



Phase IA Archaeological Documentary Study

**Cedar Grove Beach Rehabilitation
Block 4105, Part of Lot 50 and Block 4108, Part of Lot 45
Staten Island, Richmond County, New York**

OPRHP No. 10PRO5229

LPC No. 11DPR004R

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LPC No. 11DPR004R

Prepared For:

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And

City of New York Department of Parks and Recreation
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December 2010

MANAGEMENT SUMMARY

SHPO Project Review Number (if available): **10PRO5229**

Involved State and Federal Agencies: **NYSDEC and [possibly] USACOE**

Phase of Survey: **Phase IA Archaeological Documentary Study**

Location Information

Location: **Block 4105, Part of Lot 50 and Block 4108, Part of Lot 45.**

Minor Civil Division: **08501, Staten Island**

County: **Richmond**

Survey Area

Length: **varies**

Width: **varies**

Number of Acres Surveyed: **ca. 34**

USGS 7.5 Minute Quadrangle Map: **The Narrows**

Archaeological Survey Overview

Number & Interval of Shovel Tests: **N/A**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of precontact sites identified: **None**

Number & name of historic sites identified: **None**

Number & name of sites recommended for Phase II/Avoidance: **None**

Report Authors(s): **Julie Abell Horn, M.A., R.P.A., Historical Perspectives, Inc.**

Date of Report: **December 2010**

EXECUTIVE SUMMARY

The New York City Department of Parks and Recreation (DPR) has proposed the Cedar Grove Beach Rehabilitation project, located in Great Kills Park, Staten Island, New York (Figures 1, 2, and 3). The project site is owned by DPR, and includes approximately 34 acres located south of Ebbitts Street, known as Block 4105, part of Lot 50, and Block 4108, part of Lot 45. This property contains 42 one- to one-and-a-half story formerly privately occupied seasonal beach bungalows, a clubhouse, barn, and five ancillary garage structures, collectively known as the Cedar Grove Beach Club. A majority of the buildings will be demolished. In addition, the beach will be cleaned and opened for swimming, the existing junior soccer and pick up play/softball field will be rehabilitated for public use, as might other existing amenities such as the bocce, basketball and tennis courts. Also, a new playground on site and new bike facilities are proposed to be added along the existing Cedar Grove Beach Place. The project also includes the removal of above-grade foundations remains and debris on the beach off Ebbitts Street and Cedar Grove Court.

DPR is the lead agency for the proposed project. A permit will be required from the New York State Department of Environmental Conservation (DEC). There is the potential for a U.S. Army Corps of Engineers (ACOE) permit. The project also will be evaluated under the City Environmental Quality Review (CEQR). As such, as part of the project review process, materials were submitted by DPR to the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC). As noted above, the project includes demolition and rehabilitation of some structures on site. The OPRHP responded that the Cedar Grove Beach project site is eligible for listing on the State and National Registers of Historic Places (S/NRHP) as a historic district (Cumming 2010; Howe 2010). The LPC responded with concurrence of the S/NRHP eligibility determination, but indicated the site does not appear to be eligible for consideration as an LPC landmark. Ongoing consultations with OPRHP have included a joint site visit and a discussion on the sensitivity and preservation of specific structures at the beach. Because demolition of S/NRHP eligible building(s) is an Adverse Effect, an environmental impact statement (EIS) is now required to advance the project.

The OPRHP also requested that a Phase IA Archaeological Study be conducted for the project site. The LPC also requested a Phase IA Archaeological Documentary Study be conducted to assess the possibility of Native American resources on the project site (Santucci 2010).

The project site is located in an area where several precontact period archaeological sites have been recorded, including one New York State Museum (NYSM) site whose boundaries (albeit large and vague) overlap the project site. The Cedar Grove Beach project site was historically on firm land adjacent to inland salt marshes on the northwest and the beach bordering Lower New York Bay on the southeast. Although there has been significant loss of shoreline due to tidal action, erosion, and periodic storms, the project site west of Cedar Grove Beach Place appears to retain its original landform. In its natural state, any areas of the project site on firm ground and that have not sustained disturbance due to either natural or man-made events would have a high precontact sensitivity.

The Seaside Hospital foundation remains location has a low precontact archaeological sensitivity, however, due to the area's documented history of repeated shoreline erosion and landfilling activities. It is highly unlikely that any original landform still exists at this location.

Historic maps show that the Cedar Grove Beach project site was undeveloped until the 1910s, when it was developed with bungalows. There is no historic period archaeological sensitivity associated with these buildings, as all were connected to municipal utilities at the time of their construction and there were no wells, privies, or other shaft features that could have been used for archaeological deposits.

The Seaside Hospital foundation remains have been documented as part of the 1978 archaeological study of the Gateway National Recreation Area. At that time the remains were recommended as not eligible for the S/NRHP. As noted above, the current SPHINX database of the NYSOPRHP indicates that this resource has not formally been evaluated for S/NRHP eligibility. It is HPI's opinion that if evaluated, this resource would be determined NOT eligible due to its fragmentary nature, its lack of integrity, its date of construction in the twentieth century, and the already thorough documentation of Seaside Hospital that can be found in other archival and photographic sources. The debris located in proximity to the concrete and brick foundation remains does not appear to have any archaeological significance.

Due to the lack of soil borings for the project site, the disturbance record must rely primarily on observations made during the field visit and comparison of historic maps with the modern site survey map. Use of the project site for the beach colony has resulted in various degrees of ground disturbance across the property. Man-made disturbance has come from building construction and demolition, subsurface utility installations, roadwork, and use of the property by residents. Natural disturbance has been caused by wind and water erosion over time.

In general, the project site can be divided into three basic zones of disturbance, which translate into areas of potential archaeological sensitivity. These areas are mapped on Figure 14.

1. All of the property south of Cedar Grove Beach Place, where the majority of the bungalows are located and the beach itself, is clearly disturbed from building construction, utility installations, and modifications to the beach area, including the addition of new sand to extend the beach further into the water, and the creation of stone piers. There is low to no archaeological sensitivity in this area.
2. The property located between Cedar Grove Beach Place and Cedar Grove Avenue has been disturbed from building construction and demolition and utility installation in discrete areas, but not in all areas. Some locations show evidence of erosion. Areas that are clearly disturbed have low to no archaeological sensitivity, but areas that are less obviously disturbed may have a moderate archaeological sensitivity, pending confirmation of disturbance.
3. The property located north of Cedar Grove Avenue has been disturbed in areas where buildings are or were present, but not in historically undeveloped areas. Those locations that are clearly disturbed have low to no archaeological sensitivity, but areas that are less obviously disturbed may have a high archaeological sensitivity, as these locations were situated the farthest inland from the shore, on the highest ground, and adjacent to marshlands.

The Seaside Hospital building foundation remains are in an area where it appears that there has been significant disturbance to the area from erosion and debris dumping.

Based on these conclusions, and because no previous soil borings have been completed on the project site that might illuminate soil conditions, and no borings are necessary for the minimum proposed improvements, HPI recommends that if subsurface development as part of the proposed project will impact any areas within the Cedar Grove Beach property noted as moderately or highly sensitive for archaeological resources, that limited field testing be undertaken to assess the degree of disturbance to the below grade horizons in these locations. Such an interim phase of testing for subsurface integrity to the depth of proposed improvements would allow a determination of sensitivity and the need for the next level of study. If the limited, or preliminary Phase IB testing, which would entail a small number of hand excavated shovel tests (STs), confirms disturbance to buried soil horizons, then no additional archaeological studies would be warranted. All archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005; LPC 2002; CEQR 2001). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

TABLE OF CONTENTS

MANAGEMENT SUMMARY	i
EXECUTIVE SUMMARY	ii
TABLE OF CONTENTS	iv
I. INTRODUCTION	1
II. METHODOLOGY	1
III. CURRENT CONDITIONS AND ENVIRONMENTAL SETTING.....	2
A. CURRENT CONDITIONS	2
B. TOPOGRAPHY AND HYDROLOGY	3
C. GEOLOGY.....	3
D. SOILS.....	3
IV. BACKGROUND RESEARCH/HISTORICAL OVERVIEW	4
A. PRECONTACT SUMMARY	3
B. PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES AND SURVEYS	6
C. HISTORY OF THE PROJECT SITE.....	8
V. CONCLUSIONS	10
A. PRECONTACT ARCHAEOLOGICAL RESOURCES	10
B. HISTORIC PERIOD ARCHAEOLOGICAL RESOURCES.....	10
C. DISTURBANCE RECORD AND ARCHAEOLOGICAL SENSITIVITY.....	10
VI. RECOMMENDATIONS.....	11
VII. REFERENCES	12

FIGURES

PHOTOGRAPHS

FIGURES

1. Project site on *The Narrows, NY-NJ 7.5 Minute Quadrangle* (U.S.G.S. 1981).
2. Project site on modern survey map (DPR 2010).
3. Project site and photograph locations on modern aerial photograph.
4. Project site on *New York City Reconnaissance Soil Survey* (U.S.D.A. 2005).
5. Project site on *A Map of New York & Staten Island and Part of Long Island* (Taylor and Skinner 1781).
6. Project site on *Staten Island From New Brighton to Great Kills* (U.S.C.S. 1855).
7. Project site on *Atlas of Staten Island, Richmond County, New York* (Beers 1874).
8. Project site on *Atlas of Staten Island, Richmond County, New York* (Beers 1887).
9. Project site on *Atlas of the Metropolitan District...* (Bien and Vermeule 1891).
10. Project site on *Borough of Richmond, Topographical Survey* (Borough of Richmond 1911).
11. Project site on *Atlas of the City of New York, Borough of Richmond, Staten Island* (Bromley 1917).
12. Project site on *Sectional aerial maps of the City of New York* (New York City Bureau of Engineering 1924).
13. Project site on *Insurance Maps of Staten Island, New York* (Sanborn 1951).
14. Project site showing areas of archaeological sensitivity.

