HISTORICAL PERSPECTIVES INC.

Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

NYSOPRHP # 13PR00027

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Prepared For:

Tyrellan Holdings, LLC
45 A Marble Loop
Staten Island, NY 10309

Prepared By:

Historical Perspectives, Inc.
P.O. Box 529
Westport, CT 06881

Author:
Julie Abell Horn, M.A., R.P.A.

March 2016

MANAGEMENT SUMMARY

SHPO Project Review Number (if available): **13PR00027**

Involved State and Federal Agencies: **NYSDEC**

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

Location Information
- Location: **Block 7469, Lots 115, 120, 125, 136 and 150**
- Minor Civil Division: **08501, Staten Island**
- County: **Richmond**

Survey Area
- Length: **varies**
- Width: **varies**
- Number of Acres Surveyed: **ca. 4.5**

USGS 7.5 Minute Quadrangle Map: **Arthur Kill**

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, urban area**

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: **March 2016**

EXECUTIVE SUMMARY

Tyrellan Avenue Holdings, LLC proposes new construction on Block 7469, Lots 115, 120, 125, 136 and 150, Staten Island, Richmond County, New York (Figures 1 and 2). The property is bounded by Tyrellan Avenue on the west, Veterans Road West on the north, and the exit ramp for the West Shore Expressway (Route 440) on the east and south. The proposed project includes construction of commercial buildings and parking lots (Figure 3). The Area of Potential Effect (APE) is the area that could be affected by project development. At this time, development is proposed on the entire project site (Figure 3).

As part of the New York State Department of Environmental Conservation (NYSDEC) permitting process, project materials were submitted to the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) for cultural resource review. The NYSOPRHP responded that a Phase I archaeological survey was necessary for all areas that would experience ground disturbance as part of the proposed project (Pierpont 1/2/2013). This Phase IA Archaeological Documentary Study was prepared to comply with the standards of the NYSOPRHP (New York Archaeological Council 1994; NYSOPRHP 2005).

The project site appears to be largely undisturbed, except some areas bordering the two outparcels on the block, which exhibit visible evidence of clearing, grading, and dumping. For example, the 2007 Phase I ESA reported a large sand stockpile about 100 feet east of the parking lot for the bank building (CEA 20007). Research indicates that the property has been undeveloped and largely wooded during the historic era.

The project site is located in an area where numerous precontact period archaeological sites have been recorded, including many on similar landforms as the current property. The site has gentle grades and well-drained soil. Further, a perennial drainage formerly ran just to the east of the project site. All of these factors indicate that the site might have been a preferred location for precontact archaeological activity. Therefore, HPI concludes that the majority of the project site retains precontact sensitivity, as shown on Figure 11.

The project site has remained undeveloped without any structures throughout its history. Therefore, there is no historic period sensitivity for the site.

Based on these conclusions, which indicate precontact archaeological sensitivity for most of the project site, HPI recommends that a program of Phase IB archaeological shovel testing be conducted on the property. Testing should consist of a systematic shovel testing program, to be undertaken in those areas of the project site identified as sensitive for precontact archaeological resources, as shown on Figure 11. All archaeological testing should be conducted according to applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005). Professional archaeologists, with an understanding of and experience in archaeological excavation techniques, would be required to be part of the archaeological team.

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I. INTRODUCTION

Tyrellan Avenue Holdings, LLC proposes new construction on Block 7469, Lots 115, 120, 125, 136 and 150, Staten Island, Richmond County, New York (Figures 1 and 2). The property is bounded by Tyrellan Avenue on the west, Veterans Road West on the north, and the exit ramp for the West Shore Expressway (Route 440) on the east and south. The proposed project includes construction of commercial buildings and parking lots (Figure 3). The Area of Potential Effect (APE) is the area that could be affected by project development. At this time, development is proposed on the entire project site (Figure 3).

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This Phase IA Archaeological Documentary Study was prepared to comply with the standards of the NYSOPRHP (New York Archaeological Council 1994; NYSOPRHP 2005). The HPI project team consisted of Julie Abell Horn, M.A., R.P.A., who conducted site visit, the research, and wrote the report; David C. Martin, Ph.D., R.P.A., who assisted with the site visit, and Cece Saunders, M.A., R.P.A. who managed the project and provided editorial and interpretive assistance.

II. METHODOLOGY

The present study entailed the examination and analysis of various resources.

- Historic maps were reviewed using materials from the New York Public Library, the Staten Island Historical Society, the Staten Island Museum, and using various online websites. These maps provided an overview of the topography and a chronology of land usage and ownership for the study site.
- Primary and secondary sources concerning the general precontact period and history of Staten Island and specific events associated with the project site were reviewed using materials from the New York Public Library, the Staten Island Historical Society, and using online resources.
- Information about previously recorded archaeological sites and surveys in the area was compiled from data available at the NYSOPRHP and the LPC.
- The project team provided various maps, site data, and a Phase I ESA (CEA Engineers 2007).
- Last, Julie Abell Horn and David C. Martin of HPI conducted a site visit on March 11, 2016 to assess any obvious or unrecorded subsurface disturbance (Photographs 1-6; Figure 2).

III. CURRENT CONDITIONS AND ENVIRONMENTAL SETTING

A. Current Conditions

The project site is an undeveloped, wooded parcel, measuring ca. 4.5 acres (Photographs 1 and 2). Trees on the lot range in trunk diameter considerably, with many trees appearing to be relatively young, suggesting some clearing on the parcel within the last few decades. There is a heavy understory of briars throughout the property. At the time of the site inspection in March 2016, the western edges of the site, which abut two outparcels containing an office building, a bank, and a cleared and fenced lot, exhibited some grading and dumping disturbance (Photographs 3 and 4).

B. Topography and Hydrology

The project site ranges in elevation from ca. 50 feet above sea level on the eastern side to ca. 80 feet above sea level on the western side, with gentle slopes throughout most of the property. Historic maps suggest elevations have not changed markedly over time (Bien and Vermeule 1891 [Figure 8], Borough of Richmond 1911 [Figure 9]). Prior to construction of the West Shore Expressway, which borders the project site on the east, there was a perennial drainage that ran roughly north-south along the edge of the property. The drainage, which is now at least partially channeled, empties into Mill Creek, which in turn runs west to empty into the Arthur Kill.

C. Soils

According to the soil survey for New York City (Figure 6), the project site falls within a soil mapping unit called "Foresthills-Greenbelt-Pavement & buildings complex, 0 to 8 percent slopes." It is described as:

> Nearly level to gently sloping areas that have been filled with natural soil materials; a mixture of anthropogenic soils that vary in depth of fill, with more than 15 percent impervious pavement and buildings covering the surface (USDA 2005:14).

The two soil series are further described in the table, below.

Name	Soil Horizon Depth	Color	Texture, Inclusions	Slope %	Drainage	Landform
Foresthills Series	*A* 0-2 in *Bw* 2-15 in *Ab* 15-17 in *BAb* 17-28 in *Bwb* 28-42 in *Cd* 42-60 in	10YR 3/2 7.5YR 4.4 10YR 2/1 7.5YR 4/3 5YR 4/4 5YR 4/6	Lo SiLo Lo Lo Lo Lo	0-8	Well	Anthropogenic fill areas on urbanized till plains
Greenbelt Series	*A* 0-3 in *Bw* 3-13 in *C* 13-57 in *Ab* 57-58 in *Bwb* 58-65 in	7.5YR 4/4 5YR 4/6 2.5YR 4/4 7.5YR 3/2 5YR 4/6	Lo Lo GrlLo Lo Lo	0-8	Well	Anthropogenic fill areas on urbanized till plains

Key: Soils: Lo-Loam, Si-Silt, Grl-Gravelly

There have been no soil borings completed 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, gravers 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. A possible Paleo-Indian component was identified at the Old Place Neck site (PAL 2012).

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. A more complex tool kit further demonstrates the increasing diversification of utilized food sources. 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, it should be noted that the Old Place site, located approximately two miles north of the project site, is recognized as one of the most important Early Archaic component sites in the area (Ritchie and Funk 1971; Ritchie 1980; Cantwell and Wall 2001). Other Early Archaic component sites on Staten Island include the 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, Old Place Neck, and Wards Point sites (Boesch 1994; PAL 2012).

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, and Arlington Avenue sites. In addition, the Old Place Site and Old Place Neck Site both contained a Late Archaic component (Boesch 1994; PAL 2012).

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 site, as well as the 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. The Old Place Site and the Old Place Neck Site, which also had Woodland components, exhibited all of these locational characteristics.

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 that, 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, Old Place Neck, Corsons Brook, Travis, New Springfield, and at the PS56R Site in Woodrow (Boesch 1994; HPI 1996a; PAL 2012).

