of the project site, looking west towards Morrow Street.
- Photograph 2:** Wrecked cars dumped within the wooded interior of the project site.
- Photograph 3:** The wooded interior of the project site in the northeast portion, looking north.
- Photograph 4:** A fire hydrant within the wooded area.

A. INTRODUCTION

Josif A, LLC is proposing to construct a new retail development in the Mariners Harbor neighborhood of Staten Island (see **Figure 1**). The proposed project site is situated at 534 South Avenue, near the intersection of Forest Avenue and South Avenue in Staten Island (see **Figure 2**). The 28.3-acre project site is bounded by Forest Avenue and Wemple Street (which is mapped but not built) to the north, South Avenue to the east, Amador Street (which is mapped but not built), to the south, and Morrow Street (which is partially built and partially unbuilt) to the west. The proposed project would transform an underutilized site into an attractive retail destination with a variety of locally-oriented uses, including a supermarket and a wholesale warehouse and will also provide the project site with convenient and easy access to local streets, while preserving and enhancing ecologically-sensitive wetland areas. As shown in **Figure 3**, only the northern portion of the project site would be developed as part of the proposed project, and that portion of the project site is referred to herein as the “Development Site.” The southern portion of the site is referred to as the “Wetlands Enhancement Area.”

The project site is a vacant wooded parcel containing approximately 6.90-acres of mapped NYSDEC and United States Army Corps of Engineers (USACE) jurisdictional wetland areas along the southern portion of the 28.3-acre zoning lot.¹ The proposed project site includes Block 1707, Lots 1 and Lot 5; the unbuilt portion of Wemple Street adjacent to Lot 1; and the mapped, but unbuilt streets bordering the site. The development site also includes a 7,721-sf area that would be mapped and added to Morrow Street to accommodate the realignment of the intersection of Morrow Street and Forest Avenue with an existing signalized intersection, and the additional 1,102-sf area that would be mapped to provide a cul-de-sac on the City map at the southern terminus of the Street (the cul-de-sac will not be built). These actions would reduce the size of the development site (Block 1707, Lot 5) by approximately 8,823 sf. The proposed project would also involve the preservation of 6.90 acres of mapped wetland areas through the construction of a landscaped buffer between the proposed retail center and the regulated wetland areas to the south. A storm water management area would also be included within the proposed project, a wetland enhancement plan will be implemented to remove non-native species (including approximately 1,700 trees) and restore the native vegetation (approximately 2,200 trees and 9,200 new shrubs). In addition, the enhancement plan includes a storm water retention basin to collect and treat storm water on the site before it is drained into the wetland areas, which will maintain the natural hydrology on the site and prevent impacts to the quality of the wetlands from pollutants.

The proposed project would require a special permit and an amendment to the City Map to de-map portions of Garrick Street, Amador Street, Albany Avenue, and Morrow Street (currently unbuilt streets) and to map a new section of Morrow Street and realign the intersection of Morrow Street and Forest Avenue. In addition to the CPC actions, a New York State Department of Environmental Conservation (NYSDEC) freshwater wetlands permit is required for development on the site. These actions are subject to the Uniform Land Use Review Procedure (ULURP), City Environmental Quality Review (CEQR), the

¹ The proposed project will avoid all regulated jurisdictional waters and USACE wetlands within the development site and therefore does not require a USACE Section 10 or 404 permit.

New York State Environmental Quality Review Act (SEQRA), and Section 14.09 of the New York State Historic Preservation Act of 1980. The New York City Department of City Planning (DCP), acting on behalf of the City Planning Commission (CPC), is serving as the lead agency for the environmental review.

B. PREVIOUS ARCHAEOLOGICAL ANALYSIS OF THE PROJECT SITE

The archaeological sensitivity of the project site was previously assessed in a Phase 1A Archaeological Documentary Study (“Phase 1A Study”) that was prepared by Greenhouse Consultants, Inc. (GCI) in 1996 as part of an unrelated project that was not constructed. The area evaluated in the 1996 Phase 1A included the current project site in its entirety as well as additional land to the west of the project site in the area bounded by Forest Avenue, Elizabeth Grove Road, and Morrow Street. GCI’s 1996 study identified areas of archaeological sensitivity and recommended additional archaeological analysis.

The 1996 Phase 1A study documented at least 12 previously identified archaeological sites within a 2-mile radius of the project site and also identified a former fresh water stream within the project site. GCI determined that the site was likely to have been the site of precontact hunting camps and determined that it possesses precontact archaeological sensitivity. The 1996 Phase 1A also included a thorough review of historic maps. The study concluded that portions of the project site were used for agricultural purposes between the 17th and late-19th centuries. Two 19th century map-documented structures were identified within the South Avenue Retail Development project site. The first was the Haughwout House along the southern side of Forest Avenue in the center of the project site. GCI determined that the home stood between the 1830s and 1935 and that its location was redeveloped with a go-kart track before 1996. The second map-documented structure within the project site was a school house that stood along Morrow Street on the western side of the project site between the 1830s and 1887. A third house dating to the late-19th century—identified as the home of “Mrs. Z” on historic maps—was also located within the project site in an area that was determined to have been situated beneath 12 feet of fill material, however, this structure is west of the current project site. GCI identified these portions of the project site as archaeologically sensitive.

The 1996 GCI report was recently submitted to the New York City Landmarks Preservation Commission (LPC) for review. In a comment letter dated March 24, 2016, LPC recommended that a supplemental Phase 1A Archaeological Documentary Study be prepared to reevaluate the site’s archaeological sensitivity and any potential changes that may have occurred to the site over the last 20 years as well as to incorporate information that has been collected from nearby archaeological sites in recent years.

A. RESEARCH GOALS AND METHODOLOGY

The following Supplemental Phase 1A Archaeological Documentary Study of the project site has been designed to satisfy the requirements of LPC, issued in 2002; the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), issued in 2005, and the New York Archaeological Council (NYAC), which were issued in 1994 and adopted by OPRHP in 1995. This study documents the development history of the proposed project site as well as its potential to yield archaeological resources, including both precontact and historic cultural resources. In addition, this report documents the current conditions of the project site and previous cultural resource investigations that have taken place in the vicinity with emphasis on those that occurred following the completion of GCI's 1996 Phase 1A of the project site.

This Phase 1A Archaeological Documentary Study has four major goals: (1) to determine the likelihood that the project site was occupied during the precontact (i.e., Native American) and/or historic periods; (2) to determine the effect of subsequent development and landscape alteration on any potential archaeological resources that may have been located at the project site; (3) to make a determination of the project site's potential archaeological sensitivity; and (4) to make recommendations for further archaeological analysis, if necessary. The steps taken to fulfill these goals are explained in greater detail below.

The first goal of this documentary study is to determine the likelihood that the project site was inhabited during the precontact or historic periods and identify any activities that may have taken place on the project site that would have resulted in the deposition of archaeological resources. While this was addressed in GCI's 1996 Phase 1A, new data has been collected regarding archaeological sites in this region and additional disturbance may have occurred on the project site. In order to determine the likelihood of the project site's occupation during the precontact and historic periods, documentary research was completed to establish a chronology of the project site's development, landscape alteration, and to identify any individuals who may have owned the land or worked and/or resided there, and to determine whether buildings were present on the project site in the past. Data was gathered from various published and unpublished primary and secondary resources, such as historic maps, topographical analyses (both modern and historic), historic photographs, newspaper articles, local histories, and previously conducted archaeological surveys. These published and unpublished resources were consulted at various repositories, including the New York Public Library, the Library of Congress. File and report searches were conducted at the New York City Landmarks Preservation Commission (LPC), NYSHPO, and the New York State Museum (NYSM). Information on previously identified archaeological sites and previous cultural resources assessments was accessed through the New York State Cultural Resource Information System (CRIS).¹ Online textual archives, such as Google Books and the Internet Archive Open Access Texts, were also accessed.

¹ <https://cris.parks.ny.gov>

The second goal of this Phase 1A study is to determine the likelihood that archaeological resources could have survived intact on the project site after development and landscape alteration (i.e., erosion, grading, filling, etc.), particularly that over the last 20 years. Potential disturbance associated with paving, utility installation, and other previous construction impacts was also considered. Historic maps documenting structures on the project site were analyzed and historic and current topographical maps were compared to determine the extent to which the project locations have been disturbed. After identifying the likelihood that archaeological resources were deposited on the project site and the likelihood that they could remain intact given subsequent development, erosion, and landscape alteration, a sensitivity determination was made for the project locations for both precontact and historic period resources. As described by NYAC in their *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*:

An estimate of the archaeological sensitivity of a given area provides the archaeologist with a tool with which to design appropriate field procedures for the investigation of that area. These sensitivity projections are generally based upon the following factors: statements of locational preferences or tendencies for particular settlement systems, characteristics of the local environment which provide essential or desirable resources (e.g., proximity to perennial water sources, well-drained soils, floral and faunal resources, raw materials, and/or trade and transportation routes), the density of known archaeological and historical resources within the general area, and the extent of known disturbances which can potentially affect the integrity of sites and the recovery of material from them (NYAC 1994: 2).

The third goal of this study is to make a determination of the project site's archaeological sensitivity. As stipulated by the NYAC standards, sensitivity assessments should be categorized as low, moderate, or high to reflect "the likelihood that cultural resources are present within the project area" (NYAC 1994: 10). For the purposes of this study, those terms are defined as follows:

- **Low:** Areas of low sensitivity are those where the original topography would suggest that Native American sites would not be present (i.e., locations at great distances from fresh and salt water resources), locations where no historic activity occurred before the installation of municipal water and sewer networks, or those locations determined to be sufficiently disturbed so that archaeological resources are not likely to remain intact.
- **Moderate:** Areas with topographical features that would suggest Native American occupation, documented historic period activity, and with some disturbance, but not sufficient disturbance to eliminate the possibility that archaeological resources are intact on the project site.
- **High:** Areas with topographical features that would suggest Native American occupation, documented historic period activity, and minimal or no documented disturbance.

As previously mentioned, the last goal of this study was to make recommendations for additional archaeological investigations where necessary. According to NYAC standards, Phase 1B testing is generally warranted for areas determined to have moderate sensitivity or higher. Archaeological testing is designed to determine the presence or absence of archaeological resources that could be impacted by a proposed project. Should they exist on the project site, such archaeological resources could provide new insight into the precontact occupation of northwestern Staten Island, the transition from Native American to European settlement, or the historic period occupation of the project site.

B. RECENT ARCHAEOLOGICAL INVESTIGATIONS IN THE VICINITY

In addition to GCI's 1996 investigation of the project site, several archaeological investigations of various scale have taken place in the immediate vicinity of the project site in recent years. These investigations and their conclusions are summarized below. Additional investigations have been completed, but only those that have been located in very close proximity to the project site or that have contributed greatly to archaeologists' knowledge of northwestern Staten Island are summarized here.

2345 FOREST AVENUE PHASE 1A AND PHASE 1B INVESTIGATIONS

A Phase 1A Archaeological Documentary Study and a Phase 1B Archaeological Investigation were completed at 2345 Forest Avenue, immediately north of the project site across Forest Avenue, by Historical Perspectives, Inc., in 2015. The Phase 1A documented numerous precontact archaeological sites in the vicinity of the study area and also determined that the site had been developed and occupied before the 1830s. Wooded areas within the study area were determined to have archaeological sensitivity for archaeological resources dating to the precontact period. The areas surrounding 19th century map-documented structures were identified as sensitive for archaeological resources dating to the historic period. HPI completed a Phase 1B investigation of the site later in 2015 (HPI 2015) and testing did not identify intact archaeological sites dating to either the precontact or historic periods and no further work was recommended.