PHOTOGRAPHS
(see Figure 3 for locations)

1. Rear of bungalows southeast of Cedar Grove Beach Place bordering beach. View looking southwest.
2. Front of bungalows southeast of Cedar Grove Beach Place bordering beach. View looking northeast.
3. Beach area at Cedar Grove Beach. Stone jetty is visible in the far background. View looking south.
4. Stone jetty. View looking southeast.
5. Example of disturbed soils surrounding bungalows. View looking northeast.
6. Example of disturbed soils surrounding bungalows. View looking northeast.
7. Structures located at southern end of strip between Cedar Grove Beach Place and Cedar Grove Avenue, including the clubhouse and several one-story masonry garages. View looking north.
8. Bocce court and horseshoe pit located northeast of clubhouse. View looking north.
9. Sewer line located south of the current clubhouse running through the project site east to the bulkhead line along the stone jetty. Note manhole covers on left. View looking east.
10. Southern end of project site showing marshland vegetation in right background. View looking southwest.
11. Example of exposed sand in area between Cedar Grove Beach Place and Cedar Grove Avenue. View looking southeast.
12. Area between Cedar Grove Beach Place and Cedar Grove Avenue covered with grass and trees. View looking north.
13. Area between Cedar Grove Beach Place and Cedar Grove Avenue covered with grass and trees. View looking southwest.
14. Baseball field near Ebbitts Street. View looking northwest.
15. Bungalows northwest of Cedar Grove Avenue. View looking southwest.
16. Former tennis court location, now overgrown, northwest of Cedar Grove Avenue. View looking southwest.
17. Large wooden barn located northwest of Cedar Grove Avenue. Tennis court is on right and basketball court is behind barn. View looking west.
18. Detail of basketball court behind barn. View looking west.
19. Foundation remains and debris on the beach off Ebbitts Street and Cedar Grove Court. View looking northeast.
20. Foundation remains and debris on the beach off Ebbitts Street and Cedar Grove Court. View looking northwest.
21. Seaside Hospital building as seen from Cedar Grove Beach in 1929. Former building with existing foundation remains is shown at far right (Sperr 1929).
22. Cedar Grove Beach Club House in 1929 (Sperr 1929).

23. Expanded Cedar Grove Beach Club House on undated photograph (courtesy of New York Public Library).
24. Shoreline of Cedar Grove Beach on undated postcard (courtesy of New York Public Library).
25. Shoreline of Cedar Grove Beach on undated postcard (courtesy of New York Public Library).
26. Entrance to Cedar Grove Beach on undated postcard (courtesy New York Public Library).

I. INTRODUCTION

The New York City Department of Parks and Recreation (DPR) has proposed the Cedar Grove Beach Rehabilitation project, located in Great Kills Park, Staten Island, New York (Figures 1, 2, and 3). The project site is owned by DPR, and includes approximately 34 acres located south of Ebbitts Street, known as Block 4105, part of Lot 50, and Block 4108, part of Lot 45. This property contains 42 one- to one-and-a-half story formerly privately occupied seasonal beach bungalows, a clubhouse, barn, and five ancillary garage structures, collectively known as the Cedar Grove Beach Club. A majority of the buildings will be demolished. In addition, the beach will be cleaned and opened for swimming, the existing junior soccer and pick up play/softball field will be rehabilitated for public use, as might other existing amenities such as the bocce, basketball and tennis courts. Also, a new playground on site and new bike facilities are proposed to be added along the existing Cedar Grove Beach Place. The project also includes the removal of above-grade foundations remains and debris on the beach off Ebbitts Street and Cedar Grove Court. In total, the subsurface impacts are limited.

DPR is the lead agency for the proposed project. A permit will be required from the New York State Department of Environmental Conservation (DEC). There is the potential for a U.S. Army Corps of Engineers (ACOE) permit. The project also will be evaluated under the City Environmental Quality Review (CEQR). As such, as part of the project review process, materials were submitted by DPR to the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC). As noted above, the project includes demolition and rehabilitation of some structures on site. The OPRHP responded that the Cedar Grove Beach project site is eligible for listing on the State and National Registers of Historic Places (S/NRHP) as a historic district (Cumming 2010; Howe 2010). The LPC responded with concurrence of the S/NRHP eligibility determination, but indicated the site does not appear to be eligible for consideration as an LPC landmark. Ongoing consultations with OPRHP have included a joint site visit and discussions on the sensitivity and preservation of specific structures at the beach. Because demolition of S/NRHP eligible building(s) is an Adverse Effect, an environmental impact statement (EIS) is now required to advance the project.

The OPRHP also requested that a Phase IA Archaeological Study be conducted for the project site. The LPC also requested a Phase IA Archaeological Documentary Study be conducted to assess the possibility of Native American resources on the project site (Santucci 2010).

Historical Perspectives, Inc. (HPI) has been contracted by HAKS Engineering to complete the requested Phase IA Archaeological Documentary Study for the project site. This study was prepared to comply with the standards of the OPRHP and the LPC (New York Archaeological Council 1994; NYSOPRHP 2005; LPC 2002; CEQR 2010). According to NYSOPRHP standards, a Phase IA archaeological survey should include evaluation of both precontact and historic period archaeological potential. Where guidelines for the archaeological evaluation and report format of the LPC and the NYSOPRHP varied, those of the LPC, which specifically address New York City conditions and resources, took precedent. The HPI project team consisted of Julie Abell Horn, M.A., R.P.A., who conducted site visit, the majority of the research, and wrote the report; and Cece Saunders, M.A., R.P.A. who assisted with the research, managed the project, and provided editorial and interpretive assistance.

The Area of Potential Effect (APE) is the area that could be affected by project development. Since project plans have not been finalized as of this writing, the APE includes the entire project site.

II. METHODOLOGY

The present study entailed review of various resources. Because the project site was undeveloped until the early twentieth century, many standard resources normally consulted to meet LPC standards were not necessary, as described below.

- Primary and secondary sources concerning the general precontact period and history of Staten Island and specific events associated with the project site were reviewed at the New York Public Library, the Staten Island Historical Society, and using online resources.

- Historic maps and aerial photographs were reviewed at the New York Public Library, the Staten Island Historical Society, the Staten Island Museum, and using various online websites. These maps and photographs provided an overview of the changing shoreline, the site topography, and a chronology of land usage and ownership for the study site. A selection of these images is presented in this report.
- Deeds, tax assessment records, federal census records, and city directories, which are standard resources consulted as part of a documentary study, were not reviewed for this project because the project site was undeveloped until the early twentieth century.
- Department of Building index records for the project site were reviewed using the department's website.
- Information about previously recorded archaeological sites and surveys in the area was compiled from data available at the NYSOPRHP and the LPC.
- DPR provided various survey maps and site data for the property.
- Last, a site visit was conducted by Julie Abell Horn of HPI on November 23, 2010 to assess any obvious or unrecorded subsurface disturbance (Photographs 1-20; Figure 3).

III. CURRENT CONDITIONS AND ENVIRONMENTAL SETTING

A. Current Conditions

As noted in the Introduction, the project site includes approximately 34 acres located south of Ebbitts Street, known as Block 4105, part of Lot 50, which is situated southeast of Cedar Grove Avenue, and Block 4108, Lot 45, which is located northwest of Cedar Grove Avenue.

There are three general areas within the project site. The area southeast of Cedar Grove Beach Place contains the majority of the bungalows on the site (Photographs 1-2), as well as the beach itself (Photograph 3) and two twentieth-century stone jetties (Photograph 4). The bungalows are situated in close proximity to one another and the ground surface surrounding them, which appears to be sand with minimal topsoil containing sparse grassy vegetation, is heavily disturbed from their construction, the installation of subgrade water, gas, and sewers to service the bungalows, and the use of the properties by residents (Photographs 5 and 6). The bungalows, which are one or one and a half stories high, mostly date to the 1910s. The beach to the east of the bungalows is pure sand, with the outermost portions of it imported to extend the shoreline further into the bay during the late twentieth century.

The area between Cedar Grove Beach Place and Cedar Grove Avenue is a level, mostly grassy area that contains only a few structures and former structures. These structures are located on the southern end of this strip, and include the present clubhouse (which in the 1970s replaced a former clubhouse located in the area of the present barn), and several one-story masonry garages and former garage locations (Photograph 7). There is a bocce court and horseshoe pit located northeast of the clubhouse (Photograph 8). The southern portion of this area, where the clubhouse is located and to the south, appears disturbed from construction, demolition of former structures here, and installation of subgrade utilities. For example, there is a large sewer line running south of the current clubhouse through the project site east to the bulkhead line along the stone jetty (Photograph 9). The extreme southern portion of this general area appears to have been partially filled based on comparison of historic maps and aerial photographs, and marshlands still exist bordering this area (Photograph 10). The topsoil has eroded away in some sections of this central section of the project site, leaving exposed sand (Photograph 11). However, there are sections of this strip that appear relatively undisturbed, particularly towards the northern end, which are covered with grass and trees (Photographs 12 and 13).

The section of the project site northwest of Cedar Place Avenue contains (from north to south) a baseball field near Ebbitts Street (Photograph 14), five bungalows south of the baseball field (Photograph 15), and overgrown area south of the bungalows that maps show was once a tennis court (Photograph 16), and a large wooden barn surrounded by an existing tennis and basketball court (Photographs 17 and 18). The areas of this section containing the bungalows, the former tennis court, and much of the barn location appear disturbed from construction and demolition activities. However, the baseball field and a strip of land behind the barn are covered with grass and natural vegetation, and may be relatively undisturbed.

Last, the area on the beach off Ebbitts Street and Cedar Grove Court contains above-grade foundation remains and debris (Photographs 19 and 20). As will be described further, below, the concrete foundation remains are part of a

former building of the Seaside Hospital, which according to Sanborn maps was built in ca. 1909, in conjunction with landfilling to extend the shoreline further into the bay in this location. The building was demolished in 1964, and since that time there appears to have been significant additional disturbance to the area from erosion and debris dumping. The debris on the beach consists of fragmentary wooden elements, some with iron reinforcing rods projecting from them, as well as concrete, brick, and asphalt fragments.

B. Topography and Hydrology

The project site is located at what is now the edge of the shoreline of Lower New York Bay. However, comparison with historic maps shows that during the mid nineteenth century, the shoreline extended several hundred feet further into the bay, so that the project site actually was further inland than it is today. Figure 6 illustrates the location of the project site in 1855, and shows that all but the extreme southwestern part of the project site, which was marshland, was firm land. However, in the decades after the 1850s there was significant loss of shoreline along this stretch of the South Shore of Staten Island, due to natural wave currents of the bay compounded by periodic storms that washed away land. Leng and Davis (1930, Vol. 1:24) note that between 1850 and 1881, the shoreline at the Cedar Grove Beach area moved inland about 350 feet. The 1891 Bien and Vermeule map (Figure 9) and the 1911 Borough of Richmond topographic map (Figure 10) show that only a small portion of the project site contained marshland at this time. The 1911 map indicate that elevations ranged from 0-6 feet above sea level, with a slight ridge (at 6 feet high) along the area south of Cedar Grove Place, where many of the bungalows are located, and small hummocks in the location of the present barn and the baseball field (at 4 feet high). During the twentieth century, there has been additional beach erosion and reclamation. Figure 1 shows the shoreline of the project site in 1981, prior to the extension of the beach area to its present location, as depicted in Figure 2.