B. Previously Recorded Archaeological Sites and Surveys

Records on file at the NYSOPRHP and the New York State Museum as well as the Boesch (1994) *Archaeological and Sensitivity Assessment of Staten Island, New York* indicate that numerous precontact sites have been documented within one mile of the project site. The following table summarizes archaeological sites that have been documented by the NYSM, the NYSOPRHP, and by Boesch (1994) within a one mile radius of the project site. 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.

Site # and Name	Location	Time Period	Site Type
8501.000061 Sandy Ground	Area surrounding Woodrow Road and Bloomingdale Avenue	Nineteenth-twentieth century	Free Black community archaeological district
8501.000073 Canada Hill	Area north of Bricktown Way	Historic and prehistoric deposits	Camp
8501.000079 Anderson Brick Works Site	Kreischer Street and Arthur Kill Road	Nineteenth century	Industrial
8501.000082 Porzio House Site	North of Sharrotts Road and west of Veterans Road West	Nineteenth century	Domestic
8501.000123 Clay Pit Rd Bluff North Site (Preh)	North of Clay Pit Road between Arthur Kill Road and Veterans Road West	Precontact	Unknown
8501.000130 Park Headquarters Site (Preh)	South of Clay Pit Road between Arthur Kill Road and Veterans Road West	Precontact	Unknown
8501.000878 Abraham's Pond Locus A (Preh)	South of Clay Pit Road between Arthur Kill Road and Veterans Road West	Precontact	Unknown
8501.000879 Abraham's Pond Locus B (Preh)	South of Clay Pit Road between Arthur Kill Road and Veterans Road West	Precontact	Unknown
8501.000880 Abraham's Pond Locus C (Preh)	South of Clay Pit Road between Arthur Kill Road and Veterans Road West	Precontact	Unknown
8501.002258	Clay Pit Road near Bloomingdale Avenue	Form missing	Unknown
8501.002378	East of Salamander Court	Both prehistoric and historic	Unknown
8501.002814 Balthasar Kreischer Estate Ruins	Area south of Englewood Avenue and west of the West Shore Expressway	Nineteenth century	Domestic
8501.003358 Catbriar	South of Outerbridge Crossing and west of Arthur Kill Road	Woodland	Camp
Boesch 16 Kreischerville campsites ACP-RICH-16 NYSM 4606	Multiple locations between Port Mobil and Outerbridge Crossing	Paleo Indian to Late Woodland	Series of small camp sites
NYSM 744 Charleston Beach 30-RIC-19-AJA	Waterfront near end of Sharrotts Road	Paleo Indian through Middle Woodland	Materials probably from peat eroding onto beach, 19 fluted points reported from area
NYSM 771 Kreischerville	Kreischer Street area	Unknown precontact	Unknown
08501.002815 Fairview Prehistoric Site Canada Hill Site	Area south of Englewood Avenue and east of Arthur Kill Road	Unknown precontact	Lithic workshop
08501.002766 C4-MCB-1	Area south of Englewood Avenue and west of the West Shore Expressway	Unknown precontact	Lithic workshop

Site # and Name	Location	Time Period	Site Type
08501.002767 A7-MCB-1	Area south of Englewood Avenue and west of the West Shore Expressway	Unknown precontact	Unknown, part of Canada Hill site
08501.002847 Price Prehistoric Site	West side of Arthur Kill Road near Veterans Road	Late Archaic through Late Woodland	Stratified camp
08501.002846 Van Allen Farmstead	West side of Arthur Kill Road near Veterans Road	19th century	Farmstead
NYSM 4606 ACP RICH 16A	Large area on both sides of Arthur Kill Road from Sharrotts Road on north to Richmond Valley Road on south	Unknown precontact	Middens, camps, traces of occupation
NYSM 8493 ACP RICH 16B	Large area on both sides of Arthur Kill Road north and south of Outerbridge Crossing	Unknown precontact	Camp
NYSM 770 Boesch 17 Canada Hill	Multiple locations bounded by Veterans Road West, Englewood Avenue, and Arthur Kill Road	Woodland	Surface scatter of shell fragments and lithic debitage
Boesch 78 Indian Fields Kreischerville ACP-RICH-13 NYSM 771 NYSM 4620	Kreischerville/Charleston	Woodland	Traces of occupation
Boesch 116 Outerbridge STD-O	Beach and bluff near Outerbridge Crossing	Unknown precontact	Unknown
08501.000026 Nassau Place Site	Nassau Place and Arthur Kill Road	Unknown precontact	Shovel tests
Boesch 53 Richmond Valley Boiling Spring STD-RV	Bluff near a spring in Richmond Valley, near intersection of Page Avenue and Staten Island Railroad	Woodland	Shell midden
Boesch 101 Bethel Church STD-BC	Rear yard of Bethel Church, near intersection of Amboy Road and Page Avenue	Woodland	Camp site.
NYSM 8471 ACP RICH 19C	Large area south of Richmond Valley Road in Richmond Valley and Tottenville neighborhoods	Unknown precontact	Middens, traces of occupation
NYSM 8492	Large area on north side of Amboy Road west of Page Avenue	Unknown precontact	Traces of occupation
NYSM 8491	Large area on south side of Amboy Road on both sides of Page Avenue	Unknown precontact	Traces of occupation
NYSM 8490	Large area southeast of NYSM 8491 on both sides of Page Avenue	Unknown precontact	Traces of occupation

As the above table indicates, there have been many precontact period archaeological sites recorded in this part of Staten Island, especially in proximity to local water sources such as the Arthur Kill, Mill Creek, and the drainages

that empty into these water sources. Most precontact deposits at inland sites, with landforms similar to the APE, have been found within the first several feet of the natural soil column, with many sites exhibiting artifacts on or close to the original ground surface.

Archaeological Surveys

There have been numerous archaeological studies conducted within a one mile radius of the project site, although the project site itself has never been subjected to an archaeological study. The table below lists archaeological studies within one mile of the project site and their findings.

Project Name	Location	Findings	Reference
Oakwood Beach	Arthur Kill Road from Kreischer Street to Ellis Street	Potential precontact site under deep fill beneath roadway north of Nassau Street; areas north of Richmond Valley Road are disturbed	Pickman and Yamin 1978, Jacobson 1980
Clay Pit Ponds/Port Mobil Watershed, Phase IA	Included proposed sewers in Arthur Kill Road from Bloomingdale Road to Veteran's Road West	Testing recommended for section of Arthur Kill Road north of Johnson Avenue only	HPI 2002
Kreischer House Site, Phase IA, IB	4500 Arthur Kill Road	Testing showed site is disturbed, no further work recommended	Cityscape 2002a, 2002b
Charleston Retail Center Phase IA; Bricktown Centre at Charleston Phase IB/II	East side of Arthur Kill Road south of Englewood Avenue	Phase IA concluded site is sensitive for both precontact and historic resources; Phase IB/II testing revealed both precontact and historic sites	HPI 1996b, JMA 2000
Arthur Kill Factory Outlet; Van Allen Farmstead and Price Prehistoric Site; Tides of Charleston	West side of Arthur Kill Road between Englewood Avenue and Allentown Lane	Both precontact and historic period sites encountered on interior of property; site was mitigated and is now developed as Tides of Charleston	Hunter 1995, 1996, URS 2005
Charleston Bus Depot Phase IA, IB	4700 Arthur Kill Road, east side north of Veterans Road West	Phase IB testing revealed no sites and much disturbance, no further work recommended	LBA 2001, 2002
Charleston Bus Annex Stormwater Sewer	1400 linear feet in Arthur Kill Road north of Allentown Lane, and in Allentown Lane	No testing recommended for Arthur Kill Road roadbed due to known disturbance, no sites found under Allentown Lane	AKRF 2006, Boesch 2007
Arthur Kill Station and Parking Lot	Both sides of Arthur Kill Road west of Lion Street	Testing showed that site is disturbed, no further work recommended	Stone 2005, HPI 2008
Bloomingdale Road	From Arthur Kill Road to Amboy Road	Phase IA and Phase IB studies. Widespread disturbance; no resources found.	HAA 2013, 2014
Woodrow Road	From Bloomingdale Road to Veterans Road East	Phase IA study, recommended construction management plan for historic cemetery and limited Phase IB testing for precontact resources	HPI 2015
Waterfront Commons Block	South of Outerbridge Crossing and west of Arthur Kill Road	Phase IA/IB study. Both precontact and historic archaeological resources found; additional work recommended.	Greenhouse 2015

C. Historic Period Summary

The project site is within the Westfield area of Staten Island. According to a reconstructed map of colonial patents, the project site was within the interior portion of a large tract of land that had its frontage on the Arthur Kill (Skene 1907). Revolutionary War era maps, such as the 1780-1783 Anglo-Hessian Map, the 1781 Taylor and Skinner map, and McMillen's *A Map of Staten Island During the Revolution, 1775-1783* (1933) show that at this time there was only sparse settlement within the area, and the project site remained vacant and likely was used as farmland or woodland, as it was not adjacent to any roadways.

