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REPORT ON PHASE 1A
ARCHAEOLOGICAL DOCUMENTARY RESEARCH
IN ADVANCE OF
SANITARY AND STORM SEWER CONSTRUCTION
WILSON AVENUE WEST, ELTINGVILLE
STATEN ISLAND, NEW YORK
Capital Project Numbers SE-604A-1 and SE-728



Van Brunt Street

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EXECUTIVE SUMMARY

A Phase 1A evaluation of archaeological resources was done in advance of sewer construction in the Eltingville section of Staten Island as part of the Wilson Avenue West sewer project. The project area includes the western portion of a larger sewer project. The New York City Landmarks Preservation Commission identified portions of the project area as potentially sensitive for the preservation of archaeological resources. Impacts to the streets from the planned project include a combination of five and eight foot wide sewer trenches to be excavated to a depth of between eight and twenty-nine feet.

This Phase 1A report is being conducted to comply with environmental review regulations and to meet the standards of the New York City Landmarks Preservation Commission. It addresses project area topography (both historically and currently), documents the prehistory and history of the project area and synthesizes the documentation to provide an evaluation of the potential for the property to contain archaeological resources.

The topographical data presented indicates the project area contained fresh water sources, possibly seasonal, and that the general area would have been favorable to prehistoric food resources. The closest known prehistoric archaeological site is only about one-quarter mile from the project area. Therefore there is moderate likelihood that prehistoric archaeological resources would be found within the project area.

The project area was most likely woods prior to 1835 and the general area not built upon until after 1853. There is no evidence of any buildings ever being constructed within the planned impact area. It is therefore unlikely that any historic archaeological resources would be present within the project area.

Archaeological shovel testing for possible prehistoric resources is recommended within about forty percent of the project area, including the areas on elevated ground within two hundred feet of former fresh water sources.

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INTRODUCTION

A program to implement sewer construction to replace outdated and overloaded septic systems and alleviate flooding has begun in the Eltingville section of Staten Island. The Wilson Avenue Sewer project is divided into two physical components, separated by Richmond Avenue. This Phase 1A archaeological evaluation covers the portion of the project area located to the west of Richmond Avenue (see Figure 1). The Phase 1A report for Wilson Avenue East was previously submitted (Stone 1994). The New York City Landmarks Preservation Commission has identified portions of the Wilson Avenue West sewer project as potentially sensitive for the preservation of archaeological resources. Archaeological resources could be affected by the Wilson Avenue West sewer project within eight streets, as shown in Table 1. Both storm and sanitary sewers are planned for the project area. Table 1 also shows the size of the trenches required by each sewer type.

Figure 2 depicts the entire Wilson Avenue Sewer project with the segments shown in Table 1 highlighted. Only those segments of the Wilson Avenue West Sewer project listed in Table 1 will be referred to as the project impact area throughout the remainder of this report.

Most of the sanitary sewers planned within the project area are to be made of ten inch diameter, extra-strength, vitrified pipe. However, a few segments will be constructed of larger, thirty inch diameter reinforced concrete pipe. Trenches for the smaller type will be dug five feet wide. Large pipe will require eight foot wide trenches. Depths vary throughout the project impact area. Table 1 lists the deepest impact in the "Depth" column.

Storm sewers will be placed in three of the road segments of the project area. As with the sanitary sewers, larger diameter pipes will be made of reinforced concrete. Narrower pipes will be extra-strength vitrified pipe. Table 1 lists the largest diameter pipe planned for each segment. Only the portion of Sylvia Street between Wainwright and Richmond Avenues will use more than one type of piping. It will require both eighteen inch, extra-strength, vitrified pipe and twenty-four inch, reinforced concrete pipe in addition to thirty inch, reinforced concrete pipe, as shown in the table.

This report will detail the project area topography (both historically and currently), document the project area prehistory and history and synthesize the documentation to provide an evaluation of the potential for the property to contain archaeological resources. Sections on methodology, project area topography, prehistory, historic period and conclusions and recommendations are included. This report is being conducted to comply with environmental review regulations and to meet the standards of the New York City Landmarks Preservation Commission. The research was conducted and report prepared for Bedford Construction Corporation by Linda Stone.

Table 1 Sewer Trenches Planned for the Wilson Avenue West Sewer Project

STREET	BETWEEN		SANITARY			STORM		
			Type*	Depth	Width	Type*	Depth	Width
Arden Ave.	Van Brunt	Whalley	12" ESVP	14 feet	5 feet			
Bayard St.	Wilson	Petrus	10" ESVP	13 feet	5 feet	15" ESVP	9 feet	5 feet
Ray St.	Pompey	Van Brunt	10" ESVP	13 feet	5 feet			
Stuyvesant Ave.	Whalley	Sylvia	30" RCP	24 feet	8 feet			
Stuyvesant Ave.	Sylvia	Wilson	10" ESVP	13 feet	5 feet			
Sylvia St.	Stuyvesant	Wainwright	30" RCP	29 feet	8 feet			
Sylvia St.	Wainwright	Richmond	30" RCP	29 feet	8 feet	30" RCP	8 feet	8 feet
Van Brunt St.	Arden	Rye	10" ESVP	15 feet	5 feet			
Wainwright Ave.	Sylvia	Rochelle	10" ESVP	19 feet	5 feet			
Wilson Ave.	Van Brunt	Wainwright	10" ESVP	14 feet	5 feet			
Wilson Ave.	Chesebrough	Bayard	10" ESVP	14 feet	5 feet	12" ESVP	9 feet	5 feet

* ESVP = Extra Strength Vitrified Pipe
RCP = Reinforced Concrete Pipe

METHODOLOGY

This Phase 1A archaeological documentary research report was prepared using cartographic, documentary and archival sources. The research included a survey of standard repositories of information, including the New York City Landmarks Preservation Commission (NYCLPC), the Staten Island Institute for Arts and Sciences, the New York Public Library, the Subsurface Exploration Bureau and the Staten Island Borough President's Topographic Bureau.

As part of the evaluation of prehistoric archaeological potential, three factors were considered. These are 1) known archaeological sites in the vicinity of the project area, 2) project area topography and 3) proximity to fresh water. Identification of known prehistoric archaeological resources was done through review of the New York City Landmarks Preservation Commission Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York (Boesch 1994) and through written request to the New York State Museum and the Historic Preservation Division of the New York Office of Parks, Recreation and Historic Preservation (NYSOPRHP). Evaluation of sites was done using sources located at the New York City Landmarks Preservation Commission, the New York Public Library and the Staten Island Institute of Arts and Sciences.

Identification and evaluation of project area topography and proximity to fresh water, current as well as historic, was made through pedestrian survey, analysis of boring logs, current topographic data and historic research. The project area was visited, photographed and notes were taken by the author on two occasions, November 14 and 30, 1994. Cartographic and documentary sources found at the Staten Island Institute for Arts and Sciences, the New York Public Library and the Staten Island Borough President's Topographic Bureau were consulted. Boring data was provided by the Department of Environmental Protection. Additional research was conducted at the Subsurface Exploration Bureau of the Department of General Services.

As part of the evaluation of historic archaeological potential, a variety of information sources were used to collect data on the history of the project area and to document previous site disturbances. Cartographic and documentary sources were located at the New York Public Library's Main Research Branch, Local History and Genealogy Division and Map Division, the library and archives of the Staten Island Institute of Arts and Sciences and the Topographical Bureau of the Staten Island Borough President's Office. This

investigation was supplemented with limited research at the Staten Island County Clerks office. This report combines its presentation of the local history with the general history in order to provide a context for events, places and people which have potential significance to the project area.

PROJECT AREA TOPOGRAPHY

The project area is located in the Eltingville section of Staten Island, inland from Raritan Bay. All streets affected by the Wilson Avenue sewer project are located to the north of the Staten Island Rapid Transit tracks, just over a mile from the bay. The current terrain can be characterized as undulating with gentle rises. Surface elevations of the Wilson Avenue West project area are recorded at between 56 and 94 feet. The higher elevations are generally recorded toward the western part of the project area. There are no visible ponds or streams, sources of fresh water, in or near the project impact areas. However there are places where water collects. Constant saturation of soils due to septic overflow was observed accumulating in a number of locations along the side of the roads (see Plates 1 and 2).

Looking at the larger surroundings as depicted on the 1981 revised edition of the United States Geological Survey Arthur Kill quadrangle, a stream is shown over one thousand feet north of the project area (see Figure 1). It crosses Wainwright and Richmond Avenues over four blocks north of the project area. This stream's source is Richmond Creek and ultimately the Arthur Kill. Another branch of this stream can be seen crossing Wilson Avenue about 1700 feet to the east.

The project area extends over portions of several blocks (see Figure 2). The western end of Ray Street is the western extreme of the project area. The northern part of the project area is the intersection of Wainwright Avenue and Rochelle Place. The Bayard Street segment of the project area extends almost as far north, about half way to Petrus Avenue. The intersections of Bayard Street and Wilson Avenue, as well as Sylvia Street and Richmond Avenue, are located at the eastern extreme of the project area. Sylvia Street represents the southernmost street of the project area, east of Stuyvesant Avenue. Both the southern end of Stuyvesant and the intersection of Arden and Whalley Avenues make up the remaining southern limit of the Wilson Avenue West project area.

All streets which make up the project area paved with asphalt and carry automotive traffic, except for a small section of Stuyvesant Avenue south of Wilson Avenue. There is a foot path connecting these streets which has a grade, rising sharply to the north (see Plate 3). While the paving in parts of the project area appears to have been relaid or patched in sections, no documented subsurface disturbances were identified in locations where the sewers will be placed. The streets are lined with residences, for the most part. A few commercial establishments may be found on Sylvia Street near Richmond Avenue

(see Plate 1). Most of the buildings adjacent to the project area were probably constructed since the 1920s, when the area was first subdivided on a large scale (Thomson 1920a, 1920b). Few, if any, trees older than that time still exist in the vicinity of the project impact area. It appears the area was cleared of vegetation for development and landscaping was left to individual home owners.

Current project area topography and proximity to fresh water are less likely than prehistoric topography and proximity to fresh water sources to be predictors of prehistoric archaeological resources. However, evaluation of these prehistoric variables cannot be directly addressed. In order to come to an understanding about what the area must have been like, a combination of factors are evaluated. These include current soils and topographic information from prior to the time of wide-scale development.

The project area falls within the inner lowland of the Coastal Plain. This region is composed of Cretaceous formations extending inland along the southern part of Staten Island (Leng and Davis 1930:14). Soils within the project area were identified based on logs of borings taken from within the street. Department of General Services 1989 and 1993 series borings were used. Boring cores were 1.5 foot samples taken at five foot intervals. Soils within the street bed, under the paving, consist mainly of till. The till is described as red-brown sand or silt with a little clay. In many places, the till contains cobbles or boulders. Figures 3 through 10 are stratigraphic profiles of the streets which comprise the project area. Only borings taken from within the project area are included. The exception is Wilson Avenue, between Wainwright Avenue and Chesebrough Street. These borings were included in Figure 3 to provide a continuous profile of the avenue.

In most of the project area, the till is overlaid with a lens of fill, possible fill or organic soils. Deposits of fill or possible fill were recorded in over half of all borings taken. Fill layers were generally described as miscellaneous fill or possible fill and recorded without the retention of samples. Only two borings had more detailed fill descriptions. One was described as brown sand with silt and gravel, cobbles and wood pieces. The soil in the other boring was not described, but inclusions of cobbles and brick were noted. The depth of fill, where it exists, ranges from one and a half to almost six feet. The average thickness of fill deposits is over two and a half feet. Possible fill was encountered in eight borings. Descriptions were provided for all but one of these. These soils generally had a darker color than the till and three had a trace of vegetation. None were recorded as containing any man-made or -altered materials. The possible fill stratum averages over six feet thick.

Organic deposits were found in five borings. These are generally located in the western part of the project area, in Ray and Van Brunt Streets. One was located in Wilson Avenue, between Chesebrough and Bayard Streets. These deposits were recorded between four and nine feet thick, with the average being six feet.

Many borings also contained a lens of sand over the till layer. However, the descriptions of the sand are generally quite similar to the descriptions of the till; red-brown sand with silt. Therefore the distinction is questioned.

Occasionally, lenses of other soil types were recorded in borings, under the asphalt and overlaying the till. In a few cases, other soil types were also recorded within the till. Throughout most of the project area, the subsoil, beneath the till, is more yellowish in color. It is generally described as yellow-red or tan-brown sand.

Boring data indicates that filling has been conducted within most of the project area, although the soil does not appear to be what archaeologists traditionally think of as fill (M. Greenman, DGS, personal communication). Because the depth of fill is quite uniform in many of the streets and the surface elevation is sloped (see Figures 5-10), it is likely these fill deposits are not actually fill, but rather disturbed contexts. In any case, soils deeper than about the top two feet are the natural deposits.

The two earliest accurate topographic maps of the area were also evaluated. The earliest detailed topographic map of the project area vicinity dates to 1890 and was surveyed by Vermeule and Bien (see Figure 11). None of the roads comprising the project area were in place at that time, except for Arden Avenue, then known as Washington Avenue. Most of the project area was cleared of trees by 1890, therefore its pristine state cannot be seen. Only a small portion of the project area was wooded, including Bayard Street and the eastern parts of Wilson Avenue and Sylvia Street. Development was sparse in the Wilson Avenue West project area vicinity at that time and it is therefore likely that the conditions depicted were similar to those of earlier times. Although the detail in Figure 11 is difficult to see, it appears the elevations of the project area in 1890 were around sixty to ninety feet, just as today. Additionally, the streams shown on the modern U.S.G.S. map located one thousand and seventeen hundred feet away from the project area were also recorded in 1890 by Vermeule and Bien. Only one building is shown within or near the project area. It was located just to the south of where Ray Street is now located.

More detailed early topography can be seen on the Borough of Richmond Topographic Survey of 1912 (see Figure 12). This greater detail enables further observations. The elevations within the project area are shown at around fifty-five to ninety-five feet, similar to both 1890 and today. No buildings are noted within the project area. However, areas of cultivation, marshland, pastures, ponds, streams, and wooded areas can be seen within and near the project area. Additionally, only one building is shown adjacent to the project area, north of Arden Avenue. The building shown on the 1890 topographic map is no longer recorded. By 1912, the path of a dirt road can also be seen running roughly one hundred feet north of, and parallel to, Wilson Avenue. This road also branched down to the Eltingville Station, near where Chesebrough Street is currently located. Table 2 summarized the types of land and features found in 1912 in the locations of the streets of the Wilson Avenue West project area.

Water courses and marshland are shown in more detail on the 1912 survey. The streams shown to the east and north of the project area on both the 1890 map and the current U.S.G.S. map are also shown on the 1912 survey. Most notably, two ponds, a stream and marshland were located within the project area in 1912. None of these were depicted in 1890, nor are they present today. There may be a simple explanation for the differences between the 1890 and 1912 surveys. It may be partially due to the level of detail. Furthermore, these wetlands may have been seasonal. The 1912 survey is dated in the month April. Therefore springtime rains, coupled with melted snow, could have created small ponds, streams and wetlands when, in other seasons, none existed. Unfortunately, this explanation, as plausible as it may be, cannot be directly related to the 1890 survey, since the time of year it was made is not recorded.

It is interesting to note that today's conditions within the project area also include saturated soils. Places within the roads where water collects are similar to the 1912 survey. This can be seen in the photographs included in this report. The edges of Sylvia Street are moist and contain small puddles, particularly near the eastern end of the project area (see Plate 1). This was the location of a stream and marshland in 1912. A large puddle was present in the northern end of Van Brunt Street (see Plate 2), the location of a former pond.

This review of the historic topography demonstrates that the elevation, grade and proximity to water sources has not changed markedly since a time prior to full-scale development of the project area vicinity. Although a fair amount of fill has been recorded uniformly throughout much of the project area, it averaged only two and a half feet deep. This small difference in elevation cannot be detected on the

historic topographic maps. It may therefore be inferred the area has changed very little since prehistory. This early environment, of well drained sandy soils in gently undulated terrain with nearby fresh water, marshland and woods, would certainly have been a hospitable one for fauna. A wide variety of wildlife would most likely have flourished in the project area vicinity during prehistory.

Table 2 Summary of Features Depicted on the 1912 Topographic Survey

STREET	OPEN	PASTURE	CULTIVATION	MARSH	STREAM	POND	WOODED	EARLY ROAD
Arden Ave.								✓
Bayard St.	✓							✓
Ray St.	✓	✓	✓			✓		
Stuyvesant Ave.		✓					✓	
Sylvia St.	✓			✓	✓		✓	✓
Van Brunt St.		✓				✓		
Wainwright Ave.	✓							✓
Wilson Ave.	✓				✓			✓

PREHISTORIC PERIOD

As presented in the methodology section of this report, three factors were considered in the evaluation of prehistoric archaeological potential; 1) known archaeological sites in the vicinity of the project area, 2) project area topography and 3) proximity to fresh water. The reasons these indicators are useful in predicting locations of unknown sites has to do with their relationship to subsistence and settlement patterns during prehistory. Ecological factors such as distance to fresh water, elevation, slope, and soils are generally used as predictors of past animal habitats. If it can be demonstrated that past environmental conditions were conducive to exploitation by game animals, birds and fish, then it can be inferred that the human population may have in turn exploited these resources. Furthermore, if evidence of prehistoric human activity can be found near the project area, this assertion can be strengthened.

Hunter-gatherers first arrived in the New York region from the west toward the end of the last ice age, over 12,000 years ago, marking the beginning of the Paleo-Indian cultural period. The ice sheet was rapidly melting and the environment was changing. Food resources were not yet stabilized to seasonal cycles and resource predictability and density were both low. About 10,000 years ago the Paleo-Indian period came to an end. The advent of the Archaic Period was marked by a change in foraging strategy, precipitated by the warming climate. The economic strategy of the Archaic period was becoming more diffuse as more varieties of flora and fauna were becoming established in the warming climate of the northeast. There is a belief that the Early Archaic people were beginning to establish territories and a "restricted wandering" foraging behavior (Snow 1980:171). The transition from the Early Archaic to the Middle Archaic is not as sharp. Dincauze and Mulholland (1977) believe:

the Middle Archaic subsistence and settlement patterns appear to represent the expansion and increase of a successful resident population. Sites proliferate along obvious communication routes and in the richest habitats; territorial ranges are established, and the resource base is broadened. (Dincauze and Mulholland 1977:454)

Very little archaeological data exists for the earliest prehistoric cultural periods in the New York City area, the Paleo-Indian through Middle Archaic periods, prior to about 5,000 years ago. Staten Island is one locus of what little information exists. One possible explanation is that these early sites were buried under water as the sea level rose. Funk (1991) summarizes what little is known of these periods.

In the case of the Port Mobil site, located on the western shore of Staten Island near the Arthur Kill, evidence suggests that Paleo-Indians lived at the site when sea level was considerably lower than at present and the Arthur Kill was an upland creek (Kraft 1977). Similarly, Early Archaic sites on Staten Island close to the present shore lines and

elevated slightly above sea level, such as Ward's Point, Hollowell, and Old Place (Ritchie and Funk 1971), would have been inland and upland locations at the time of occupation. No Paleo-Indian sites, as such, are known along the Lower Hudson north of Staten Island. (Funk 1991:51).

The amount of data on the prehistoric population of the Late Archaic increases dramatically. This large increase in archaeological evidence is what separates the Late Archaic from the previous periods. It also indicates that adaptations must have been such as to allow for the increase in the number of recorded sites. The three well known Late Archaic sites of Staten Island are all along its northern shore; Bowman's Brook, Old Place and Arlington Place (Ritchie 1980:146). The environment had essentially stabilized during the Late Archaic, with conditions much the same as today's. The prehistoric cultural periods defined after the Archaic are generally marked by the introduction of innovations in pottery and vessel type and changes in artifact assemblages, rather than by changes in the environment.