C. Geology

The project site sits within the western edge of the Piedmont Lowlands. As described by Boesch (after Wolfe 1977),

The Piedmont Lowlands make up about one fifth of the land area of Staten Island and consist of gently rolling terrain, generally between 50 and 100 feet in elevation, which gradually slopes to the southeast. The undulating surface is interrupted by an intrusive ridge, 200 to 250 feet in elevation, and by slightly lower, plateau-like topographic features. The rolling lowlands are generally underlain by Triassic and Jurassic age shales, siltstones, and sandstones of the Brunswick Formation of the Newark Group[,] while the ridges are composed of basaltic lava flows and diabase traprock. The plateau-like features developed on erosion resistant Lockatong Formation Argillites. (Boesch 1994: 3)

During the precontact era the woodlands of the Piedmont Lowlands consisted of broadleaf deciduous trees, which provided a habitat for “game birds, small mammals, deer, bear, and during at least a portion of the precontact period, elk” (Boesch 1994: 6). Mixed wetland ecologies provided numerous floral and faunal resources, the most important faunal resources being the shellfish found in saltwater and brackish environments. Freshwater faunal resources include “mussels, fish, certain amphibians and reptiles, migratory fowl, and semi-aquatic mammals. Anadromous fish species would have been present seasonally within Staten Island via streams emptying into the estuary system” (Boesch 1994: 5-6).

D. Soils

According to the soil survey for New York City, there are three soil mapping units within the project site. The shoreline of the project site is mapped as “Beaches” and is described as:

Nearly level to gently sloping areas of sand or sand and gravel adjacent to the Atlantic Ocean, inundated by saltwater twice each day at high tide. Frequently reworked by wave and wind action, these areas do not support vegetation (U.S.D.A. 2005:14).

The majority of the project site located inland from the beach is mapped as “Pavement & buildings, wet substratum-Laguardia-Ebbets complex, 0 to 8 percent slopes” and is described as:

Nearly level to gently sloping urbanized areas filled with a mixture of natural soil materials and construction debris over swamp, tidal marsh, or water; a mixture of anthropogenic soils which vary in coarse fragment content, with 50 to 80 percent of the surface covered by impervious pavement and buildings (U.S.D.A. 2005:16).

Immediately to the southwest of the project site is an area mapped as “Ipswich-Pawcatuck-Matunuck mucky peats, 0 to 3 percent slopes” and is described as:

Low lying areas of tidal marsh that are inundated by salt water twice each day at high tide, with a mixture of very poorly drained soils which vary in the thickness of organic materials over sand (U.S.D.A. 2005:14).

Figure 4 illustrates the location of the project site on the soil survey map for New York City.

No soil borings have been conducted on the project site.

IV. BACKGROUND RESEARCH/HISTORICAL OVERVIEW

A. Precontact Summary

For this report, the word precontact is used to describe the period prior to the use of formal written records. In the western hemisphere, the precontact period also refers to the time before European exploration and settlement of the New World. Archaeologists and historians gain their knowledge and understanding of precontact Native Americans on Staten Island from three sources: ethnographic reports, Native American artifact collections, and archaeological investigations.

The Paleo Indian Period (c. 10,500 B.C. - c. 8000 B.C.) represents the earliest known human occupation of Staten Island. Approximately 14,000 years ago the Wisconsin Glacier retreated from the area leading to the emergence of a cold dry tundra environment. Sea levels were considerably lower than modern levels during this period (they did not reach current levels until circa 5,000 B.C., in the Early to Middle Archaic Period). As such, Staten Island was situated much further inland from the Atlantic Ocean shore than today, and was characterized by higher ground amid glacial lakes and rivers (Boesch 1994). The material remains of the Paleo Indians include lithic tools such as Clovis-type fluted projectile points, bifacial knives, drills, graters burins, scrapers, flake cores, and flake tools, although sites generally are represented by limited small surface finds. The highly mobile nomadic bands of this period specialized in hunting large game animals such as mammoth, moose-elk, bison, and caribou and gathering plant foods. It has been theorized that the end of the Paleo-Indian Period arose from the failure of over-specialized, big-game hunting (Snow 1980:150-157). Based on excavated Paleo-Indian sites in the Northeast, there was a preference for high, well-drained areas in the vicinity of streams or wetlands (Boesch 1994). Sites have also been found near lithic sources, rock shelters and lower river terraces (Ritchie 1980). Paleo-Indian materials have been recovered at several sites on Staten Island including Port Mobil, the Cutting site, Smoking Point and along the beach in the Kreischerville area.

During the Archaic Period (c. 8000 B.C. - 1000 B.C.) a major shift occurred in the subsistence and settlement patterns of Native Americans. Archaic period peoples still relied on hunting and gathering for subsistence, but the emphasis shifted from hunting large animal species, which were becoming unavailable, to smaller game and collecting plants in a deciduous forest. The settlement pattern of the Archaic people consisted of small bands that occupied larger and relatively more permanent habitations sites along the coast of Staten Island, its estuaries and streams and inland areas (Boesch 1994). Typically such sites are located on high ground overlooking water courses. This large period has been divided up into four smaller periods, the Early, Middle, Late and Terminal Archaic.

The environment during the Early Archaic (c. 8000 B.C. - 6000 B.C.) displayed a trend toward a milder climate and the gradual emergence of a deciduous-coniferous forest with a smaller carrying capacity for the large game animals of the previous period (Ritchie and Funk 1971). The large Pleistocene fauna of the previous period were gradually replaced by modern species such as elk, moose, bear, beaver, and deer. New species of plant material suitable for human consumption also became abundant. The increasing diversification of utilized food sources is further demonstrated by a more complex tool kit. The tool kit of the Early Archaic people included bifurcated or basally

notched projectile points generally made of high quality stone. Tool kits were more generalized than during the Paleo-Indian period, showing a wider array of plant processing equipment such as grinding stones, mortars and pestles. Although overall evidence of Early Archaic sites on Staten Island is sparse, there are some significant Early Archaic component sites from this period, including the Old Place, Hollowell, Charleston Beach, Wards Point, Travis, and Richmond Hill sites (Ritchie and Funk 1971; Boesch 1994).

The archaeological record suggests that a population increase took place during the Middle Archaic Period (c. 6000 - c. 4000 B.C.). This period is characterized by a moister and warmer climate and the emergence of an oak-hickory forest. The settlement pattern during this period displays specialized sites and increasing cultural complexity. The exploitation of the diverse range of animal and plant resources continued with an increasing importance of aquatic resources such as mollusks and fish (Snow 1980). In addition to projectile points, the tool kits of Middle Archaic peoples included grinding stones, mortars, and pestles. Such artifacts have been found throughout Staten Island, including the Old Place and Wards Point sites (Boesch 1994).

Late Archaic people (c. 4000 - c. 1000 B.C.) were specialized hunter-gatherers who exploited a variety of upland and lowland settings in a well-defined and scheduled seasonal round. The period reflects an increasingly expanded economic base, in which groups exploited the richness of the now established oak-dominant forests of the region. It is characterized by a series of adaptations to the newly emerged, full Holocene environments. As the period progressed, the dwindling melt waters from disappearing glaciers and the reduced flow of streams and rivers promoted the formation of swamps and mudflats, congenial environments for migratory waterfowl, edible plants and shellfish. The new mixed hardwood forests of oak, hickory, chestnut, beech and elm attracted white-tailed deer, wild turkey, moose and beaver. The large herbivores of the Pleistocene were rapidly becoming extinct and the Archaic Indians depended increasingly on smaller game and the plants of the deciduous forest. The projectile point types attributed to this period include the Lamoka, Brewerton, Normanskill, Lackawaxen, Bare Island, and Poplar Island. The tool kit of these peoples also included milling equipment, stone axes, and adzes. A large number of Late Archaic Period sites have been found on Staten Island. These include the Pottery Farm, Bowman's Brook, Smoking Point, Goodrich, Sandy Brook, Wort Farm, Old Place, and Arlington Avenue sites (Boesch 1994).

During the Terminal Archaic Period (c. 1700 B.C. - c. 1000 B.C.), native peoples developed new and radically different broad bladed projectile points, including Susquehanna, Perkiomen and Orient Fishtail types. The use of steatite or stone bowls is a hallmark of the Terminal Archaic Period. Sites on Staten Island from the Terminal Archaic Period include the Old Place, Pottery Farm, Wards Point, and Travis sites (Boesch 1994).

The Woodland Period (c. 1000 B.C. - 1600 A.D.) is generally divided into Early, Middle and Late Woodland on the basis of cultural materials and settlement-subsistence patterns. Settlement pattern information suggests that the broad based strategies of earlier periods continued with a possibly more extensive use of coastal resources. The Early Woodland was essentially a continuation of the tool design traditions of the Late Archaic. However, several important changes took place. Clay pottery vessels gradually replaced the soapstone bowls during the Early Woodland Period (c. 1000 B.C. to A.D. 1). The earliest ceramic type found on Staten Island is called Vinette 1, an interior-exterior cordmarked, sand tempered vessel. The Meadowood-type projectile point is a chronological indicator of the Early Woodland Period.

Cord marked vessels became common during the Middle Woodland Period (c. A.D. 1 to c. 1000 A.D.). Jacks Reef and Fox Creek-type projectile points are diagnostic of the Middle Woodland. Another characteristic projectile point of the early to Middle Woodland Period is the Rossville type, named for the site at Rossville where it predominated. It is believed to have originated in the Chesapeake Bay area and is found in New Jersey, southeastern New York and southern New England (Lenik 1989:29). The Early and Middle Woodland periods display significant evidence for a change in settlement patterns toward a more sedentary lifestyle. The discovery of large storage pits and larger sites in general has fueled this theory. Some horticulture may have been utilized at this point but not to the extent that it was in the Late Woodland period.

In the Late Woodland period (c. 1000 A.D. - 1600 A.D.), triangular projectile points such as the Levanna and Madison types, were common throughout the Northeast, including Staten Island (Lenik 1989:27). Made both of local and non-local stones, brought from as far afield as the northern Hudson and Delaware River Valleys, these artifacts bear witness to the broad sphere of interaction between groups of native peoples in the Northeast. Additionally, during this period collared ceramic vessels, many with decorations, made their appearance.

Woodland Period Native Americans in Staten Island and surrounding regions shared common attributes. The period saw the advent of horticulture and with it, the appearance of large, permanent or semi-permanent villages. Plant and processing tools became increasingly common, suggesting an extensive harvesting of wild plant foods. Maize cultivation may have begun as early as 800 years ago. The bow and arrow, replacing the spear and javelin, pottery vessels instead of soap stone ones, and pipe smoking, were all introduced at this time. A semi-sedentary culture, the Woodland Indians moved seasonally between villages within palisaded enclosures and campsites, hunting deer, turkey, raccoon, muskrat, ducks and other game and fishing with dug-out boats, bone hooks, harpoons and nets with pebble sinkers. Their shellfish refuse heaps, called "middens," sometimes reached immense proportions of as much as three acres (Ritchie 1980:80, 267). Habitation sites of the Woodland Period Indians increased in size and permanence. A large number of Woodland Period archaeological sites have been found on Staten Island in a variety of environmental settings. A favored setting for occupation during this period was well-drained ground near stream drainages and coastal waterways.