Nineteenth-century historic maps continue to illustrate the project site as undeveloped (U.S.C.S. 1836, 1844 [Figure 5]; Dripps 1850 [Figure 6], 1872; Butler 1853; Walling 1859, 1860; Beers 1874 [Figure 7], 1887; Bien and Vermeule 1891 [Figure 8], Robinson 1898). Many of these maps indicated that the area containing the project site was wooded. The line of what would become Veterans Road West is shown on several of the maps, albeit terminating prior to reaching the project site parcel.

The 1911 Borough of Richmond Topographical Survey map (Figure 9), which is among the most detailed depiction of Staten Island conditions ever made, further confirms that the project site was within an area labeled as "thickly wooded." The 1911 map also shows detailed topography of the project site, and indicates essentially the same landform that the parcel has today, with the northwest-southeast oriented slough roughly bisecting two gentle knolls. The perennial stream at the eastern side of the project site is clearly depicted as well. An aerial photograph from 1924 continued to show the project site as wooded, although the line of what would become Veterans Road West now extended along the northern side of the property (Figure 10).

The line of Veterans Road West, along the project site's northern side, originated as Drumgoole Boulevard in the mid-twentieth century. It was a four-lane highway, and bore the original Route 440 name, crossing east-west to the line of what is now the Korean War Veterans Parkway (formerly Richmond Parkway). In the 1960s, construction began for the West Shore Expressway and the Outerbridge Crossing (current Route 440) just east and south of the project site, creating the irregular and curved configuration of the property. Tyrellan Avenue was constructed in tandem with the highway work.

The project site neighborhood has experienced a transformation in the last ca. twenty years. While once the area was primarily undeveloped woodland, today the neighborhood is a commercial center containing numerous stores and surface parking lots. The office building that is located on the abutting parcel to the west along Tyrellan Avenue (Lot 170) was constructed in 1998, and was the first new construction in the area. In the first few years of the twenty-first century, commercial development for the current shopping mall began on the north side of Veterans Road West, and subsequently was extended to the southern side of the road, on the west side of Tyrellan Avenue. The bank building on the project site block (Lot 190) was constructed in 2015.

V. CONCLUSIONS

A. Disturbance Record

The project site appears to be largely undisturbed, except some areas bordering the two outparcels on the block, which exhibit visible evidence of clearing, grading, and dumping. For example, the 2007 Phase I ESA reported a large sand stockpile about 100 feet east of the parking lot for the bank building (CEA 20007). Research indicates that the property has been undeveloped and largely wooded during the historic era.

B. Precontact Archaeological Sensitivity

The project site is located in an area where numerous precontact period archaeological sites have been recorded, including many on similar landforms as the current property. The site has gentle grades and well-drained soil. Further, a perennial drainage formerly ran just to the east of the project site. All of these factors indicate that the site might have been a preferred location for precontact archaeological activity. Therefore, HPI concludes that the majority of the project site retains precontact sensitivity, as shown on Figure 11.

B. Historic Period Archaeological Sensitivity

The project site has remained undeveloped without any structures throughout its history. Therefore, there is no historic period sensitivity for the site.

VI. RECOMMENDATIONS

Based on these conclusions, which indicate precontact archaeological sensitivity for most of the project site, HPI recommends that a program of Phase IB archaeological shovel testing be conducted on the property. Testing should consist of a systematic shovel testing program, to be undertaken in those areas of the project site identified as sensitive for precontact archaeological resources, as shown on Figure 11. All archaeological testing should be conducted according to applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005). Professional archaeologists, with an understanding of and experience in archaeological excavation techniques, would be required to be part of the archaeological team.

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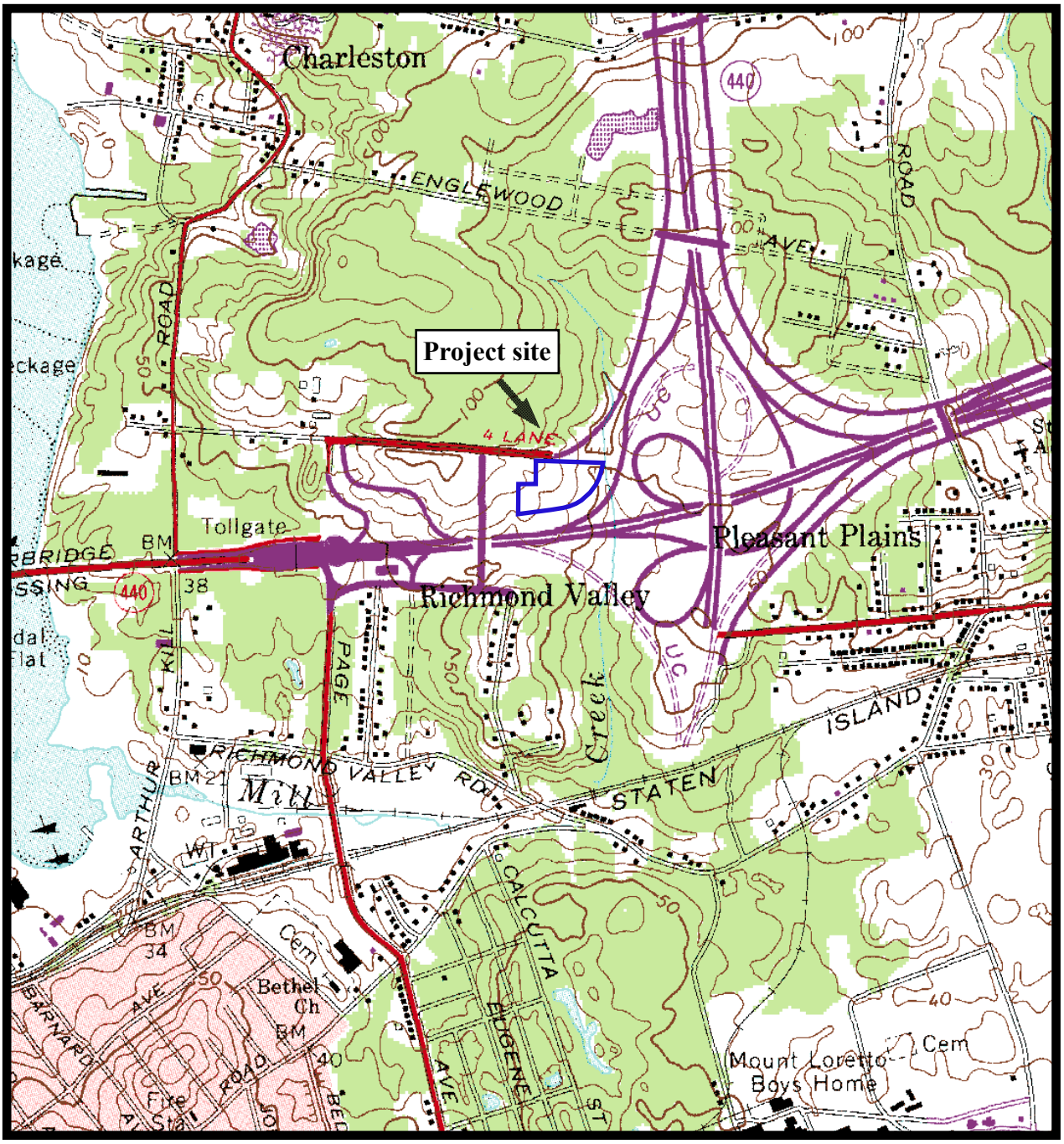


Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

Figure 1: Project site on *Arthur Kill, N.Y-N.J.* 7.5 Minute quadrangle (U.S.G.S. 1981).