The Transitional Phase, 1500 - 1000 B.C., is marked by the introduction of steatite vessels into the artifact assemblage as well as the prevalent use of certain projectile point types. The Woodland Period of prehistory, 1000 B.C. to about A.D. 1600, like the Archaic, is divided into early, middle and late sequences. These Woodland Period divisions are defined based on changes in the style and type of pottery and projectile points found at archaeological sites. With the use of pottery for cooking and storing food resources, the people of the Woodland Period were able to become increasingly sedentary, relying less on seasonal movement to exploit available resources. Ultimately, this led to the development of cultigens during the Late Woodland period, about A.D. 1000.

The Late Woodland period ended at the time of European contact, in the early seventeenth century. From this time through the early to mid-eighteenth century is identified as the Contact period. Native American archaeological sites have been identified as contemporaneous with European sites. The influence of European contact can be seen in the artifact assemblages from the Native American sites of this time.

Many prehistoric archaeological sites were occupied during multiple periods. The Old Place site contained artifacts dating from both the Archaic and Woodland periods. Ward's Point near Tottenville has been documented with materials dating from Late Archaic, Middle and Late Woodland (New York State Museum n.d.:61).

Identification and evaluation of known prehistoric archaeological resources and their potential to affect the identification of unknown prehistoric archaeological resources relies on current information. In general, known prehistoric sites in the southern part of Staten Island are located on high ground overlooking Raritan Bay and the Arthur Kill or inland, near streams. Locations of known prehistoric archaeological sites in the project area vicinity are shown on Figure 13. Early identification of sites has been provided by William T. Davis in 1896 and by Alanson B. Skinner in 1909. Three sites were mapped by Davis in the vicinity of the Wilson Avenue West project area. "Indian implements" were found in two locations; one near the current Annadale Road, Richmond Parkway and Arthur Kill Road, almost a mile from the project area, and the other west of Arbutus Lake, over one mile away. Davis also shows "Indian Hill" in Annadale, but there is no indication of what artifacts were found or what the site may have been used for.

Skinner (1909:10-16) reports three sites in the vicinity of the project area. Two sites are in the Greenridge section. One is a "small village site on Lake's Meadow Island", close to Richmond Creek and the Arthur Kill, where a shell midden and artifacts were found. Skinner quotes an 1843 letter recounting a number of "arrowheads" found in the area. The other Greenridge site is a camp containing "early relics" located near what is now Annadale Road, Richmond Parkway and Arthur Kill Road. This is probably the same site where Davis reported "Indian implements". Skinner also shows several shell midden sites in the Huguenot area near Princes Bay and Seguine Point, over two miles from the project area.

Data provided by the New York State Museum includes the identification of three sites. One site identified by the Museum, located over a half mile from the project area, was listed in its old 1904 records, but no other information is available. The other two sites were originally reported by Arthur C. Parker for the New York State Museum in 1922. One was described as a camp site where "early relics" were found on Richmond Plank Road between Journey Avenue and Annadale Road (Parker 1922:682). This is the same site identified by both Davis and Skinner, above. The other site, located about a three-quarters of a mile away, was described as a "'clam-drying' place" located "on the salt meadow near Lake's mill". It was characterized by a shell heap where "a few flint flakes" were found. Parker labels this site with the symbol indicating traces of occupation on his map of Richmond County (ibid.:676, 685). Parker, like Skinner, also reported a few "isolated shell heaps" near Seguine Point and Princes Bay (ibid.683-684). Additionally, Parker mapped the location of a camp site along the shore

between Seguine Point and Great Kills, likely about a mile or so from the project area.

Bolton also reported a number of sites in the vicinity of the Wilson Avenue West project area. Like Parker, he repeated much of what had been identified earlier, adding newly discovered sites. Bolton described two sites at Princes Bay, one a probable fishing station and the other unexplored. He also recorded a "probable fishing station" at Seguine Point. Closer to the project area, in Woods of Arden, about three hundred yards away, "signs of native occupancy" were noted. Bolton also reported "signs of occupancy" in Oakwood at the "head of the kills", possibly a mile and a half from the Wilson Avenue West project area. He described Great Kills as "the refuge, for about 16 years, of the Nayack natives when they removed from Long Island" (Bolton 1922:195,234-235; 1934:153-156).

The New York State Office of Parks, Recreation and Historic Preservation has the records of one site in the vicinity of the Wilson Avenue West project area. This is the Fiddler's Green site, as recorded by Pickman and Yamin in 1978. The site was originally reported by Skinner in 1909 as a camp.

The New York City Landmarks Preservation Commission's Archaeological Evaluation and Sensitivity Assessment of Staten Island summarizes these earlier finds as well as incorporating other data (Boesch 1994). The additional data comes from older, obscure references as well as from more recent archaeological investigations done under environmental review. Five sites in the area west of Arbutus Lake were identified. These include the site from Davis (1896) as well as an unnamed site from the same time period. There is also reference to a site at Bunker Hill, in the same location. These three mentions could all be the same site. The early references are vague enough to bring their discrete locations into question. The other two sites in the area were reportedly identified through shovel testing in the 1980s. A "scatter of lithic debitage" was found at Arbutus Lake and at a site near Hylan Boulevard and Huguenot Avenue (Boesch 1994:112-123). One additional site was identified in the LPC study. This was an unnamed small camp site located at Carlton Boulevard and Arthur Kill Road and mapped a mile and a half from the project area (ibid.:121).

None of these known archaeological sites have been ascribed to specific Native American groups or prehistoric cultural periods, stylistically or temporally. Skinner identifies the Raritans or Assanheicans occupying the area from Trenton, New Jersey northward to the southern end of Staten Island (Skinner 1909: 31). Bolton applies the place name "Shawcopshee" to the Oakwood area. It is implied the name

is derived from the Nayack, originally of Long Island (Bolton 1922:156). Grumet identifies Bolton as the first to apply a location to this place name. However he reports the first known occurrence of the name in 1664, well into the Contact or early historic period (Grumet 1981:52).

HISTORIC PERIOD

Seventeenth Century

Although Verrazano was the first European recorded to have spotted Staten Island, in 1524, the history of Staten Island begins in earnest in 1609, when Henry Hudson anchored at Sandy Hook in the Narrows and took two Staten Island Indians on his trip up the Hudson River (Bayles 1887:44-45; Historical Records Survey 1942:v). The native Staten Islanders were members of the Delaware nation. They called the Island "Eghquaons" or "Aquehonga Manacknong", possibly meaning high sandy banks or dark bad wood (Clute 1877:8; Federal Writers' Project 1939:598; Grumet 1981:2; Kolff 1926:1; Leng and Delavan 1924:1). Hudson named it "Staaten Eylandt" after the States General of Holland. He claimed the entire area between the Delaware and Connecticut Rivers, where fur was plentiful, and called it New Netherlands (Historic Records Survey 1942:xii; Kolff 1926:16).

A lack of control over the fur trade in New Netherlands resulted in the charter of the Dutch West India Company in 1621. This company then came into power over all matters related to the New Netherlands (Clute 1877:12-13, Leng and Delavan 1924:2). The Dutch West India Company had among its responsibilities on Staten Island, issuing land grants. The grants stipulated the simultaneous purchase of the land from the Indians.

The first grant of land on Staten Island was in 1630 to Michael Pauw. However, no settlement was established at the time and Pauw transferred his interest in Staten Island back to the Dutch West India Company directors in 1634 (Bayles 1887:63; Historical Records Survey 1942:xiii). A 1636 land grant to David Pietersen de Vries did result in a settlement at what is now Tompkinsville. However, this settlement was abandoned after a war with the Indians in 1642 (Kolff 1926:17-18). A large grant covering most of Staten Island, except for de Vries farm, was issued to Cornelius Melyn in 1641 (Historic Records Survey 1942:xiii). This settlement also encountered problems with the Indians and it was virtually destroyed. Additionally, Melyn was at odds with the Governor over Indian issues (Bayles 1887:66-69). He eventually sold his interests in Staten Island back to the Dutch West India Company in 1659 which, in turn, granted land to some French immigrants (*ibid.*:70-71). The French first established a church in Greenridge around 1698. It was the first church on Staten Island and was located to the north of the project area on Arthur Kill Road (SIAS n.d.).

In 1664, New Netherlands was surrendered by the Dutch to the English. New Amsterdam became New York. Staten Island became part of the West Riding of Yorkshire, which also included Long Island and Westchester (Historic Records Survey 1942:xvii). The English Governor, Francis Lovelace, made the final purchase of Staten Island from the Indians in 1670. This purchase effectively led to the departure of almost all Native Americans from Staten Island. All of these native Staten Islanders signed this final deed in order to bind it (Kolff 1926:22).

The English governance allowed many of the same freedoms the Dutch conferred, therefore many of the Dutch and French settlers chose to remain on Staten Island (Bayles 1887:75). However, no property survey had been conducted "and the boundaries of their lands, as well as the title to them, were quite indefinite" (Leng and Davis 1930:741). Governor Lovelace began conducting land surveys in 1675, the year Staten Island became an independent judicial district. This task was completed in 1677 by his successor, Governor Andros (Clute 1877:56, Leng and Delavan 1924:6). These surveys extended only as far south as Great Kills and did not include the Wilson Avenue West project area (Steinmeyer 1987:24).

In 1683, the first assembly of the colony of New York adopted a bill of rights. This included the establishment of counties. Richmond County was promptly divided into four precincts. The project area was located in the former Westfield, although parts of what is now Eltingville were located in Southfield (Historic Records Survey 1942:xix). Five years later Richmond County was divided into four towns encompassing the four precincts (ibid.:xx; Bayles 1887:90).

The first recorded owner of part of the Wilson Avenue West project area was John Morgan. Frederick Skene's map of Staten Island shows the general location of colonial land patents from 1668 to 1712. This map places a large portion of the project area within the land of John Morgan, a one hundred sixty-six acre parcel granted in 1680 and 1686 (see Figure 14). Morgan's land extended south from Richmond Creek to near the current location of Amboy Road. The portion of the project area located to the west of Morgan's land was granted in 1696, to Jaques Pullion. Pullion had a one hundred ten acre parcel. No information was found on Morgan or Pullion's use of the property. However later records indicate the property within the project area was not build upon.

By the end of the seventeenth century the population of Staten Island had grown to 727 (Steinmeyer

1987:30). The first roads began to be laid out. The English, as one of their first public improvements, began making dirt roads on Staten Island in 1694 (Bayles 1887:141, Leng and Delavan 1924:12). Many of these have become the major roads of today, including parts of Amboy Road, Arthur Kill Road and Richmond Road (Historic Records Survey 1942:xxvi; McMillen 1946:1; Reed 1965:17). Although the dates of the origin of several old roads are questionable it is possible they follow the course of Indian trails (Bayles 1887:143). Despite this development, Staten Island maintained an agricultural based economy which continued throughout the eighteenth century.

Eighteenth Century

The land grant from the remainder of the project area was issued to F. Vincent, in 1708 (see Figure 14). Vincent was granted a sixty-six acre parcel, located to the east of Morgan's. Like Morgan's land, it is not known what use of the property Vincent made.

An historically important mode of transportation of Staten Islanders has been ferry service. Unlicensed ferries probably ran in the seventeenth century, but the first licensed service was from Clifton to Long Island in 1713 (Leng and Delavan 1924:12). The first record of a licensed ferry crossing the Kill van Kull from what is now Port Richmond to Bergen Point, New Jersey was in 1764 (Clute 1877:82). The first direct ferry service to Manhattan was established in 1745 (Historic Records Survey 1942:xxxii).

In addition to the improvements in transportation, other services were also introduced on Staten Island during the early eighteenth century. In 1707 two schoolmasters were hired and supported up until the Revolution (Leng and Delavan 1924:14). A jail was constructed at Richmond in 1710 (Bayles 1887:132). The early eighteenth century courts were held in Stony Brook, but moved to Richmond in 1729 (Leng and Delavan 1924:12).

Religious congregations of French, Dutch and English denominations continued and grew under British rule during the eighteenth century. However the French Church at nearby Greenridge was demolished before 1776 (SIAS n.d.). No records of how or why exists (Steinmeyer 1987:29).

Prior to the Revolution, manufacturing and industry on Staten Island were discouraged by the British. Livelihoods were generally based on farming, stock raising, shell fishing, saw and grist milling and

shipbuilding with a few shops and craftsmen to supplement the economy (Federal Writers' Project 1939:600, Leng and Delavan 1924:14). The population of the Island had grown to almost 3000 (Steinmeyer 1987:37).

With the impending Revolutionary War, Staten Island was valued for its location, from a military point of view. The Staten Islanders of that time were generally in favor of reconciling with the British (Historic Records Survey 1942:xxi; Leng and Delavan 1924:16). These feelings were made known by five Island representatives at the First Provincial Congress. The Continental Congress was not pleased by the attitude of the Staten Islanders and wanted to protect the Island from British possession. Island representatives protested actions to this effect and agreed to form militias for the "association". This is confirmed by a report made in April 1776 on the progress of these military companies (Smith 1970:57-58).

Although actions were taken by the rebels, Staten Island became a British military stronghold. By 1776 there were over 30,000 troops camped on Staten Island under the direction of General Hoe. Many of the rebels fled to New Jersey for their safety (Clute 1877:85-86). While Staten Island played a major role in the War, there are no reports of any Revolutionary War incidents at what is now Eltingville.

The declaration of peace did not immediately ease life on Staten Island. There was a period of time, before the large number of British troops evacuated their camps, when their relations with the Americans were strained. The last of the British troops left Staten Island, and New York, on November 25, 1783 (Bayles 1887::172, 216). After their withdrawal, former British land was taken and sold, including the project area vicinity and "the whole eastern shore, was opened up to settlement by small farmers" (Historical Records Survey 1942:xxiii).

Figure 15 is a copy of the map of British-Hessian's camps on Staten Island from 1780 and 1783. This map is known for its detail in presenting both geographical features and names and locations of property owners (McMillen 1944:19). The project area falls within an open part of the map. It is closest to homes shown along Amboy Road. The names of those property owners are A. Taylor and J. Sylvester. Figure 15 also shows the early roads of Staten Island. The closest roads to the project area still exist today and are now Amboy Road to the south, Giffords Lane to the east, Arthur Kill Road to the north and Annadale Road to the west. All of these can be seen with better clarity in Figure 16, McMillen's

Map of Staten Island during the Revolution. At that time Amboy Road was known as New Road and Annadale Road was called Seaman's Lane. Giffords Lane and the community of Giffords were originally named for a Major Gifford who owned property in that area (Morris 1898:442). A J. Gifford can be seen on Figure 16 near the intersection of Giffords Land and Arthur Kill Road, to the northeast of what is now the project area.

Nineteenth Century

At the turn of the century Staten Island's population had grown to 4564 (Steinmeyer 1987:57). The early nineteenth century was a time of increased development on Staten Island and in what is now the Eltingville area. However it was not until after the War of 1812 that Staten Island's economic base expanded. Agriculture was still predominant, but "other occupations as fisheries, shipbuilding, and manufacturing gradually developed and became important" (Historic Records Survey 1942:xxxi). However the project area appears to have been mostly wooded at least through the 1830s as shown in the U.S. Coast Survey from that time (see Figure 17). Only a small portion in the southeast of the project area was cleared by that time.

According to the 1840 census of Richmond County, 31 percent of those listing professions were employed in the field of agriculture, 29 percent in trades and manufactures and 24 percent in navigation (Akerly 1843:189). These numbers show that while agriculture and navigation still played a predominant role at that time, more industrial pursuits were also well established.

Two wooden plank roads were created on Staten Island about 1850. Port Richmond and Fresh Kills Plank Road was part of what is now Richmond Avenue, and Richmond Plank Road was part of what is now Richmond Road (McMillen 1946:8; Reed 1965:18). Figure 18 depicts part of the Port Richmond and Fresh Kills Plank Road, adjacent to the project area. Plank roads made what is now Eltingville more easily accessible to summer travelers. It "was quite a popular resort" (Morris 1898:442).

By 1853, the land including the project area had been cleared, for the most part (see Figure 18). Butler's 1853 map of Staten Island depicts two of the roads which are now part of the larger Wilson Avenue sewer project; Richmond Avenue, then Plank Road, and Arden Avenue, unnamed on Figure 18. One can see by the distance from Arden Avenue to Annadale Road, Butler was somewhat less than accurate

in his survey of roads. This is of interest since the current location of Ray and Van Brunt Streets are shown passing through a dirt road or driveway and next to the home of Dr. J. Van Hovenburg. However, it is more likely that Dr. Van Hovenburg's property actually lied to the southwest of where it is depicted, and thus outside of the Wilson Avenue West project area.

Road improvements continued and, in 1864 macadamization began on Staten Island when stone from the Port Richmond quarry was used for paving Richmond Avenue and the street name was changed to Stone Road (Reed 1965:20-21). In addition to improvements in the roads of this time, the 1860s brought the first rail service to Staten Island (Leng and Delavan 1924:24-25, Reed 1953:3). The Staten Island Railroad from Vanderbilt Landing opened in 1860 running near the project area. At the time, it ran as far as Eltingville. The station was located to the east of the project area, off Richmond Avenue, near where it is today. The advertisement for the service said trains ran three times per day, twice on Sundays, to meet with the ferry from New York (Steinmeyer 1987:78). Later in 1860, the short-lived Staten Island Steam Railroad commenced with service from Clifton to Tottenville (ibid.:93).

Walling's 1859 map of Staten Island, slightly earlier than the Staten Island Railroad advertisement, is perhaps the earliest, reference to the place name Eltingville. While it is not shown on the map itself, Walling's list of postmasters contains "M. Elting, Eltingville, Southfield". What is now Amboy Road was the boundary between Southfield and Westfield. The Eltingville area was known as South Side until 1873 when records show the name was changed to Sea Side (Davis 1896:64).

The Elting Family, for whom Eltingville is named, came, according to Dingman Versteeg in the New Netherland Register, February, 1811, from the Province of Drenthe, and settled at New Paltz...whence they came to Staten Island early in the nineteenth century (Leng and Davis 1930:895).

No other information regarding the Elting family was identified. However, Richmond County grantor/grantee indices from the nineteenth century show Elting as a common surname and show numerous properties bought and sold by Elting and Kolff Development Company.

The Civil War had little effect on the Island, as evidenced by the progress in services throughout the 1860s. Despite draft riots, Staten Island was considered a safe haven during the Civil War and southern farmers reportedly sent their women to the Island as a refuge during these years (Federal Writers' Project 1939:601). In 1862 the first gas light company on Staten Island was established (Bayles 1887:740). The Church of the Holy Comforter in Eltingville was erected in 1865 (Clute 1877:274; NYCLPC 1992:232).

This may be the first church built in Eltingville, later moved and now known as St. Alban's Church (NYCLPC 1992:232; SIIAS n.d.).

Several late nineteenth century atlases and maps were consulted to better understand conditions of the project area at that time, as well as to get a glimpse of property ownership. Table 3 provides a synopsis of ownership for the streets which now make up the project area. It also provides the date by which each street was open.

Beers 1874 atlas shows the project areas divided into five lots. These fell within the properties of N. Elting's estate, J. Fay, J. Silk, Stuyvesant and G. Van Pelt (see Figure 19). Only three of these five properties were depicted with any buildings; Fay, Silk and Van Pelt. Each property is shown with one building, presumably a home. However none of the streets of the current project area cuts through these buildings. The only portion of the Wilson Avenue West project area which was already in use as a road by 1874 is Arden Avenue, then Washington Avenue.