SPECTRA ENERGY PIPELINE PHASE 1 THROUGH PHASE 3 INVESTIGATIONS

Extensive archaeological investigations of the previously-documented Old Place archaeological site were completed by the Public Archaeology Laboratory (PAL) between 2011 and 2014 in association with the construction of a new natural gas pipeline through northwestern Staten Island to the west of the South Avenue Retail Development project site. PAL's initial work involved the completion of a Phase 1B survey which resulted in the discovery of the nearly 172,000-square-foot Old Place Neck archaeological site (OPRHP site number A08501.002971), which is associated with a site that was previously been described in the early 20th century and contained both precontact and historic period components (see **Chapter 3: Precontact Period**). A Phase 2 site evaluation of the site was subsequently completed and portions of the archaeological site were avoided through a redesign of the proposed project (ibid). The Phase 2 evaluation resulted in the recovery of Native American archaeological artifacts including lithic projectile points, stone tools, lithic debitage, and pottery. The site was determined to represent short and long-term occupation of the site between the Late Archaic through the Contact period, though there was some evidence that suggested that artifacts representing the Paleoindian period were also present (ibid). In addition, historic period glass, ceramics, and other artifacts were recovered and several features, including postmolds, were documented (PAL 2011).

The Phase 2 concluded that the site was eligible for listing on the State and National Registers of Historic Places (S/NR) and as such, a Phase 3 Data Recovery was later completed (PAL 2014). The Phase 3 included extensive data collection to both further document the archaeological site and to reconstruct its Paleoenvironment through geoaerchaeological and palynological analysis. The Phase 3 data recovery resulted in the recovery of nearly 24,000 artifacts (including precontact and historic elements). Precontact artifacts included a large amount of lithic debitage (including jasper, chert, quartzite, quartz, basalt, granite, imported argillite, and sandstone) that PAL determined represents a lithic workshop. A number of lithic projectile points, blades, bifacial tools, and other stone tools were also recovered, the majority of which were situated within and below the depth of the historic plow zone and while multiple precontact occupation periods were represented from Paleoindian to Woodland, there was no stratigraphic correlation between them (PAL 2014). Precontact ceramics, faunal remains, and fire-cracked rock were also recovered in large numbers. A number of features were identified, including hearths/cooking pits.

Historic period artifacts were identified that featured production dates between the 17th and 20th centuries.

GOETHALS BRIDGE REPLACEMENT PHASE 1 INVESTIGATION

In 2007, a joint venture of the Louis Berger Group and Parsons Brinckerhoff (LBG/PB) completed a Phase 1 archaeological investigation for a project involving the replacement of the Goethals Bridge, which extends between Elizabeth, NJ and northwestern Staten Island. Extensive documentary research suggested that areas within the Staten Island portion of the project site was sensitive for precontact archaeological resources, including those associated with the Old Place site, as well as sensitivity associated with the area's historic period occupations. More than 160 shovel test pits were excavated within the areas of archaeological sensitivity. While no intact archaeological resources were identified and no additional work was recommended, the final report issued by LBG/PB indicated that some precontact resources were encountered that may suggest the presence of precontact archeological sites in the vicinity but outside the area of potential effect for that project.

EASTBOUND I-278 IMPROVEMENTS

In 2015, New York State Museum Cultural Resource Survey Program completed a Phase 1A Archaeological Documentary Study for the proposed construction of an overpass over I-278 between South Avenue and Victory Boulevard, southeast of the South Avenue Retail project site. The study determined that the I-278 corridor was sufficiently disturbed that there was low sensitivity for the recovery of both intact precontact and historic period archaeological sites. A series of shovel test pits excavated along the I-278 corridor confirmed the lack of sensitivity, and no additional work was recommended.

A. CURRENT CONDITIONS

There is a large amount of mature forest on the project site and native vegetation on the northern and western portions of the site was disturbed as a result of 20th century development (see **Photographs 1** through **4**). While buildings were previously located on the site in the past, there are currently no standing structures on the parcel. As a result, these areas have become overgrown with invasive and non-native species. There is evidence that the vacant site has been used for illegal dumping over the years and the woods are filled with refuse including oil drums, cars, tires, and other garbage. Portions of the project site were formerly developed with residential streets and surface evidence of that development (e.g., fire hydrants) is visible within the now-overgrown area.

B. GEOLOGY AND TOPOGRAPHY

Staten Island's physical setting was shaped by massive glaciers of up to 1,000 feet thick that retreated from the area towards the end of the Pleistocene. There were four major glaciations that began approximately 17,000 years ago and lasted until roughly 12,000 years ago when the Wisconsin period—the last glacial period—came to an end (Reeds 1925). Staten Island is bisected by the Harbor Hill Moraine, a rocky ridge marking the southern limit of glacial movement in the region. The project site is situated within the Newark Lowland geographic province while the southeastern portion of Staten Island is within the Atlantic Coastal Plain geographic province (Isachsen, et al. 2000).

To identify changes in the site's topography, two sheets from the Richmond County Topographical Bureau's *Borough of Richmond Topographical Survey* were georeferenced to align with the modern street grid (see **Figure 4**). While the survey was completed between 1906 and 1913, the two plates that cover the project site were completed in 1909 and 1911. To compare the topography, the elevations on the historic map were compared to those from current elevation data, with necessary calculations made to correlate current and historic datum points. A datum is the point from which surface elevations are measured (where the elevation is considered to be 0). Elevations of the same ground surface taken relative to different datum points will therefore differ despite the fact that they refer to the same location. Therefore, understanding the datum from which an elevation was measured is critically important to an analysis of historic elevations and landscape change. The modern topographic data presented on **Figure 4** is measured relative to the North American Vertical Datum of 1988 (NAVD88), an approximation of mean sea level. The elevation information on the 1909-1911 topographical survey is relative to the Borough of Richmond datum, which is located 2.092 feet above NAVD88. Therefore, to convert Borough of Richmond datum elevations to NAVD88, 2.092 feet must be added to the elevation's height. For example, an elevation of 10 feet above the Borough of Richmond Datum is 12.092 feet above NAVD88. For the purposes of this assessment, all converted elevations have been rounded to the nearest whole number.

The comparison of current and modern topographic information therefore shows that the topography across the majority of the project site has not been significantly modified over the last century. Between 2 and 4 feet of fill appear to have been added along the western edge of the project site, adjacent to Morrow

Street and at the northern edge along Forest Avenue (formerly Washington Avenue). Additional fill, between 6 and 8 feet, also appears to have been added near the site’s northeast corner, southwest of the modern intersection of Wemple Street and South Avenue. The topography of the southern half of the project site, which features a downward slope toward the wetlands to the south, appears to be consistent with that seen during the early 20th century.

C. HYDROLOGY

The project site is situated approximately 5,200 feet (1 mile) south of the Newark Bay adjacent to the northern side of Staten Island and 7,500 feet (1.4 miles) east of the Arthur Kill, which runs along the western side of Staten Island. The site would have been submerged by the glacial Lake Bayonne until approximately 13,000 years ago, when the waters receded (PAL 2014). The wetlands formerly occupying northwestern Staten Island formed by approximately 4,400 years before present (ibid). Old Place Creek currently runs to the south of the project site, and wetland areas adjacent to the creek occupy the southern portion of the project site. A small body of water known as “Dead Man’s Pond” or “Snake Pond” was formerly located to the southwest of the project site. The pond was named after “a murdered peddler was thrown into it” and was rumored to have been haunted after neighborhood residents witnessed “a headless man...lingering near it; also an angel supported on a luminous cloud” (Davis 1896: 48). The pond was located to the east of “Spear’s” or “Spirit’s Point,” which was also alleged to have been haunted after “Mrs. Prior, wife of Andrew Prior, first miller of Old Place mill, committed suicide by jumping into the creek at this point” (ibid: 29).

D. SOILS

The “Web Soil Survey” maintained by the National Resource Conservation Service indicates that the project site is characterized up to seven soil complexes. The soil types across the project site are typical of generally flat areas with slopes of no more than 1 to 3 percent. Many of the soil categories are associated with poorly-drained tidal marshes such as those located near the southern side of the project site. These soil types are summarized in **Table 2-1**, below.

**Table 2-1
Project Area Soils**

Series Name	Soil Horizon Depth (in inches)	Texture, Inclusions	Slope (%)	Drainage	Landform
Boonton Loam (BmA)	Oe: 0 to 1	Moderately decomposed plant material	0 to 3	Moderately Well-Drained	Ground Moraines
	A: 1 to 3	Loam			
	BE: 3 to 26	Sandy loam			
	Btx: 26 to 67	Gravelly sandy loam			
Deerfield Sandy Loam (DfA)	BC: 67 to 73	Gravelly sandy loam	0 to 3	Moderately Well-Drained	Outwash plains and terraces
	Oe: 0 to 3	Moderately decomposed plant material			
	A: 3 to 5	Loam			
	Bw1: 5 to 19	Sandy loam			
Laguardia-Urban Land (LUA)	Bw2: 19 to 37	Gravelly sandy loam	0 to 3	Well-drained	Summit; shoulder; backslope; footslope; toeslope
	Cg: 37 to 60	Gravelly sandy loam			
	Au: 0 to 8	Cobbly-artifactual coarse sandy loam			
Preakness Mucky Silt Loam (PkA)	BCu: 8 to 26	Very cobbly-artifactual coarse sandy loam	0 to 3	Poorly-Drained	Depressions and
	Cu: 26 to 79	Very cobbly-artifactual coarse sandy loam			
Preakness Mucky Silt Loam (PkA)	Oi: 0 to 3	Slightly decomposed plant material	0 to 3	Poorly-Drained	Depressions and
	A1: 3 to 5	Mucky silt loam			

	A2: 5 to 15	Silt loam			drainageways
	Bg: 15 to 25	Sandy loam			
	Cg: 25 to 72	Loamy sand			
Urban Land, Tidal Marsh (UmA)	M1: 0 to 6	Cemented material	0 to 3	n/a	Summit
	M2: 6 to 20	Cemented material			
	2^C: 20 to 79	Very gravelly sand			
Urban Land, Outwash Substratum (UoA)	M1: 0 to 6	Cemented material	0 to 3	n/a	Summit
	M2: 6 to 20	Cemented material			
	2^C: 20 to 72	Gravelly sand			
Westbrook Mucky Peat (WbA)	Oe: 0 to 36	Mucky peat	0 to 1	Very Poorly-Drained	Tidal marshes
	2C1: 36 to 56	Fine sandy loam			
	2C2: 56 to 72	Loamy sand			
Sources: United States Department of Agriculture, Natural Resources Conservation Service web soil survey: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm .					

PAL's 2014 Phase 3 data recovery made the following observations regarding typical soil profiles in the area

Typically, profiles consisted of a surficial organic duff or Ao horizon underlain by a black (10YR 2/1) to very dark grayish-brown (10 YR 3/2) silty fine to medium sand developing A horizon above a very dark grayish-brown (10YR 3/2) to brown (10YR 4/3) plowzone (Apz) of silty medium sand. The developing A horizon consisted of an organics-rich horizon that developed within the uppermost centimeters of the Apz stratum since plowing has long-since ceased at the site. The Apz was underlain by intact soils typically consisting of a strong brown (7.5YR 5/6) silty medium sand B₁ horizon that overlay a B₂ horizon of strong brown (7.5YR 5/8) to yellowish-red (5YR 5/8) silty sand that was often slightly coarser than the overlying soils (PAL 2014: 66).

A. PRECONTACT CONTEXT

Archaeologists have divided the time between the arrival of the first humans in northeastern North America and the arrival of Europeans more than 10,000 years later into three periods: Paleo-Indian (11,000-10,000 BP), Archaic (10,000-2,700 BP), and Woodland (2,700 BP–AD 1500). These divisions are based on certain changes in environmental conditions, technological advancements, and cultural adaptations, which are observable in the archaeological record.