During the early Contact period (1500 to 1700 A.D.) there was a continuation of the Late Woodland settlement patterns of the coastal Algonquians. By the 17th century the Dutch settlers of lower New York were in frequent contact with the many Native Americans who lived in the vicinity. Historic accounts describe both peaceful and violent interchanges between these two groups (Brasser 1978, Flick 1933). Through at least the 1650s, Native Americans known as the Raritans occupied portions of Staten Island and New Jersey's Raritan Valley (Ruttenber 1872). The Raritans were but one of many native groups which as a whole were known as the Delaware Indians by the European settlers. As the European population increased, and internecine warfare due to increased competition for trade with the Europeans intensified, the Raritans, and the Delaware in general, retreated inland away from the eastern coast. By the 1800s their migration had scattered them across the Mid West and even into Canada (Weslager 1972), where they have continued living to the present day. Journal accounts by European explorers, settlers and travelers describe Native settlements and lifeways. However, only a few Historic Contact Period sites have been found on Staten Island. Sites include those at Wards Point, Old Place, Corsons Brook, Travis, New Springfield, and at the PS56R Site in Woodrow (Boesch 1994; HPI 1996).

B. Previously Recorded Archaeological Sites and Surveys

Records on file at the OPRHP and the New York State Museum (NYSM) as well as the Boesch (1994) *Archaeological and Sensitivity Assessment of Staten Island, New York* indicate that there have been two precontact period archaeological sites documented in the project site vicinity by the NYSM, and several additional precontact sites recorded by the OPRHP, some based solely on reported finds and not by field testing. Additionally, there are a number of historic period archaeological sites on file with the OPRHP within one mile of the main Cedar Grove Beach project site. Most were recorded as part of the 1978 Gateway National Recreation Area survey (JMA 1978). The following table summarizes these sites. Of note, NYSM site locations and descriptions often are vague, due to the fact that many of these sites were documented based on non-professional records (such as information from local landowners, avocational collectors, or historic accounts); descriptions and distances of these sites from the project site are given based on available mapping and other data, but should not be considered definitive. Last, both the NYSOPRHP GIS and Boesch (1994) note that the project site is within an area of archaeological sensitivity.

NYSOPRHP Site # and Site Name	NYSM Site # and Site Name	Location and distance from project site	Time Period	Site Type
	8481	0.6 mile west	Unknown Precontact	Camp
	4628	Overlapping	Unknown Precontact	Traces of occupation
08501.000158 Vanderbilt Estate SI-1		Miller Field 0.9 mile north	Pre-1850	Farmhouse complex, no traces evident
08501.000169		Miller Field 0.7 mile north	Unknown precontact	Isolated cultural remains

NYSOPRHP Site # and Site Name	NYSM Site # and Site Name	Location and distance from project site	Time Period	Site Type
08501.000126 SI-8		Miller Field 0.6 mile north	Ca. 1919-1920	Stone lined irrigation ditch
08501.000127 SI-9 Remains of Administration Building		Miller Field 0.8 mile northeast	Ca. 1921	Concrete building remains
08501.000157 SI-19		Miller Field 0.8 mile northeast	Mid-20 th century	Concrete foundation
08501.000160 SI-3 Britton Cottage		Miller Field 0.6 mile northeast	Ca. 1687	Cottage location, no evidence remaining
08501.000161 Nieuwe Dorp		Miller Field 0.6 mile northeast	Ca. 1665	Early Dutch settlement, no evidence remaining
08501.000154 SI-15		New Dorp Beach 0.1 mile northeast	20 th -century	Concrete and brick foundation
08501.000153 SI-14		New Dorp Beach 0.1 mile northeast	Mid-20 th century	Concrete platform
08501.000129 SI-13		New Dorp Beach 0.1 mile northeast	Mid-20 th century	Concrete and brick structure
08501.000155 SI-16		New Dorp Beach 0.1 mile northeast	Mid-20 th century	Concrete foundation
08501.000156 SI-17		Oakwood Beach 0.4 mile southwest	Mid-20 th century	Concrete well
08501.000168 SI-4 Lake's Tide Mill and Homestead		Great Kills Park 0.8 mile southwest	Ca. 1709-1723	Grist mill location, no evidence remaining
08501.000165 STD-GK		Great Kills Harbor 0.9 mile southwest	Late precontact-early historic	Camp location, no evidence remaining

Several of the archaeological sites listed in the table are worth describing in further detail. Site NYSM 8481 was a camp site located along Kissam Avenue approximately 0.6 mile to the west of the project site. Site NYSM 4628 is noted as “traces of occupation.” Its boundaries, albeit large and vague, are mapped by the NSYM as covering the entire area between approximately New Dorp Lane, Tysens Lane, Old Mill Road, and the shoreline, including the project site.

The foundation remains at the former Seaside Hospital were some of the resources recorded as part of the 1978 archaeological study of the Gateway National Recreation Area, noted above. The remains slated to be removed as part of this project appear to have been recorded in 1978 as OPRHP Site 08501.000154. The site form describes the resource as “Semi-circular concrete and brick foundation partially exposed in sand, exposed portion is approximately 1 foot wide, 20 feet long. Not recommended for nomination to National Register.” The current SPHINX database of the OPRHP indicates that this resource has not been evaluated for S/NRHP eligibility.

In addition to the previously documented archaeological sites, a number of cultural resources investigations have occurred within a one mile radius of the project site, although the project site itself has never been subjected to an archaeological survey. Several of the surveys included stretches of the shoreline; others were located at Miller Field and additional areas within the Gateway National Recreation Area. No archaeological sites, other than those noted in the above table, have been recorded as a result of these surveys.

C. History of the Project Site

The project site falls within an area that is part of the neighborhood of New Dorp, which was established near the foot of modern New Dorp Lane in 1671 (Leng and Davis 1930). The Taylor and Skinner map from 1781 (Figure 5) illustrates the project site location in relation to New Dorp Lane. Although there was settlement within New Dorp north of the project site during the eighteenth and nineteenth centuries, there is no indication that the project site itself was ever used for anything other than access to the shore and nearby salt marshes, although the name “Cedar Grove” was in common use by at least the 1850s. The name is noted on the 1850 Dripps map, the 1860 Higginson map, and the 1872 Dripps map (Leng and Davis 1930). None of these maps, nor the 1859 and 1860 Walling maps, show any structures on the project site. A small path is shown leading from the end of Cedar Grove Avenue (which then terminated at what is now Ebbitts Street) through the project site, allowing access to the beach. However, as noted earlier, the early nineteenth-century shoreline was about 350 feet further into the bay than it is today, as shown on the 1844 and 1855 (Figure 6) U.S.C.S. maps. Thus the pathway was in an area that is now part of the restored beach area. The 1855 map appears to show two “groves” of trees near the mid-nineteenth century shoreline (which included a small pier), as well as an unlabeled structure at the northeastern end of the project site vicinity. Both the pier and the former structure were in areas washed away by tidal action in subsequent decades, and which are now under water and off the project site. The vicinity of the project site, including the location that would become Seaside Hospital and where the existing foundation remains are located, was still mostly undeveloped as well. Settlement at this time was limited to New Dorp Lane and parcels north of Cedar Grove Avenue.

Maps made during the second half of the nineteenth century show the progression of shoreline erosion over time. The 1874 Beers map (Figure 7) illustrates in detail the division between firm land and marshland in the project site and its immediate vicinity, and shows the location of a pathway leading from Cedar Grove Avenue through the portion of the project site that was once firm land, later was washed away (see Figure 1), and then was restored as beach during the late twentieth century. The owners of Cedar Grove are noted as Mrs. J. Dill and Mrs. H. Lord. The area that would become Seaside Hospital was part of the H.M. Weeds Estate and was undeveloped. Little change to the Cedar Grove Beach project site is shown on the 1887 Beers update (Figure 8), other than new ownership, attributed to Wiman, Barnes, and Anderson. However, as described by Leng and Davis (1930), significant shoreline erosion had already occurred by this time and it is likely mapmakers did not survey the new shoreline location for this update. The 1891 Bien and Vermeule map (Figure 9), by contrast, which is based on U.S.G.S. maps, more accurately shows how far the shoreline had receded within the project site. This map also shows the configuration of the marshlands at the southern end of the project site.

In 1881, St. John’s Guild, an organization for the relief of sick and poor children, which had been organized in 1866 and incorporated in 1877, built the “Sea Side Nursery” on property east of Cedar Grove Avenue along the shoreline, shown in 1874 to be owned by the Weeds Estate (Leng and Davis 1930). The 1887 Beers map (Figure 8) shows the location of the original nursery building. In 1887 the facility became the Seaside Hospital, and construction expanded to include additional buildings on an expanded property. The area where the foundation remains now exist were once on firm land or just at the water’s edge (U.S.C.S. 1855, see Figure 6), but later due to shoreline erosion this area appears to have been washed away. Once the nursery and subsequent hospital structures were built, the shoreline was restored and extended further towards the bulkhead line through landfilling.

Several historic maps from the first decades of the twentieth century illustrate the progression of development on the Cedar Grove Beach project site and the Seaside Hospital property. The 1907 Robinson map shows that the Cedar Grove Beach project site was still undeveloped (it was part of a 75-acre parcel attributed to Anderson and Barnes), but that the Seaside Hospital property had now expanded to include property on both sides of Cedar Grove Avenue and extending to the shoreline, which was beginning to be landfilled. The 1911 Borough of Richmond Topographical Survey map (Figure 10), which was the most detailed map made of the area to date, confirms that the Cedar Grove Beach property was undeveloped, but contained a looped pathways leading into the parcel from Cedar Grove Avenue. The Seaside Hospital property was shown to include a number of buildings, although not the structure that is represented by the project site foundation remains.

The organization known as the Cedar Grove Beach Club had its genesis as a campground in the early 1900s. The south shore of Staten Island was a popular seaside destination for both Staten Island residents, as well as Manhattan and Brooklyn dwellers, who arrived via ferry boat. Hotels and boarding houses had begun operating by the late nineteenth century to accommodate these vacationers. In the early twentieth century a number of local campgrounds were established for visitors to the area, Cedar Grove being one of them. While informal camping appears to have occurred on the project site during the early 1900s, by 1911 the project site was a tent colony, formally known as the Cedar Grove Beach Club, and during the ensuing years the present beach cottages were built. A Cedar Grove Beach Club Board was created by 1911 to “promote the development of the common life of the property including recreation and social activities” (Howe 2010). Bungalows were individually owned, but the community lived in a collective spirit, with organized group activities for both the children and adults throughout the summer (Jost 2000). The 1917 Bromley map (Figure 11) illustrates these early cottages, which extended down the length of Cedar Grove Beach beyond the present project site boundaries. The map shows that there was a tennis court located on the western side of the property at this time.

Curiously, comparison of the 1917 Bromley map with a 1917 Sanborn map for the area north of the Cedar Grove Beach project site indicates an inconsistency concerning construction of the Seaside Hospital building whose foundation remains are now being studied. The 1917 Bromley map does not show the X-shaped wings of the building as being constructed yet, but the 1917 Sanborn map does show the buildings, and notes that the wing in question was built in 1909. Since the 1911 topographical map does not show this building extension, it seems likely that the Sanborn map is in error. The building probably was completed just after 1917; it is shown clearly on a 1924 aerial photograph (Figure 12) and in part of a 1929 view of the shoreline (Photograph 21).