The mid to late nineteenth century was a time when new services were being introduced on Staten Island. The Richmond County Gas Company was formed in 1856. The Staten Island Water Supply Company was incorporated in 1879 (Steinmeyer 1987:115). Telephone service began on Staten Island in 1882 (Leng and Delavan 1924:28). Shortly after, the electric power industry took hold on Staten Island (ibid.:29; Steinmeyer 1987:116). A large effort to bring summer visitors to the Eltingville area began in 1882 with the initiation of construction for the North South Railroad. This abandoned venture was to extend from the Kill van Kull to the shore in Eltingville. However funding was not available and the project was aborted in 1883 (Leng and Davis 1930:316). Figure 12 shows remnants of the abandoned railroad cutting through the project area, crossing over the current locations of Chesebrough Street, Wilson and Wainwright Avenues and Sylvia Street.

Plans for the North South Railroad show it was to cut southward through the property of the Stuyvesant heirs and N. Elting within the project area, before crossing the Staten Island Railway in Eltingville (Kelly 1883). This survey for the North South Railroad shows that Stuyvesant died between 1874 and 1883, when heirs are depicted as the property owners. It would seem that the estate of N. Elting had transferred its 1874 property holdings within the project area to N. Elting by 1883. Both Elting and Stuyvesant remain prominent surnames of property owners within the project area through the remainder

of the nineteenth century. However, no buildings appear within their properties on any of the atlases. N. Elting may have been a member of the family for which Eltingville was named, but no information was found to confirm this.

Beers 1887 atlas continues to depict the project area in five lots (see Figure 20). The name Stuyvesant and C.W.H. Elting are shown on the properties which did not contain buildings. J. Silk's property was in estate by 1887. Moving westward, J. Fay's former property was owned by Dr. T. Steel in 1887. It is assumed G. Van Pelt continued ownership of the western lot, although the atlas shows the name "Van Pell". The three lots which contained buildings in 1874 were also depicted containing buildings, in the same locations, in 1887. Once again, none of the streets which now comprise the Wilson Avenue West project area were cut through any of these building's footprint.

The latest nineteenth century atlas examined was Robinson's 1898 (see Figure 21). This atlas depicts the property which makes up the Wilson Avenue West project area divided into six lots rather than five. The sixth lot is to the west of those shown in earlier atlases, in the footprint of where Ray Street is now located. This leads one to speculate an error of scale in Robinson's atlas. Regardless, that lot was owned by Tunis Van Pelt in 1898. Tunis Van Pelt's property contained four buildings in 1898, all to the north of the project area. Stuyvesant and Elting continued to own the eastern two lots. It is not clear whether these are the same individuals which owned those lots in 1887. However, one may assume they are at least part of the same families. The former property of the Silk estate was owned by a Captain James McLaughlin in 1898, who called it "Rosebud Cottage". Dr. T. Steel's property was under the name Dr. Edward Steele. However no building is depicted on the lot. One wonders if the Steel is a spelling error variant of Steele and the two doctors related. Once again, the western lot was owned by "Geo." Van Pelt.

None of the streets which now make up the project area were ever shown cutting through any of the buildings depicted on late nineteenth century atlases. Furthermore, none of the roads were in existence at that time, except for Arden Avenue. However, it is interesting to note Wilson Avenue is depicted on the 1887 Beers atlas (see Figure 20) and not on the later 1890 topographic map (see Figure 11) or the 1898 Robinson atlas (see Figure 21). Later data shows this part of Wilson Avenue was not officially mapped by the County until 1920 (Thomson 1920a, 1920b).

All of the names identified as former owners of the project area in the late nineteenth century were used to search directories of that period (Libby 1895; Trow's 1898; Webb's 1888, 1890, 1892). Three of the people were listed in the 1892/93 directory as having homes in South Side; James McLaughlin, George Van Pelt and Tunis Van Pelt. However that directory did not list street addresses. It is interesting to note these were the only three lots containing buildings in 1898 (see Figure 21). The 1895/96 directory only turned up one of the former owners of the project area; James McLaughlin. He was listed as a sand dealer with a Washington Avenue address in South Side.

Grantor/grantee indices were also searched. The names Van Pelt, Stuyvesant and Elting were too common to provide any useful leads. Only one likely former project area resident's property transfer was found. In 1892, James McLaughlin acquired property from the executors of the deceased Sarah Sisk. The atlases showed McLaughlin moving into the property formerly owned by the Silk estate between 1887 and 1898. Silk may be a variant of Sisk.

In addition to the directory and grantor/grantee search, all names previously identified as former project area owners were searched by address in the 1900 census. Only two individuals were found; James McLaughlin and Tunis Van Pelt. McLaughlin, the sand dealer, then 58, and his wife Mary, immigrated from Ireland in 1850. Four of their ten living children were still at home with them on Washington Avenue in 1900, two sons and two daughters. All had attended school and could read and write. McLaughlin's house was owned, mortgage free. It was listed as a house, not a farm. Tunis Van Pelt, then a 68 year old widower, was also listed as a mortgage free home owner on Washington Avenue. His occupation was as a carpenter, although he was out of work for six months. Van Pelt was born in New York.

No additional research on nineteenth century property owners was done, since none of the buildings within the historic lots boundaries are in the footprint of the Wilson Avenue West sewer project.

Staten Island became a borough of New York City in the 1890s and by the end of the century the Staten Island Road Bill was passed. Almost half of the roads in existence at that time were macadamized, including Washington Avenue, now Arden Avenue (Morris 1898:453-455).

Table 3 Names of Property Owners Identified from Historic Maps

STREET	OPEN BY	EARLY PATENTS (Skene 1907)	1874 BEERS	1883 KELLY	1887 BEERS	1898 & 1907 ROBINSON	1917 BROMLEY
Arden Ave.	1853 ¹	Jaques Pullion (1696)	Depicted as road	Depicted as road	Depicted as road	Depicted as road	Depicted as road
Bayard St.	1921 ²	F. Vincent (1708)	Stuyvesant	Stuyvesant heirs	Stuyvesant	Robt. Stuyvesant	Robt. Stuyvesant
Ray St.	1951 ³	Jaques Pullion (1696)	G. Van Pelt & J.Fay		G. Van Pelt & Dr. T. Steel	Tunis Van Pelt, Geo. Van Pelt & Dr. Edward Steele	Geo. Van Pelt, Dr. Theo. Steele & James McLaughlin
Stuyvesant Ave.	1920 ⁴	John Morgan (1686)	J. Silk		J. Silk, est.	Capt. Jas McLaughlin	James McLaughlin
Sylvia St.	1920 ⁴	John Morgan (1686) and F. Vincent (1708)	N. Elting, est. & J. Silk	N. Elting	C.W.H. Elting & J. Silk, est.	Cornelius Elting	W.H. Elting
Van Brunt St.	1927 ^{2,5}	John Morgan (1686)	J. Fay, J. Silk & Stuyvesant		J. Silt, est., Dr. T. Steel & Robt. Stuyvesant	Dr. Edward Steele, Capt. Jas McLaughlin & Robt. Stuyvesant	James McLaughlin & Robt. Stuyvesant
Wainwright Ave.	1921 ²	F. Vincent (1708)	Stuyvesant & N. Elting, est.	Stuyvesant heirs & N. Elting	Stuyvesant & C.W.H. Elting	Robt. Stuyvesant & Corneluis Elting	W.H. Elting & Octavia Wotherspoon
Wilson Ave.	1921 ²	John Morgan (1686) and F. Vincent (1708)	J. Silk & N. Elting, est.	N. Elting	J. Silk, est. & C.W.H. Elting	Capt. Jas McLaughlin & Corneluis Elting	W.H. Elting, James McLaughlin & Octavia Wotherspoon

¹ This road was opened between 1839 and 1853. It is depicted on Butler's 1853 Map of Staten Island and not on the U.S. Coast Survey Constructed 1833-1839.

² Listed as a proposed road on Thomson's 1920 survey of Stuyvesant Farms Company and marked approved 9/13/21, although there is no evidence that the road was actually laid out in 1921.

³ Shown as mapped and not open on Sanborn's 1938 insurance map updated to 1951.

⁴ Listed as a proposed road on Thomson's 1920 survey of Elting Park and marked approved on 10/14/20, although there is no evidence that the road was actually laid out in 1920.

⁵ Listed in the January 1927 Borough of Richmond Street Status Maps.

Twentieth Century

At the turn of the century Staten Island's population had grown to over 67,000 (Steinmeyer 1987:116). The early twentieth century brought the continued increase of development on Staten Island. The municipal ferry was established at St. George in 1900 (Kolff 1926:30). The Richmond Light and Railroad Company was formed in 1902 after purchasing electric rail rights (Leng and Delavan 1924:29).

Robinson and Pidgeon's 1907 Atlas shows no change in the project area vicinity. Figure 12 shows that there were no changes through 1912. Sanborn's maps of 1910 and 1917 did not include the project area, presumably because the vicinity was too sparsely populated at that time. Bromley's 1917 Atlas did include the project area vicinity (see Figure 22). Physical features in the 1917 atlas can be compared to the 1912 topographic survey. The ponds and streams shown in and near the project area are shown in the same locations as they were in 1912. The dirt road is also clearly shown. Lot lines in the 1917 atlas compare well to the fence lines of the topographic map. The one major change in the project area is the division of Robert Stuyvesant's property into three parcels, all of which encompass the Wilson Avenue West project area. The southern portion of the project area was contained in four lots in 1917, just as it had been in most of the nineteenth century atlases. The fact that four lots, rather than five, are depicted strengthens the assertion that Robinson and Pidgeon's 1907 atlas contains an error of scale. All of the 1917 property owners identified on Figure 22 are the same, or have the same surnames, as the late nineteenth century owners, with the addition of Octavia G. Wotherspoon in the northern part of the project area. Once again, none of the streets which now make up the Wilson Avenue West project area have been cut through the footprint of any of the buildings shown in the historic atlases.

When looking beyond the Wilson Avenue West project area on Figure 22, one can see subdivisions had been created, both to the east and to the west. It was not long after this time that the project area itself was subdivided. A survey of the Elting Park subdivision was "submitted to incorporate streets into the city map" and approved in 1920 (Thomson 1920a). Lots and streets were drawn, bounded by Stuyvesant Avenue, Sylvia Street and Richmond and Wilson Avenues. It also included a segment of Wainwright Avenue. Soon after the Elting Park subdivision was approved, a plan was submitted and approved to subdivide the adjoining property, to the north, of the Stuyvesant Farms Company (Thomson 1920b). This included the blocks bounded by Van Brunt Street and Wilson, Richmond and Petrus Avenues. Besides these roads, this subdivision also included the northern part of Wainwright Avenue and Bayard Street.

Sanborn's 1938 Insurance Map of the vicinity shows that while subdivisions were created almost twenty years earlier, many lots were not built (see Figure 23). In fact, a small number of lots remain unbuilt today. The 1951 updated version of the Sanborn insurance maps shows much the same situation. It is of interest to note portions of Stuyvesant Avenue and Van Brunt Street were not opened at that time, nor was Ray Street. These streets were only opened within the past twenty years, except for the segment of Stuyvesant Avenue which remains unopened today (Borough of Richmond, street status maps).

CONCLUSIONS AND RECOMMENDATIONS

This report has evaluated three components of the Wilson Avenue East project area to determine the potential for it to contain preserved archaeological resources. Topography was discussed for its potential to document past site disturbances that would have obliterated any archaeological resources which may have been present, as well as to effect the determination of prehistoric archaeological potential. This was followed by a discussion of prehistoric and historic archaeological sensitivity.

The topographical data presented indicates that the general area would have been favorable to prehistoric food resources. It also indicates the project area may contain some disturbances which were identified in soil boring logs as fill. This may have disturbed or destroyed archaeological resources in places.

Prehistoric archaeological sites are known in the vicinity, the closest less than one-quarter mile away from the project area. Additionally, likely fresh water sources during prehistory were located within the Wilson Avenue West project area. A small pond was shown adjacent to Ray Street on the 1912 topographic survey. A larger pond was depicted at the northern end of Van Brunt Street. A stream was shown crossing Wilson Avenue, west of Bayard Street, and flowing southward across Sylvia Street to a marshy area. Combined, these conditions indicate a moderate potential for the preservation of prehistoric archaeological resources. However, there is a possibility the water sources were seasonal. Therefore this potential is somewhat reduced because prehistoric occupation would have been more transient in these circumstances. Nevertheless, should such a site(s) exist within the project area, it could contribute data on prehistoric site use and seasonal activities. Therefore archaeological testing is recommended in parts of the Wilson Avenue West project area which would be most conducive to prehistoric use, those within two hundred feet from former water sources on raised ground, where most sites are found in terrain similar to the project area (Robertson and Robertson 1978:30). This includes most of Ray and Sylvia Streets, the northern part of Van Brunt Street, Wilson Avenue between Chesebrough and Bayard Streets, and the southern part of both Bayard Street and Wainwright Avenue.

Some of the project area recommended for testing includes disturbed soils, described as fill. However, none of this deposit was retained in boring samples, thus prohibiting archaeological evaluation at this time. If the deposit is actual fill, overlying an intact early land surface, testing would be done at the interface of these two strata. Alternatively, if the deposit represents a disturbed context, archeological

material may be present both within and below the fill stratum. Based on the available data, the fill probably represents a combination of the two soil types. The upper part of the fill stratum is most likely a fill brought in and used as a base for the pavement. Below that, there is likely some disturbance from farming activities, particularly on Ray Street which was cultivated in 1912.

The testing strategy recommended is the removal of the paving associated deposits followed by fifty foot interval archaeological shovel testing within exposed soils followed by analysis. Should shovel testing reveal fill deposits or disturbed contexts actually extend deeper, reevaluation of those areas should also be included.

The project area is not within any New York City designated landmark district, nor does it contain any designated landmarks (NYCLPC 1979, 1992). Most of the streets which make up the Wilson Avenue West project area were not laid until the 1920s. Prior to that time, no construction was found on any plans or in any histories of the project area. The property was mostly wooded prior to at least 1835 (U.S. Coast Survey) and the project area vicinity not built upon until after 1853 (Butler). Therefore, it is unlikely that any historic archaeological resources would be present within the project area and no Phase 1B archaeological testing is recommended for that purpose.

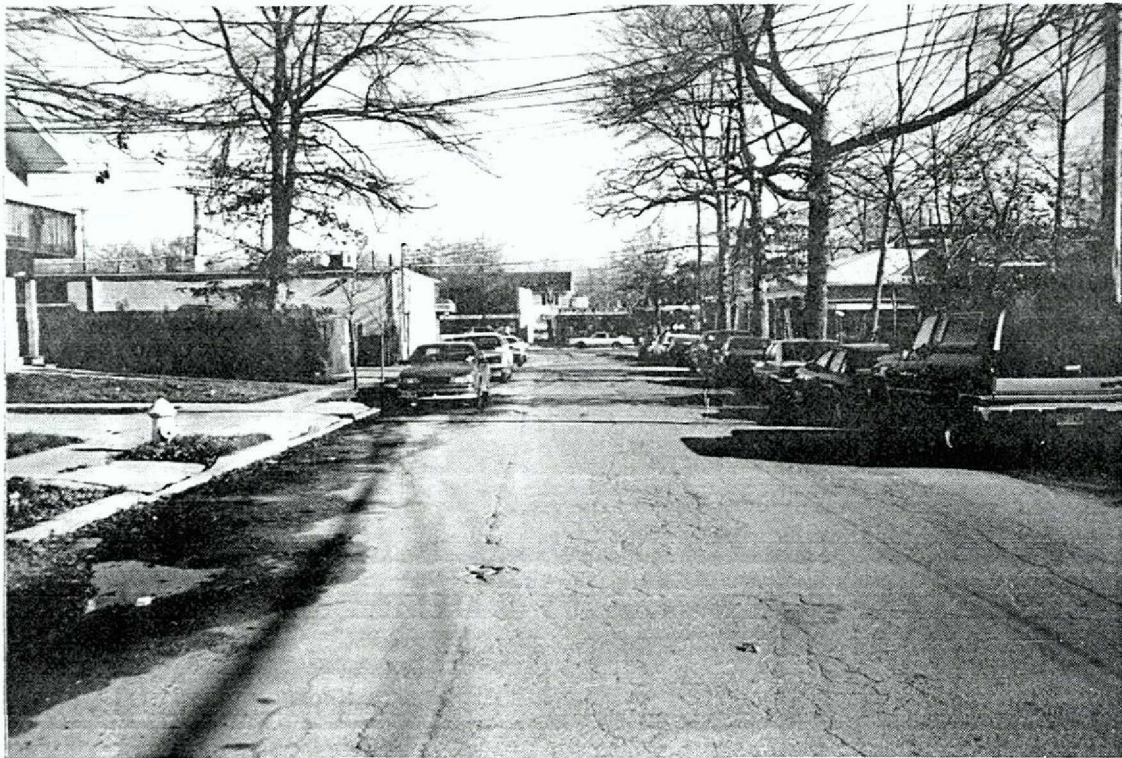


Plate 1 Sylvia Street, east of Wainwright Avenue, facing east.

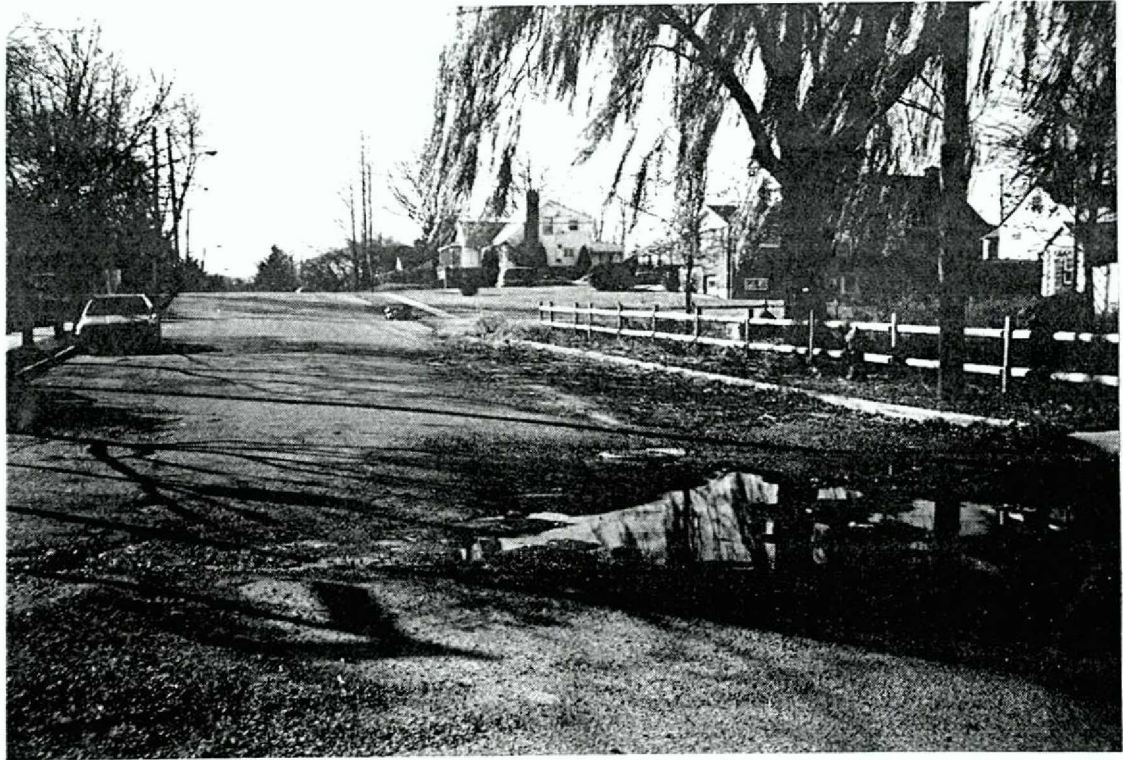


Plate 2

Van Brunt Street at Rye Avenue facing south.