PALEO-INDIAN PERIOD

Human populations did not inhabit the Northeast until the glaciers retreated some 11,000 years ago. These new occupants included Native American populations referred to by archaeologists as Paleo-Indians, the forebears of the Delaware—also called the Lenape Indians—who would inhabit the land in later years. Archaeological evidence suggests that the Paleo-Indians were likely highly mobile hunters and gatherers who utilized a distinct style of lithic technology, typified by fluted points. They appear to have lived in small groups of fewer than 50 individuals (Dincauze 2000) and did not maintain permanent campsites. In addition, most of the Paleo-Indian sites that have been investigated were located near water sources. Because of the close proximity of Paleo-Indian sites to the coastline, few have been preserved in the New York City area. Of the few Paleo-Indian sites that have been discovered in New York City, nearly all have been found on Staten Island. One such site is that of Port Mobil in southwestern Staten Island. Like most precontact sites, this location is situated on high ground overlooking the water. Because of heavy disturbance in the area—it is currently an oil tank farm—the site has yielded nothing more than a collection of fluted points and other stone tools characteristic of the period (Ritchie 1980). Paleo-Indian artifacts were also found along the eroding shoreline 500 yards south of the Port Mobil site, closer to the Shoreline APE, and at the Cutting site in the Rossville section of Staten Island (*ibid*). Recent excavations at the Old Place site in northwestern Staten Island by the Public Archaeology Laboratory (PAL) have yielded new evidence regarding the site's occupation during the Paleo-Indian period through the Late Woodland, though the majority of the collected artifacts date to the Archaic (PAL 2014).

ARCHAIC PERIOD

The Archaic period has been sub-divided into three chronological segments, based on trends identified in the archaeological record which reflect not only the ecological transformations that occurred during this period, but the cultural changes as well. These have been termed the Early Archaic (10,000–8,000 BP), the Middle Archaic (8,000–6,000 BP), and the Late Archaic (6,000–2,700 BP) (Cantwell and Wall 2001). The Late Archaic is sometimes further divided to include the Terminal Archaic (3,000-2,700 BP). The abundance of food resources that arose during this period allowed the Archaic Native Americans to occupy individual sites on a permanent or semi-permanent basis, unlike their nomadic Paleo-Indian predecessors. Fishing technology was developed during the Middle Archaic in response to an increasing dependence on the area's marine resources. Tools continued to be crafted in part from foreign lithic materials, indicating that there was consistent trade among Native American groups from various regions in North America throughout the Archaic period.

Due to rising sea levels and to the rapid development of the area, as well as the dominance of coniferous forests at that time which generated a habitat ill-fit for human habitation (Boesch 1994), few Early Archaic sites have been identified in New York City. Most of those that have been identified are located on Staten Island, including Ward's Point—which is to the northwest of the Breakwaters APE—Richmond Hill, the H. F. Hollowell site, and the Old Place site. Sites such as Ward's Point—a domestic habitation location that due to lowered sea levels was originally inland—tend to be deep and stratified and have yielded stone tools related to cooking, woodworking, and hide processing. The many years of constant occupation caused the artifacts to be deeply buried under more recent debris deposits (Cantwell and Wall 2001). However, at the Old Place Site, the only artifacts that were discovered—stone tool assemblages—were found at relatively shallow depths of around 42 inches or 3.5 feet (Ritchie 1980).

There are also few Middle Archaic sites in the region. The majority of these tend to consist of large shell middens, which are often found near major watercourses such as the Hudson River, although stone points have also been found in such locations. These sites were in great danger of obliteration because of their proximity to the shrinking coastlines. Unlike the Early and Middle periods, many Late Archaic sites have been found throughout the New York City area including many in Staten Island. Late Archaic habitation sites are often found in areas of low elevation near watercourses and temporary hunting sites are often located near sandy areas (Boesch 1994). Late Archaic sites identified in Staten Island include the Pottery Farm, Bowman's Brook, Smoking Point, Goodrich, Sandy Brook, Wort Farm, and Arlington Avenue sites, among others (ibid).

Finally, many Terminal Archaic sites from all across the city have provided examples of what archaeologists call the Orient culture, which is characterized by long fishtail stone points and soapstone bowls. Extremely elaborate Orient burial sites have been found on eastern Long Island, but none have been identified on Staten Island. Orient-style fishtail points have been discovered along the shores of Charleston, and it is assumed that they fell from eroding cliffs located nearby (Boesch 1994).

WOODLAND PERIOD

The Woodland period represents a cultural revolution of sorts for the Northeast. During this time, Native Americans began to alter their way of life, focusing on a settled, agricultural lifestyle rather than one of nomadic hunting and gathering. Social rituals become visible in the archaeological record at this time. Composite tools, bows and arrows, domesticated dogs, and elaborately decorated pottery were introduced to Native American culture; and burial sites grew increasingly complex. Woodland-era sites across North America indicate that there was an overall shift toward full-time agriculture and permanently settled villages. Archaic sites in New York City, however, suggest that the Native Americans there continued to hunt and forage on a part-time basis. This was most likely due to the incredibly diverse environmental niches that could be found across the region throughout the Woodland period (Cantwell and Wall 2001; Grumet 1995).

The Woodland period ended with the arrival of the first Europeans in the early 1500s. One Woodland period archaeological site that has been identified on Staten Island is the Bowman's Brook site, located along the island's northwest coastline. That site yielded a type of incised pottery, which has since become known as the Bowman's Brook Phase. Sites with this particular type of pottery are most often located near tidal streams or coves and are usually associated with large shell middens and refuse pits, indicating long periods of occupation (Ritchie 1980). The Bowman's Brook site also contained several human and dog graves, as well as bundle burials (Cantwell and Wall 2001). The Ward's Point site was also occupied during the Woodland period, and many Native American artifacts and elaborate burials with varied grave offerings have been uncovered there (ibid). This site is discussed in greater detail below.

CONTACT PERIOD

The Woodland period ended with the arrival of the first Europeans in the early 1500s, and the beginning of the Contact Period. At that time, a division of the Munsee Indians known as the Raritan occupied southern Staten Island (Bolton 1975). They entered the area toward the end of the Woodland period (Boesch 1994). They referred to Staten Island as “Aquehonga Manacknong,” possibly meaning “haunted woods,” “bushnet fishing place,” or “the high bank fort place” (Grumet 1981: 2). The name may have also referred to the village settlement at Ward’s Point (ibid). In land transactions with the Europeans, the island was also referred to as “Matawucks” and “Eghquaous” (Boesch 1994).

In 1524, Giovanni de Verazzano became the first European to view what is now New York City. However, Henry Hudson’s expedition to New York in 1609 marked the true beginning of European occupation in the area, and subsequently marked the beginning of violent encounters with the Native Americans as well. Shortly after Hudson’s men explored Staten Island, a skirmish ensued with the local Indians, resulting in the death of one of Hudson’s crewmen (Historical Records Survey 1942: xii). Because of this incident, the Native Americans of Staten Island were extremely wary of Europeans. They even set up lookouts on tall hills in an effort to spot approaching ships so as to prevent such vessels from landing (ibid). Although the land had been “sold” to the Europeans in 1630 (Grumet 1981), it was not until 1638 that a successful European colony, that of Olde Dorpe, in northeastern Staten Island, could be established on the island. Violence between the Native Americans and the Europeans would cause this village to be burned down and rebuilt several times throughout the contact period.

With the introduction of European culture into the indigenous society, the way of life once maintained by the Native Americans was thoroughly and rapidly altered. European guns, cloth, kettles, glass beads, and alcohol soon became incorporated into the Native American economy. The Native Americans began to suffer from the side effects of European colonialization: disease, alcoholism, and warfare. As land in other parts of New York City was sold off to the Europeans, many displaced Native Americans relocated to Staten Island to the point where “the Raritan consisted of a heterogeneous assortment” of Native Americans from all over the New York metropolitan area (Grumet 1981: 45).

Native Americans at first maintained the village sites they had established near water sources. As their trade with European settlers intensified, they became increasingly sedentary. However, as the European population grew and required more land, the relationship between the two groups suffered. Fierce wars broke out between the Dutch and the Indians. This was most intense during the early 1640s when Dutch Director-General William Kieft ordered many ferocious and unprovoked attacks on the Native population. While the Kieft war ended with a treaty signed in 1645, the Raritan did not agree to peace until 1649 (Grumet 1981).

The warfare abated somewhat when Kieft was replaced by Peter Stuyvesant, who brought some stability to the area. However, the “Peach War” of 1655 caused more inter-cultural violence on Staten Island. After that war ended, the land was re-sold to the Dutch in 1657. The Native Americans were no match for the growing numbers of armed European settlers, and the natives agreed to sell what was left of their land on Staten Island in 1670, although some Native American villages remained until the early 20th century (Grumet 1981). In the land transaction recorded in 1670, the Native Americans sold all of their holdings on Staten Island in exchange for “four hundred fathom of wampum, thirty match coats, eight coats of dozens made up, thirty shirts, thirty kettles, twenty gunnes, a ffirkin of powder, sixty barres of lead, thirty axes, thirty howes, [and] fifty knives” (Bolton 1975: 73). There are several Contact period archaeological sites that have been identified in New York City, including the aforementioned Ward’s Point site (Grumet 1995).

B. PRECONTACT SITES IN THE VICINITY

The project site is included within an area of generalized archaeological sensitivity as mapped by OPRHP's Cultural Resources Information System (CRIS).¹ Furthermore, the coastal areas of Staten Island in the vicinity of the APE is identified as having potentially high archaeological sensitivity in LPC's predictive model for Native American archaeological sites in Staten Island (Boesch 1994). A search of OPRHP and NYSM site files indicates that more than 25 precontact archaeological sites have been identified within or in the immediate vicinity of the project site (see **Table 3-1**). The sites represent a variety of occupation site types, including campsites, villages, and shell middens. Several of these sites were discovered in the early 20th century by avocational archaeologists and were reported by authors such as Arthur C. Parker (1922), Alanson Skinner (1909), and Reginald P. Bolton (1922, 1934, 1975). Unfortunately, few of these sites are well documented and little is known about the precontact sites' exact locations, extent, or artifact collections. However, others, such as the Old Place site, have been extensively documented over time.

Table 3-1
Previously Identified Precontact Archaeological Sites within 1 Mile of the Project Site

Site Name/Number	Distance to Project Site	Time Period	Site Type	Source
Arlington Avenue/Arlington Station/Arlington Place NYSM 728, 729, 730, 731, 4593; SHPO 08501.000137; 08501.000138, and 08501.000139; Boesch 25, 33, 34; Bolton 74	2,275 feet to 4,000 feet	Late Archaic to Late Woodland	Village with shell middens and traces of occupation or campsites	Parker 1922; Skinner 1903 and 1909; Bolton 1920
Howland Hook/Bowman's Brook Site/Newtown's Creek NYSM 4594 and 7321; Boesch 35 and H; Bolton 73	3,200 feet	Precontact	Village site with cemetery	Parker 1922; Skinner 1909
Bowman's Brook North/Locus 1 SHPO 08501.002364; Boesch 26	5,200 feet	Late Archaic to Late Woodland	Lithic points	Skinner 1909
NYSM 4595	3,300 feet	Precontact and Historic	Village with shell middens and burials	Parker 1922; Skinner 1909
Bloomfield/Beulah Point/Watchogue NYSM 4596; Boesch A; Bolton 76	3,500 feet	Late archaic to Late Woodland, possibly Historic	Camps with traces of occupation	Parker 1922
NYSM 4630	2,500 feet	Precontact	Campsite	Parker 1922; Skinner 1909
Weir/Don NYSM 6496	2,300 feet	Possibly Late Woodland	Lithic points and hearths	
Old Place NYSM 7215, SHPO 08501.002366; and 08501.002971; Boesch 23; Bolton 75	3,800 to 4,500 feet	Paleoindian to Contact	Camps with lithic points and pottery	
NYSM 7216	100 feet	Precontact	Traces of Occupation	Parker 1922
Goodrich Site NYSM 732; Boesch 24	800 feet	Early to Late Archaic	Unknown	
NYSM 7811	2,500 feet	Precontact	Camp	Parker 1922
NYSM 8503	4,900 feet	Precontact	Camp	
NYSM 8504	3,500 feet	Precontact	Traces of Occupation	
NYSM 8505	3,000 feet	Precontact	Traces of Occupation	
NYSM 8506	4,500 feet	Precontact	Camp	
NYSM 8507	3,300 feet	Precontact	Camp	

Source: New York State Cultural Resource Information System (<https://cris.parks.ny.gov>); Boesch 1994.