The 1924 aerial photograph also shows the pace of development on the Cedar Grove Beach project site. Existing features such as the baseball field at the northwestern end of the property are shown, as are the roadways looping through the property. The tennis court, now defunct, is visible along the western edge of the site. The original clubhouse for the site was located in the approximate area of the current barn. A photograph from 1929 shows that it originally was a one-story building with a wrap-around covered porch (Photograph 22). A later view of the building, from an undated postcard, shows that it had been significantly expanded in later years (Photograph 23). Several other undated postcards illustrate scenes from the beach club during what appears to be the mid-twentieth century (Photographs 24-26). The 1951 Sanborn map (Figure 13) illustrates the layout of the Cedar Grove Beach project site at mid-century.

Review of twentieth century aerial photographs (available online at www.historicaerials.com), Sanborn maps (1937, 1951) and current project survey plans, shows that there was minimal change to the Cedar Grove project site over the course of the twentieth century. Exceptions were the loss of the original clubhouse due to fire in 1972, and the creation of the present clubhouse from conversion and expansion of one of the bungalows after that (Jost 2000). Some of the bungalows and garages within the project site have been demolished over time, but most of the buildings (the clubhouse notwithstanding) date to the original building period of the 1910s and 1920s. The wooden barn is not original to the project site. In 1992 a fierce storm destroyed 30 bungalows on the southern end of Cedar Grove Beach, outside of the project site, essentially halving the community both in size and in population. During the last decades of the twentieth century, the beach has been extended further into the bay to its present shoreline.

The Seaside Hospital building, where the foundation remains now exist, stood until the hospital complex was demolished in 1964. Since 1964, it appears that there has been significant additional disturbance to the area from erosion and debris dumping.

V. CONCLUSIONS

A. Precontact Archaeological Resources

The project site is located in an area where several precontact period archaeological sites have been recorded, including one NYSM site whose boundaries (albeit large and vague) overlap the project site. The Cedar Grove Beach project site was historically on firm land adjacent to inland salt marshes on the northwest and the beach bordering Lower New York Bay on the southeast. Although there has been significant loss of shoreline due to tidal action, erosion, and periodic storms, the project site west of Cedar Grove Beach Place appears to retain its original landform. In its natural state, any areas of the project site on firm ground and that have not sustained disturbance due to either natural or man-made events would have a high precontact sensitivity.

The Seaside Hospital foundation remains location has a low precontact archaeological sensitivity, however, due to the area's documented history of repeated shoreline erosion and landfilling activities. It is highly unlikely that any original landform still exists at this location.

B. Historic Period Archaeological Resources

Historic maps show that the Cedar Grove Beach project site was undeveloped until the 1910s, when it was developed with bungalows. There is no historic period archaeological sensitivity associated with these buildings, as all were connected to municipal utilities at the time of their construction and there were no wells, privies, or other shaft features that could have been used for archaeological deposits.

The Seaside Hospital foundation remains have been documented as part of the 1978 archaeological study of the Gateway National Recreation Area. At that time the remains were recommended as not eligible for the S/NRHP. As noted above, the current SPHINX database of the NYSOPRHP indicates that this resource has not formally been evaluated for S/NRHP eligibility. It is HPI's opinion that if evaluated, this resource would be determined NOT eligible due to its fragmentary nature, its lack of integrity, its date of construction in the twentieth century, and the already thorough documentation of Seaside Hospital that can be found in other archival and photographic sources. The debris located in proximity to the concrete and brick foundation remains does not appear to have any archaeological significance.

C. Disturbance Record and Archaeological Sensitivity

Due to the lack of soil borings for the project site, the disturbance record must rely primarily on observations made during the field visit and comparison of historic maps with the modern site survey map. Use of the project site for the beach colony has resulted in various degrees of ground disturbance across the property. Man-made disturbance has come from building construction and demolition, subsurface utility installations, roadwork, and use of the property by residents. Natural disturbance has been caused by wind and water erosion over time.

In general, the project site can be divided into three basic zones of disturbance, which translate into areas of potential archaeological sensitivity. These areas are mapped on Figure 14.

1. All of the property south of Cedar Grove Beach Place, where the majority of the bungalows are located and the beach itself, is clearly disturbed from building construction, utility installations, and modifications to the beach area, including the addition of new sand to extend the beach further into the water, and the creation of stone piers. There is low to no archaeological sensitivity in this area.
2. The property located between Cedar Grove Beach Place and Cedar Grove Avenue has been disturbed from building construction and demolition and utility installation in discrete areas, but not in all areas. Some locations show evidence of erosion. Areas that are clearly disturbed have low to no archaeological sensitivity, but areas that are less obviously disturbed may have a moderate archaeological sensitivity, pending confirmation of disturbance.
3. The property located north of Cedar Grove Avenue has been disturbed in areas where buildings are or were present, but not in historically undeveloped areas. Those locations that are clearly disturbed have low to no archaeological sensitivity, but areas that are less obviously disturbed may have a high archaeological

sensitivity, as these locations were situated the farthest inland from the shore, on the highest ground, and adjacent to marshlands.

The Seaside Hospital building foundation remains are in an area where it appears that there has been significant disturbance to the area from erosion and debris dumping.

VI. RECOMMENDATIONS

Based on these conclusions, and because no previous soil borings have been completed on the project site that might illuminate soil conditions, and no borings are necessary for the minimum proposed improvements, HPI recommends that if subsurface development as part of the proposed project will impact any areas within the Cedar Grove Beach property noted as moderately or highly sensitive for archaeological resources, that limited field testing be undertaken to assess the degree of disturbance to the below grade horizons in these locations. Such an interim phase of testing for subsurface integrity to the depth of proposed improvements would allow a determination of sensitivity and the need for the next level of study. If the limited, or preliminary Phase IB testing, which would entail a small number of hand excavated shovel tests (STs), confirms disturbance to buried soil horizons, then no additional archaeological studies would be warranted. All archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005; LPC 2002; CEQR 2001). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

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Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County

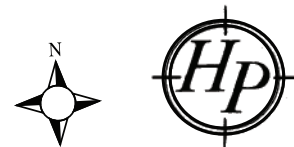
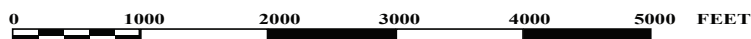


Figure 1: Project site on *The Narrows*, N.Y. 7.5 Minute Topographic Quadrangle
 (U.S.G.S. 1981)



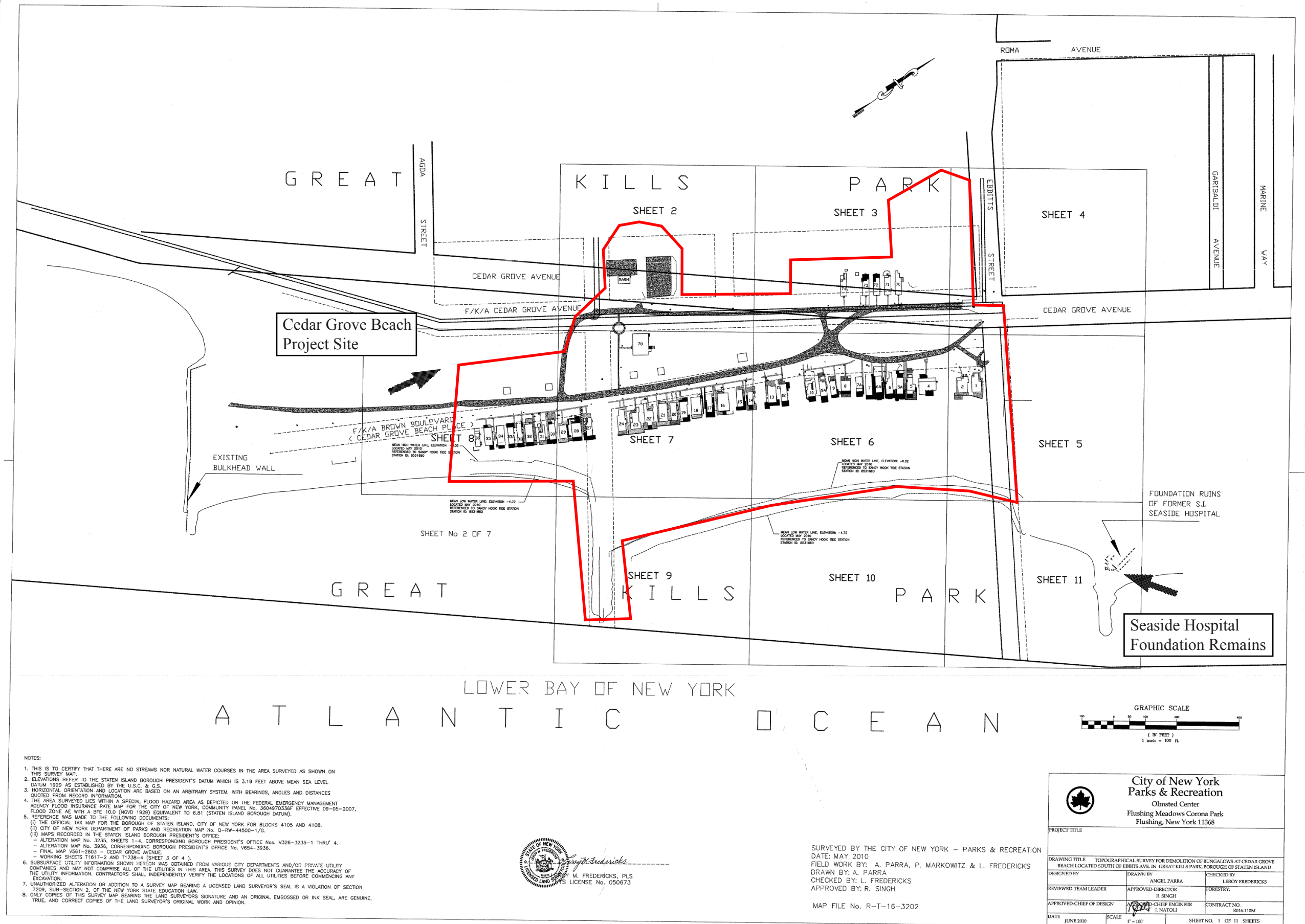


Figure 2: Project site on modern survey map (DPR 2010).

Legend

1 ↑ Photographs and orientations



CEDAR GROVE BUNGALOWS
NYC Parks & Recreation
Staten Island Team
09/09/2010

0 100 200
Scale in feet



Figure 3: Project site and photograph locations on modern aerial photograph.