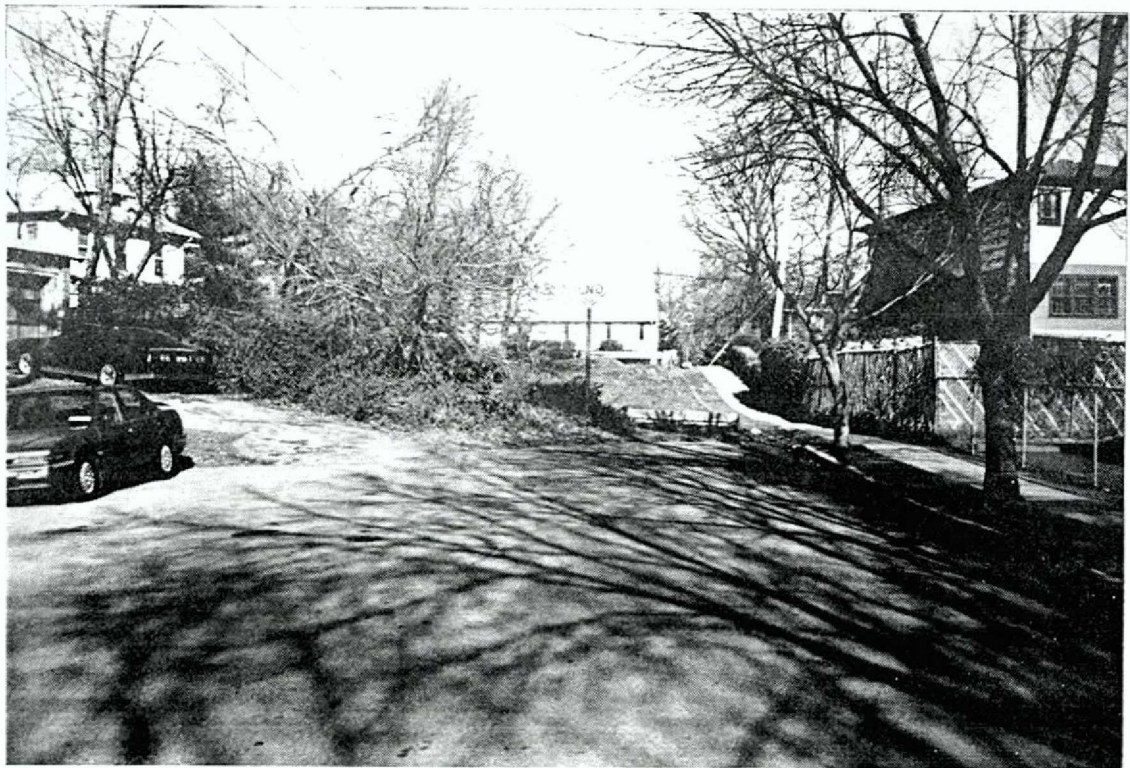


Plate 3

View of the unpaved segment of Stuyvesant Avenue facing north.

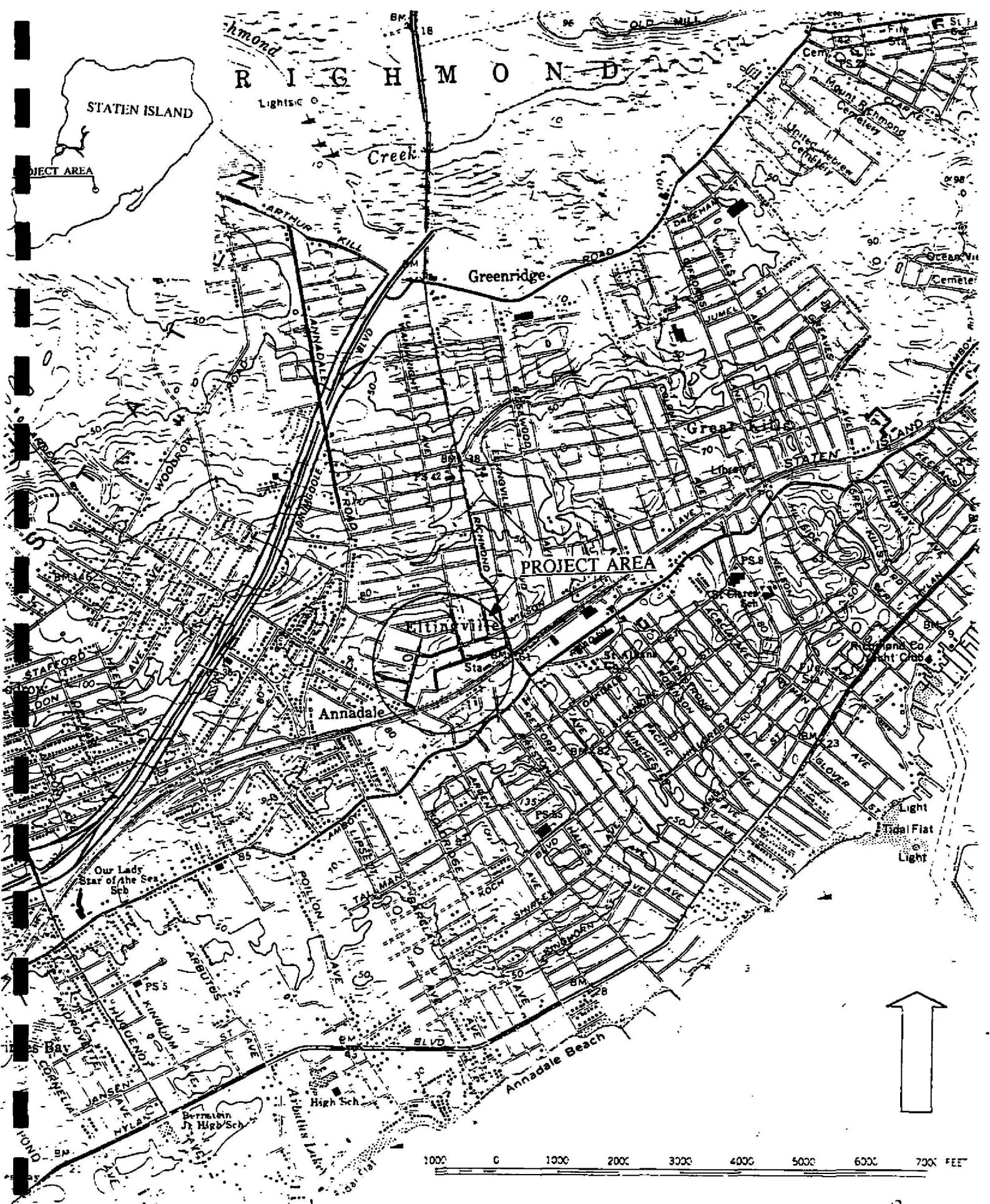


Figure 1 Wilson Avenue East project area location shown on the U.S.G.S. 7.5 minute series map of Arthur Kill, New York.



BOROUGH OF STATEN ISLAND

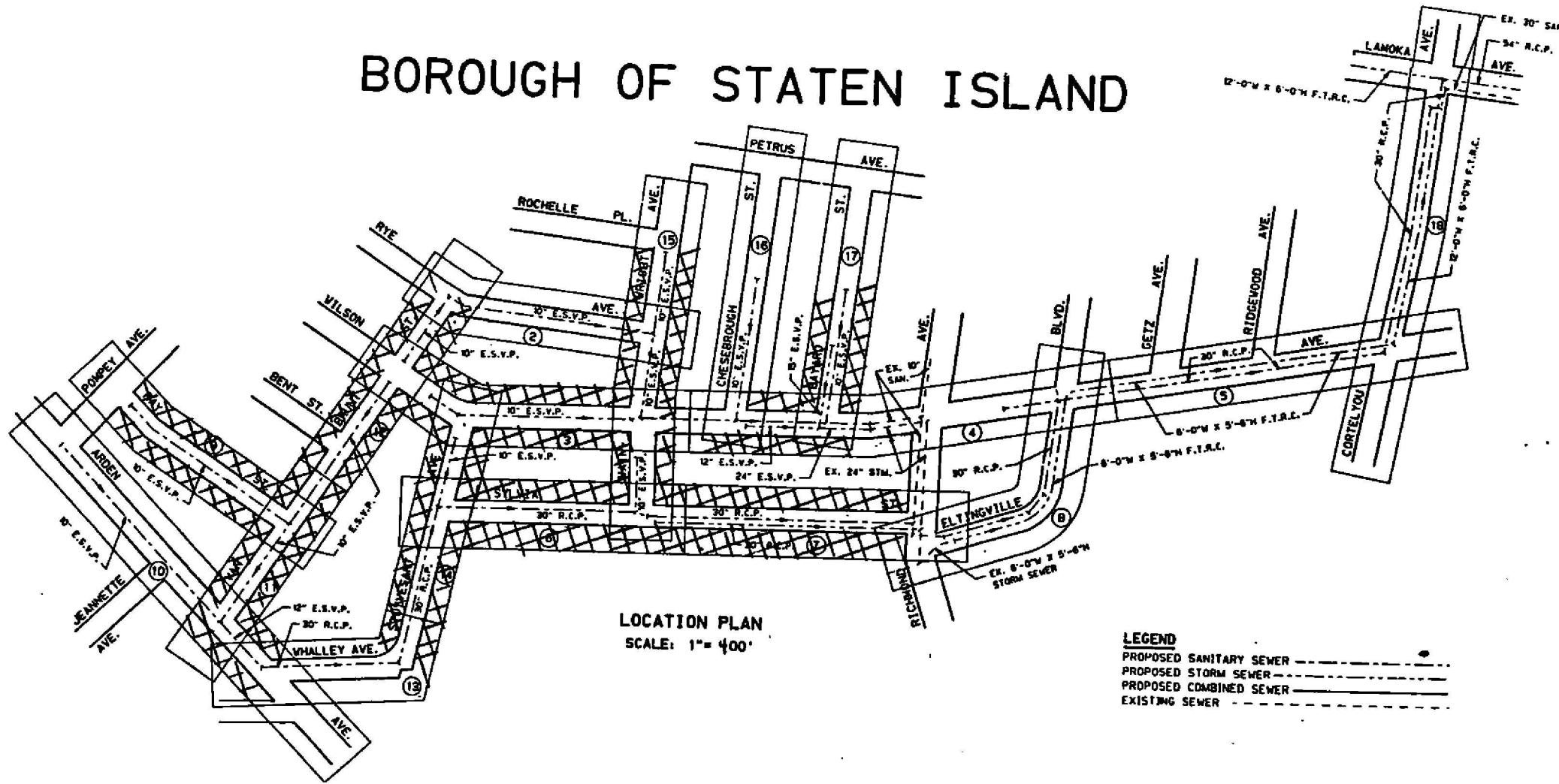


Figure 2 Plan of the proposed sanitary and storm sewers in the Wilson Avenue sewer project.

WILSON STREET STRATIGRAPHY PROFILE

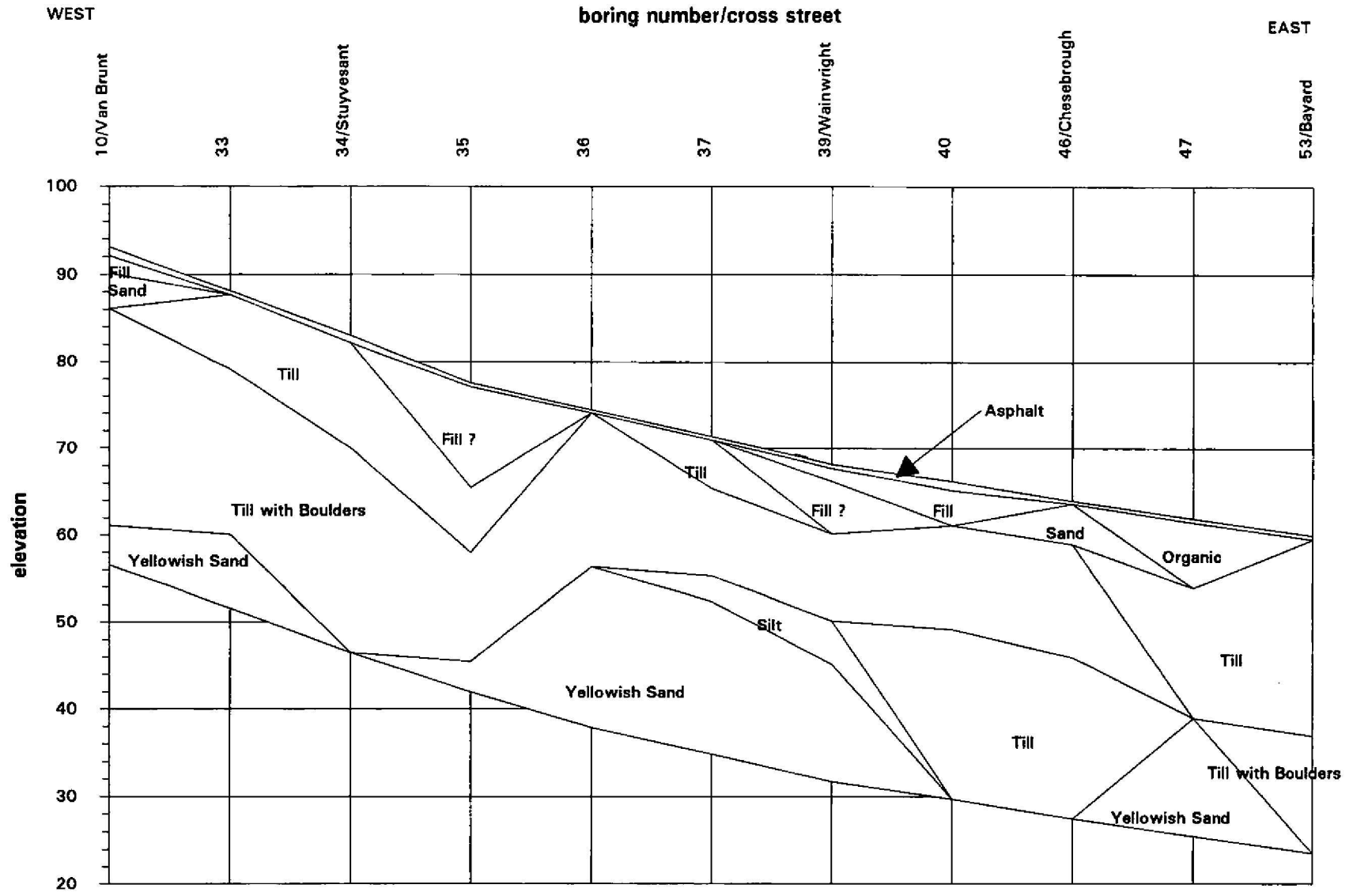


Figure 3 Wilson Avenue stratigraphy profile.

SYLVIA STREET STRATIGRAPHY PROFILE

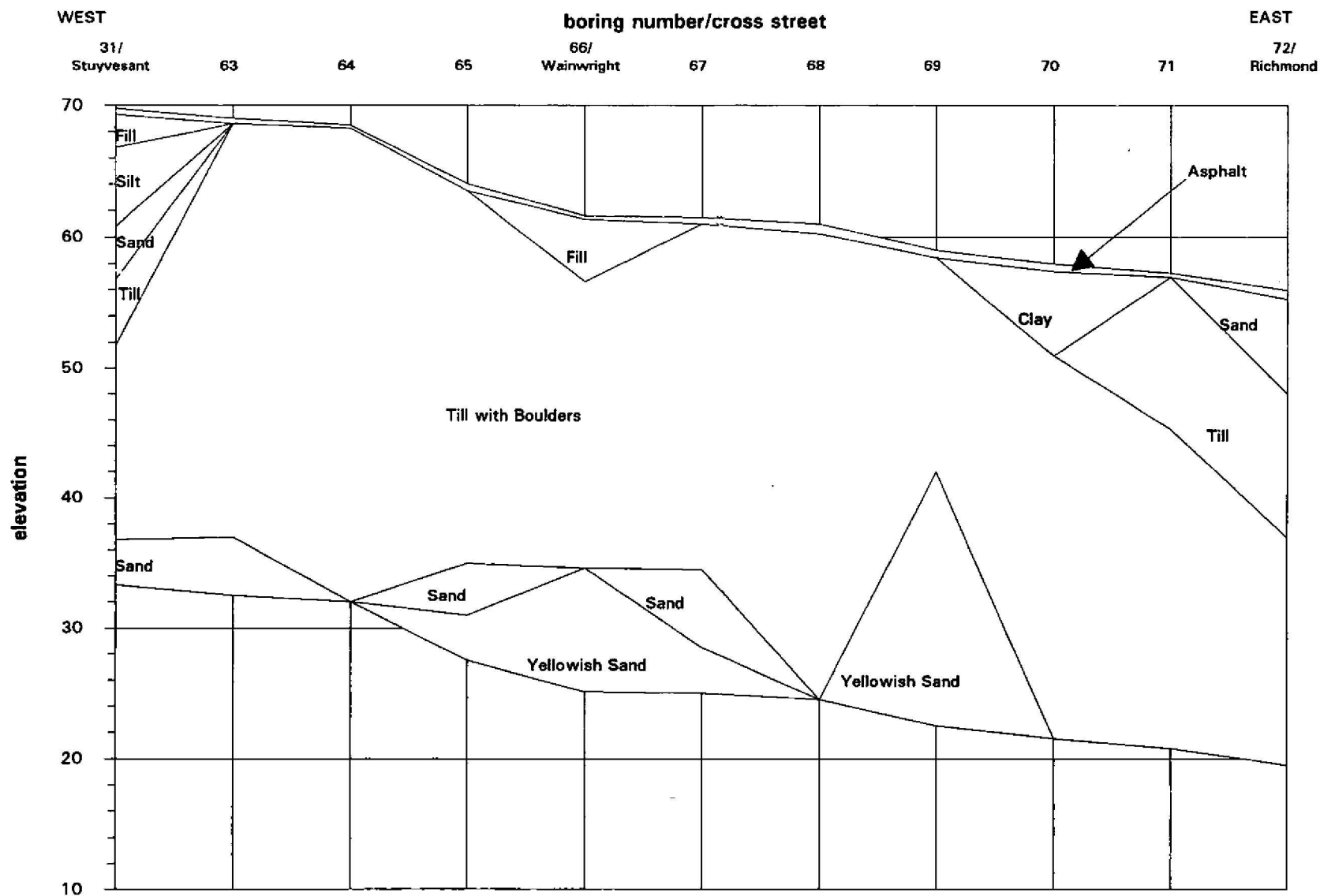


Figure 4 Sylvia Street stratigraphy profile.