0 500 1000 1500 2000 2500 FEET

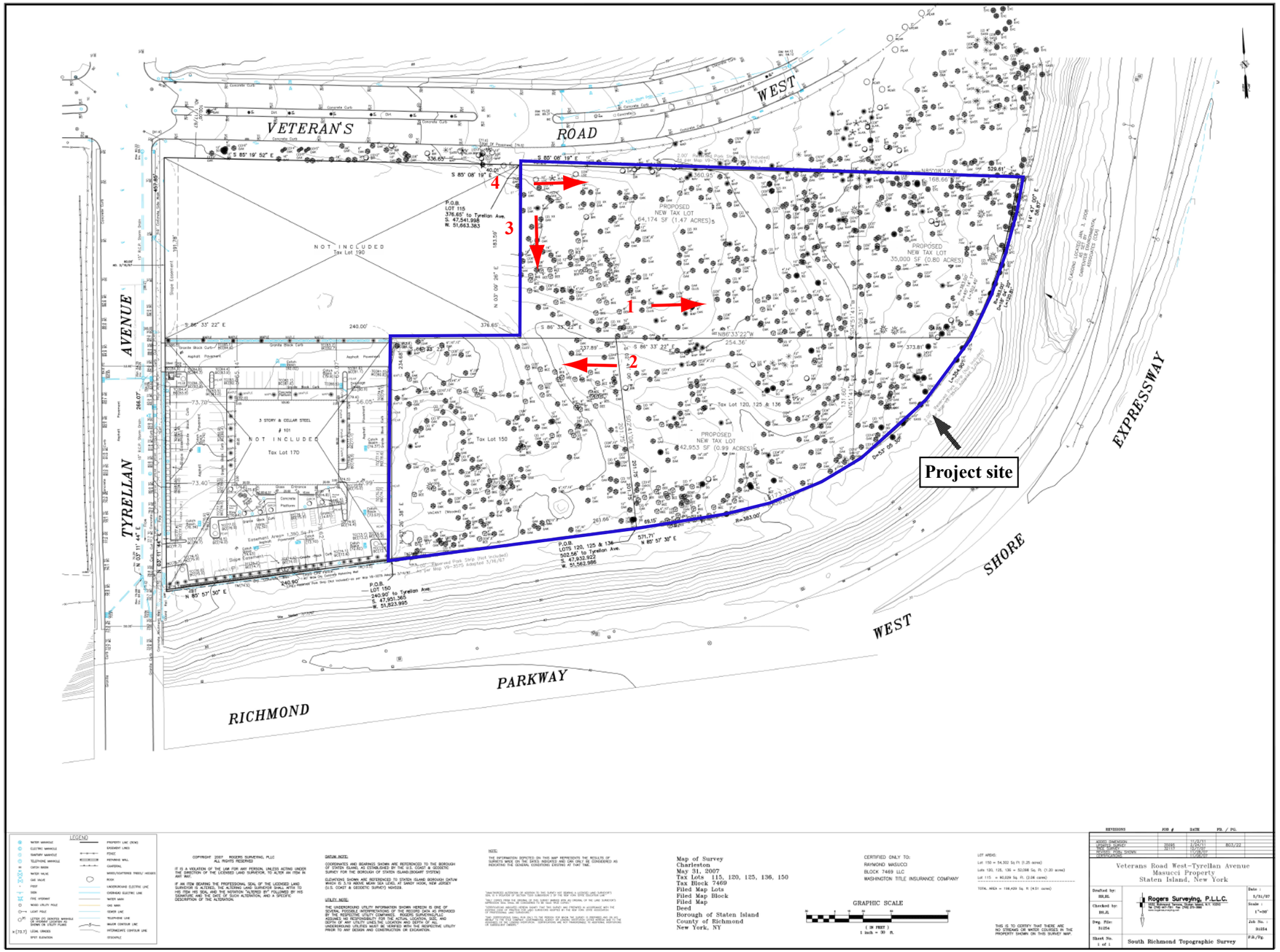
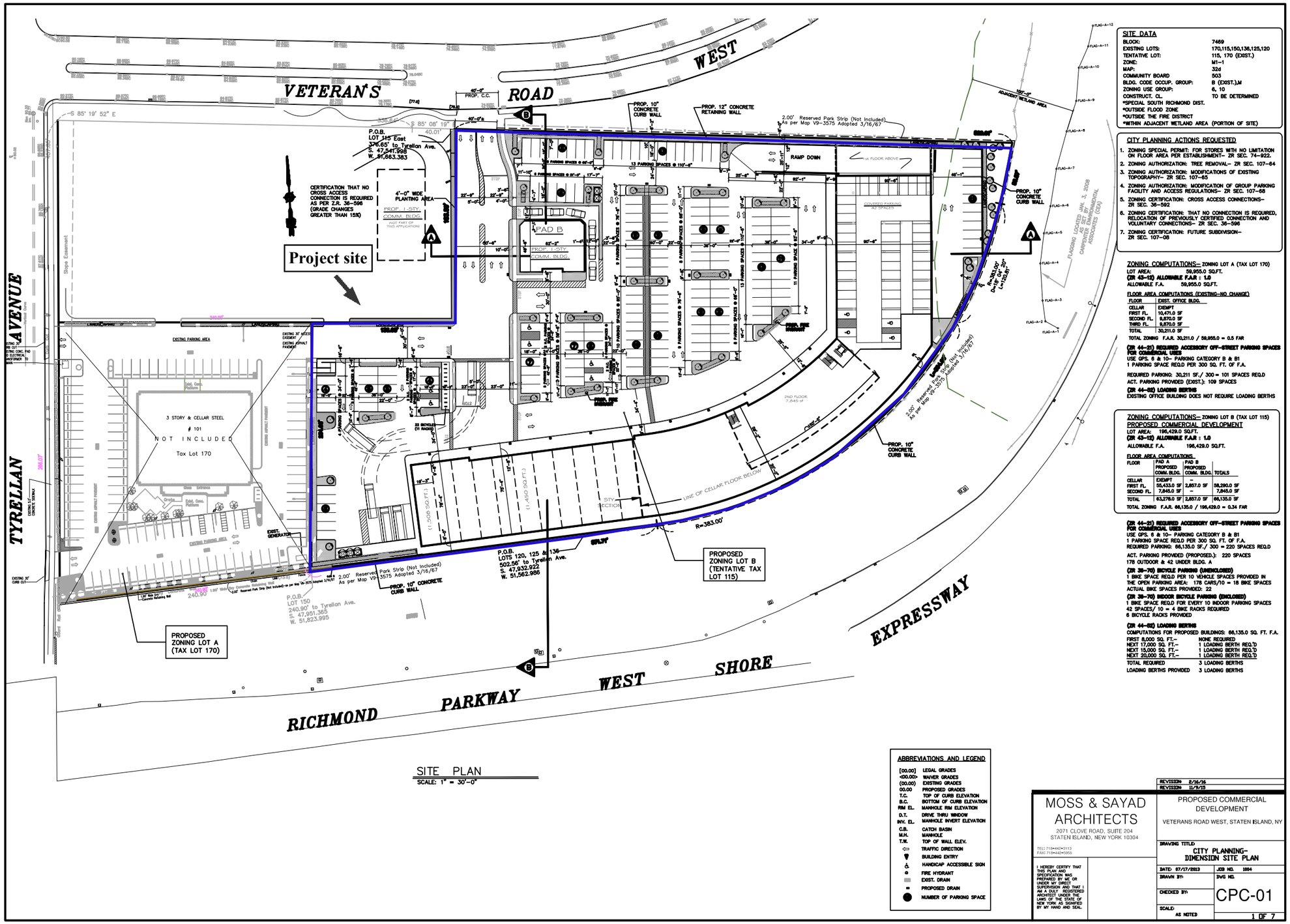


Figure 2: Project site and photograph locations on existing conditions survey (Rogers Surveying, P.L.L.C 2011).



SITE DATA

BLOCK:	7469
EXISTING LOTS:	170,115,150,136,125,120
TENTATIVE LOT:	115, 170 (EXIST.)
ZONE:	M1-1
MAP:	32d
COMMUNITY BOARD	503
BLDG. CODE OCCUP. GROUP:	B (EXIST.),M
ZONING USE GROUP:	6, 10
CONSTRUCT. CL.	TO BE DETERMINED

*SPECIAL SOUTH RICHMOND DIST.
*OUTSIDE FLOOD ZONE
*OUTSIDE THE FIRE DISTRICT
*WITHIN ADJACENT WETLAND AREA (PORTION OF SITE)

CITY PLANNING ACTIONS REQUESTED

1. ZONING SPECIAL PERMIT: FOR STORES WITH NO LIMITATION ON FLOOR AREA PER ESTABLISHMENT– ZR SEC. 74–922.
2. ZONING AUTHORIZATION: TREE REMOVAL– ZR SEC. 107–64
3. ZONING AUTHORIZATION: MODIFICATIONS OF EXISTING TOPOGRAPHY– ZR SEC. 107–65
4. ZONING AUTHORIZATION: MODIFICATION OF GROUP PARKING FACILITY AND ACCESS REGULATIONS– ZR SEC. 107–68
5. ZONING CERTIFICATION: CROSS ACCESS CONNECTIONS– ZR SEC. 36–592
6. ZONING CERTIFICATION: THAT NO CONNECTION IS REQUIRED, RELOCATION OF PREVIOUSLY CERTIFIED CONNECTION AND VOLUNTARY CONNECTIONS– ZR SEC. 36–596
7. ZONING CERTIFICATION: FUTURE SUBDIVISION– ZR SEC. 107–08

PLANNING LOCATED JAN. 3, 2008 BY CHRISTOPHER DAY ASSOCIATES (CDA)

ZONING COMPUTATIONS– ZONING LOT A (TAX LOT 170)

LOT AREA: 59,955.0 SQ.FT.
(ZR 43–12) ALLOWABLE F.A.R : 1.0
ALLOWABLE F.A. 59,955.0 SQ.FT.