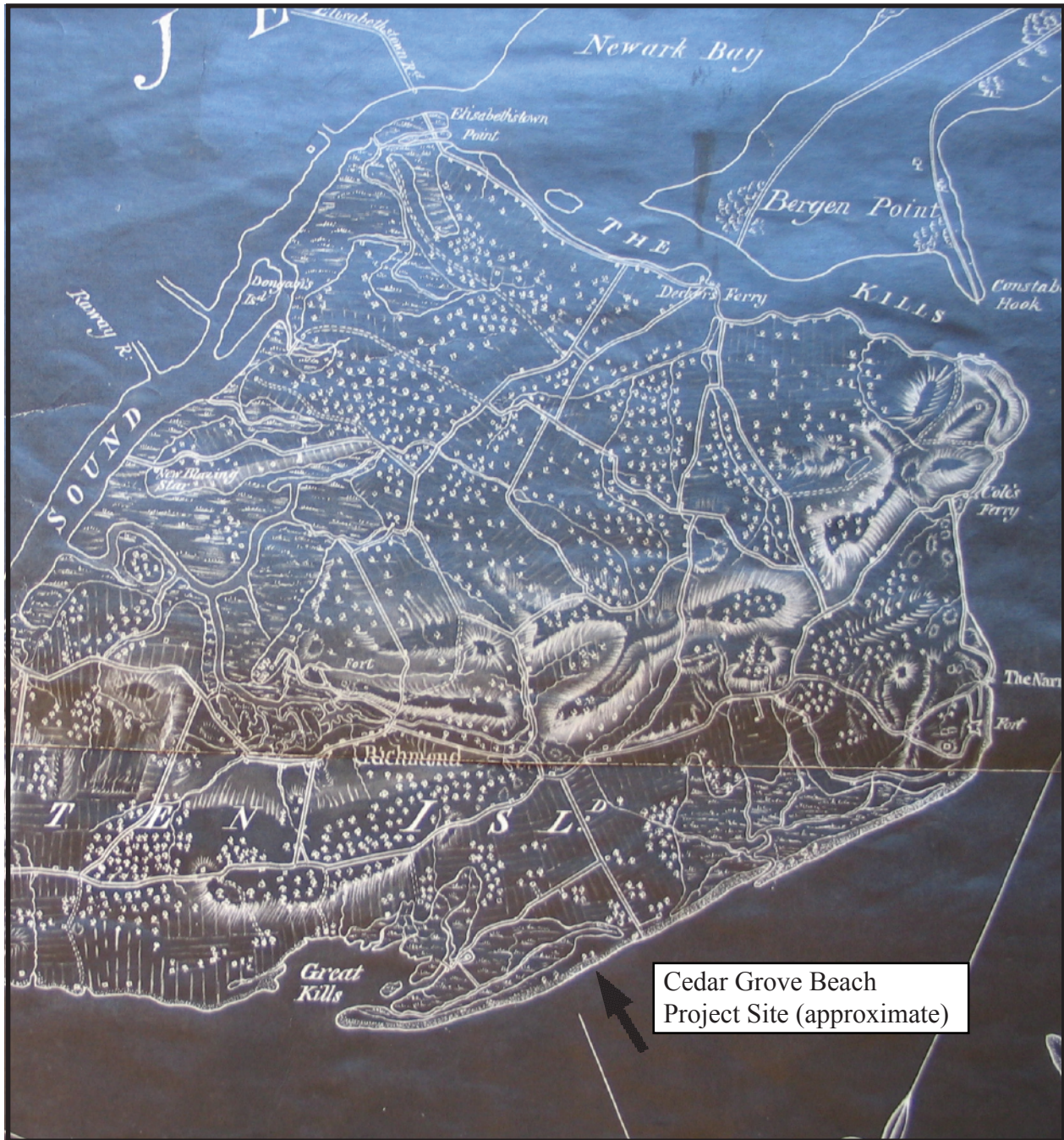


Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County



Figure 4: Project site on *New York City Reconnaissance Soil Survey* (U.S.D.A. 2005).





Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County



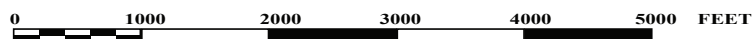
Figure 5: Project site on *A Map of New York & Staten Island and Part of Long Island* (Taylor and Skinner 1781). No scale.

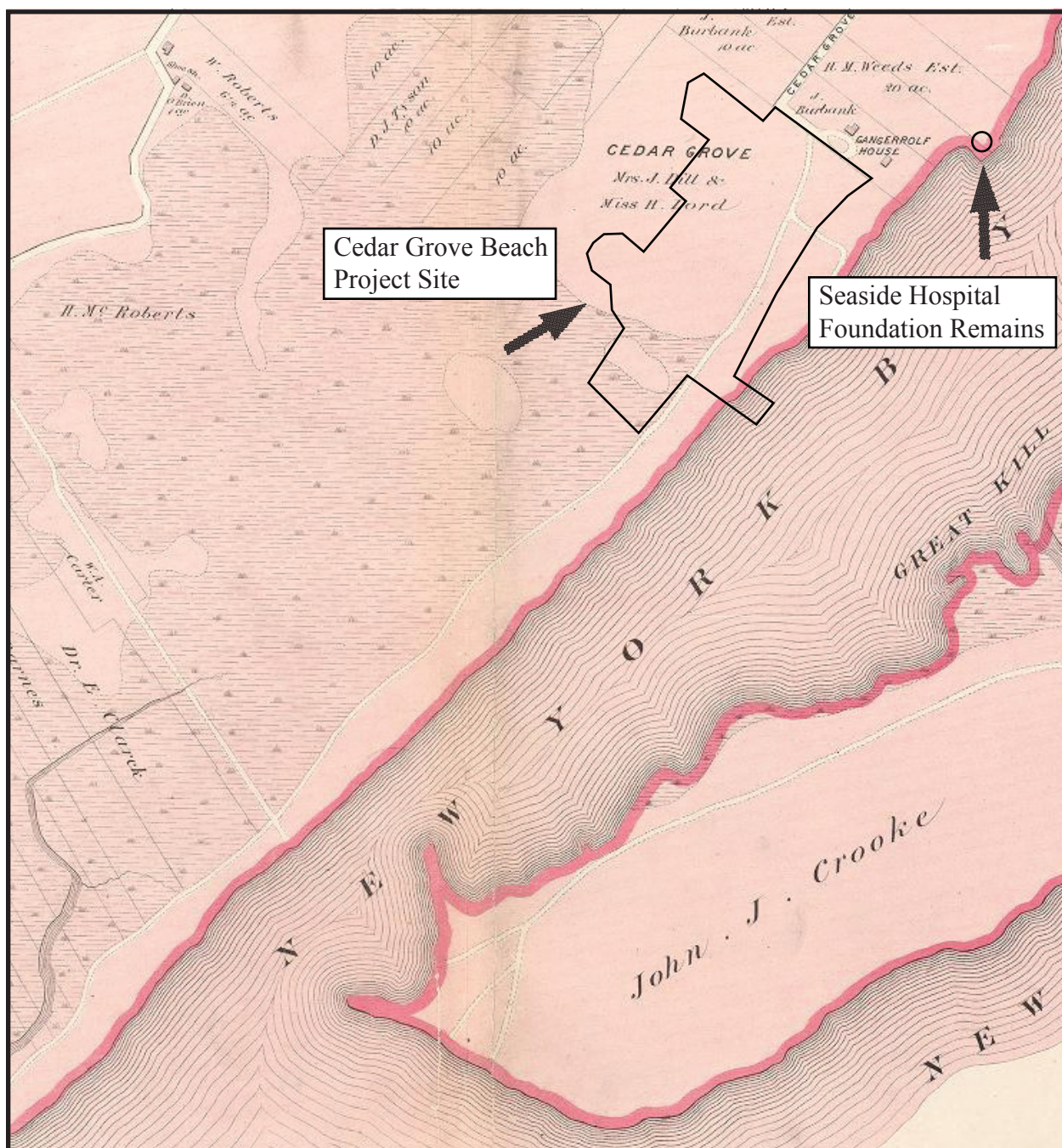


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Cedar Grove Beach, NYC Department of Parks and Recreation
Block 4105, part of Lot 50, and Block 4108, part of Lot 45
Staten Island, Richmond County



Figure 6: Project site on *Staten Island From New Brighton to Great Kills* (U.S.C.S. 1855)





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 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County

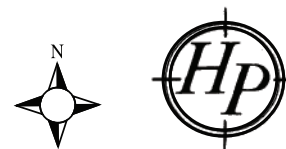


Figure 7: Project site on *Atlas of Staten Island, Richmond County, New York* (Beers 1874).

0 1000 2000 3000 4000 5000 FEET

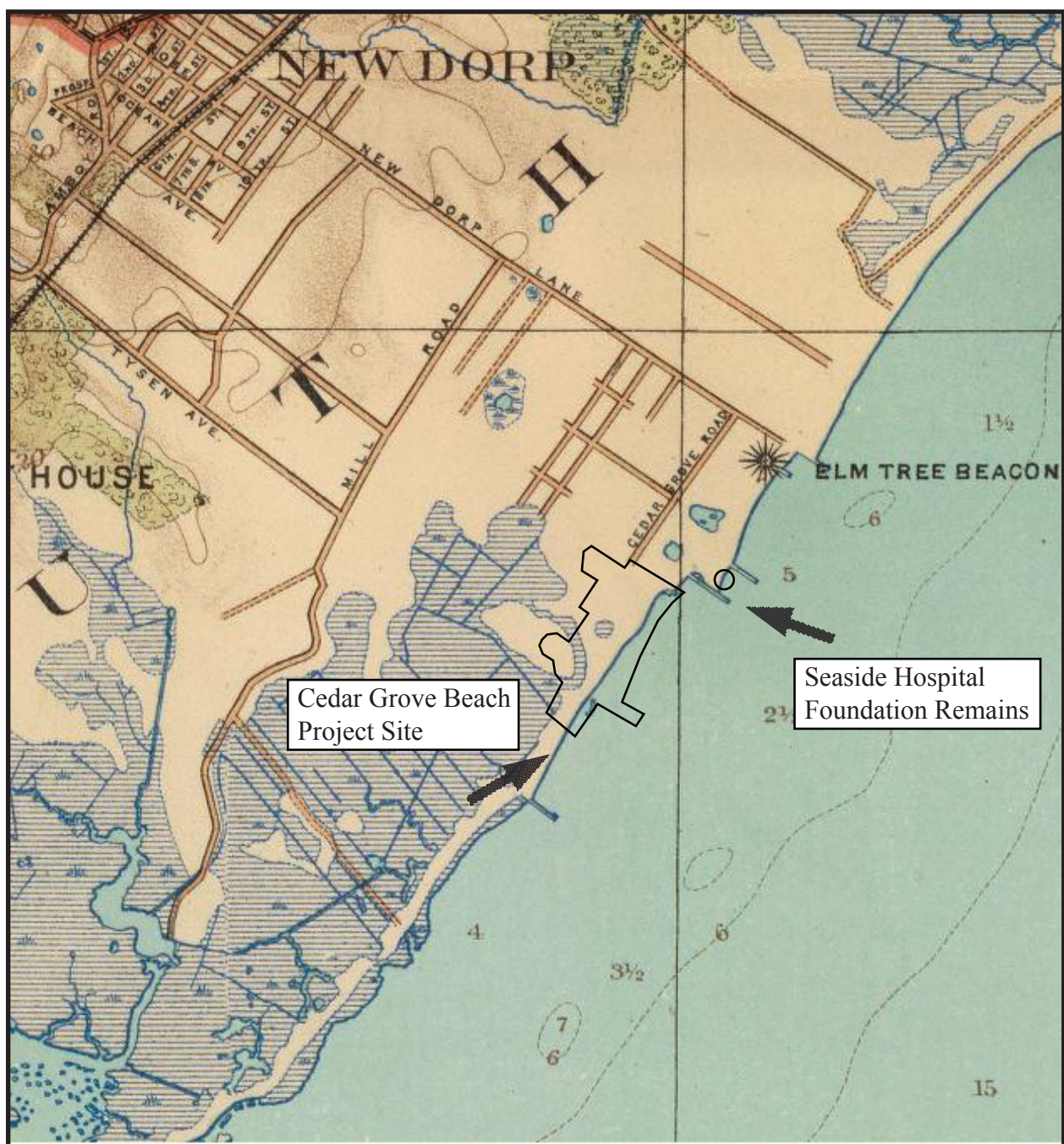


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Figure 8: Project site on *Atlas of Staten Island, Richmond County, New York* (Beers 1887).