RAY STREET STRATIGRAPHY PROFILE

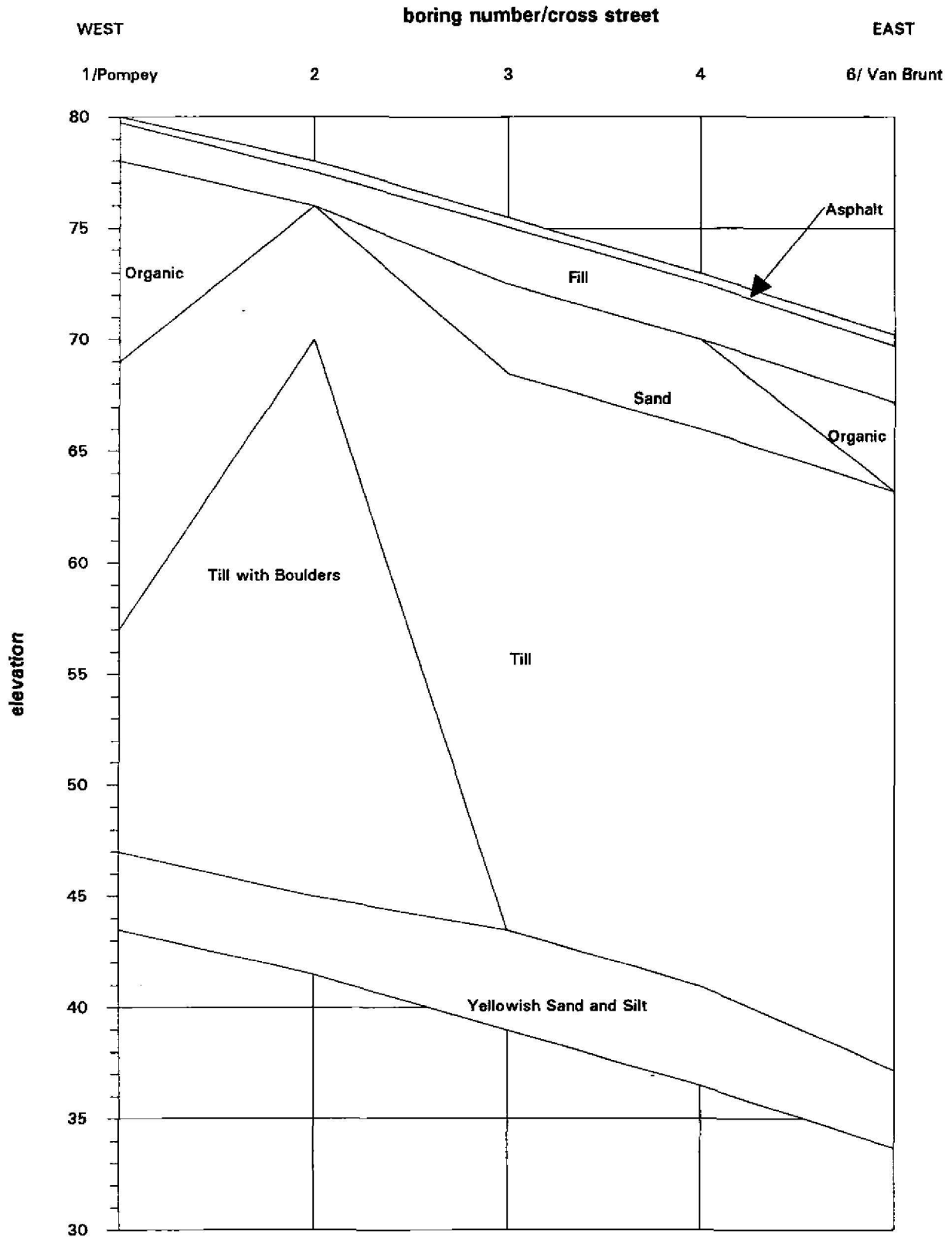


Figure 5 Ray Street stratigraphy profile.

ARDEN AVENUE STRATIGRAPHY PROFILE

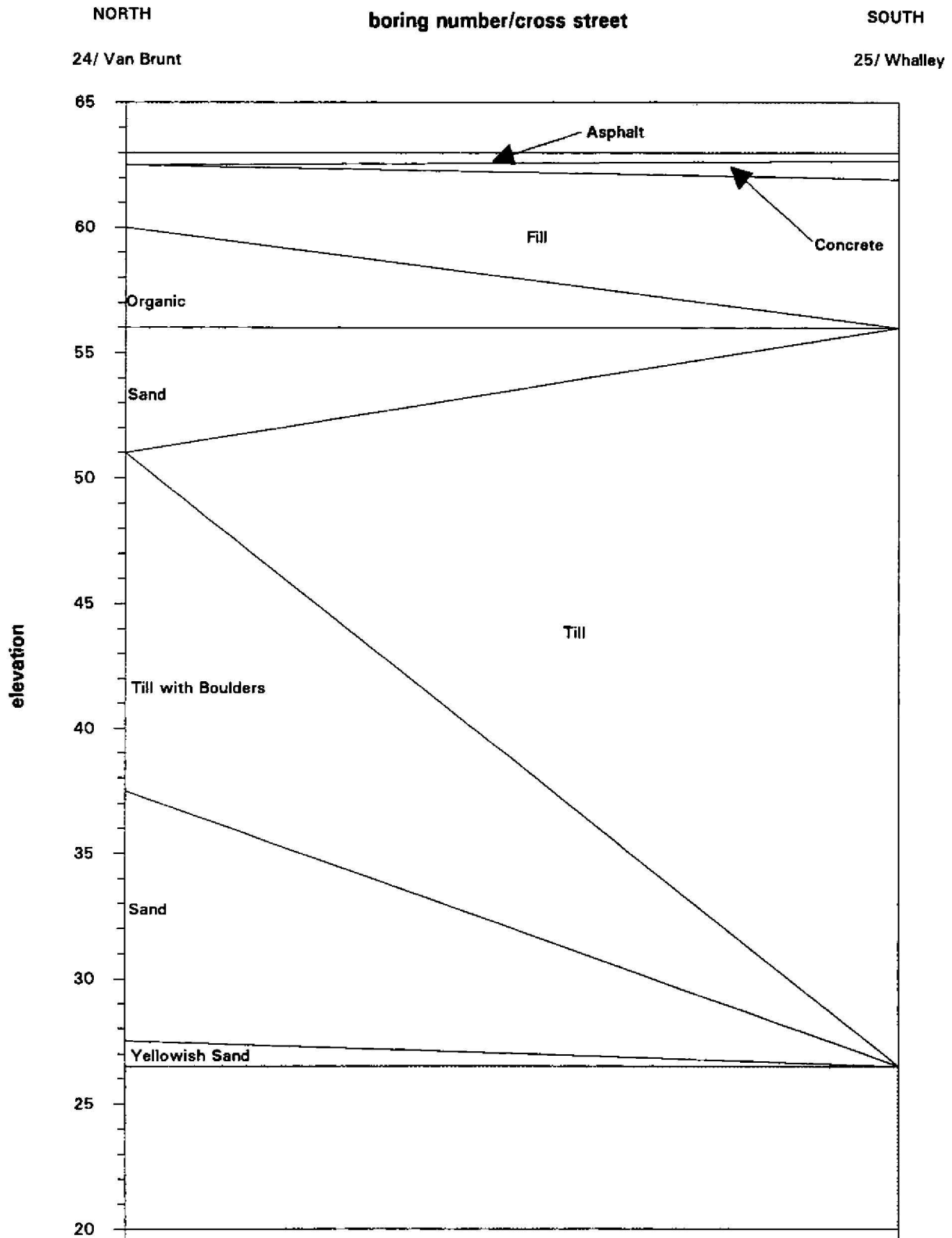


Figure 6 Arden Avenue stratigraphy profile.

VAN BRUNT STREET STRATIGRAPHY PROFILE

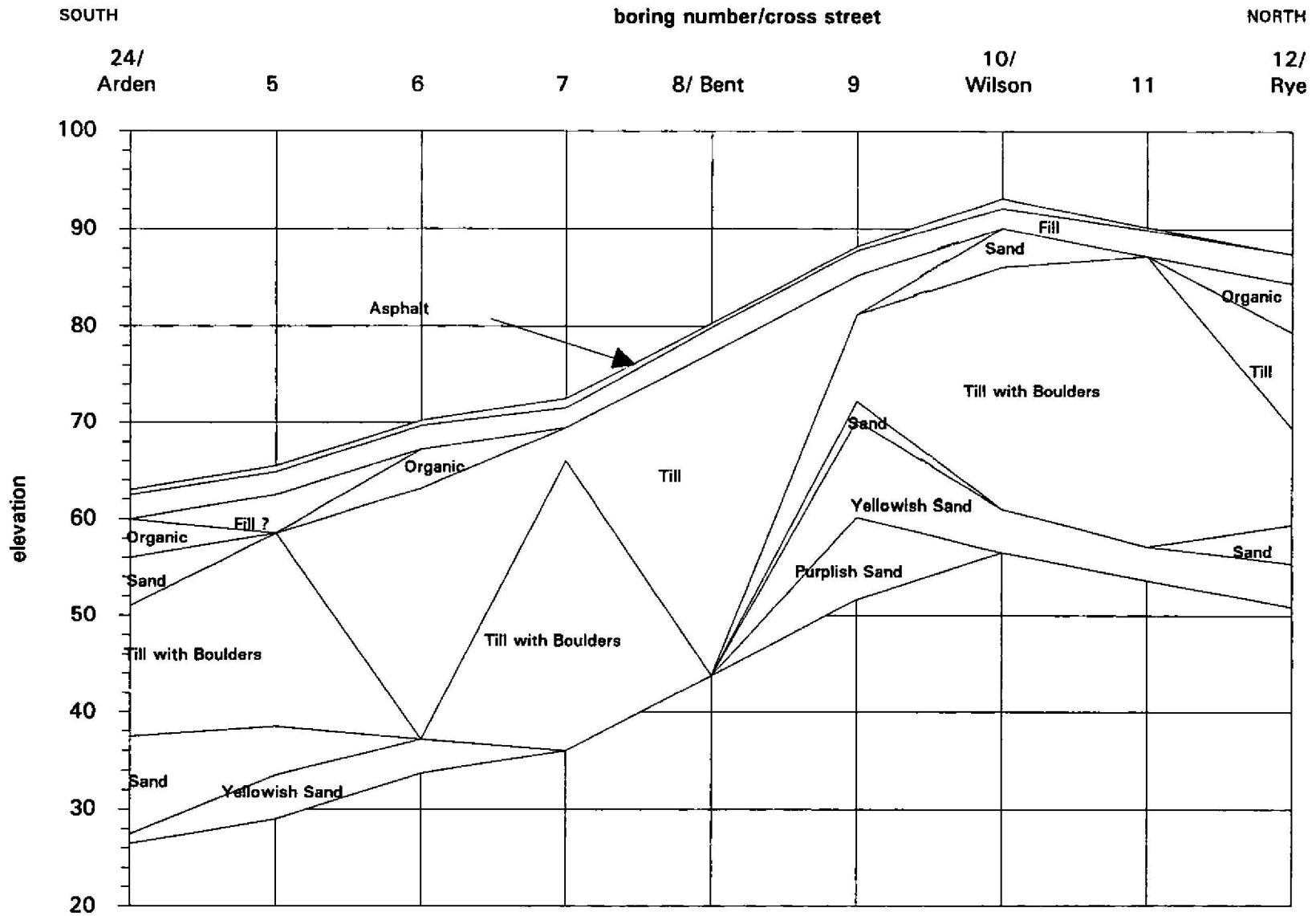


Figure 7 Van Brunt Street stratigraphy profile.

STUYVESANT AVENUE STRATIGRAPHY PROFILE

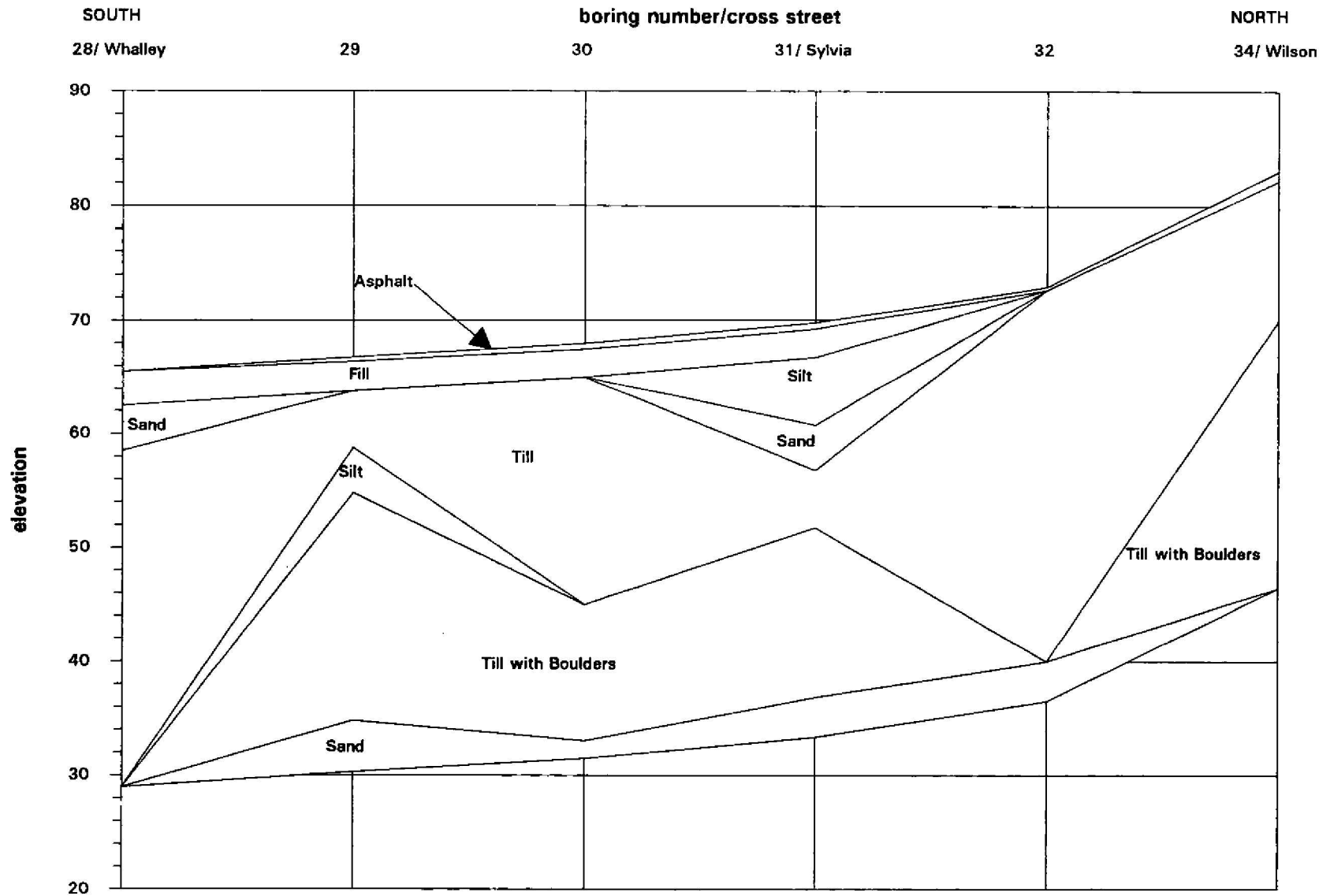


Figure 8 Stuyvesant Avenue stratigraphy profile.

WAINWRIGHT AVENUE STRATIGRAPHY PROFILE

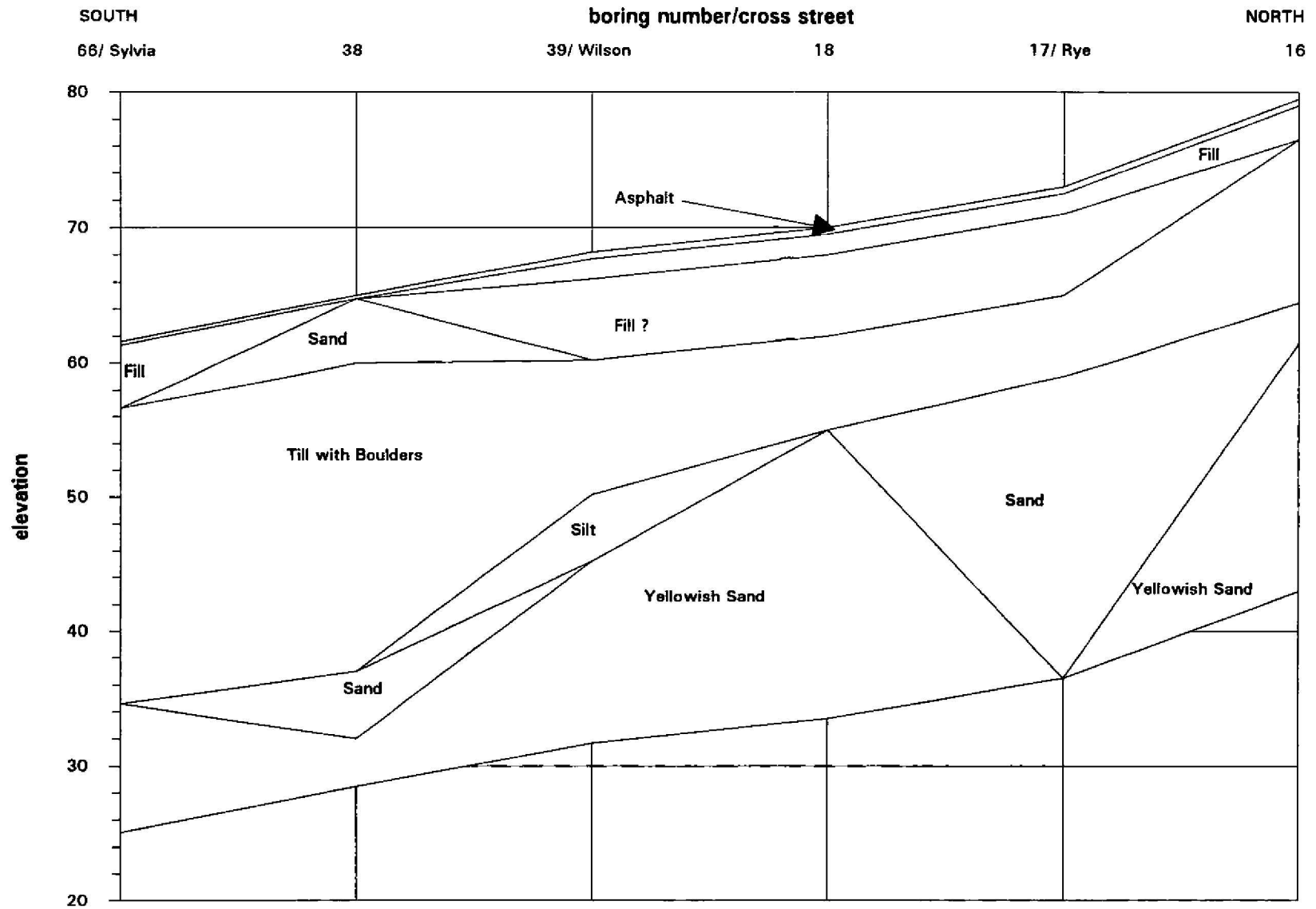


Figure 9 Wainwright Avenue stratigraphy profile.