FLOOR AREA COMPUTATIONS (EXISTING–NO CHANGE)

FLOOR	EXIST. OFFICE BLDG.
CELLAR	EXEMPT
FIRST FL.	10,471.0 SF
SECOND FL.	9,870.0 SF
THIRD FL.	9,870.0 SF
TOTAL	30,211.0 SF

TOTAL ZONING F.A.R. 30,211.0 / 59,955.0 = 0.5 FAR

(ZR 44–21) REQUIRED ACCESSORY OFF–STREET PARKING SPACES FOR COMMERCIAL USES
USE GPS. 6 & 10– PARKING CATEGORY B & B1
1 PARKING SPACE REQ'D PER 300 SQ. FT. OF F.A.
REQUIRED PARKING: 30,211 SF./ 300 = 101 SPACES REQ'D
ACT. PARKING PROVIDED (EXIST.): 109 SPACES

(ZR 44–52) LOADING BERTHS
EXISTING OFFICE BUILDING DOES NOT REQUIRE LOADING BERTHS

ZONING COMPUTATIONS– ZONING LOT B (TAX LOT 115)

PROPOSED COMMERCIAL DEVELOPMENT
LOT AREA: 196,429.0 SQ.FT.
(ZR 43–12) ALLOWABLE F.A.R : 1.0
ALLOWABLE F.A. 196,429.0 SQ.FT.

FLOOR AREA COMPUTATIONS

FLOOR	PAD A PROPOSED COMM. BLDG.	PAD B PROPOSED COMM. BLDG.	TOTALS
CELLAR	EXEMPT	–	
FIRST FL.	55,433.0 SF	2,857.0 SF	58,290.0 SF
SECOND FL.	7,845.0 SF	–	7,845.0 SF
TOTAL	63,278.0 SF	2,857.0 SF	66,135.0 SF

TOTAL ZONING F.A.R. 66,135.0 / 196,429.0 = 0.34 FAR

(ZR 44–21) REQUIRED ACCESSORY OFF–STREET PARKING SPACES FOR COMMERCIAL USES
USE GPS. 6 & 10– PARKING CATEGORY B & B1
1 PARKING SPACE REQ'D PER 300 SQ. FT. OF F.A.
REQUIRED PARKING: 66,135.0 SF./ 300 = 220 SPACES REQ'D

ACT. PARKING PROVIDED (PROPOSED.): 220 SPACES
178 OUTDOOR & 42 UNDER BLDG. A

(ZR 36–70) BICYCLE PARKING (UNENCLOSED)
1 BIKE SPACE REQ'D PER 10 VEHICLE SPACES PROVIDED IN THE OPEN PARKING AREA: 178 CARS/10 = 18 BIKE SPACES
ACTUAL BIKE SPACES PROVIDED: 22

(ZR 36–70) INDOOR BICYCLE PARKING (ENCLOSED)
1 BIKE SPACE REQ'D FOR EVERY 10 INDOOR PARKING SPACES
42 SPACES/ 10 = 4 BIKE RACKS REQUIRED
6 BICYCLE RACKS PROVIDED

(ZR 44–52) LOADING BERTHS
COMPUTATIONS FOR PROPOSED BUILDINGS: 66,135.0 SQ. FT. F.A.

FIRST 8,000 SQ. FT.–	NONE REQUIRED
NEXT 17,000 SQ. FT.–	1 LOADING BERTH REQ'D
NEXT 15,000 SQ. FT.–	1 LOADING BERTH REQ'D
NEXT 20,000 SQ. FT.–	1 LOADING BERTH REQ'D
TOTAL REQUIRED	3 LOADING BERTHS
LOADING BERTHS PROVIDED	3 LOADING BERTHS

ABBREVIATIONS AND LEGEND

[00.00]	LEGAL GRADES
<00.00>	WAIVER GRADES
(00.00)	EXISTING GRADES
00.00	PROPOSED GRADES
T.C.	TOP OF CURB ELEVATION
B.C.	BOTTOM OF CURB ELEVATION
RIM EL.	MANHOLE RIM ELEVATION
D.T.	DRIVE THRU WINDOW
INV. EL.	MANHOLE INVERT ELEVATION
C.B.	CATCH BASIN
M.H.	MANHOLE
T.W.	TOP OF WALL ELEV.
	TRAFFIC DIRECTION
	BUILDING ENTRY
	HANDICAP ACCESSIBLE SIGN
	FIRE HYDRANT
	EXIST. DRAIN
	PROPOSED DRAIN
	NUMBER OF PARKING SPACE

REVISION 2/16/16
REVISION 11/9/15

MOSS & SAYAD ARCHITECTS
2071 CLOVE ROAD, SUITE 204
STATEN ISLAND, NEW YORK 10304
TEL: 718-442-3113
FAX: 718-442-0955

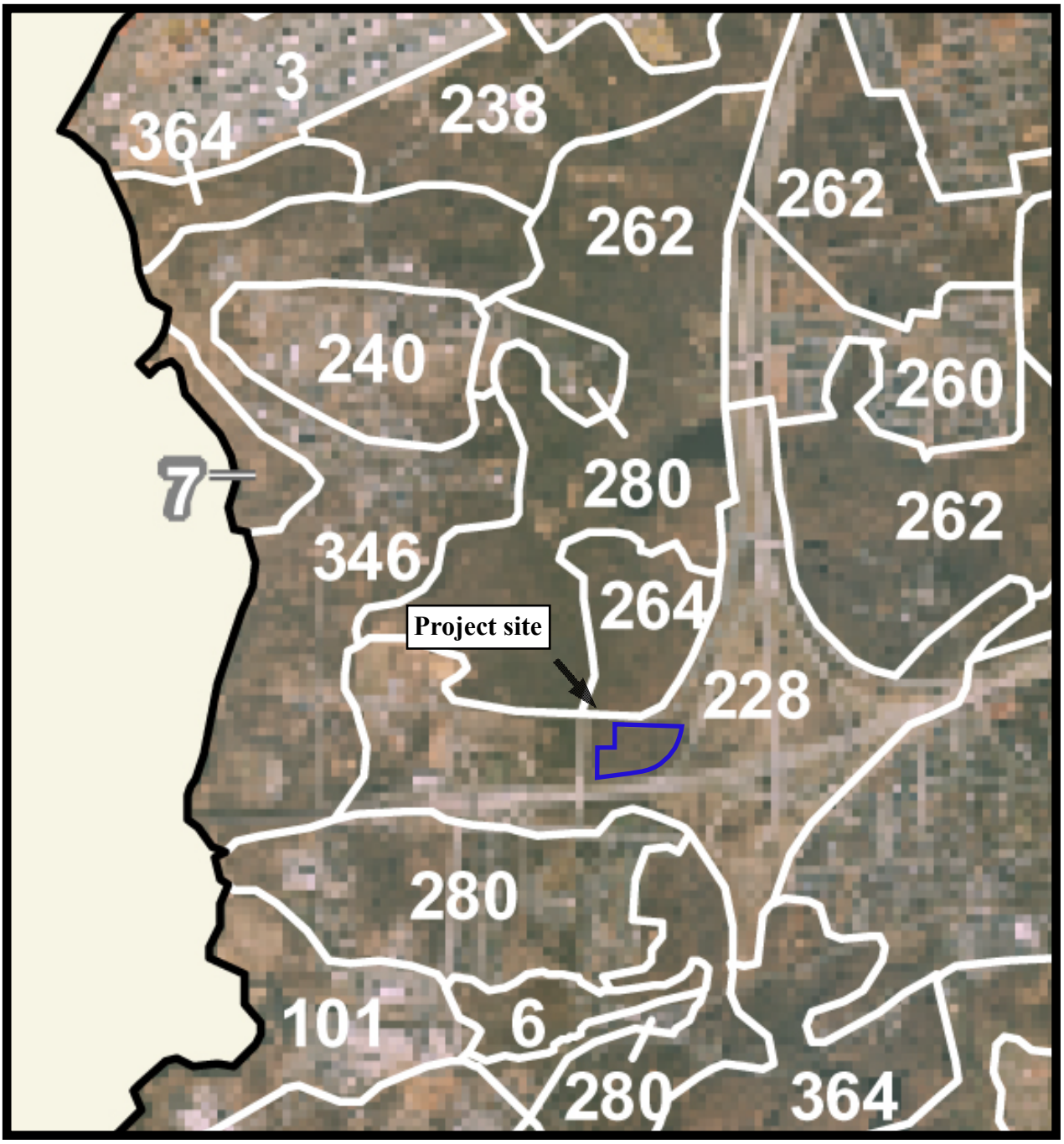
I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF NEW YORK AS SIGNIFIED BY MY HAND AND SEAL.