0 1000 2000 3000 4000 5000 FEET



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 Cedar Grove Beach, NYC Department of Parks and Recreation
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 Staten Island, Richmond County

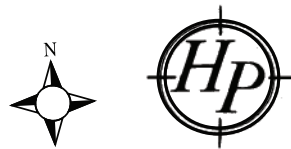
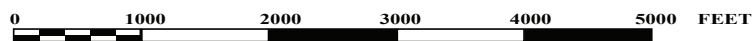
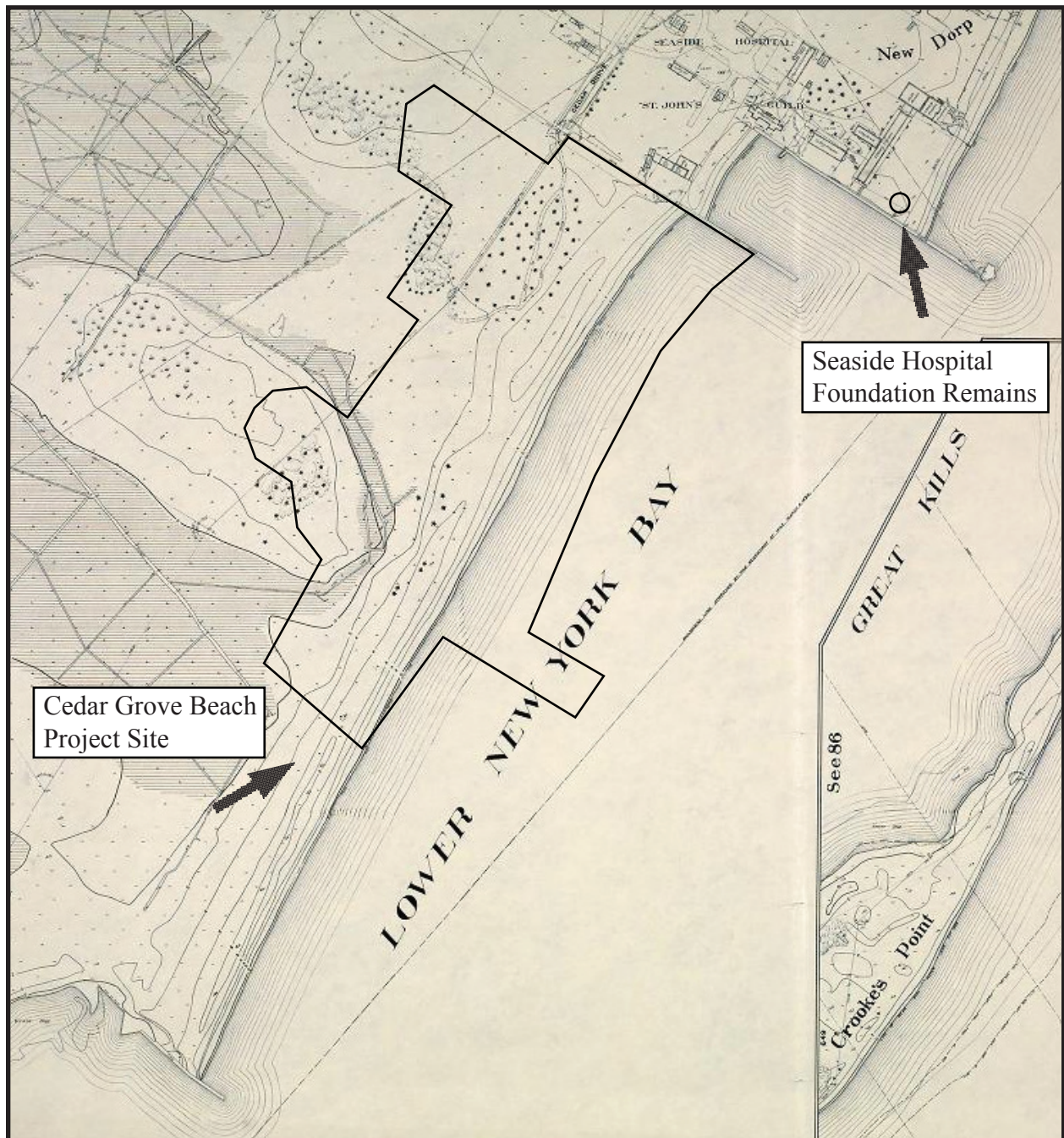


Figure 9: Project site on *Atlas of the Metropolitan District...* (Bien and Vermeule 1891).





Phase IA Archaeological Documentary Study
Cedar Grove Beach, NYC Department of Parks and Recreation
Block 4105, part of Lot 50, and Block 4108, part of Lot 45
Staten Island, Richmond County

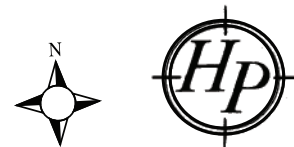
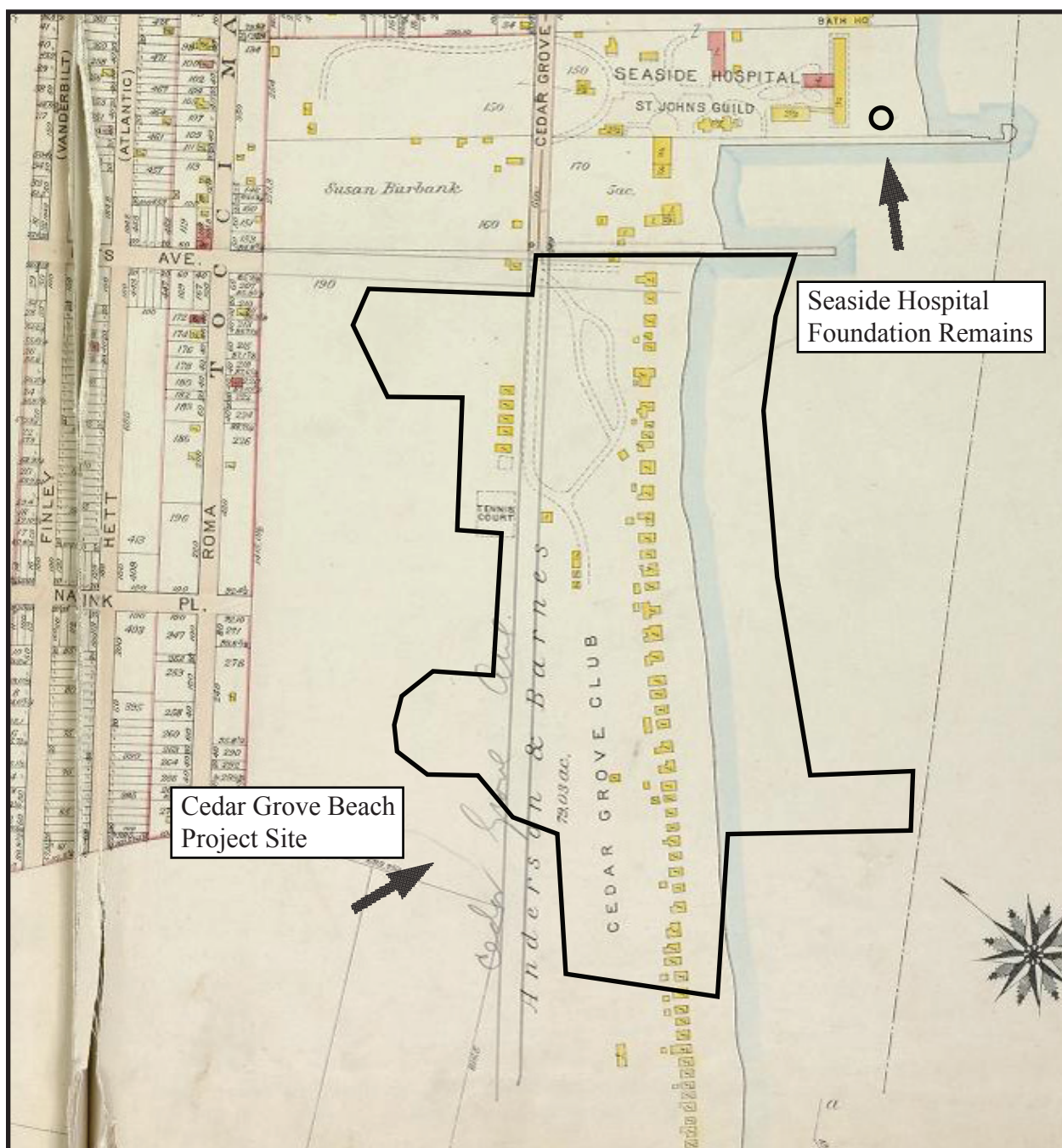


Figure 10: Project site on *Borough of Richmond, Topographical Survey* (Borough of Richmond 1911).