BAYARD STREET STRATIGRAPHY PROFILE

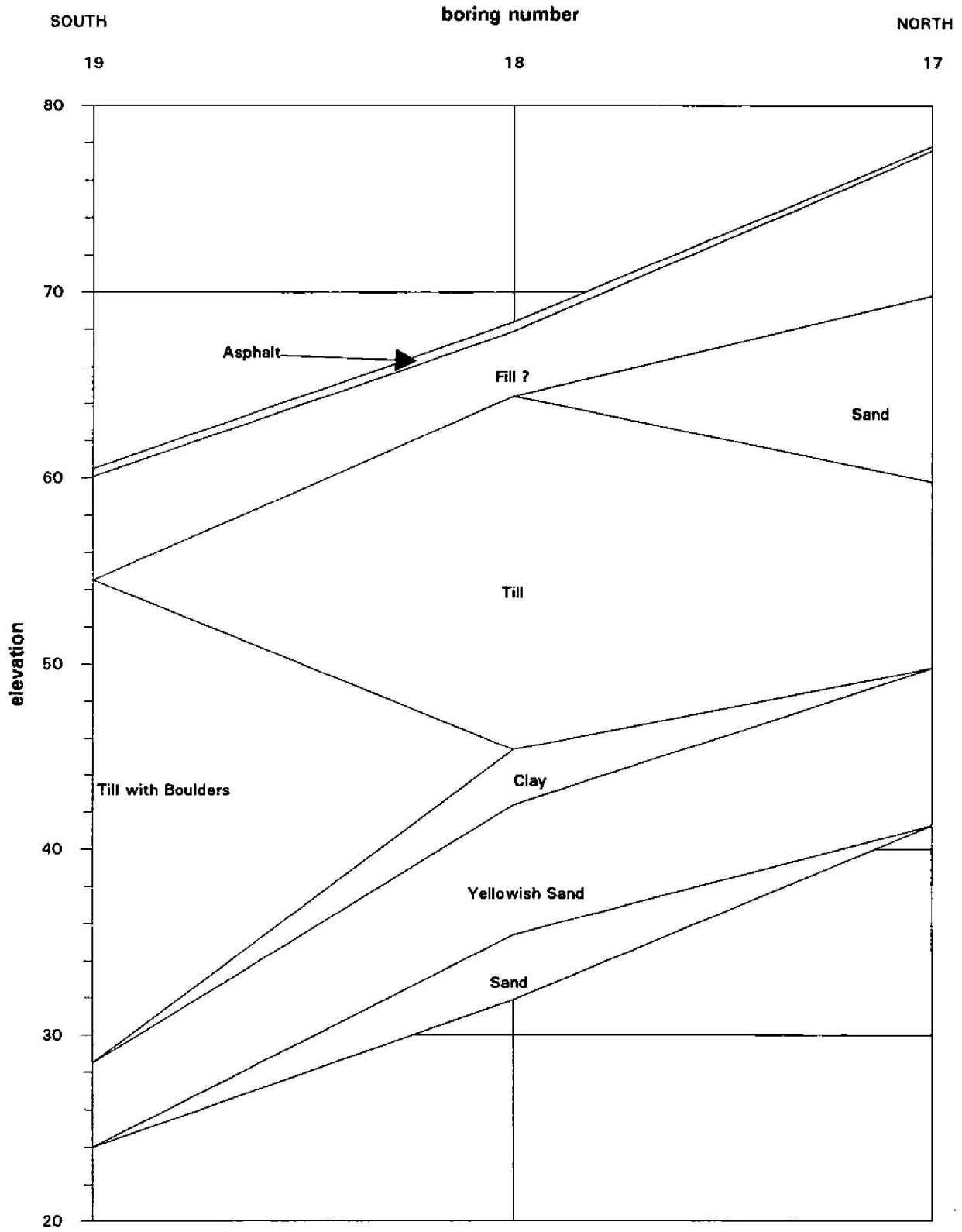


Figure 10 Bayard Street stratigraphy profile.

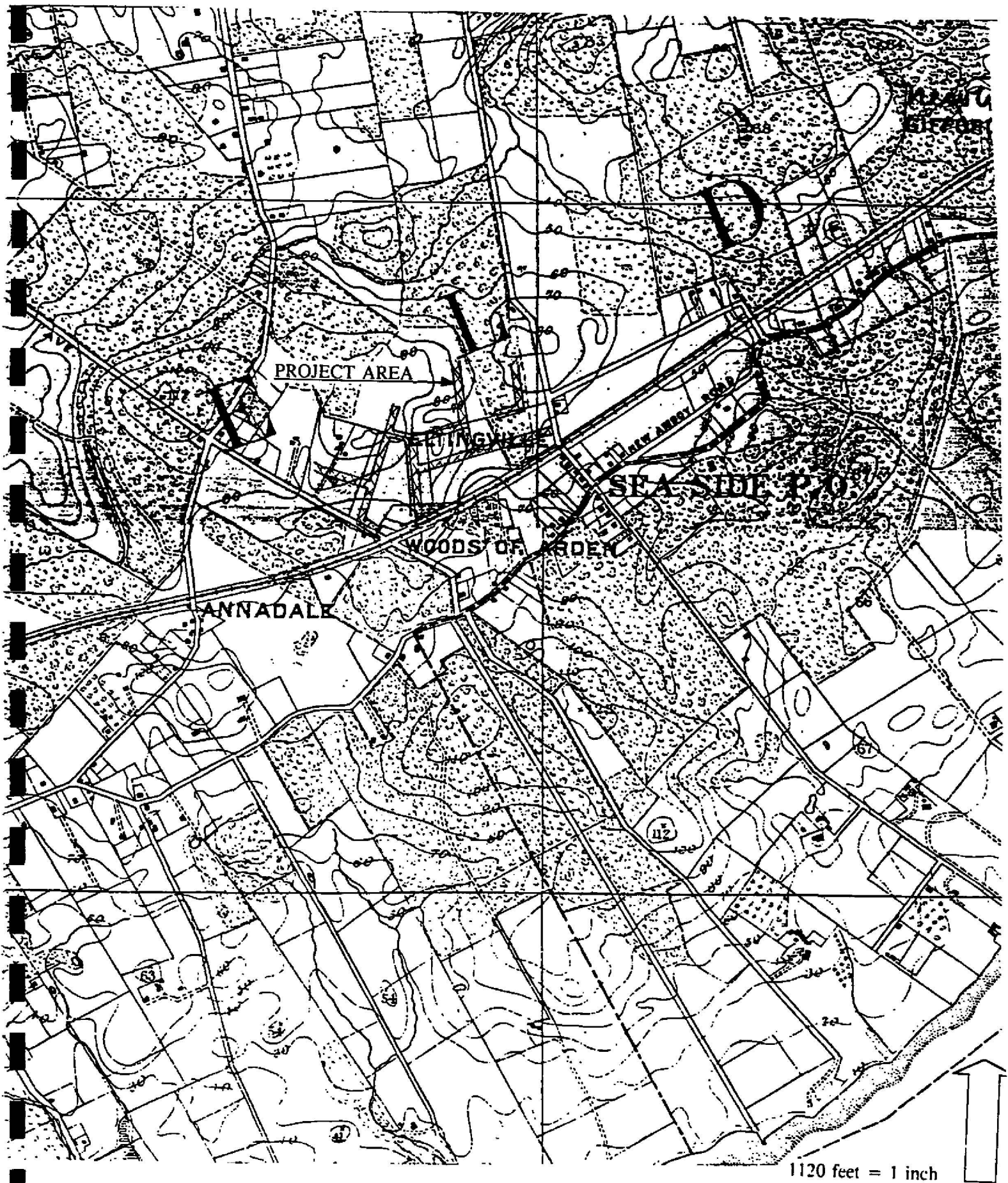
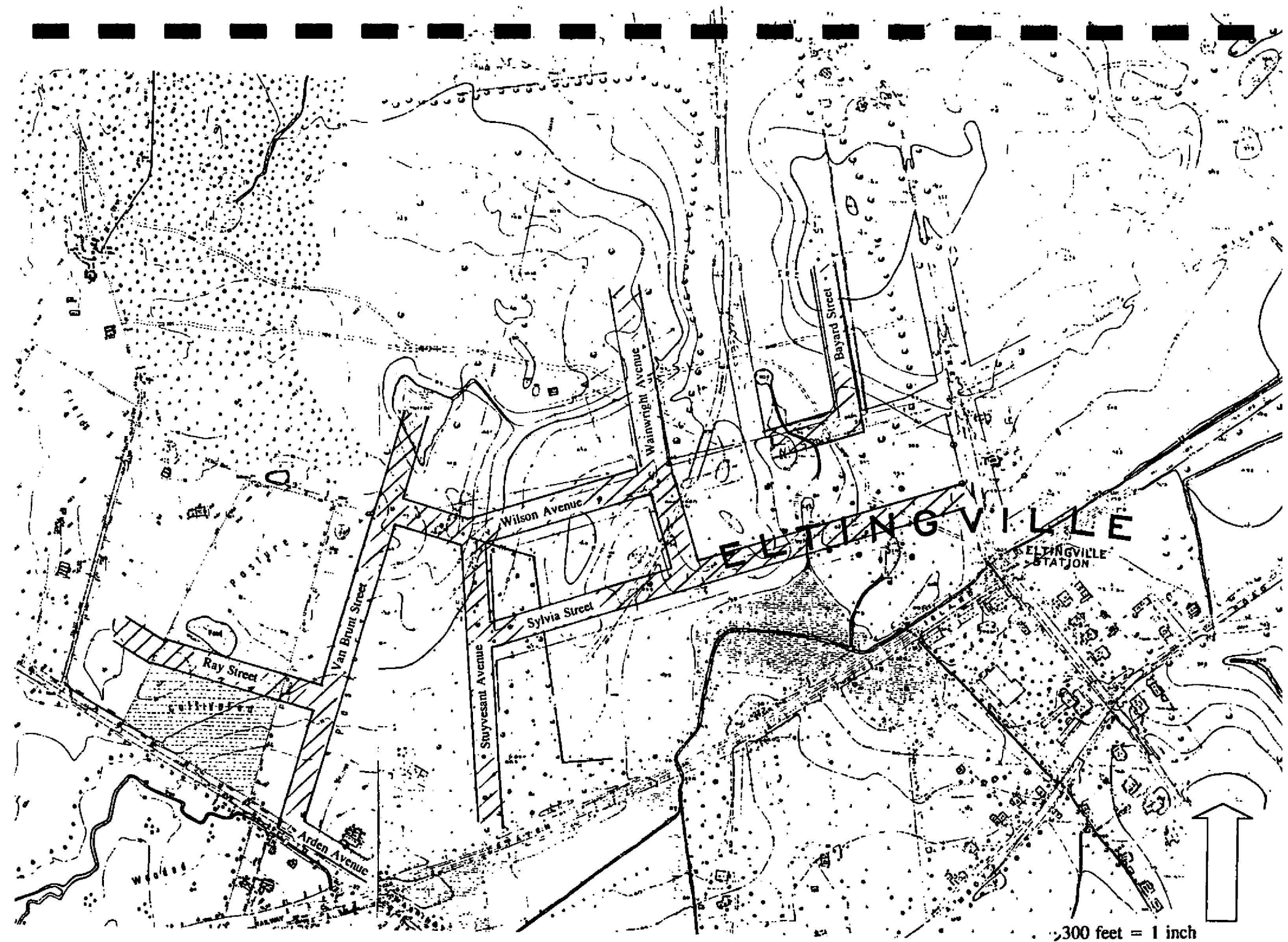


Figure 11 From Vermeule and Bien's 1890 Topographical Map of Staten Island with project area hatched.



300 feet = 1 inch

Figure 12 From Borough of Richmond 1912 Topographical Survey Sheet 77 with project area hatched.

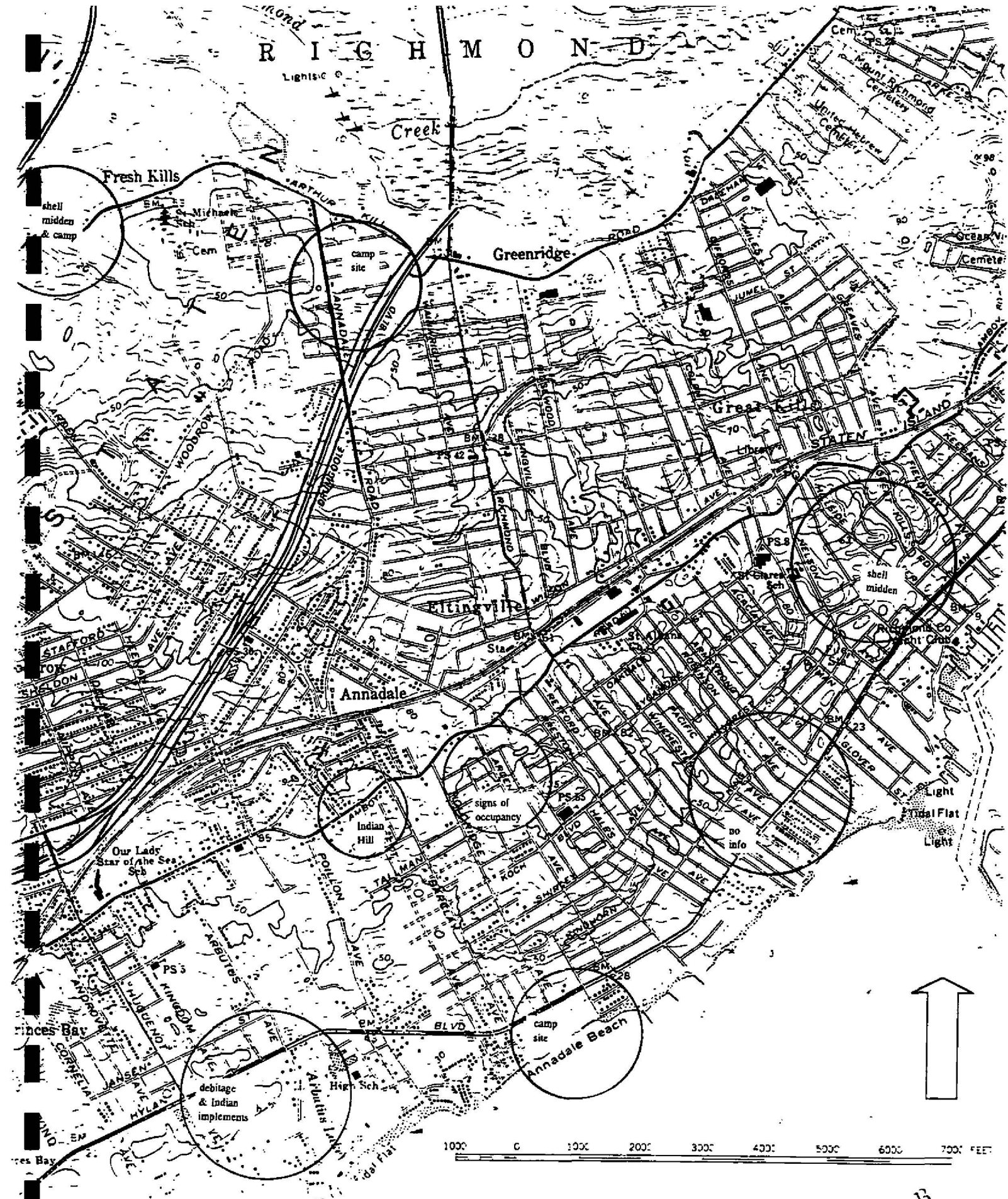


Figure 13 Known prehistoric archaeological sites in the vicinity of the Wilson Avenue East Sewer project.

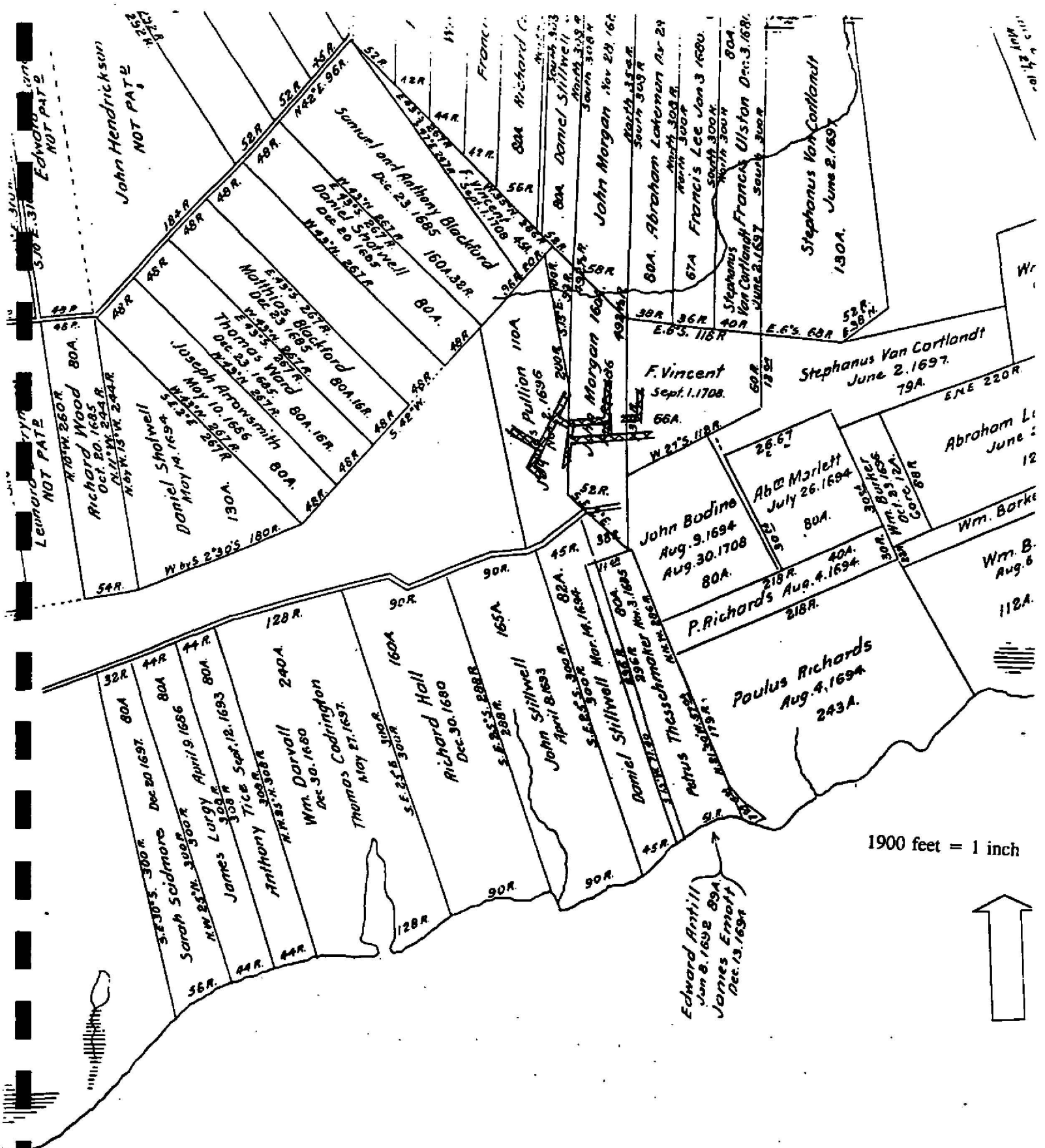


Figure 14 From Skene's map of Staten Island showing Colonial Land Patents with project area hatched.