PROPOSED COMMERCIAL DEVELOPMENT
VETERANS ROAD WEST, STATEN ISLAND, NY

DRAWING TITLE
CITY PLANNING– DIMENSION SITE PLAN

DATE: 07/17/2013 | JOB NO. 1004
DRAWN BY | DWG NO.
CHECKED BY | CPC-01
SCALE: AS NOTED
1 OF 7

Figure 3: Project site showing proposed development (Moss & Sayad Architects 2013).



Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
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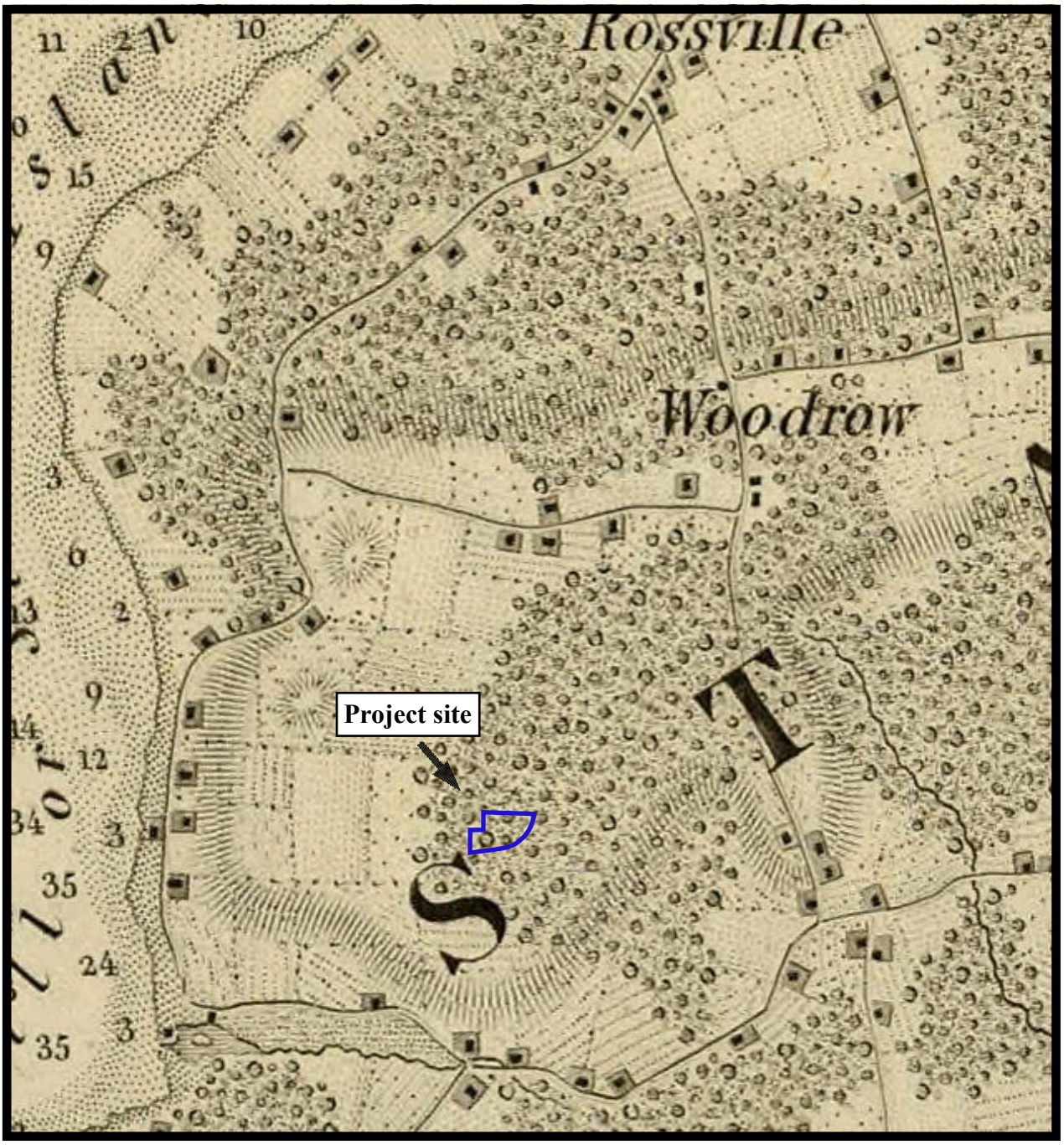
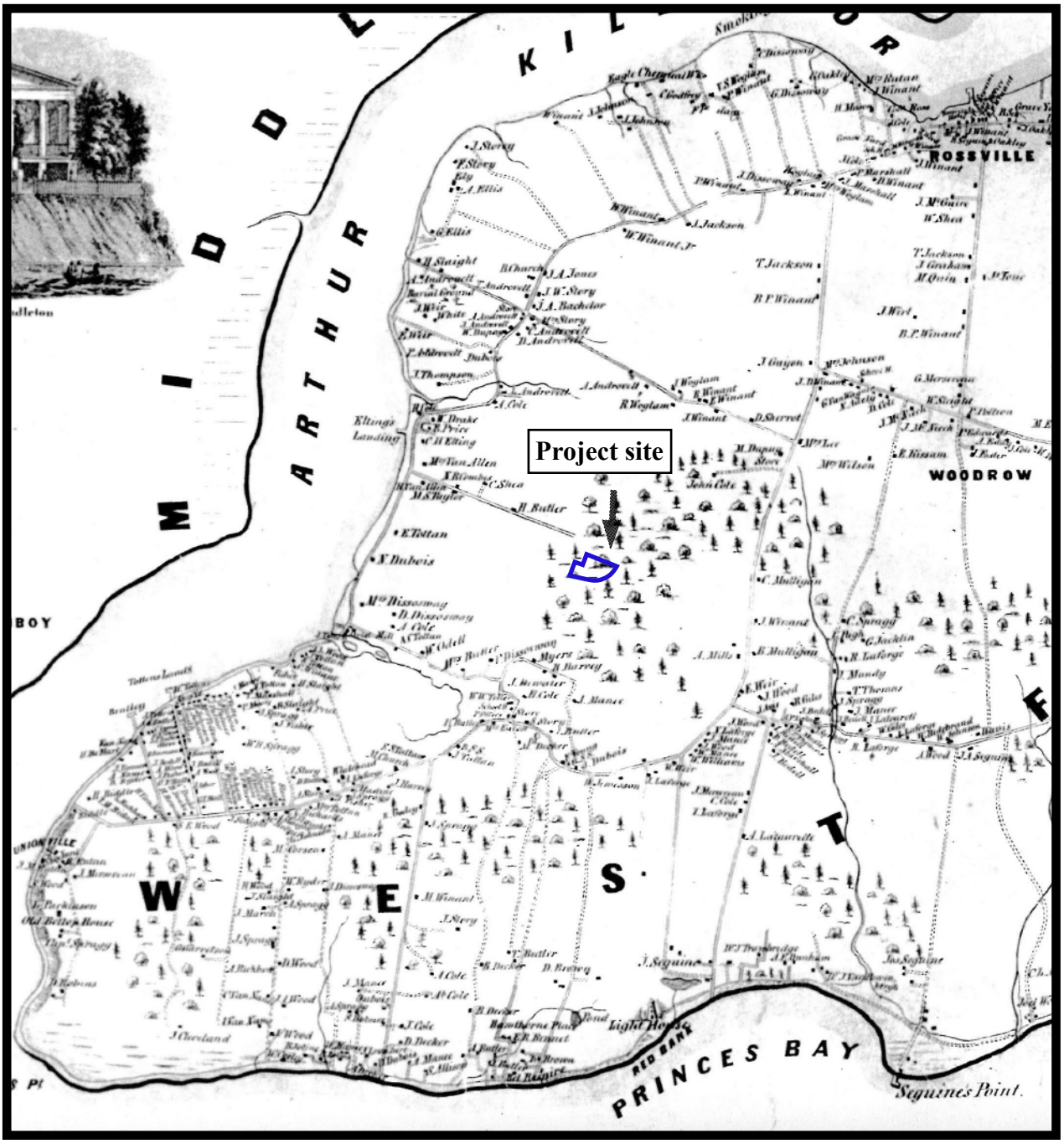
Figure 4: Project site on *New York City Reconnaissance Soil Survey* (U.S.D.A. 2006).