¹ Accessible through: <http://pwa.parks.ny.gov/nr/>

As seen in Table 3-1, many of these sites are poorly documented. However, several are large sites with multiple components that have been excavated by archaeologists over the last century. These large, well-documented sites include Old Place, Howland Hook, Bowman’s Brook, and several sites in the vicinity of Arlington Avenue. These sites were previously summarized in the 1996 Phase 1A of the project site that was prepared by GCI. Skinner (1909) identified several sites in the immediate vicinity of the project site, including Arlington Station/Arlington Avenue , Gertie’s Knoll, Old Place, and Bowman’s Brook. Extensive shell heaps in the region were also documented by M.R. Harrington (1909). Since the preparation of GCI’s 1996 report, extensive archaeological investigations were carried out at the Old Place site to the west of the project site.

The Old Place site is one of the largest archaeological sites in the region and it has been archaeologically investigated numerous times since the early 20th century, however, it was only recently that the boundaries of the site were formally identified and documented via modern archaeological means (LBG/PB 2007; PAL 2011; PAL 2014). The earliest investigations were completed by Alanson B. Skinner, and the site was described as being located “on a sandy promontory known as Tunissens Neck, a large village of ancient character” (Bolton 1922:192) that “yielded pottery, bone, and stone objects” associated with the residential occupation of the area (Bolton 1922: 232). Skinner (1909) documented “shell pits and fire places, unusually far apart” along Old Place Neck and suggested that the site was occupied during the contact or early historic period. Skinner also reported excavating the graves of European settlers at the site. Subsequent archaeological investigations were completed in the mid-1960s by NAME Anderson that resulted in the documentation of the site’s “prehistoric occupation from the Early Archaic through Late Woodland, including substantial Late Archaic, Transitional, and Early Woodland components” (LBG/PB 2007: 13). The narrow neck of land was likely occupied repeatedly over the course of thousands of years as a result of the varied resources offered by the former marshes that surrounded the site (ibid). The marshes were likely formed within the last 5,000 as a result of sea level rise that occurred, inundating former waterfront areas and resulting in the formation of many of the wetlands that formerly lined New York City’s waterways (Geoarcheology Research Associates 2014). As such, the earlier episodes of occupation of the Old Place site may have been associated with different environmental conditions.

As described above, since that document was produced, extensive archaeological excavations were conducted at the Old Place site and PAL completed Phase 1B and Phase 2 surveys of the site as well as a Phase 3 Data Recovery, as described in **Chapter 2: Methodology and Recent Archaeological Investigations**. PAL’s work resulted in the identification of a lithic workshop where thousands of artifacts were recovered, including projectile points, blades, bifaces, and lithic debitage in addition to ceramics, fire-cracked rock, and faunal remains. The site dated to between the Paleoindian and Woodland periods, therefore representing long-term occupation and reoccupation of a single area.

Chapter 5: Historic Period Development and Occupation of the Project Site

A. INTRODUCTION

The early development history is extensively documented in the 1996 Phase 1A study prepared by GCI and will be briefly summarized here, with greater focus on map-documented structures within the project site and a summary of disturbance-related development not discussed in the 1996 document. The following discussion refers to modern street names, which differ from names as identified on historic maps. Forest Avenue was historically known as either Old Place Road, Plank Road, or Washington Avenue. The portion of Morrow Street lining the western side of the project site was also historically included within Washington Avenue. South Avenue has been referred to as Thompson Avenue in some documents (Davis 1896). Dwarf Street was historically called Franklin Avenue or Sparta Avenue and the line of Lilac Court was previously known as Lincoln Avenue.

B. HISTORICAL CONTEXT FOR STATEN ISLAND

As discussed in **Chapter 4, “Precontact Period,”** wars between European settlers and Native Americans prevented the formation of a successful European settlement on Staten Island until the late 1630s. Even afterwards, peaceful relations between the two groups were not established until after the British had seized the colony in 1664. The exodus of the bulk of the Native American population beginning in 1670 made it easier for Staten Island to become a thriving part of the New York economy (Leng and Davis 1930). Local lore claims that the island was won for New York by Captain Christopher Billop in a sailboat race with a representative from New Jersey, but this is most likely false (Botkin 1956).

Under British rule, Staten Island’s open farmland and vast coastline became essential for the production of agricultural products and collection of marine resources for export to the urban regions of the city, which were at the time largely confined to Manhattan. However, the majority of settlement and development in Staten Island occurred along the northern and eastern coasts. Staten Island’s progress was both halted and facilitated in the mid-18th century during the French and Indian War, which concluded in 1763. Although the region experienced the economic side effects of being at war, thousands of British armed forces were stationed throughout the New York City area, bringing money to the region while at the same time increasing its population. During this time, New Yorkers were not completely loyal to the English crown, and goods were secretly (and illegally) traded to French colonies via Staten Island’s more secluded ports (Burrows and Wallace 1999).

New York remained loyal to the British during the Revolutionary War, which began in 1776 and continued until 1783. Staten Island proved to be a key asset during that war. The area was the scene of some fighting on July 25 of that year, when cannon fire was exchanged between American soldiers on Ward’s Point and British troops across the water in Perth Amboy, New Jersey, resulting in one causality (Shepherd 2008). Following the Battle of Brooklyn in August 1776, American troops retreated from New York City and the surrounding region and Staten Island was occupied by the British for the duration of the war.

Despite New York City's loyalty to the British during the war, after the American victory, the transition to the new American democratic government was relatively smooth. Land that had been previously owned by British loyalists was divided and sold, which brought about a surge in population and development in the outer boroughs (Shepherd 2008). In 1788, Staten Island was officially divided into four townships, Castleton, Northfield, Southfield, and Westfield, with the project site being included within Northfield section (Leng and Davis 1930). Between 1840 and 1880, the population of Staten Island nearly quadrupled. This surge was caused in part by the increasing population density in Manhattan, which drove many people to the outer boroughs. The region's prosperity caused the counties in the New York City region to become increasingly codependent, both economically and culturally. It was therefore suggested that the counties around New York Harbor be consolidated under the name New York City. Although there was some resistance from some Staten Island residents, it officially became a borough of New York City on New Year's Day, 1898 (Burrows and Wallace 1999). As part of the city proper, Staten Island flourished throughout the 20th century. Increased mass transit connected all the boroughs and allowed more people to live outside of Manhattan while still having access to the city's varied resources. The remainder of the 20th century saw continued growth and increasing population density throughout Staten Island and a transition from resort community to a densely populated residential area.

C. DEVELOPMENT HISTORY OF THE PROJECT SITE AND MAP-DOCUMENTED STRUCTURES

One of the first individuals to be granted land in the area was John Tunison or Tunissen. A former narrow peninsula that stretched westward through dense marshland was known as "Tunissen's Neck" and Old Place Creek was formerly known as Tunissen's Creek (GCI 1996). This neck would later become known as Old Place (Davis 1896). Skene's 1907 map of Dutch land grants on Staten Island (reproduced in GCI 1996) indicates that the western half of the project site was granted to Tunissen and the eastern half was included within a large plot of land granted (but not formally patented) to Ananias Turner. As described by GCI (1996), no maps published in the 18th century appear to depict structures within the project site, though the surrounding area were developed with homes.

Some of the first maps to depict the general locations of buildings in Staten Island were coastal surveys prepared by Charles Renard in 1835-1836 and by F.R. Hassler in 1844-1845. At the time, Forest Avenue—historically known as Washington Avenue or Old Place Lane—extended west as far as Morrow Street, turned south along the line of Morrow Street (the western side of the project site), and continued west in the vicinity of the westward branch of Morrow Street. The maps depict two structures within the project site: one within a larger farm parcel south of Forest Avenue and east of the stretch of Morrow Street that runs north-south along the western end of the project site. The second building is depicted at the southwest corner of the project site, near the intersection of the two branches of Morrow Street. The 1835-1836 map includes a large black mark in the center of the project site, though it is unclear if this is depicting a structure. Several other buildings are depicted in the vicinity, and the neighborhood surrounding the project site was historically known as "Summerville" (Davis 1896). Sidney's 1849 map of New York City identifies the northern building on the project site as the home of "J. Dehart" and the southern building as a school house. This school was known as District School No. 7 (GCI 1996). Two additional structures are depicted along Forest Avenue west of South Avenue, but the maps' inaccuracy makes it difficult to determine if they were situated within the project site.

Butler's 1853 map also identifies the southern building as a school house and while that map does not identify the owner of the northern building, additional properties owned by "A. Dehart" are labeled, so the building likely remained in the Dehart family at this time. A coastal survey issued in 1857 by H.L. Whiting and E.D. Dorr (with some updates to wharf lines made in 1875) appears to depict a structure in the center of the J. Decker property south of the line of what is now Northfield Avenue. This building is

not shown on any other contemporary maps. Walling's 1859 and 1860 maps and Colton's 1866 map of Staten Island identify the owner of the schoolhouse as "J. Dawson" and the former Dehart home is identified as belonging to H.W.H. Haughwout. Two additional homes are depicted along the southern side of Forest Avenue to the east of a precursor to Northfield Avenue, owned by J.M. Decker and J.K. Zeluff, though it is unclear if these homes were within the project site. Dripps' 1872 map of Staten Island is similarly ambiguous, but identifies the former school house as the Bowman property and identifies the Decker house as west of the foot of Northfield Avenue, suggesting that it may have been within the project site.

The 1874 Beers atlas of Staten Island is the first to depict building footprints and property boundaries in a clear manner (see **Figure 5**). That map depicts two structures and four historic properties within the project site. At the southwest corner of what is now Morrow Street and Forest Avenue was an undeveloped 3-acre parcel owned by J. Decker. Immediately to the east of that, along the south side of Forest Avenue, was a half-acre parcel owned by J. Haughwout that contained a house adjacent to the street. The Haughwout parcel was surrounded to the east and south by a large, 14-acre undeveloped parcel owned by the heirs of J. Decker. To the east of that was the 6-acre Zeluff property, which was developed with a single structure along the southern side of Forest Avenue, outside the project site. The remaining southern portion of the project site, including the marshes and eastern portion of Old Place Creek, was included within the 30-acre property of G. Bowman, which contained two structures, one in the location of the former school house and one further southwest, outside of the project site. The houses were divided by a winding dirt road that extended east through the project site from Morrow Street. Beers' 1887 atlas of Staten Island depicts the project site in a similar manner, with the former Bowman property now occupied by the Baltimore & Ohio Railroad, Co. and the Zuleff property now owned by A. Decker.

Robinson's 1898 atlas of Staten Island indicates that by that time, the project site had been divided into blocks and lots for potential development, with a number of proposed streets depicted running north-south through the project site, including Franklin Avenue and Lincoln Avenue, which were located in the approximate vicinity of modern Dwarf Street and Lilac Court. The southern portion of the site continued to be a wetland area and was owned at that time by the NY Transit & Terminal Company. The building formerly located in the southwestern corner of the project site had been demolished by that time. The map continues to depict the Haughwout home on a small estate that was excluded from the subdivision that occurred across the remainder of the project site. Similarly, the former Decker property along the eastern side of the project site remained intact, though the only structure depicted on this property was outside the boundaries of the project site along Forest Avenue.

The 1907 Robinson atlas depicts a similar network of proposed streets running through the project site and block and lot subdivisions, the majority of which were undeveloped. The southern portion of the project site was entirely undeveloped, with the majority owned by the New York Transit & Terminal Co., Limited. The former Decker property, now developed only with a barn situated within the project site, had been divided into smaller, undeveloped lots, including parcels south of Forest Avenue owned by David E. Decker and the Staten Island Real Estate Company and smaller lots to the south, near the wetland areas adjacent to South Avenue owned by O.H. Olsen, E.T. James, Julia Knapp, and Edward Geis. The former Jacob Decker property was developed only with Public School No. 24, which was located just outside the project site. Within the project site, near the southwest corner of the intersection of Forest Avenue and Dwarf Street, three houses were developed on three separate lots. One, along Forest Avenue, was owned by Ellen Parker, and the other two, at the corner of Forest Avenue and Dwarf Street and along Dwarf Street to the south, were owned by J.J. Decker. The Haughwout home, now owned by William Haughwout, continues to be depicted.