0 250 500 750 1000 1250 FEET

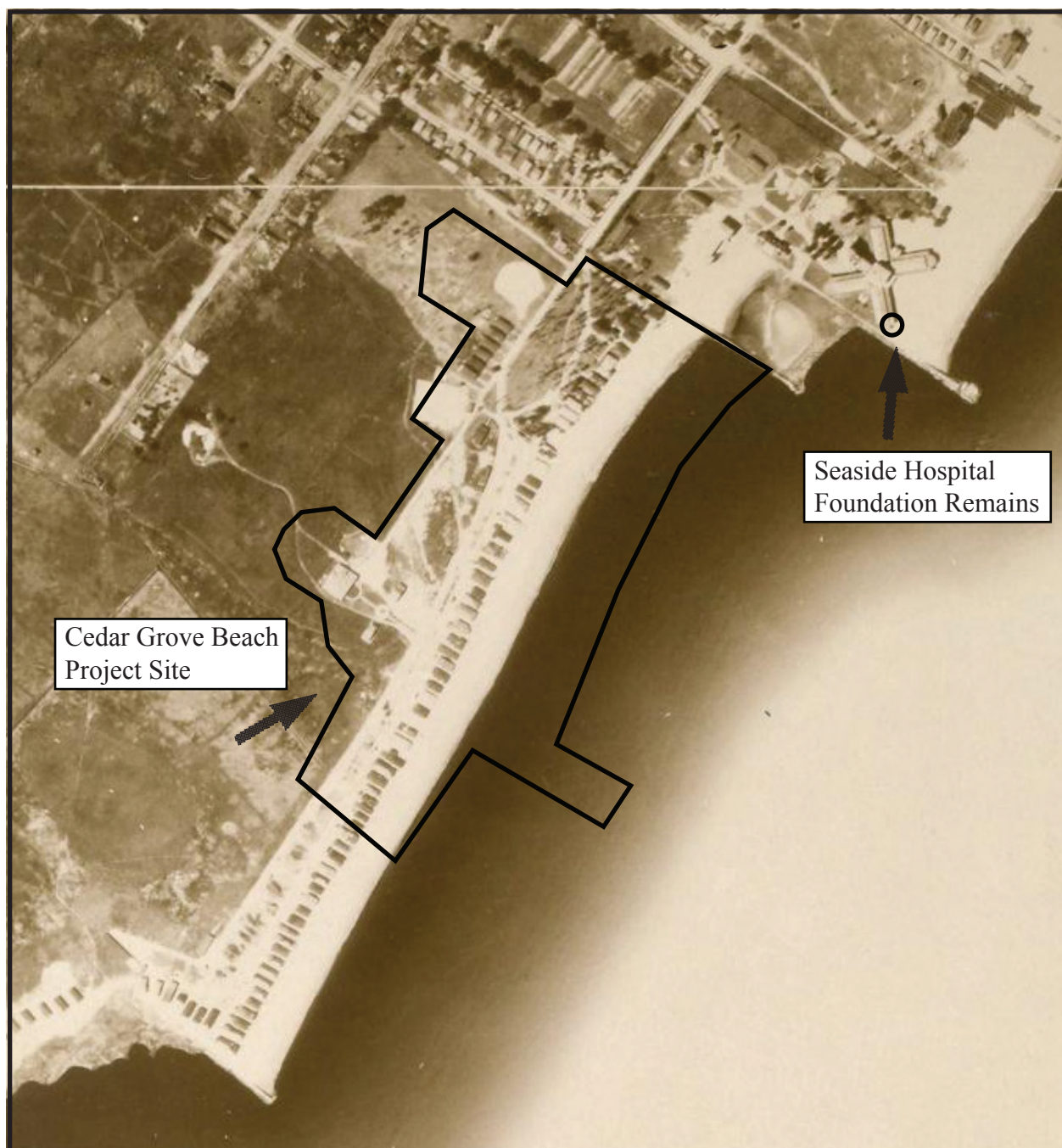


Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County



Figure 11: Project site on *Atlas of the City of New York, Borough of Richmond, Staten Island* (Bromley 1917).





Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County

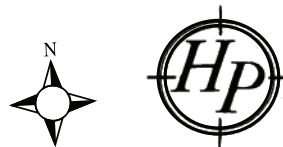
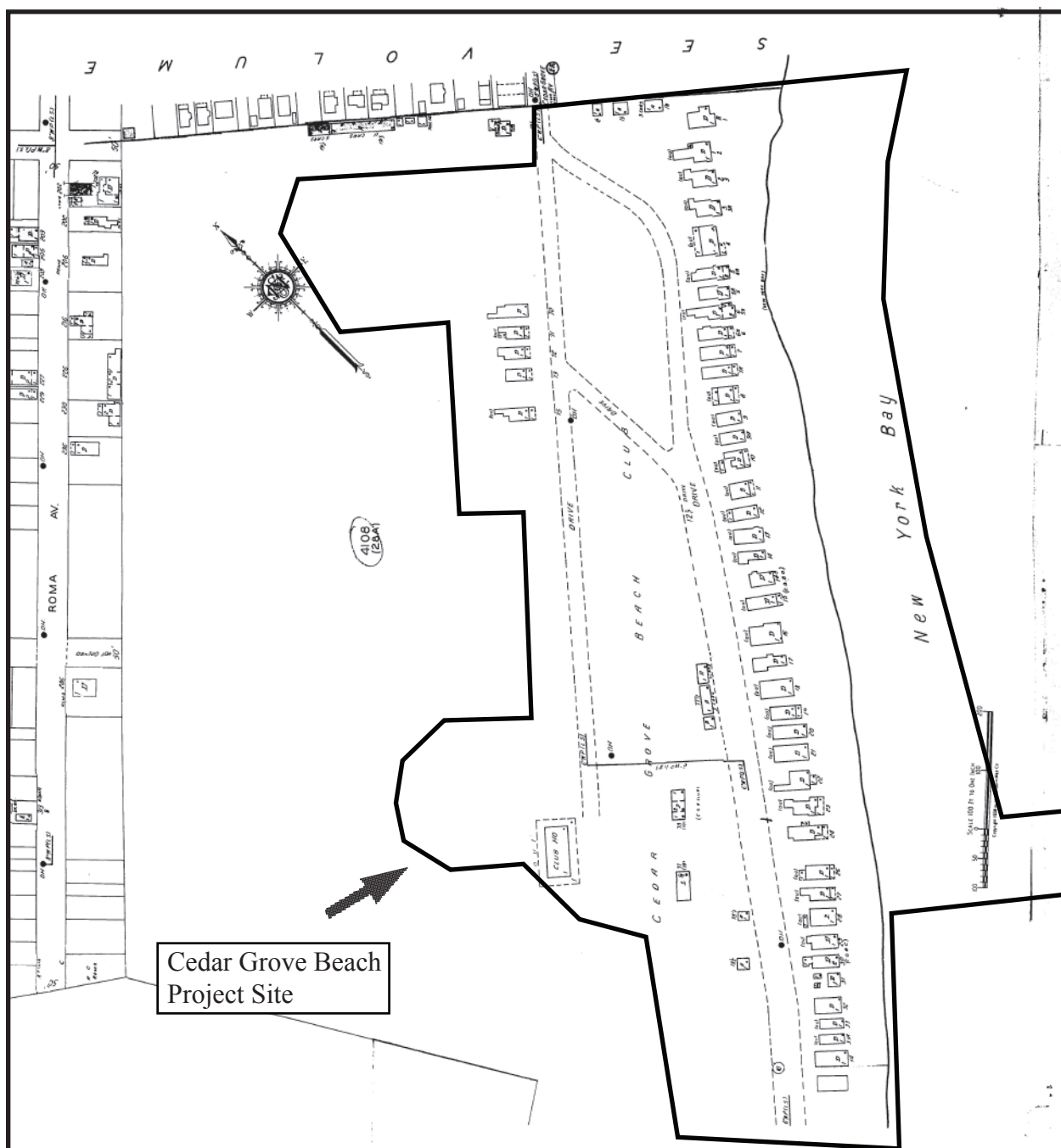


Figure 12: Project site on *Sectional aerial maps of the City of New York*
 (New York City Bureau of Engineering 1924).






Phase IA Archaeological Documentary Study
 Cedar Grove Beach, NYC Department of Parks and Recreation
 Block 4105, part of Lot 50, and Block 4108, part of Lot 45
 Staten Island, Richmond County





Figure 13: Project site on *Insurance Maps of Staten Island, New York* (Sanborn 1951).



Legend

 Project Boundary

 High Archaeological Sensitivity

 Moderate Archaeological Sensitivity

Areas with Low or No Archaeological Sensitivity are not coded



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NYC Parks & Recreation
Staten Island Team
09/09/2010



Figure 14: Project site showing areas of archaeological sensitivity.



Photograph 1: Rear of bungalows southeast of Cedar Grove Beach Place bordering beach. View looking southwest.



Photograph 2: Front of bungalows southeast of Cedar Grove Beach Place bordering beach. View looking northeast.



Photograph 3: Beach area at Cedar Grove Beach. Stone jetty is visible in the far background. View looking south.



Photograph 4: Stone jetty. View looking southeast.



Photograph 5: Example of disturbed soils surrounding bungalows. View looking northeast.



Photograph 6: Example of disturbed soils surrounding bungalows. View looking northeast.



Photograph 7: Structures located at southern end of strip between Cedar Grove Beach Place and Cedar Grove Avenue, including the clubhouse and several one-story masonry garages. View looking north.



Photograph 8: Bocce court and horseshoe pit located northeast of clubhouse. View looking north.



Photograph 9: Sewer line located south of the current clubhouse running through the project site east to the bulkhead line along the stone jetty. Note manhole covers on left. View looking east.



Photograph 10: Southern end of project site showing marshland vegetation in right background. View looking southwest.



Photograph 11: Example of exposed sand in area between Cedar Grove Beach Place and Cedar Grove Avenue. View looking southeast.



Photograph 12: Area between Cedar Grove Beach Place and Cedar Grove Avenue covered with grass and trees. View looking north.



Photograph 13: Area between Cedar Grove Beach Place and Cedar Grove Avenue covered with grass and trees. View looking southwest.



Photograph 14: Baseball field near Ebbitts Street. View looking northwest.



Photograph 15: Bungalows northwest of Cedar Grove Avenue. View looking southwest.



Photograph 16: Former tennis court location, now overgrown, northwest of Cedar Grove Avenue. View looking southwest.



Photograph 17: Large wooden barn located northwest of Cedar Grove Avenue. Tennis court is on right and basketball court is behind barn. View looking west.



Photograph 18: Detail of basketball court behind barn. View looking west.



Photograph 19: Foundation remains and debris on the beach off Ebbitts Street and Cedar Grove Court. View looking northeast.



Photograph 20: Foundation remains and debris on the beach off Ebbitts Street and Cedar Grove Court. View looking northwest.



Photograph 21: Seaside Hospital building as seen from Cedar Grove Beach in 1929. Former building with existing foundation remains is shown at far right (Sperr 1929).



Photograph 22: Cedar Grove Beach Club House in 1929 (Sperr 1929).



Photograph 23: Expanded Cedar Grove Beach Club House on undated photograph (courtesy of New York Public Library).



Photograph 24: Shoreline of Cedar Grove Beach on undated postcard (courtesy of New York Public Library).



Photograph 25: Shoreline of Cedar Grove Beach on undated postcard (courtesy of New York Public Library).



Photograph 26: Entrance to Cedar Grove Beach on undated postcard (courtesy New York Public Library).