0 500 1000 1500 2000 2500 FEET



Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

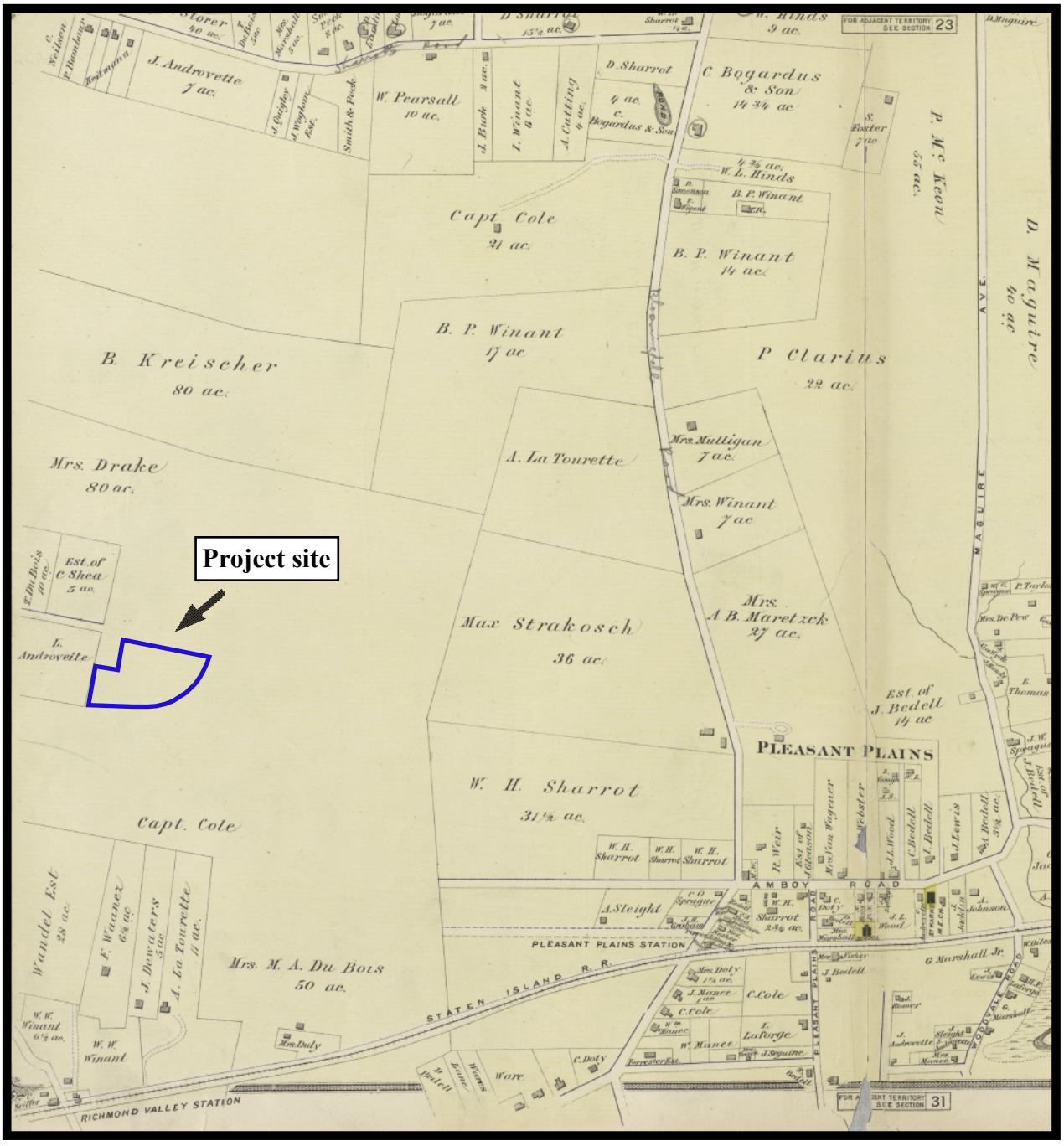
Figure 5: Project site on *Map of New-York Bay And Harbor And The Environs* (U.S.C.S. 1844).



Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

Figure 6: Project site on *Map of Staten Island or Richmond County* (Dripps 1850).