The 1909-1911 topographical survey of Staten Island provides the greatest amount of detail regarding the project site's development (see **Figure 4**). The map indicates that much of the project site at that time was

undeveloped woodland and areas with brush vegetation. The former Haughwout home is depicted along the southern side of Forest Avenue and is shown to have had a small outbuilding to its rear and a second outbuilding on the property further to the south. A larger home is depicted on an elevated knoll to the southeast of the Haughwout house on the former Decker property with several outbuildings depicted to the east. This home was to the north of a network of dirt pathways that crossed the project site leading to both Morrow Street and Dwarf Street. Four houses with several associated outbuildings are depicted at the southwest corner of Forest Avenue and Dwarf Street. Two homes are also depicted along the line of Lilac Court near the central portion of the project site. To the northwest was a barn on the former Zeluff property, the southern end of which appears to have been lined with a stone wall.

The 1917 Bromley atlas (see **Figure 6**) depicts additional development on the project site. The map continues to show the Haughwout home along the southern side of Forest Avenue. Two additional structures had been built on the southern side of Forest Avenue to the west of the three homes located at the southwest corner of Forest Avenue and Dwarf Street. A street identified as Garfield Avenue extended parallel to Dwarf Street (then Franklin Avenue) and a 2.5-story dwelling had been constructed on the eastern side of that street. Two additional homes were constructed on the eastern side of Lincoln Avenue in the center of the project site. The former Decker property at the eastern edge of the project site was developed with a home and a barn, located near the northern edge of the project site boundary. A Sanborn map also published in 1917 depicts the project site in the same manner, though it depicts two small wood frame outbuildings to the rear (south) of the Haughwout House. These maps also depict water lines within the streetbeds adjacent to the project site, suggesting that by the time large-scale residential development occurred, municipal utility lines were in place.

An aerial photograph taken in 1924⁴ depicts further residential development, mostly along Lilac Court (then Lincoln Avenue), however, it also shows that the streets running through the project site as depicted on historic maps were not as fully developed as the maps would suggest. A Sanborn map published in 1937 depicts the construction of seven homes, most of which had detached garages, along the eastern side of Lilac Court. Two homes were constructed along the eastern side of Dwarf Street, by that time renamed Sparta Place. Several of the structures at the southwestern corner of Forest Avenue and Dwarf Street had been demolished, likely after the widening of Forest Avenue, and new ones were constructed further to the south, closer to the line of Wemple Street, which was formerly mapped in the vicinity of the project site. The buildings on the former Decker estate at the eastern edge of the property had been demolished and two new dwellings and two outbuildings were constructed along South Avenue just north of the line of Old Place Creek, portions of which appear to have been filled in as depicted on the map. The 1937 Sanborn map also reflects the demolition of the former Haughwout estate, which by that time was consolidated into what is now Lot 5, west of the line of Garfield Avenue.

Sanborn maps published in 1950 and 1962 reflect the gradual demolition of the houses on the project site and by 1977, only three structures still stood south of Wemple Street, two of which were demolished by 1981. The remaining structure, a house located at 39 Dwarf Street, continues to be depicted on Sanborn maps until at least 2007, but is not visible in aerial photographs dating to the same time. Aerial photographs taken in 1966⁵ through 1996⁴ shows a go-kart racing track in the northwestern portion of the project site, in the vicinity of the former Haughwout home. The track appears in ruins in a photograph taken ten years later.⁴

⁴ Accessible through: <http://maps.nyc.gov/doitt/nycitymap/>.

⁵ Accessible through: <http://www.historicaerials.com/>.

D. OCCUPANTS OF THE PROJECT SITE

Attempts were made to identify the residents of the four properties known to have been developed in the 19th century, as summarized below. These properties include the former Schoolhouse/Dawson/Bowman property near the southwest corner of the project site; the former Haughwout property along Forest Avenue, the large estate of J. Decker in the center of the project site, and the former Zeluff estate at the eastern edge of the project site. Transcriptions of census data are included in **Appendix A**. The individuals who resided on the project site were members of families who owned numerous parcels of land in this part of Staten Island. Similarly, maps do not identify street addresses for the buildings included within the project site until the 20th century. GCI (1996) included a search of historic directories dating to the 1880s, and no residents of the project site were located.

SCHOOLHOUSE/BOWMAN PROPERTY

The building formerly located at the southwest corner of the project site is identified as a schoolhouse on historic maps published before 1859, when the building was identified as the property of J. Dawson. No individuals by that name were recorded as residents of the Northfield neighborhood of Staten Island in the 1860 census. By 1874, the 30-acre property was owned by G. Bowman. This may be George Bowman, a wealthy lawyer and landowner who owned extensive property throughout northwestern Staten Island, including in the vicinity of Bowman's Brook, where Native American archaeological sites have been documented (Leng and Davis 1930). A lawyer named George Bowman was recorded as a resident of Northfield in the 1870 census and his real estate holdings are valued at \$150,000. Given his extensive landholdings, it is unclear if Bowman resided on or near the project site at any point. The building was demolished after 1874 and by 1887, the land was included within a commercial property.

DEHART/HAUGHWOUT PROPERTY

Members of the DeHart family resided in Staten Island since at least the 18th century and maps suggest that several members of the family lived in the immediate vicinity of the project site (Leng and Davis 1930). The 1917 Sanborn map identifies this home as 634 Forest Avenue, though no earlier maps assign a specific street number to the home and census ledgers from the years the house stood do not contain street numbers. The 1850 census recorded a man named John DeHart as a resident of the Northfield neighborhood of Staten Island. Since this listing was in close proximity on the census ledger to other individuals named on historic maps in the vicinity of the project site, he may have been the resident of the J. DeHart home shown on the 1849 Sidney map. John DeHart, a boatman, lived with his wife, Ann, and their two children.

Maps suggest that the property was transferred to the J.W.H. Haughwout before 1859 and that it was owned by members of that family through at least 1917, after which it was demolished. The Haughwout (also spelled Haughwout) family was one of Staten Island's oldest, descending from Pieter Pieterse Haughwout, who moved to Staten Island in 1678 (Haughwout 1902). Census records appear to suggest that the individual who lived on the project site went by John, John W., or William H. Haughwout. A resident of Northfield, Staten Island named John Haughwout was recorded in the 1860 census. Haughwout, whose occupation is listed as "boss carpenter," lived with his wife, Mary, their four children, and a child named Samuel Zeluff (the Zeluff family owned property to the east). Haughwout was listed as having a personal estate worth \$250 and real estate holdings valued at \$1,500. The family was also recorded in the 1870 census, where John W. Haughwout's real estate value was listed as \$3,100. The 1880 census identified the family of William H. Haughwout, listed as a house carpenter, on Washington Avenue (now Forest Avenue). Also living in the household was William M. Haughwout, a boat builder, who maintained a business in the late 19th century (Leng and Davis 1930). A boatbuilder named Moses Haughwout was listed as a resident of Washington Avenue in an 1896 directory (GCI 1996). William M.

Haughwout appears to have inherited the home and may be recorded as a resident of Washington Avenue in the 1900 census, though the original census ledger is partially illegible.

J. DECKER PROPERTY

Like the Haughwout family, the Decker family is descended from one of Staten Island's earliest Dutch settlers, Johannes de Decker who emigrated in the 1650s (Morris 1900). Many members of the Decker family resided in the immediate vicinity of the project site, including many homes along Forest Avenue. It is therefore difficult to identify the correct individuals that resided on the project site in historic documents. The 1850 census records a boatman named John Decker in close proximity to John DeHart, who may have resided to the west. John Decker resided with his wife, Elizabeth, and son, Abraham, who was also employed as a boatman. The census listing suggests that several other families resided on the Decker property. However, so many members of the Decker family resided in the immediate vicinity, that it was difficult to identify which members of the family resided on the project site on the 1860 census. By 1874, the property was undeveloped.

ZELUFF/A. DECKER PROPERTY

Though maps do not indicate that the home associated with this property was located within the boundaries of the project site, the undeveloped southern portion of the 6-acre Zeluff estate was included within the eastern portion of the project site. Historic maps identify J. Zeluff or J.K. Zeluff as the owner of the property between 1859 and 1874. John K. Zeluff, a boatman, was recorded as a resident of Northfield in the 1850 federal census. Zeluff's real estate holdings were valued at \$1,000 that year. He lived with his wife, Mary, and their five children. The census also indicates that they resided in the same household as Benjamin Crocheron and his wife, Sarah Ann, who maps show owned the house across the street. The two families are also listed together in the 1860 census, which identifies Crocheron as a laborer with \$2,000 in real estate and John K. Zeluff as a farm laborer with \$3,000 in real estate holdings. The census also identifies 6-year-old Samule (sic) Zeluff as a resident of the nearby Haughwout home, so it is possible that there are errors in the census ledgers. The 1870 census again identifies John K. Zeluff as a farm laborer and identifies his wife as Anna H. Zeluff, indicating that he remarried after 1860. By 1887, the home was the property of A. Decker, however, as with the Decker property to the west, the name was sufficiently common that it was difficult to identify the residents of this property in census records. Members of the Zeluff family continued to be listed as residents of Washington Avenue in directories published in 1893, however, maps do not suggest that they lived on the project site (GCI 1996).

A. CONCLUSIONS

As part of the background research for this supplemental Phase 1A Archaeological Documentary Study, various primary and secondary resources were analyzed, including historic maps and atlases, historic photographs and lithographs, newspaper articles, and local histories. The information provided by these sources was analyzed to reach the following conclusions.

DISTURBANCE ASSESSMENT

As described in **Chapter 3: Environmental and Physical Settings**, the topography of the project site has remained largely consistent over the last century. Extensive disturbance occurred as a result of residential development in isolated areas throughout the site, in particular at the southwest corner of Forest Avenue and Dwarf Street and along the eastern side of Lilac Court. Additional disturbance occurred in the northwest corner of the project site, where a race track was constructed, however, that area appears to have been built up to some extent, and the construction of the race track may not have resulted in the obliteration of archaeological resources. Similarly, some fill appears to have been added along the eastern portion of the project site.

PRECONTACT SENSITIVITY ASSESSMENT

The precontact sensitivity of project sites in New York City is generally evaluated by a site's proximity to level slopes, water courses, well-drained soils, and previously identified precontact archaeological sites. The project site is situated near tidal marshland and high ground, and would therefore have been an ideal site for camping or hunting and gathering, or permanent occupation. Native American archaeological sites have been found in the vicinity of the same creek, most notably the Old Place site located to the west of the project site. Portions of the project site were disturbed as a result of historic and modern development, however, the topography of the southern two-thirds of the site does not appear to have been significantly modified since the early 20th century and the original ground surface may be intact in those locations. In 1996, GCI identified the portion of the project site to the south of Morrow Street as potentially sensitive, however, the topographic reconstruction completed as part of this supplemental study suggests that certain areas to the north may also retain sensitivity. Therefore, undisturbed portions of the project site are determined to have moderate sensitivity for archaeological resources dating to the precontact period. This includes portions of both the project site and the development site, as depicted on **Figure 7**.

HISTORIC SENSITIVITY ASSESSMENT

Four historic properties were identified that were developed with structures in the 19th century, before municipal water networks were available. These include the location of a former schoolhouse, the former Haughwout home, both of which were identified as archaeologically sensitive in the 1996 GCI Phase 1A of the project site. This supplemental study has also resulted in the determination that the southern portions of the Decker and Zeluff estates, which may have contained outbuildings associated with the

residential structures located outside of the project site to the north, may also retain archaeological sensitivity. Because these properties were inhabited prior to the installation of utilities in the adjacent streets, the residents of these buildings would have relied on shaft features (e.g., privies, cisterns, and wells) for the purposes of water gathering and sanitation. Shaft features are often deeply buried and are therefore more resistant to later periods of disturbance. The locations surrounding the historic properties are therefore determined to have moderate sensitivity for archaeological resources dating to the historic period. These locations are identified on **Figure 7**.