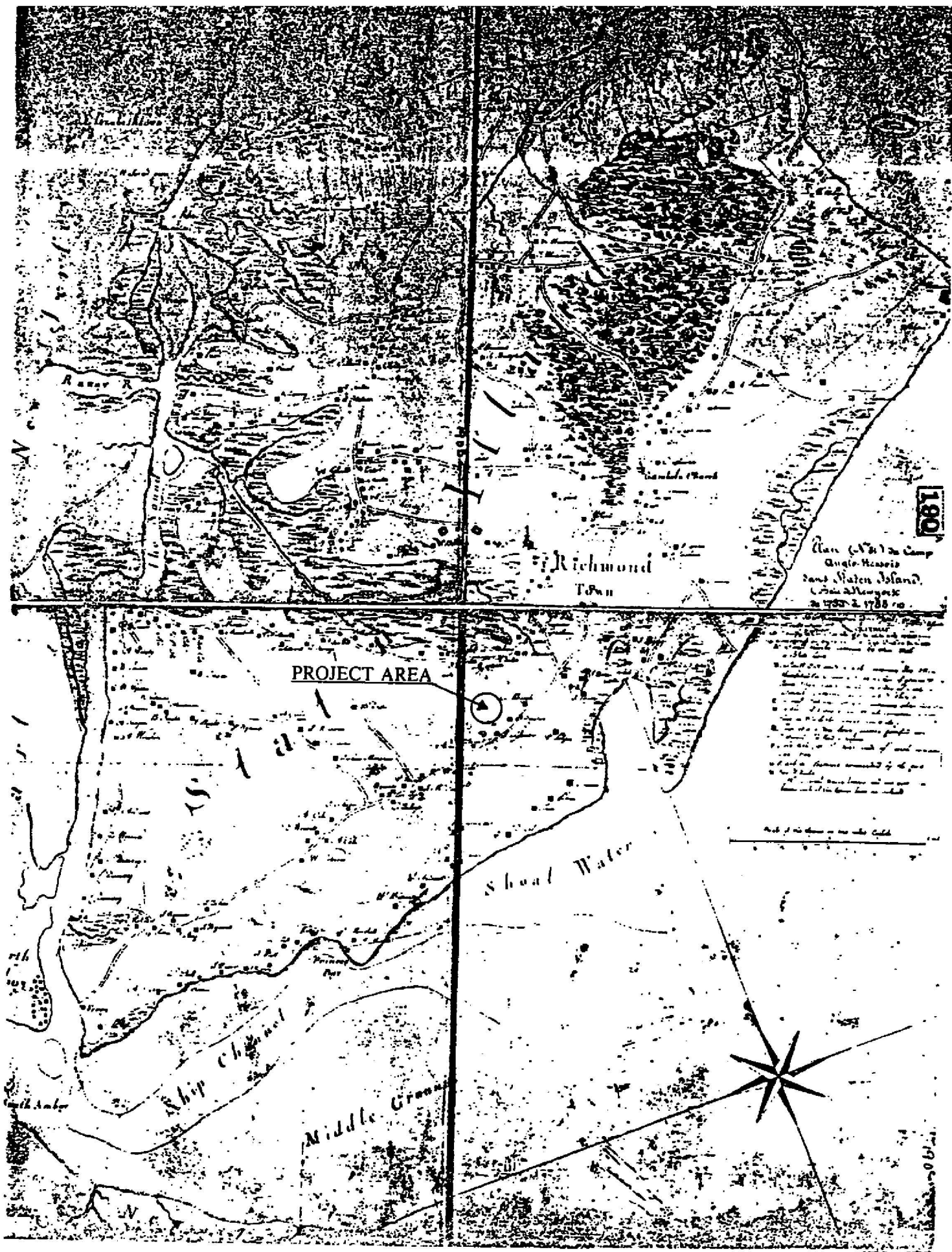


Figure 15 Plan du Camp Anglo-Hessois dans Staten Island (Baie de New York) de 1780-1783.

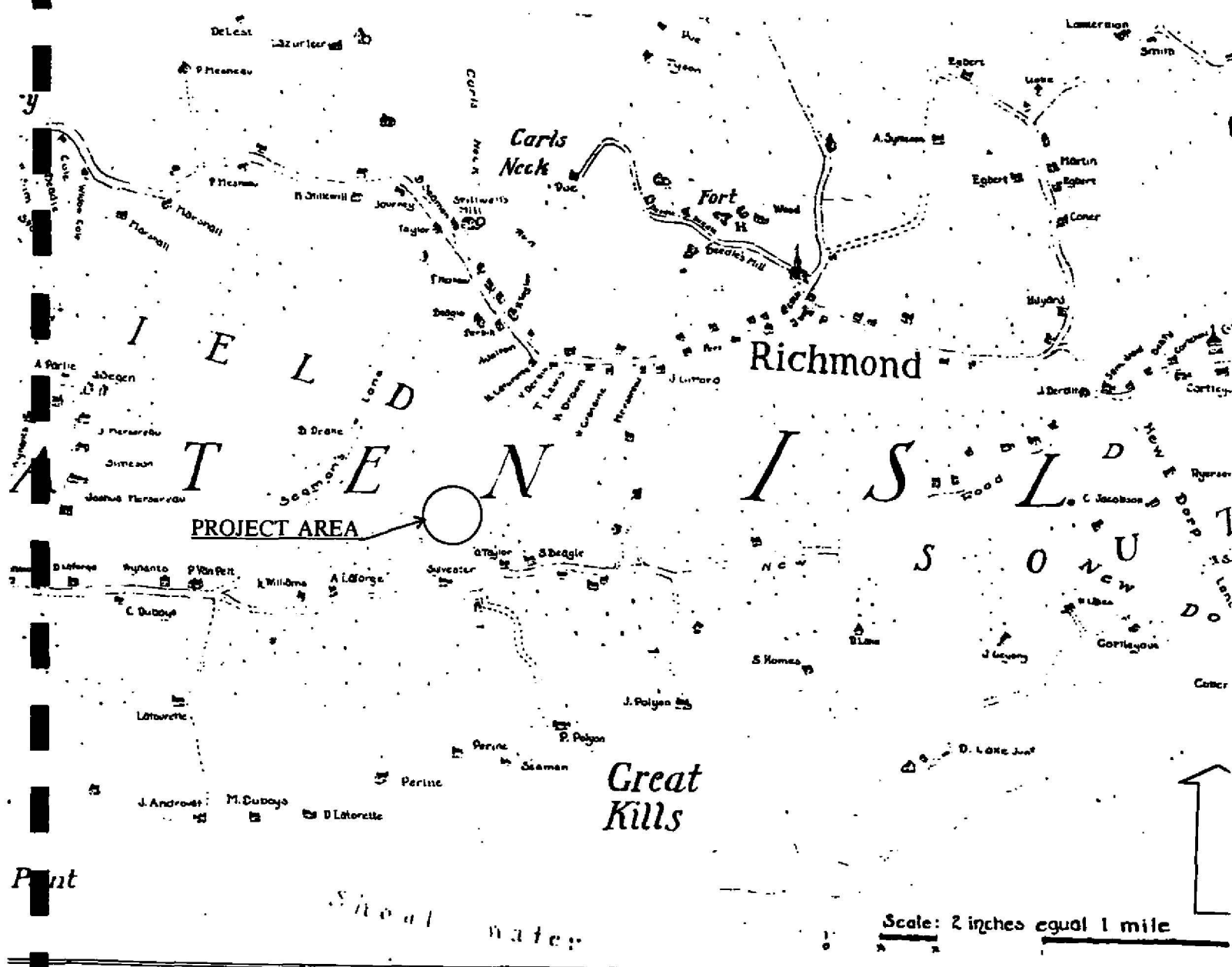


Figure 16 From McMillen's Map of Staten Island during the Revolution.

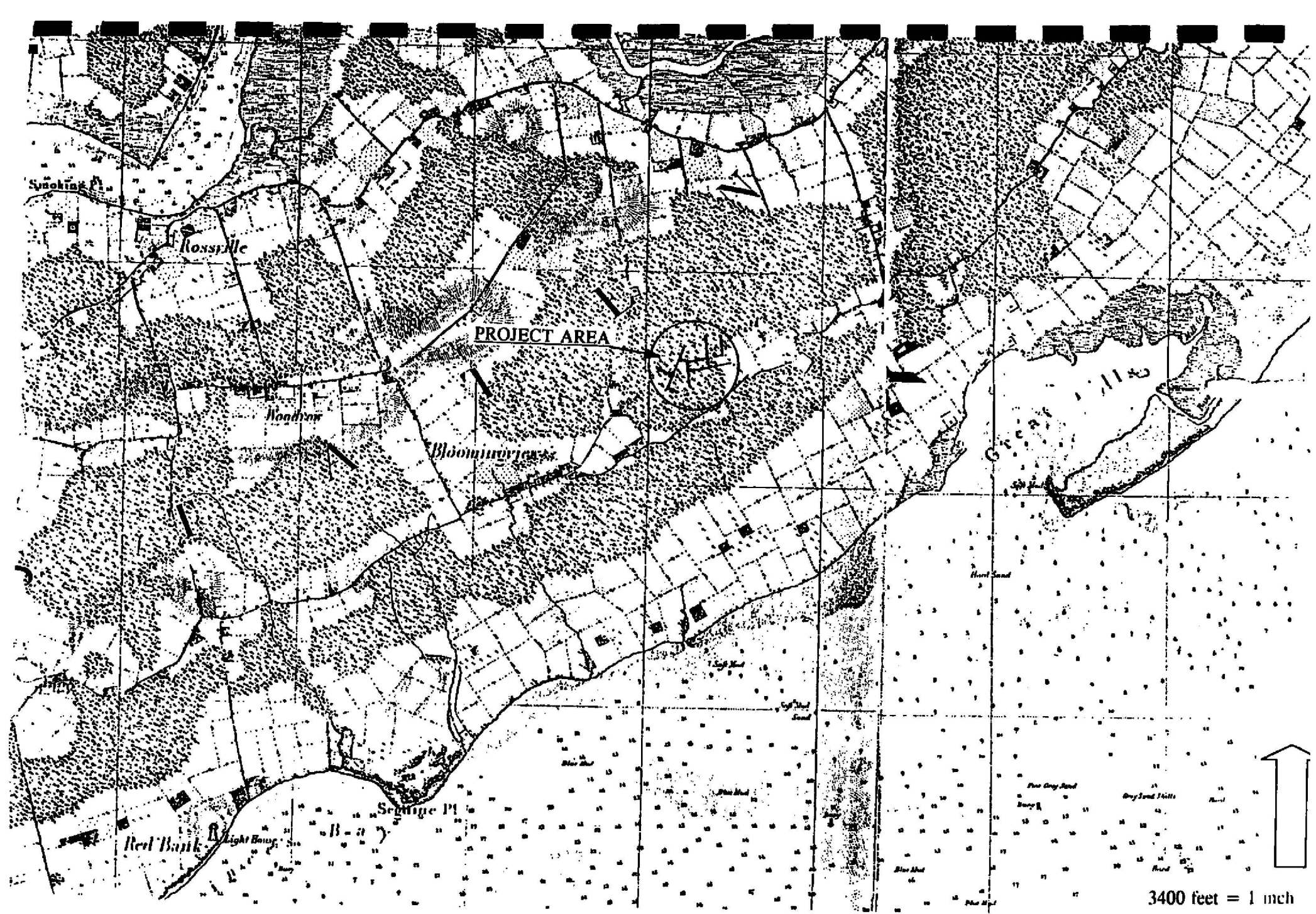


Figure 17 From the Charter of New York Harbor, Constructed 1836-39.

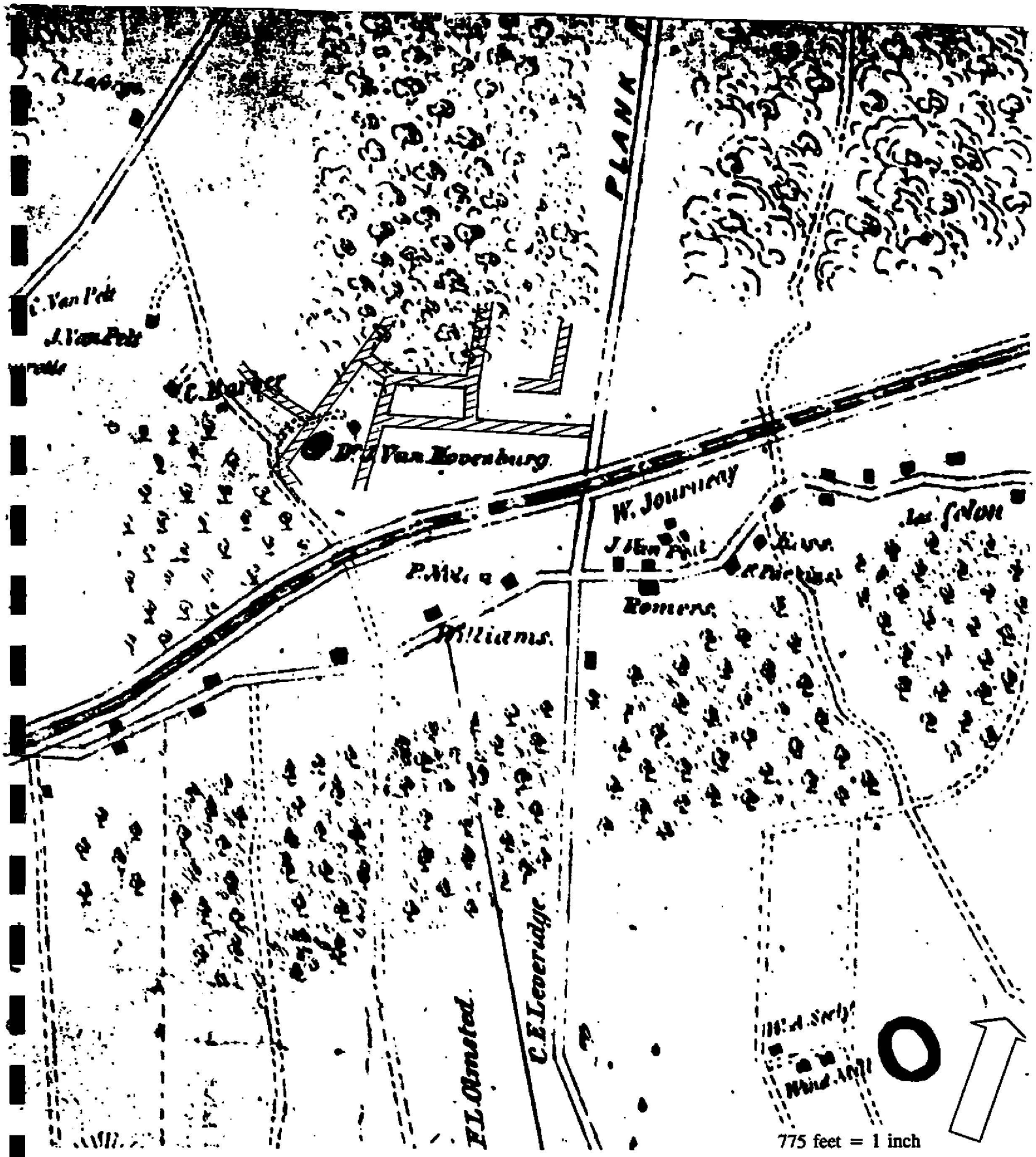


Figure 18 From Butler's 1853 Map of Staten Island with project area hatched.

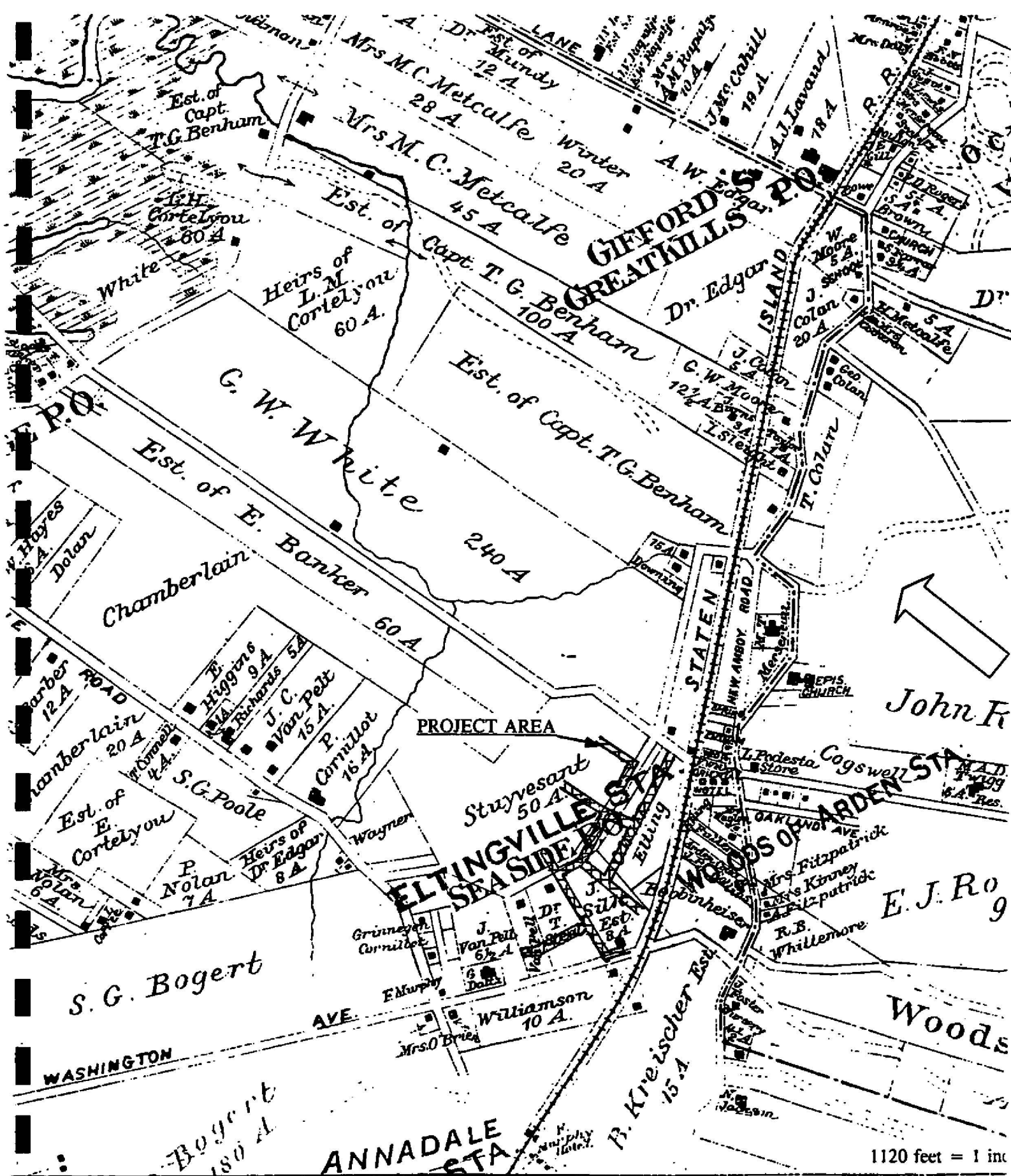


Figure 20 From Beers' 1887 Atlas with project area hatched.