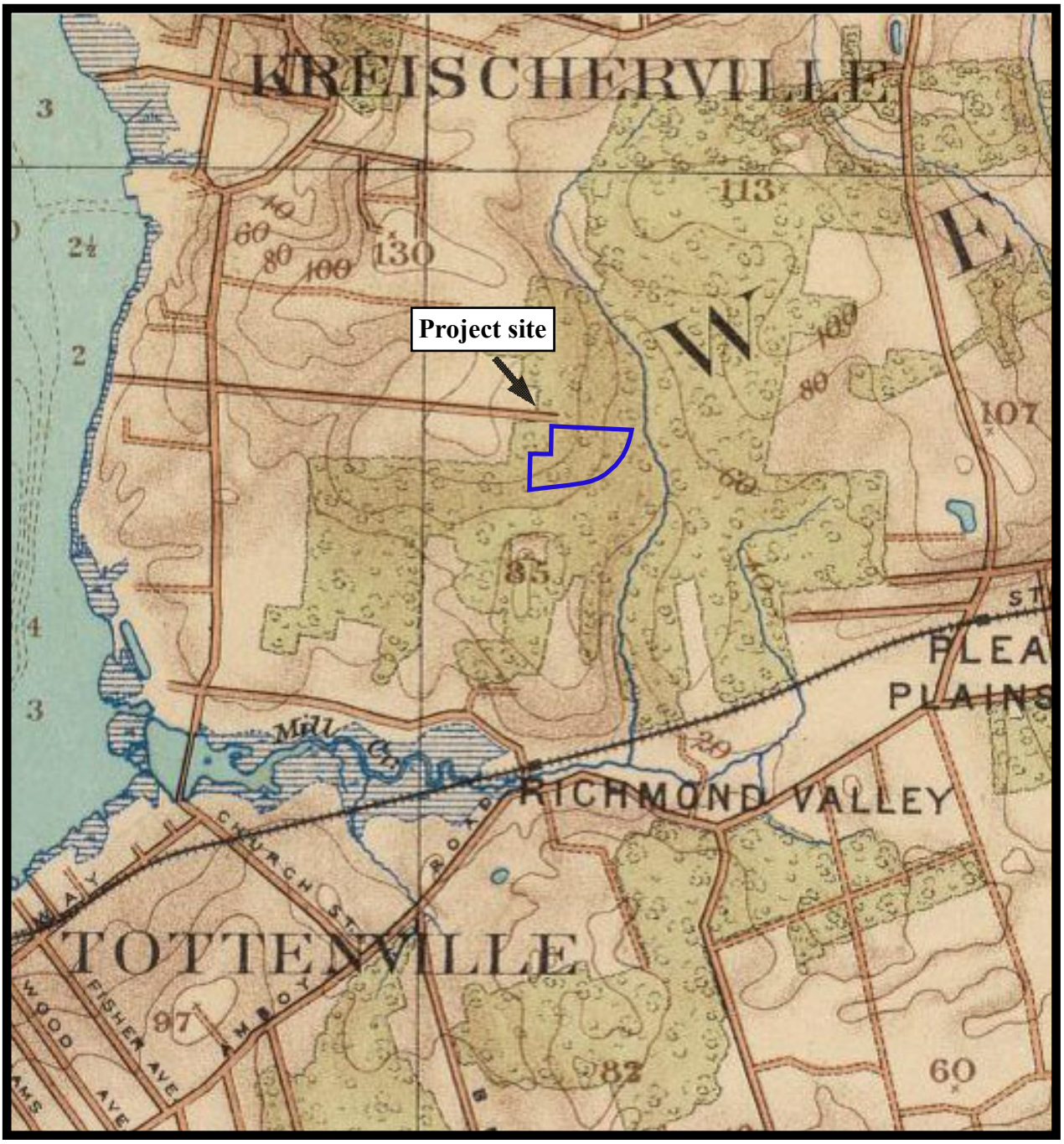
0 1000 2000 3000 4000 5000 FEET



Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

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

0 500 1000 1500 2000 2500 FEET



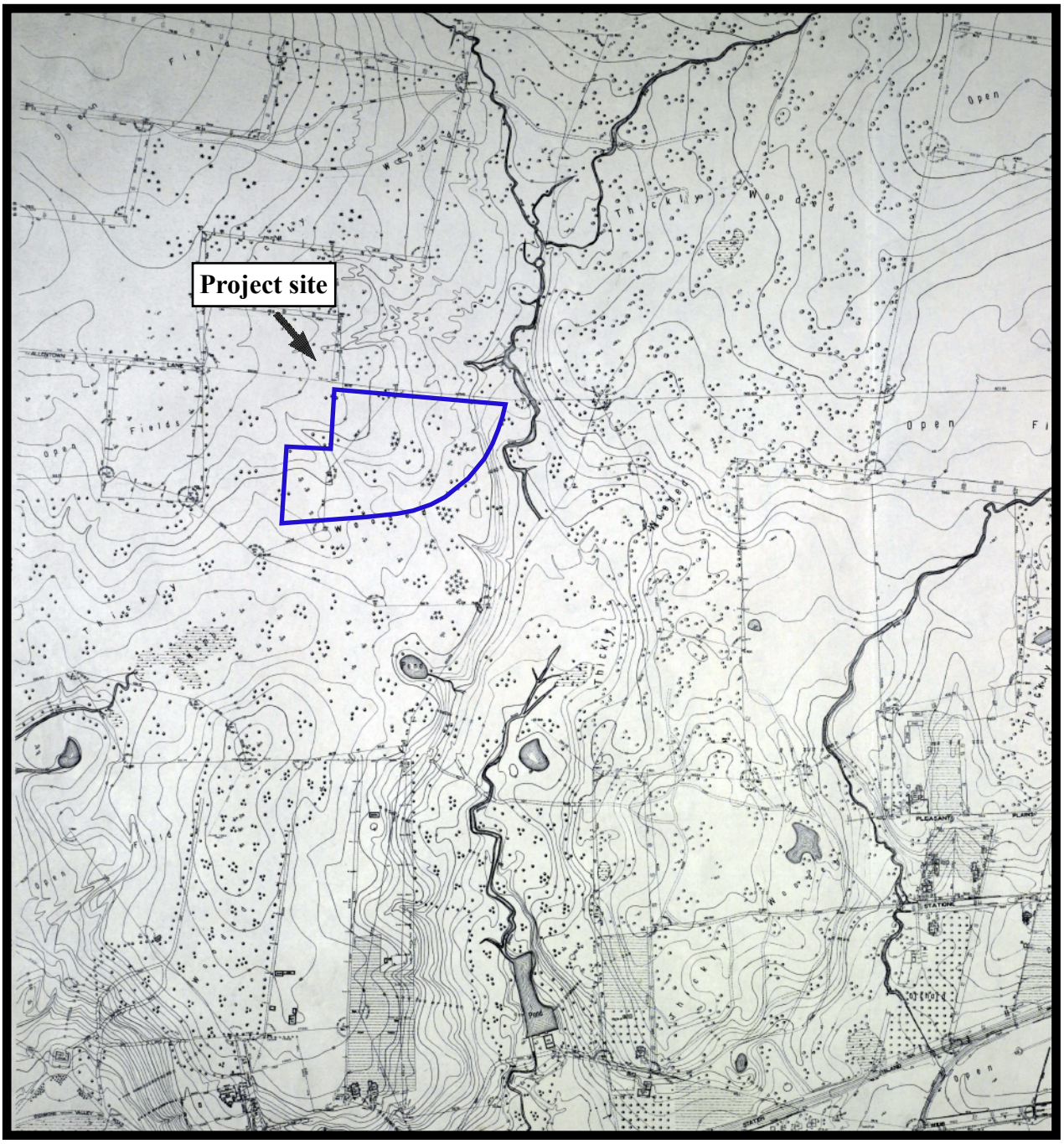
Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

N

HP

Figure 8: Project site on *Atlas of the Metropolitan District and adjacent country...* (Bien and Vermuele 1891).

0 500 1000 1500 2000 2500 FEET



Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

Figure 9: Project site on *Borough of Richmond Topographical Survey* (Borough of Richmond 1911).

Phase IA Archaeological Documentary Study
Tyrellan Avenue Development
Block 7469, Lots 115, 120, 125, 136 and 150
Staten Island, Richmond County, New York

N

HP

Figure 10: Project site on *Sectional Aerial Maps of the City of New York* (Bureau of Engineering 1924).

0 500 1000 1500 2000 2500 FEET

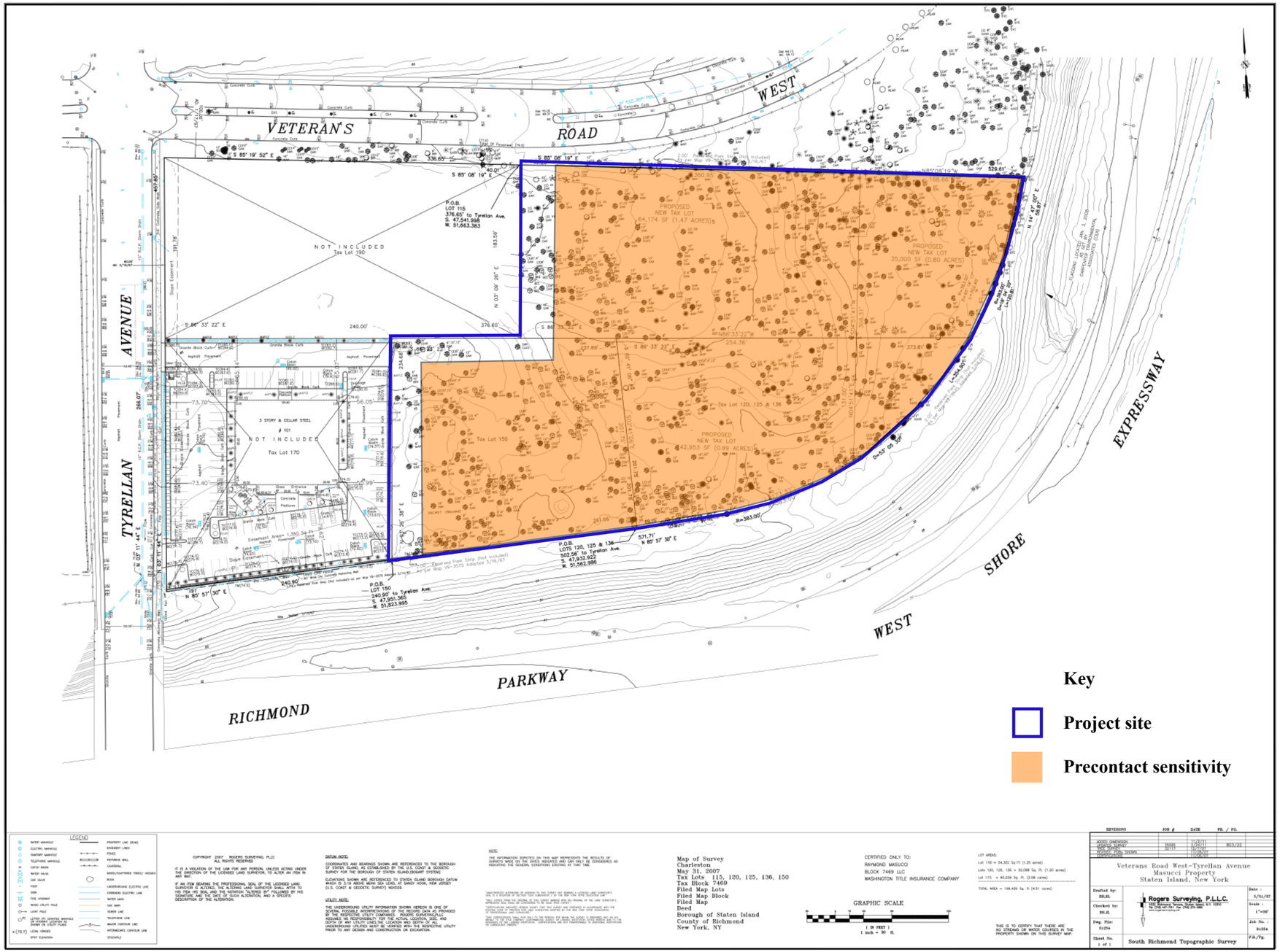


Figure 11: Project site showing area of precontact archaeological sensitivity (HPI 2016 and Rogers Surveying, P.L.L.C 2011).

Photograph 1: Typical project site conditions. View looking east.

Photograph 2: Typical project site conditions, with outparcels along Tyrellan Avenue in background. View looking west.

Photograph 3: Grading and clearing disturbance on project site adjacent to outparcel along Veterans Road West. View looking south.

Photograph 4: Grading and clearing disturbance adjacent to Veterans Road West. View looking east.