B. RECOMMENDATIONS

The project site is determined to have moderate sensitivity for archaeological resources dating to both the precontact and historic periods. A Phase 1B Archaeological Investigation is recommended to confirm the presence or absence of archaeological resources within the project site. Prior to the Phase 1B, investigation, an archaeological testing protocol must be prepared to outline the scope of work for the proposed investigation. The protocol would then be submitted to LPC and OPRHP for review and comment.

References

- Beers, F.W.
1874 *Atlas of Staten Island, Richmond County, New York*. New York: J.B. Beers & Co.
- Beers, J.B.
1887 *Atlas of Staten Island, Richmond County*. New York: J.B. Beers & Co.
- Boesch, Eugene
1994 *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York*. For: The New York City Landmarks Preservation Commission.
- Bolton, Reginald Pelham
1922 "Indian Paths in the Great Metropolis." In *Indian Notes and Monographs*. Miscellaneous #22. New York: Museum of the American Indian, Heye foundation.
1934 *Indian life of long ago in the city of New York*. New York: J. Graham.
1975 *New York City in Indian Possession*. Museum of the American Indian, Heye Foundation, New York.
- Borough of Richmond Topographical Survey*
1909-11 On file at the Richmond County Topographical Bureau.
- Botkin, H.A.
1956 *New York City Folklore*. New York: Random House.
- Burrows, Edwin G. and Mike Wallace
1999 *Gotham*. New York: Oxford University Press.
- Bromley, G.W. and W. S.
1917 *Atlas of the City of New York, Borough of Richmond*. Philadelphia, PA: G.W. Bromley & Co.
- Butler, James, CE and Surveyor
1853 *Map of Staten Island or Richmond County, New York*. Published by the surveyor.
- Cantwell, Anne-Marie and Diana diZerega Wall
2001 *Unearthing Gotham: The Archaeology of New York City*. New Haven: Yale University Press.
- Carlin, Simpson, & Associates
2011 Report on Phase I Environmental Site Assessment; Proposed Retail Development Block 1707, Lots 1 and 5, Forest Avenue & South Avenue, Staten Island, New York (10-91). Prepared for: The Real Estate Equity Company, LLC.
- Colton, GW and CB
1866 *Map of Staten Island, Richmond County, State of New York*. New York: GW and CB Colton.
- Cultural Resource Survey Program
2015 "Cultural Resource Reconnaissance Survey Report: PIN X096.26, Eastbound I-278 Staten Island South Avenue to Victory Boulevard Overpass, Town of Northfield (MCD #08501), Richmond County, New York." Prepared for: the New York State Department of Transportation and the Federal Highway Administration.

South Avenue Retail Development Project—Supplemental Phase 1A Archaeological Documentary Study

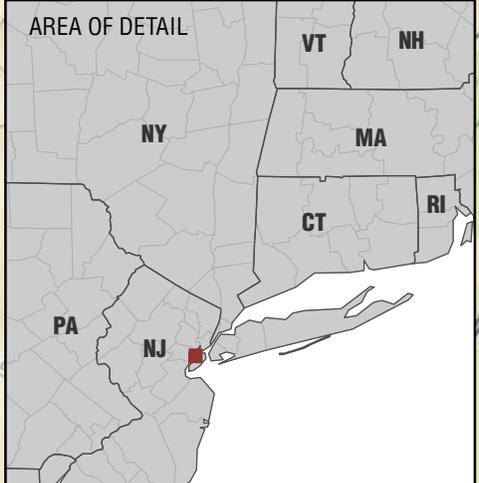
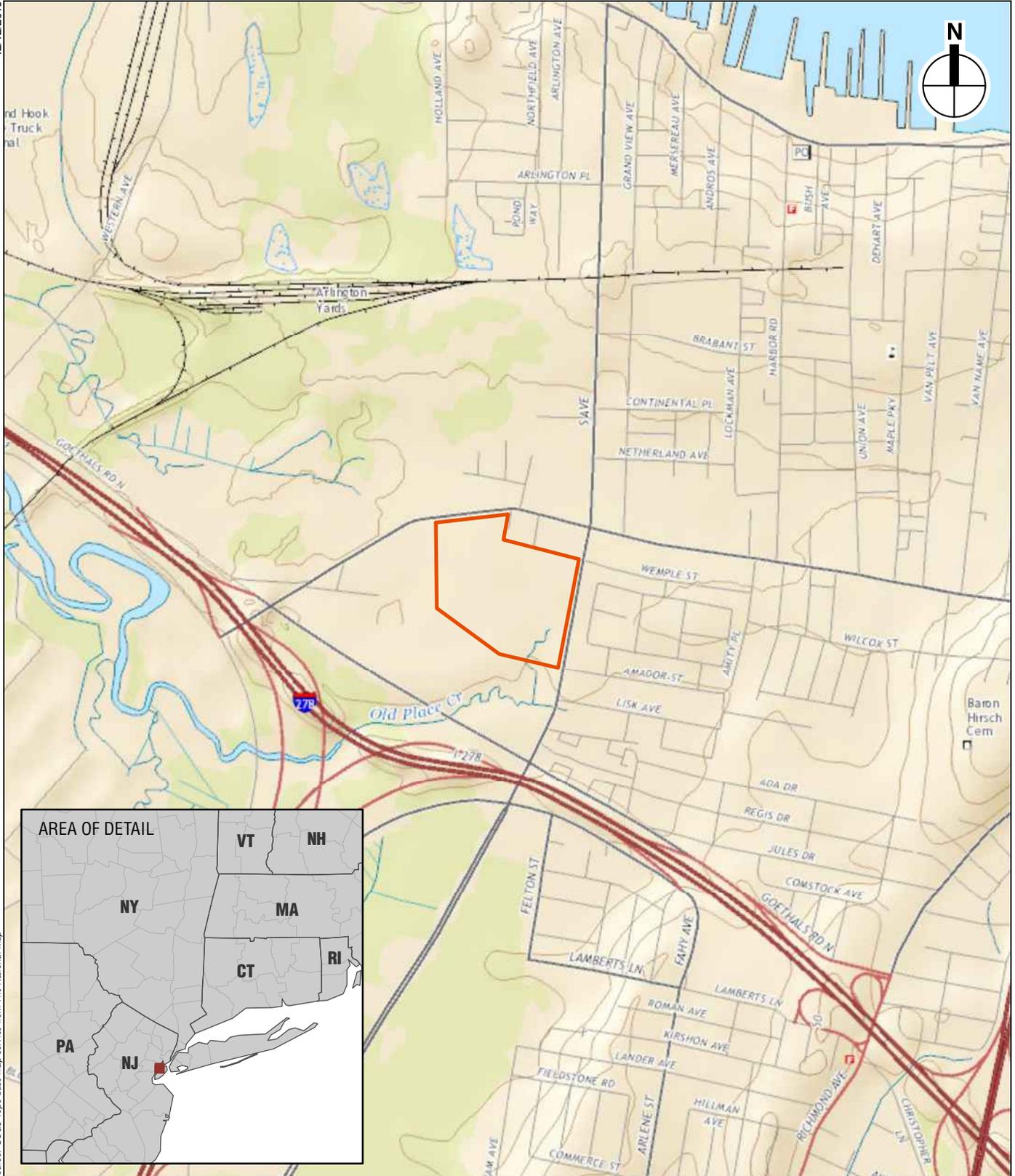
- Davis, William T.
1896 “Staten Island Nicknames: ye olde names and nicknames (with map by Charles W. Leng).” *Proceedings of the Natural Science Association of Staten Island* 5 (5).
- Dincauze, Dena F.
2000 “The Earliest Americans: The Northeast.” *Common Ground: Archaeology and Ethnography in Public Interest*. Washington, D.C.: National Park Service.
- Dripps, M.
Ca. 1872 *Map of Kings County with Parts of Westchester, Queens, New York, and Richmond*. New York: M. Dripps.
- Geoarcheology Research Associates (GRA)
2014 *Geomorphology/Archaeological Borings and GIS Model of the Submerged Paleoenvironment in the New York and New Jersey Harbor and Bight in Connection with the New York and New Jersey Harbor Navigation Project, Port of New York and New Jersey, Under contract to U.S. Army Corps of Engineers New York District CENAN-PL-EA, 26 Federal Plaza New York, New York 10278-0900*. March 2014. Prepared under subcontract to and in conjunction with Hunter Research, Inc., Trenton, NJ. Prepared for: Tetra Tech, Portland, ME; under contract to the US Army Corps of Engineers, New York, NY.
- Greenhouse Consultants, Inc.
1996 “Stage 1A Archaeological Sensitivity Evaluation of the Forest and South Avenues Project, Borough of Richmond, New York.” Prepared for: Land Planning and Engineering Consultants, PC, Staten Island, New York, and The Berkowitz Development Group, Coconut Grove, Florida.
- Grumet, Robert S.
1981 *Native American Place Names in New York City*. New York: Museum of the City of New York.
1995 *Historic Contact*. Norman, OK: University of Oklahoma Press.
- Harrington, M.R.
1909 “Ancient Shell Heaps Near New York City.” *Anthropological Papers of the American Museum of Natural History, Volume III: The Indians of Greater New York and the Lower Hudson*. Edited by Clark Wissler, pages 169-179. New York: Published by order of the Trustees of the American Museum of Natural History.
- Haspssler F.R.
1844-45 *Map of New-York Bay and Harbor and the Environs*. United States Coastal Survey.
- Historical Perspectives, Inc.
2015a “Phase IA Archaeological Documentary Study: 2345 Forest Avenue, Block 1270, Lots 12, 13, 17, 20, 21, 25, 29, 54, 142, 143, 144, and 151; Staten Island Richmond County, New York” Prepared for: Carpenter Environmental Associates, Inc.; Pine Island, NY.
2015b “Phase IB Field Investigation: 2345 Forest Avenue, Block 1270, Lots 12, 13, 17, 20, 21, 25, 29, 54, 142, 143, 144, and 151; Staten Island Richmond County, New York” Prepared for: Carpenter Environmental Associates, Inc.; Pine Island, NY.
- Isachsen, Y.W., E. Landing, J.M. Lauber, L.V. Rickard, W.B. Rogers, editors.
2000 *Geology of New York: A Simplified Account*. Second Edition. New York: New York State Museum Educational Leaflet 28.
- Leng, Charles W. and William T. Davis
1930 *Staten Island and its People: A History 1609-1929*. (5 Volumes) New York: Lewis Historical Publication Company, Inc.

- The Louis Berger Group and Parsons Brinckerhoff, JV
2007 "Goethals Bridge Replacement; 04PR03162; Richmond County, New York and the City of Elizabeth, Union City, New Jersey; Phase I Archaeological Report, August 2007." Prepared for the United States Coast Guard on behalf of the Port Authority of New York and New Jersey.
- Haughwout, Lefferd M.A.
1902 "The Lefferts-Haughwout Family." *The New York Genealogical and Biographical Record* 33: pp: 49-52.
- Historical Records Survey, Service Division, Work Projects Administration
1942 *The earliest volume of Staten Island records, 1678-1813*. New York: The Survey.
- McMillen, Loring
1933 *A Map of Staten Island During the Revolution, 1775-1783*.
- Morris, Ira K.
1900 *Morris's Memorial History of Staten Island, NY*. Volume 2. Staten Island: Published by the author.
- New York Archaeological Council
1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. The New York Archaeological Council.
- Public Archaeology Laboratory (PAL)
2011 *Technical Report: Phase IB Archaeological Identification Survey; M&R 058 Additional Temporary Workspace and Phase II Archaeological Site Evaluation, Old Place Neck Site (OPRHP #A08501.002971); Goethals Bridge HDD Workspace, Staten Island, Richmond County, New York*. Prepared for: Spectra Energy Transmission, LLC; Jersey City, NJ.
2014 *Technical Report: Phase III Archaeological Data Recovery; Old Place Neck Site (OPRHP #A08501.002971); Goethals Bridge HDD Workspace, Staten Island, Richmond County, New York*. Prepared for: Spectra Energy Transmission, LP; Waltham, Massachusetts.
- Parker, Arthur C.
1922 *The Archaeological History of New York*. Albany: The University of the State of New York.
- Reeds, Chester A.
1925 *The Geology of New York City and Vicinity*. New York: The American Museum of Natural History Guide Leaflet Series No. 56.
- Renard, Charles
1835-6 United States Coastal Survey of Staten Island.
- Robinson, Elisha
1898 *Atlas of the Borough of Richmond, City of New York*. New York: E. Robinson and Co.
1907 *Atlas of the Borough of Richmond, City of New York*. New York: E. Robinson and Co.
- Ritchie, William A.
1980 *The Archaeology of New York State: Revised Edition*. Harrison, New York: Harbor Hill Books.
- Sanborn Map Company
1917 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1937 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1950 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1962 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1977 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1981 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.