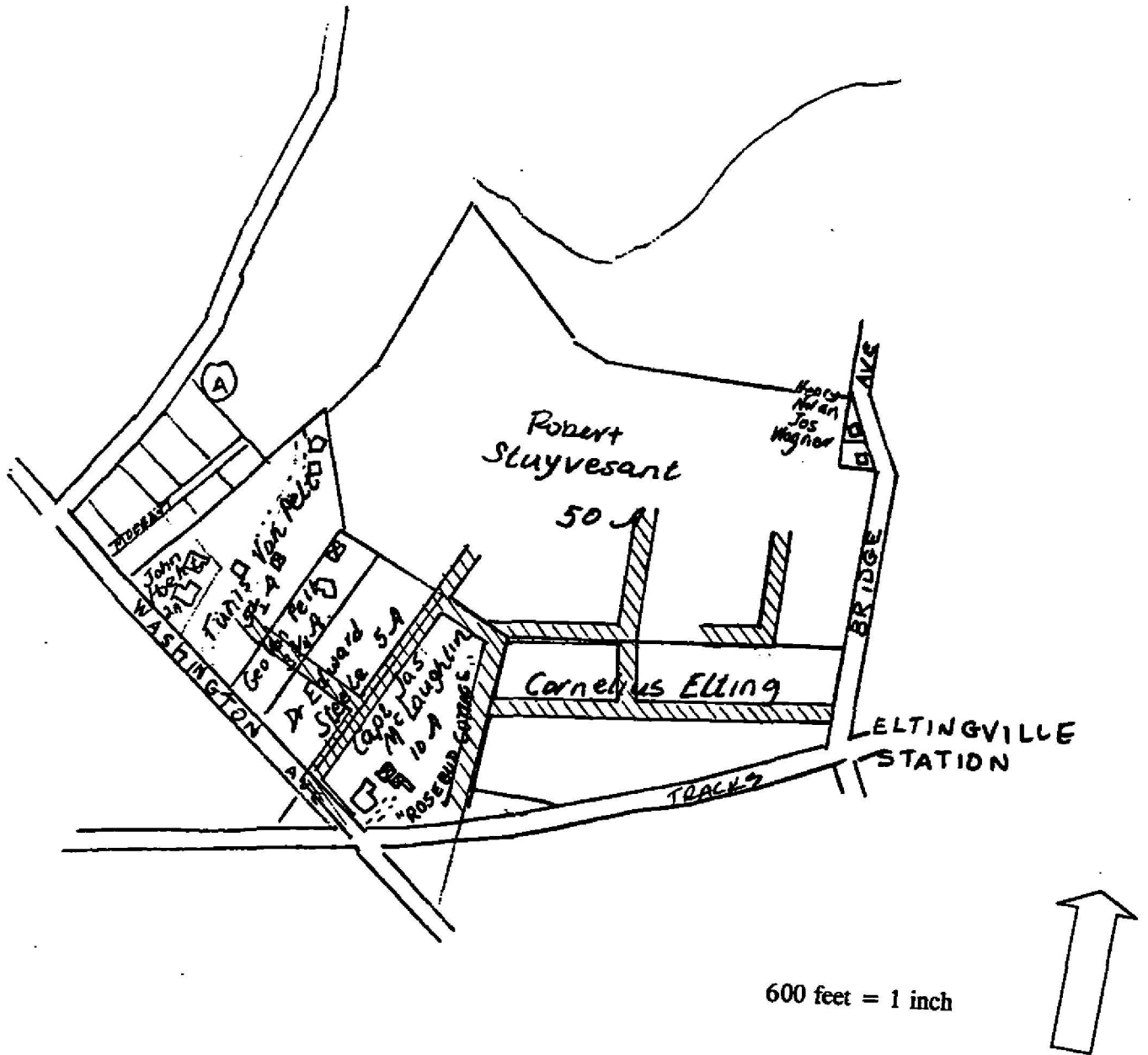


Figure 21 From tracing of Robinson's 1898 Atlas with project area hatched.

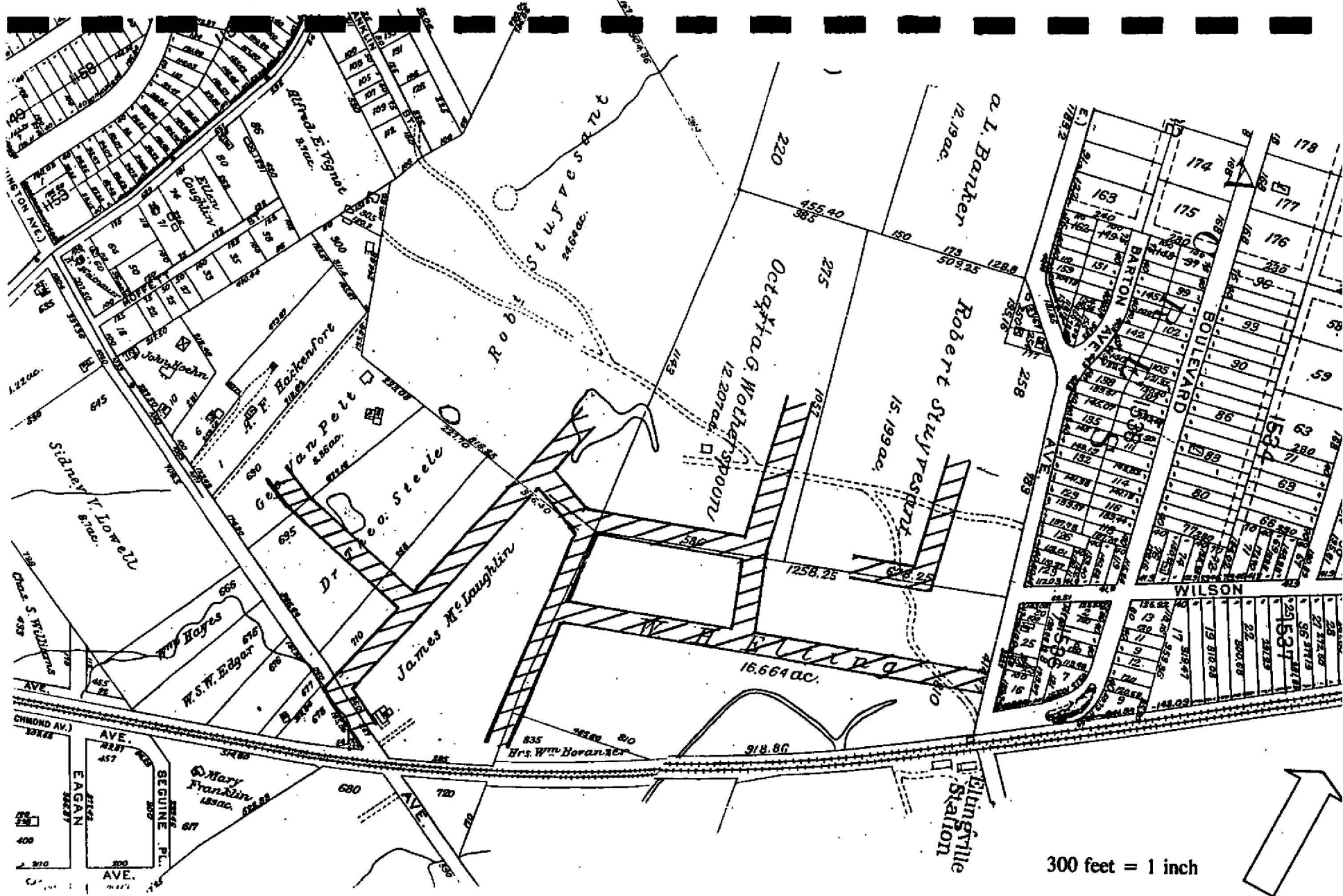


Figure 22 From Bromley's 1917 Atlas with project area hatched.

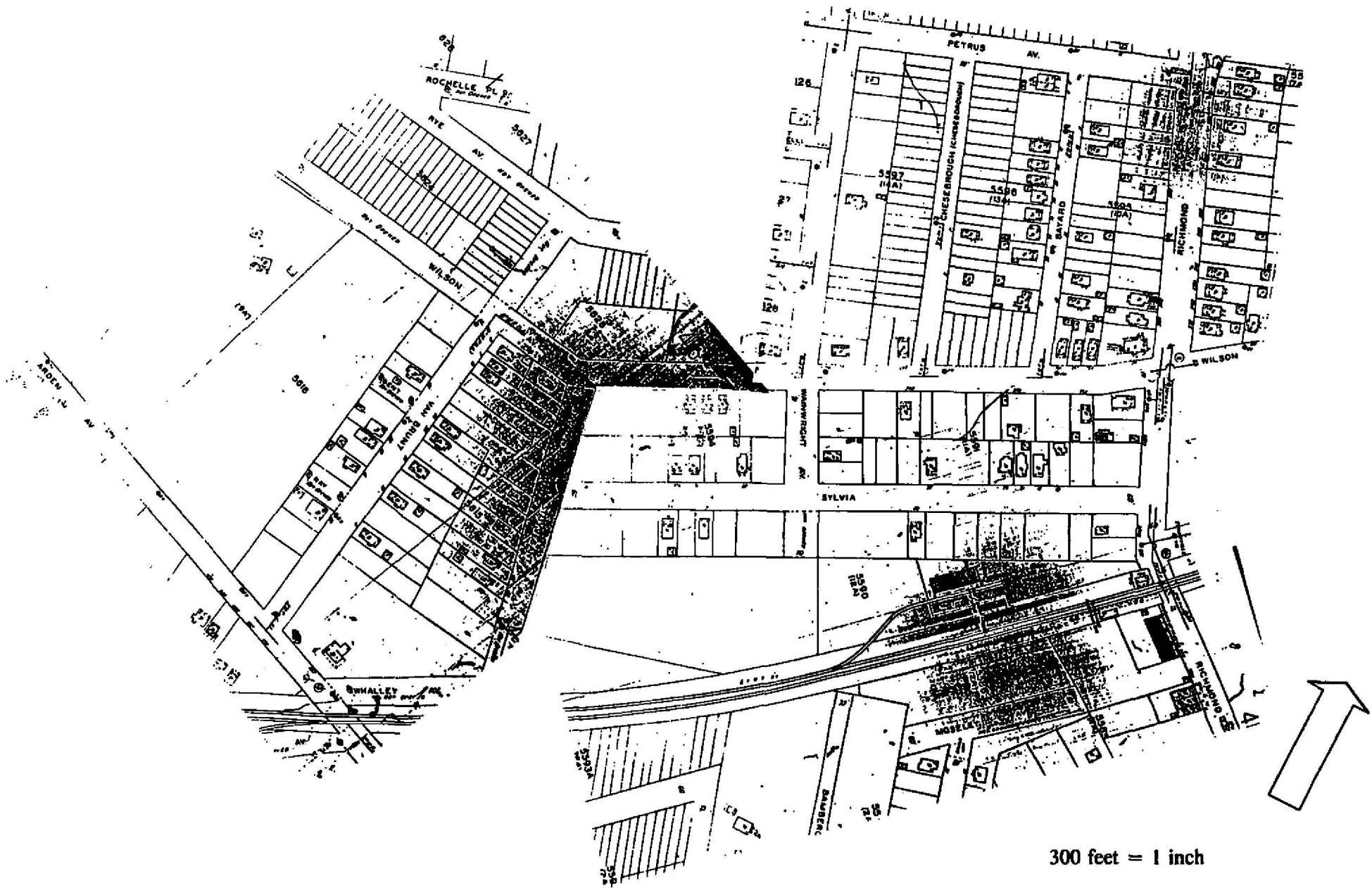


Figure 23 From Sanborn's 1938 Insurance Maps.

BIBLIOGRAPHY

- Akerly, Samuel
1843 *Agriculture of Richmond County. Transactions of the New York State Agricultural Society Together with an Abstract of the Proceedings of the County Agricultural Societies for the Year 1842. Volume II.* Albany: E. Mark, Printer to the Senate
- Anonymous
1783 *Plan du Camp Anglo-Hessois dans Staten Island (Baie de New York) de 1780-1783.*
- Bayles, Richard M. (ed.)
1887 *History of Richmond County, New York, From its Discovery to the Present Time.* New York: L.E. Preston and Company.
- Beers, J.B. & Co.
1874 *Atlas of Staten Island, Richmond County, New York.* Sheet 24.
1887 *Atlas of Staten Island, Richmond County, New York.* Section B.
- Boesch, Eugene J.
1994 *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York.* Submitted to the New York City Landmarks Preservation Commission. March 20, 1994.
- Bolton, Reginald P.
1922 *Indian Paths of the Great Metropolis.* New York: Museum of the American Indian, Heye Foundation.
1934 *Indian Life of Long Ago in the City of New York.* New York: Joseph Graham (Bolton Books) Schoen Press.
- Borough of Richmond
1870 *Map of Farm Owned by M. Wilson. Village of Eltingville. Richmond County Map #323.*
1912 *Topographical Survey. Sheets 76 and 77. April 1912.*
1927 *Maps of the Borough of Richmond. Street Status Maps. Section 24. Vols. 1 & 2. Department of Taxes and Assessments.*
- Bromley, George W. and Walter S.
1917 *Atlas of the Borough of Richmond, City of New York. Volume 2. Part of Ward 5. Sheet 38.* New York: G.W. Bromley and Co.
- Butler, James
1853 *Map of Staten Island or Richmond County, New York.*
- Clute, J.J.
1877 *Annals of Staten Island, From its Discovery to the Present Time.* New York: Press of Charles Vogt.

- Davis, William T.
1896 *Staten Island Names Ye Olde Names and Nicknames. Proceedings of the Natural Science Association of Staten Island. (Special No. 21) 5(5):20-76.*
- Department of General Services
1989 *Sanitary Sewer in Richmond Avenue. Subsurface Exploration Section. Job 2077.*
- 1993 *Storm and Sanitary Sewers in Wilson Avenue. Subsurface Exploration Section. Job 2440.*
- Dincauze, Dina F. and Mitchell T. Mulholland
1977 *Early and Middle Archaic Site Distributions and Habitats in Southern New England. Annals of the New York Academy of Science 288:439-456.*
- Federal Writers' Project
1939 *The WPA Guide to New York City. New York: Pantheon Books.*
- Funk, Robert E.
1991 *Late Pleistocene and Early Holocene Human Adaptations in the Lower Hudson Valley. In The Archaeology and Ethnohistory of the Lower Hudson Valley and Neighboring Regions: Essays in Honor of Louis A. Brennan. Occasional Publications in Northeastern Anthropology, No. 11. Herbert C. Kraft (ed.).*
- Grumet, Robert S.
1981 *Native American Place Names in New York City. New York: Museum of the City of New York.*
- Historical Records Survey
1942 *Transcriptions of Early Town Records of New York. The Earliest Volume of Staten Island Records 1678-1813. New York: WPA, Service Division.*
- Kelly, M.M.
1883 *Map of the Staten Island North and South Shore Railroad. Richmond County Map #394.*
- Kolff, Cornelius G.
1926 *A Short History of Staten Island.*
- Leng, Charles W. and William T. Davis
1930 *Staten Island and Its People: A History 1609-1933. 5 Volumes. New York: Lewis Historical Publishing Company.*
- Leng, Charles W. and Edward C. Delavan, Jr.
1924 *A Condensed History of Staten Island. Issued by the Staten Island Edison Corporation.*
- Libby, Daniel P. (compiler)
1895/96 *The Standard Directory of Richmond County. Daniel P. Libby and Charles T. Wood, publishers.*

- McMillen, Loring
 1933 *A Map of Staten Island During the Revolution, 1776-1783*, compiled from the following maps and other sources: The Taylor and Skinner Map 1781; the Hessian Map ca. 1777; Plan No. 31 du Camp Anglo-Hessois dans Staten Island de 1780 a 1783.
- 1944 The "French Map" of Staten Island. *Staten Island Historian* VII(3):17-21.
- 1946 Old roads of Staten Island. *Staten Island Historian* VII(1&2). Staten Island, New York: Staten Island Historical Society.
- Morris, Ira K.
 1898 *Morris's Memorial History of Staten Island.*, 2 Volumes. New York: Memorial Publishing Company.
- New York City Landmarks Preservation Commission
 1979 *A Guide to New York City Landmarks*. New York: Bowne & Co., Inc.
- 1992 *Guide to New York City Landmarks*. Washington, D.C.: Preservation Press.
- New York State Museum
 n.d. *A Guide to the Archaeological Collections of the New York State Museum*. New York: Staten Museum Circular 53. Albany: State Education Department.
- Parker, Arthur C.
 1922 The Archaeological History of New York. *New York State Museum Bulletin* 235-238.
- Pickman, Arnold and Rebecca Yamin
 1978 New York State Prehistoric Archaeological Site Inventory Form. Fiddler's Green.
- Reed, Herbert B.
 1953 Staten Island horsecars and their successors, trolleys. Part I. *Staten Island Historian* 14(1).
- 1965 The Early Staten Island Roads. *The Staten Island Historian* XXVI(3), serial number 103. Staten Island, New York: Staten Island Historical Society.
- Ritchie, William A.
 1980 *The Archaeology of New York State*. Rev. ed. Harrison, N.Y.: Harbor Hill.
- Robertson, Ben P. and Linda Butler Robertson
 1978 The generation of Locational Models in an Inductive Framework. *Conservation Archaeology in the Northeast: Toward a Research Orientation*. Arthur E. Spiess, ed. Pp. 27-36. Cambridge, MA: Peabody Museum.
- Robinson, Elisha R.
 1898 *Atlas of the Borough of Richmond*. Part of Wards 4 and 5. Plate 18. New York: E. Robinson and Co.

- Robinson, E. and R.H. Pidgeon
1907 *Atlas of the Borough of Richmond, City of New York.* Second and Revised Edition. Plates 18 & 26. New York: E. Robinson.
- Sanborn Map Company
1885 *Insurance Maps of Staten Island, New York.*
1910 *Insurance Maps of the Borough of Richmond, City of New York.* Supplemental Volume.
1917 *Insurance Maps of the Borough of Richmond, Staten Island, New York.* Volume 2.
1938 *Insurance Maps of the Borough of Richmond, New York City, Staten Island, New York.* Volume 4. Sheet 418.
1937-51 *Insurance Maps of the Borough of Richmond, New York City, Staten Island, New York.* Volume 4. Sheet 418.
- Skene, Frederick
1907 *Map of Staten Island, Richmond County, New York, Showing the Colonial Land Patents from 1668-1712.*
- Skinner, Alanson Buck
1909 Staten Island. In: *The Indians of Greater New York and the Lower Hudson. Anthropological Papers, American Museum of Natural History*, Vol. 3:3-61 and map.
- Smith, Dorothy Valentine
1970 *Staten Island Gateway to New York.* New York: Chilton Book Company.
- Snow, Dean R.
1980 *The Archaeology of New England.* New York: Academic Press.
- Staten Island Institute of Arts and Sciences
n.d. Architecture File - Building Structure Inventory Forms.
n.d. Architecture File - St. Alban's Church.
- Steinmeyer, Henry G.
1987 *Staten Island 1524-1898.* First published 1950. New York: Staten Island Historical Society.
- Stone, Linda
1994 Report on Phase 1A Archaeological Documentary Research in Advance of Sanitary and Storm Sewer Construction Wilson Avenue East, Eltingville, Staten Island, New York. Capital Project Numbers SE-604A-1 and SE-728. Submitted to Bedford Construction Corp.
- Thomson, H.S.
1920a Map of Elting Park. Fifth Ward. Borough of Richmond. Richmond County Map #1153.

- 1920b Map of property of Stuyvesant Farms Co. Section No. 1. Fifth Ward. Borough of Richmond, New York City. Richmond County Map #1208.
- Trow
1898 *Trow's Business and Residential Directory of the Borough of Richmond, City of New York.* Volume 1.
- United States Coastal Survey
1845 *Charter of New York Harbor, Constructed 1836-39.*
- United States Geological Survey
1966 *Arthurkill, New York - New Jersey. 7.5 Minute Series. Photorevised 1981.*
- Vermeule, C. and J. Bien
1890 *A Topographical Map of Staten Island, Richmond County, New York.*
- Walling, H.F.
1859 *Map of Staten Island.*
- Webb, W.S. (Compiler)
1888 *Webb's Consolidated Directory of the North and South Shores, Staten Island.* Poughkeepsie: Haight and Dudley.
- 1890/91 *Webb's Consolidated Directory of the North and South Shores, Staten Island.* Poughkeepsie: Haight and Dudley.
- 1892/93 *Webb's Consolidated Directory of the North and South Shores, Staten Island.* Poughkeepsie: Haight and Dudley.