- 2007 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
- Schuberth, Christopher J.
1968 *The Geology of New York City and Environs*. Garden City, New York: The American Museum of Natural History, the Natural History Press.
- Skinner, Alanson B.
1909 “The Lenape Indians of Staten Island.” *Anthropological Papers of the American Museum of Natural History, Volume III: The Indians of Greater New York and the Lower Hudson*. Edited by Clark Wissler, pages 3-62. New York: Published by order of the Trustees of the American Museum of Natural History.
- Shepherd, Barnett
2008 *Tottenville: The Town the Oyster Built*. Staten island, New York: Preservation League of Staten Island and the Tottenville Historical Society.
- Sidney, J.C.
1849 *Sidney's Map of Twelve Miles around New-York*. Philadelphia: engraved by N. Friend.
- Walling, H.F.
1859 *Map of Staten Island, Richmond County, New York / from surveys under the direction of H.F. Walling*. New York: D.A. Fox.
- 1860 *Map of New York and its Environs*. New York: S.F. Tilden.
- Whiting, H.L. and E.D. Dorr
1857 *Northwest Part of Staten Island and Bergen Point*. Wharf lines updated by H.L. Whiting and R.B. Palfrey in 1875. Washington, DC: US Coast Survey.

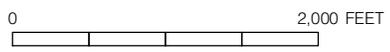
Figures

12/12/2016



Source: USGS Topo base map service from The National Map

 Project Site

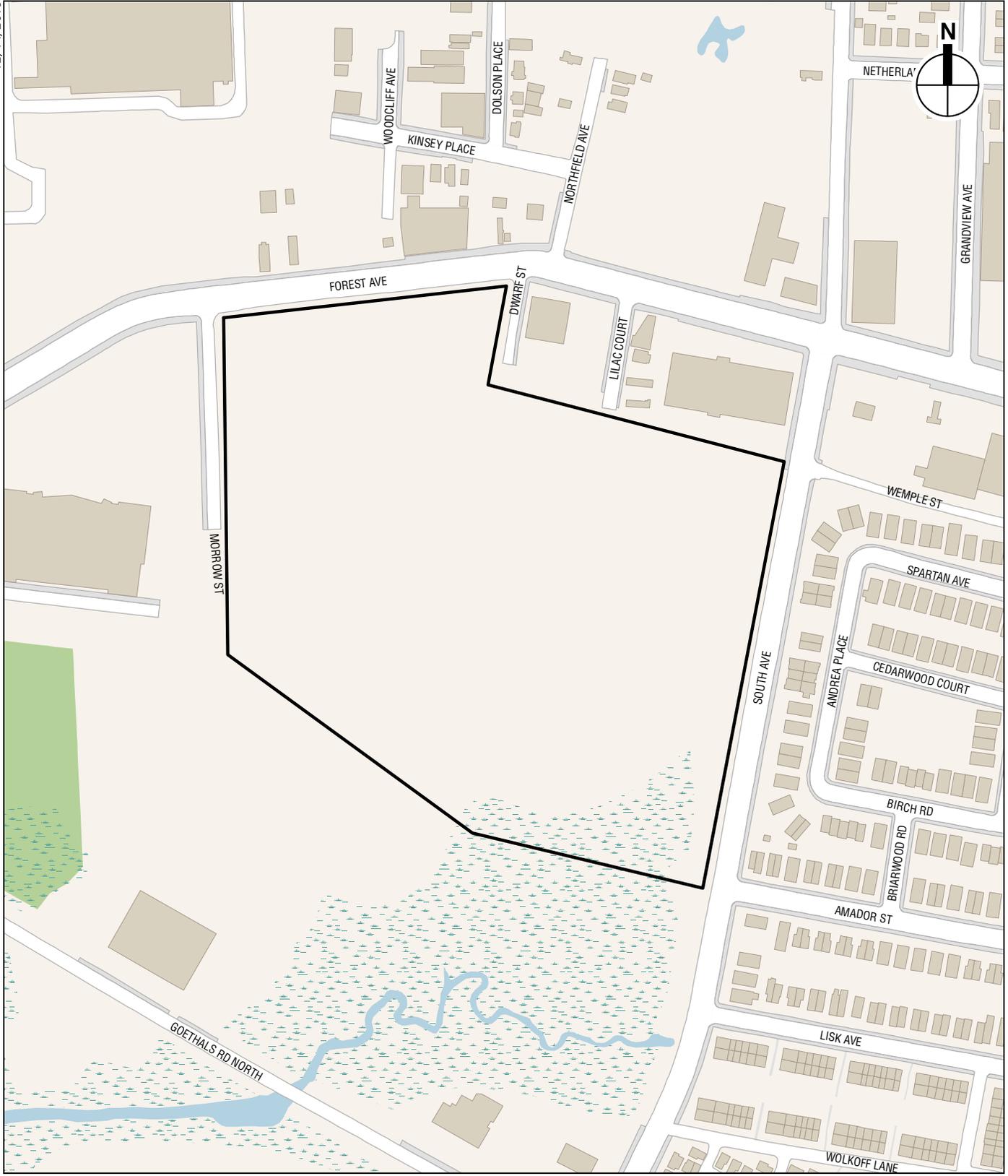


Approximate coordinates of Project Site:
74°10'9"W 40°37'33"N

USGS 7.5 Minute Topographic Map
Elizabeth Quad and Arthur Kill Quad
Figure 1

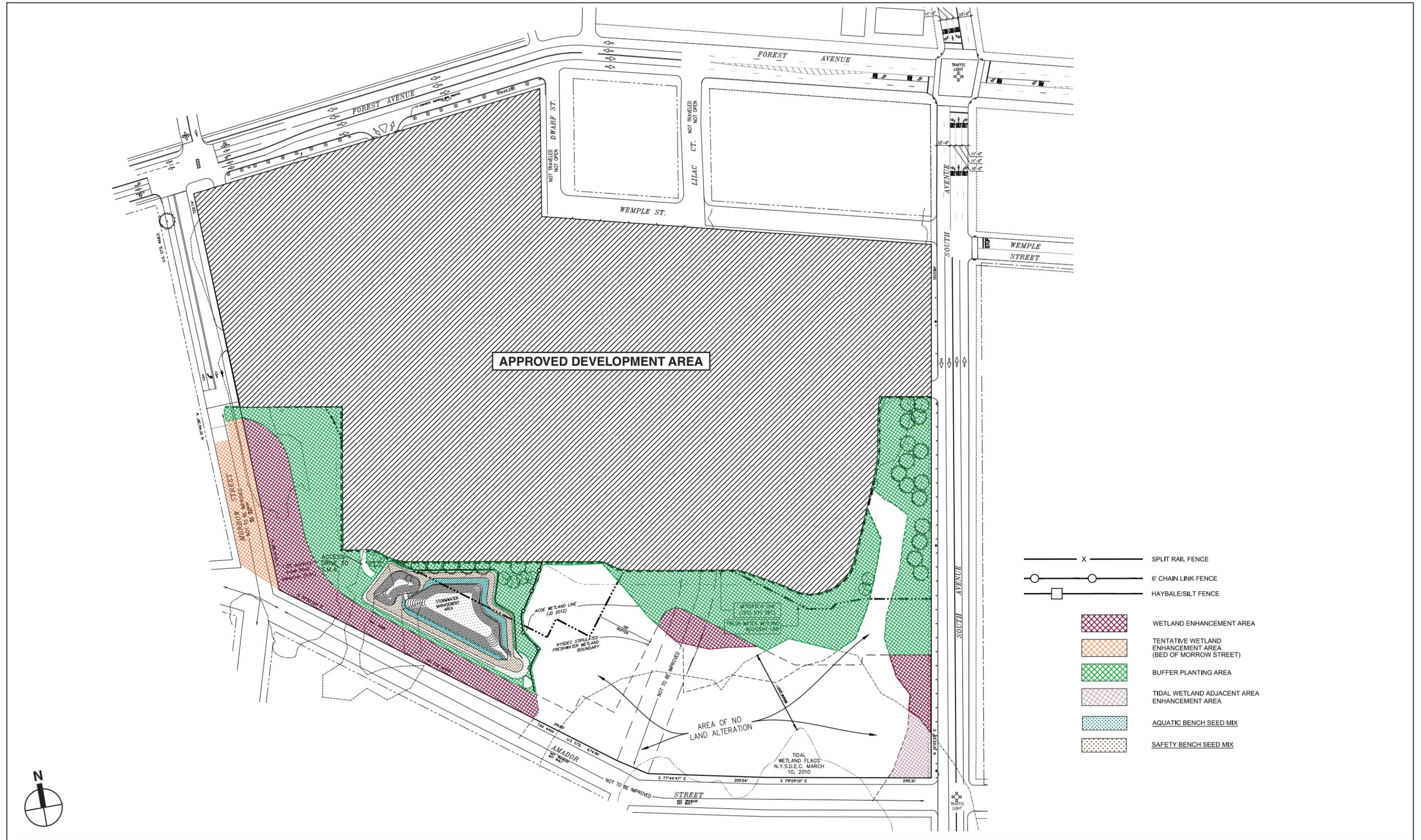
South Avenue Retail Development

12/14/2016



 Project Site

0 500 FEET

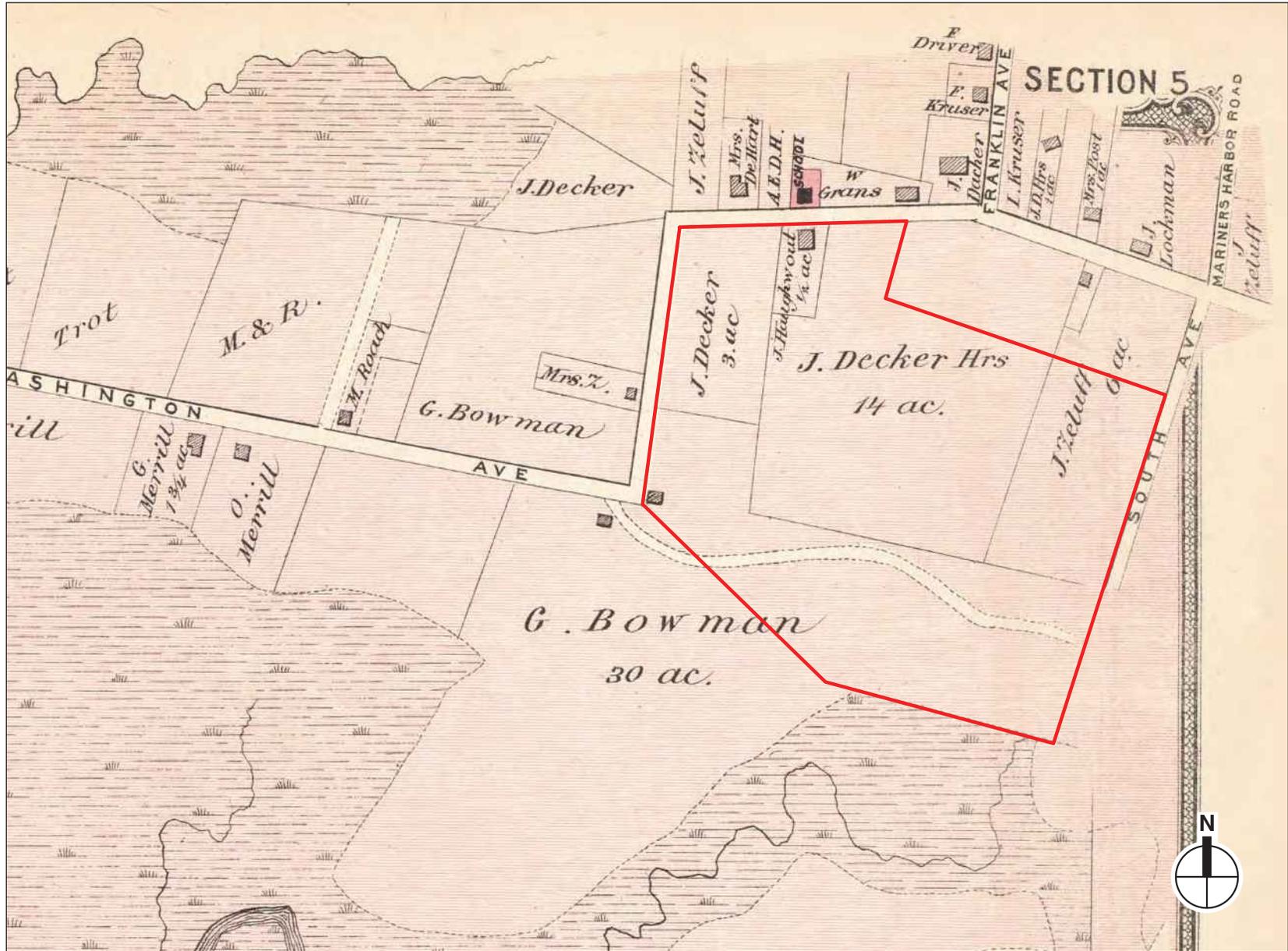



12/14/2016

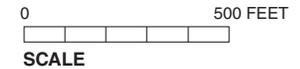
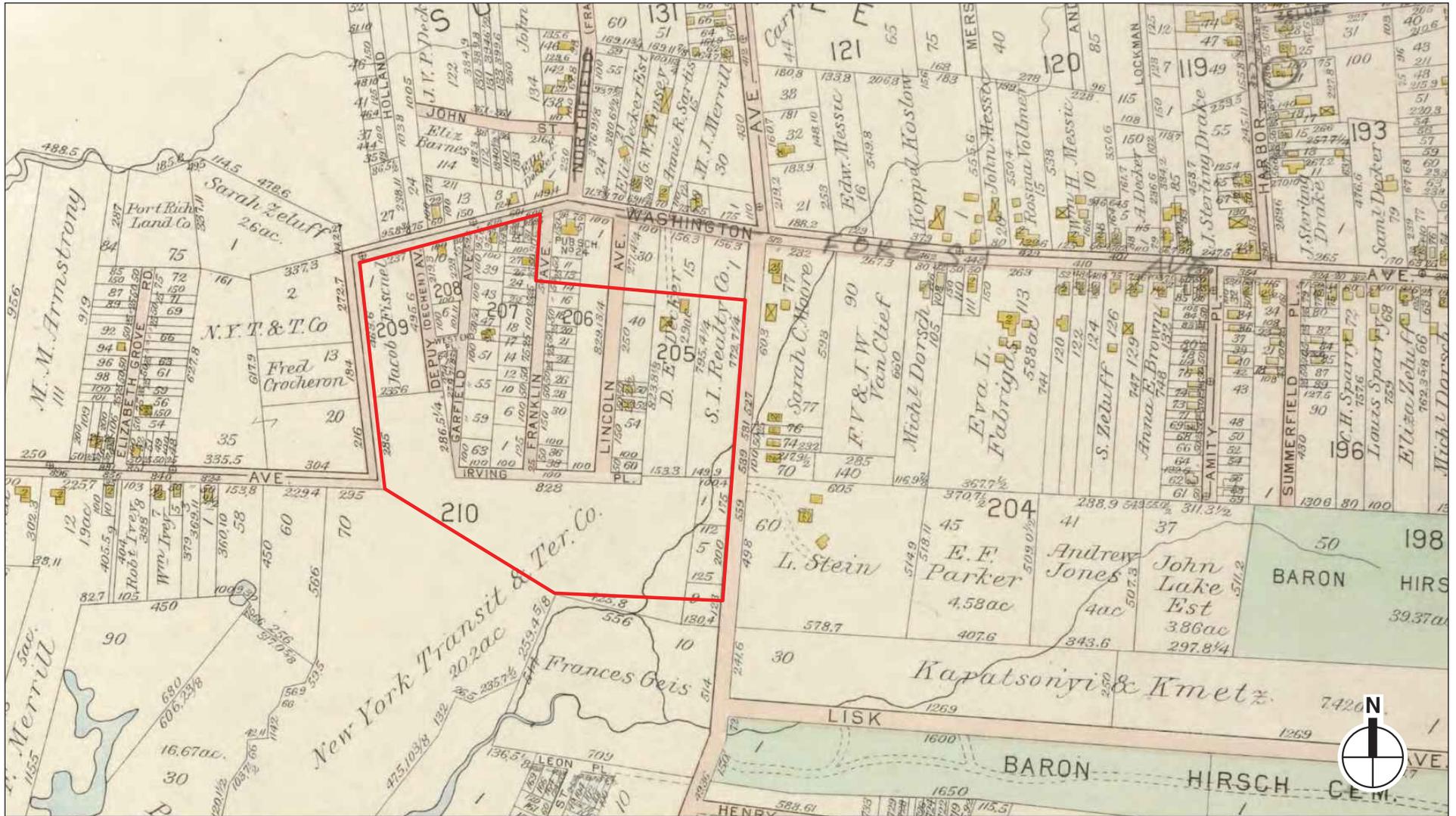


 Project Site





NOT TO SCALE



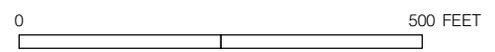
South Avenue Retail Development

1917 Bromley Atlas
Figure 6

12/15/2016



-  *Project Site*
-  *Approximate Locations of Historic Sensitivity*
-  *Approximate Locations of Precontact Sensitivity*



Photographs



View of the southwest corner of the project site, looking west towards Morrow Street. 1



Wrecked cars dumped within the wooded interior of the project site. 2



The wooded interior of the project site in the northeast portion, looking north. **3**



A fire hydrant within the wooded area. **4**

Appendix A: Summary of Census Research

Appendix A:

Summary of Census Research

Year	Location	First Name	Last Name	Age	Occupation	Place of Birth	Other
1850	Northfield, Staten Island	John	DeHart	33	Boatman	NY	
		Ann	DeHart	29		NY	
		Martin	DeHart	5		NY	
		Phoebe A.	DeHart	2		NY	
		Matthew	Decker	59	Boatman	NY	Real Estate = \$2,000
		Melvina	Decker	47		NY	
		John	Decker	21	Boatman	NY	
		Mary A.	Decker	17		NY	
	Elizabeth	Decker	15		NY		
	Timothy	Strong	9		Virginia		
	John	Decker	65	Boatman	NY	Real Estate= \$2,000	
	Elizabeth	Decker	56		NY		
	Abraham	Decker	20	Boatman	NY		
	John	Merrill	23	Boatman	NY		
	Mary Ann	Merrill	20		NY		
	Bryant	Merrill	3mo		NY		
	John	Lewis	35	Blacksmith	Wales		
	Ann	Lewis	45		Wales		
	David	Lewis	13		NY		
	John	Lewis	11		NY		
	Richard	Lewis	8		NY		
	George	Lewis	7		NY		
	Alfred	Lewis	5		NY		
	Elizabeth	Lewis	3		NY		
	Francis	[illegible]	35	Laborer	Ireland		
	Mary Ann	[illegible]	30		England		
	John	[illegible]	7		NY		
	Sarah	[illegible]	1		NY		
	Benjamin	Cocheron	60	Boatman	NY	Real Estate = \$1,500	
	Sarah Ann	Cocheron	54		NY		
	John K.	Zeluff	35	Boatman	NY	Real Estate = \$1,000	
	Mary A.	Zeluff	28		NY		
	Daniel	Zeluff	12		NY		
Benjamin	Zeluff	9		NY			
Susan A.	Zeluff	7		NY			
Abraham	Zeluff	4		NY			
Jane A.	Zeluff	1		NY			
John	Haughwout	47	Boss Carpenter	NY	Real Estate= \$1,500, Personal = \$250		
Mary	Haughwout	46		NY			
Martin	Haughwout	19	Carpenter App.	NY			
Malinda	Haughwout	15		NY			
Harriet	Haughwout	9		NY			
William	Haughwout	4		NY			
Samule (sic)	Zeluff	6		NY			

South Avenue Retail Development Project—Supplemental Phase 1A Archaeological Documentary Study

Year	Location	First Name	Last Name	Age	Occupation	Place of Birth	Other
1860 (continued)	Northfield, Staten Island	Benjamin	Crocheron	62	Laborer	NY	Real Estate = \$2,000; Personal Estate = \$250
		Susan	Crocheron	59		NY	
		Mary E.	Zeluff	34		NY	
		Benjamin	Zeluff	18		NY	
		Susan	Zeluff	16		NY	
		Abraham	Zeluff	14		NY	
		Jane A.	Zeluff	12		NY	
		Howard	Zeluff	7		NY	
		John K.	Zeluff	46	Farm Laborer	NY	Real Estate = \$3,000; Personal Estate = \$150
1870	Northfield, Staten Island	John W.	Houghwout	57	Carpenter	NY	Real Estate Value = \$3100
		Mary Ann	Houghwout	56	Keeping House	NY	
		Martin Z.	Houghwout	29	Carpenter	NY	
		William M	Houghwout	14		NY	
		Melinda	Drake	24		NY	
		Frederick D.	Drake	6mo		NY	
	Northfield, Staten Island	John K.	Zeluff	49	Farm Labor	NY	Real Estate Value = \$2000
		Anna H.	Zeluff	36	Keeping House	NY	
		Edgar S.	Zeluff	4		NY	
		Romine	Zeluff	1		NY	
	Northfield, Staten Island	George	Bowman	54	Lawyer	NY	Real Estate Value = \$150,000; Personal Estate= \$10,000
		Marrah E.	Bowman	53	Keeping House	Connecticut	
		Mary E.	Bowman	20		NY	
		Carolinelle	Bowman	18		NY	
		Sarah H.	Bowman	16		NY	
		Ellen	Levey	33	Domestic Servant	Ireland	
		Marcella	Liman	19	Domestic Servant	Ireland	
	1880	Washington Avenue, Staten Island	William H	Houghwout	67	House Carpenter	NY
Mary A.			Houghwout	66	Keeping House	NY	
Frederick D.			Drake	10	At School	NY	
William M.			Houghwout	24	Boat builder	NY	
Marietta			Houghwout	21	Keeping House	NY	
Mary M.			Houghwout	8 mos	Oysterman	NY	Rents Home
1900	Washington Avenue, Staten Island	M[illegible]	Haughwout	47		NY	
		Aletta M.	Haughwout	39		NJ	
		Mary M.	Haughwout	4		NY	
		Mary	Haughwout	74		NY	
	Washington Avenue, Staten Island	David E.	Decker	40	Milk Dealer	NY	Rents Home
		Olive E.	Decker	30		NY	
		Herman M.	Decker	5		NY	

Notes: Census records for this region of Staten Island do not include street addresses, although they occasionally include street names. Therefore, those entries without specific street addresses are presumed to represent the residents of the project site based on cross-referencing with historic maps. The entries in the table above are divided by household as indicated in the original census records.

Sources: Census information obtained through www.ancestry.com.