PHASE IB ARCHAEOLOGICAL INVESTIGATION

RICHMOND CREEK SEWER PROJECT

STATEN ISLAND, NEW YORK

Capital Project No. SE-733/735/WM-1/EP-7

Prepared for:

CRUZ CONSTRUCTION CORPORATION
952 Holmdel Road
Holmdel, New Jersey 07733

Prepared by:

THE CULTURAL RESOURCE GROUP
LOUIS BERGER & ASSOCIATES, INC.
100 Halsted Street
East Orange, New Jersey 07019

December 1997

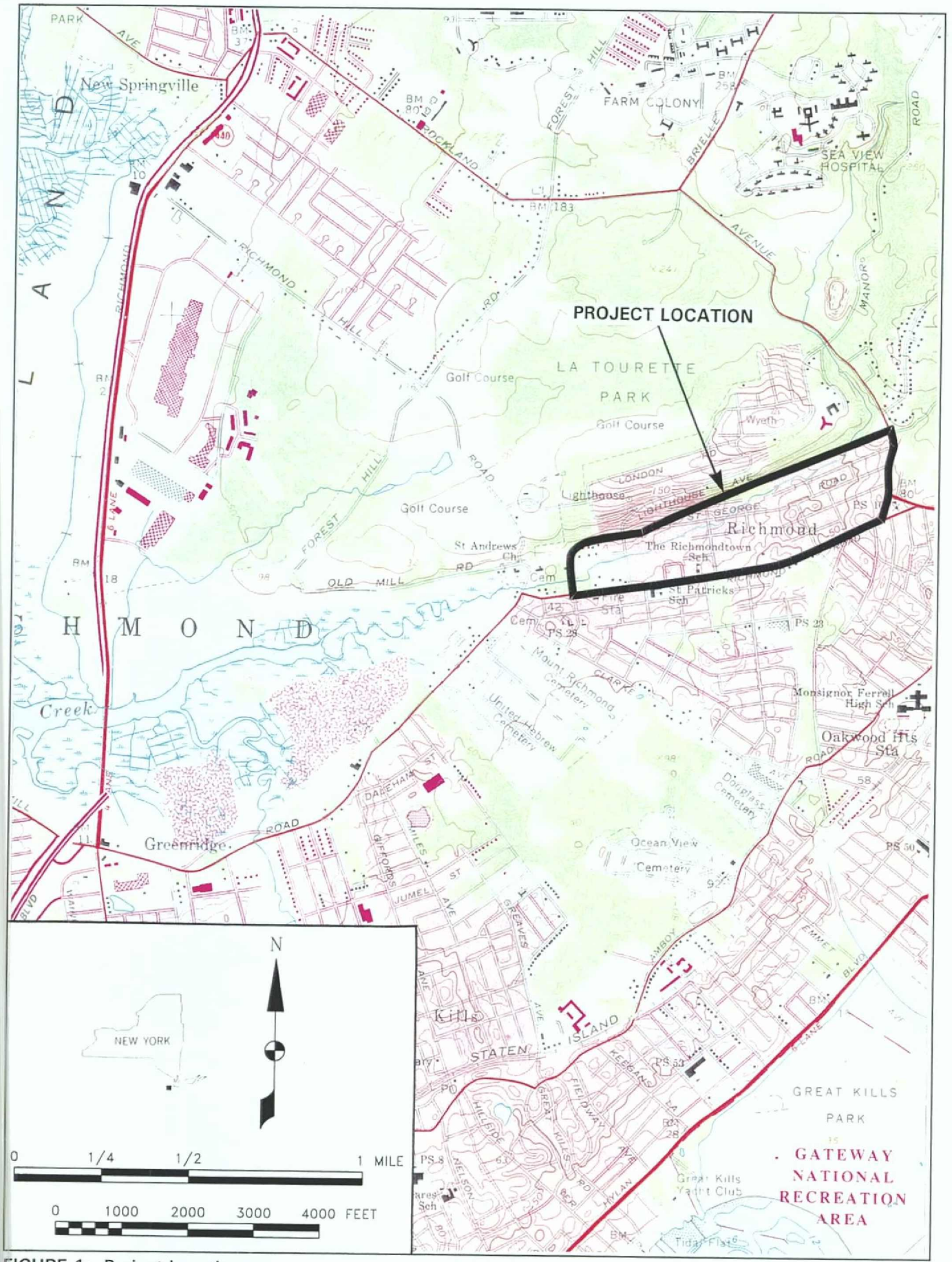

FIGURE 1: Project Location

SOURCE: USGS 7.5 Minute Quadrangle, Arthur Kill, NY-NJ 1981

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I. INTRODUCTION

The Cultural Resource Group of Louis Berger & Associates, Inc. (LBA), conducted a Phase IB archaeological survey of an area along the headwaters of Richmond Creek in Staten Island, where sanitary and storm sewers were to be installed by Cruz Construction Corporation. The goal of the investigation was to determine if archaeological resources would be impacted as a result of these utility installations.

The project area is located in the Richmondtown section of Staten Island, the former county seat, and is close to Richmondtown Restoration, a 100-acre historical park that contains 14 New York City Landmarks Preservation Commission (LPC) buildings (Figure 1). The project area extends north of Richmond Road for three to five blocks, between Richmond Hill Road (formerly St. Patrick's Place) on the west and Rockland Avenue on the east. Archaeological testing focused on three areas identified by the New York City Department of Environmental Protection (DEP) as having archaeological sensitivity (Cruz Construction Corporation 1997). Area 1 referred to an undeveloped portion of Lawn Avenue, between Nugent Avenue and Eleanor Street; Area 2 was an undeveloped section of Mace Street, between Lighthouse Avenue and Spruce Street; and Area 3 was north of the intersection of Boyle Place and Nugent Avenue (Figure 2).

Background research was conducted at the New York Public Library and the Staten Island Institute of Arts and Sciences (SIIAS) and included examination of historic maps and archaeological studies. The prehistoric and historic background sections of this report relied heavily on research findings derived from a previous utilities installation project conducted in the Richmond Road vicinity (Alterman and Bashman 1994; Alterman et al. 1995). The determination of archaeological sensitivity was made by the New York City DEP and is consistent with the *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York* that was prepared for the LPC (Boesch 1994).

The Phase IB archaeological investigation followed the guidelines established by the New York City LPC and city regulations governing the protection of the cultural environment (CEQRA). The project was conducted under the overall supervision of Dr. John A. Hotopp, the Director of Berger's Cultural Resource Group and a SOPA-certified archaeologist. Dr. Michael Alterman served as the Project Manager for this investigation and was the principal author of the report. Field testing was conducted by John Killeen and Gerard Scharfenberger under Dr. Alterman's direction. The report was written by Dr. Alterman and edited by Valerie Coleman and the graphics were prepared by Jacqueline Horsford.

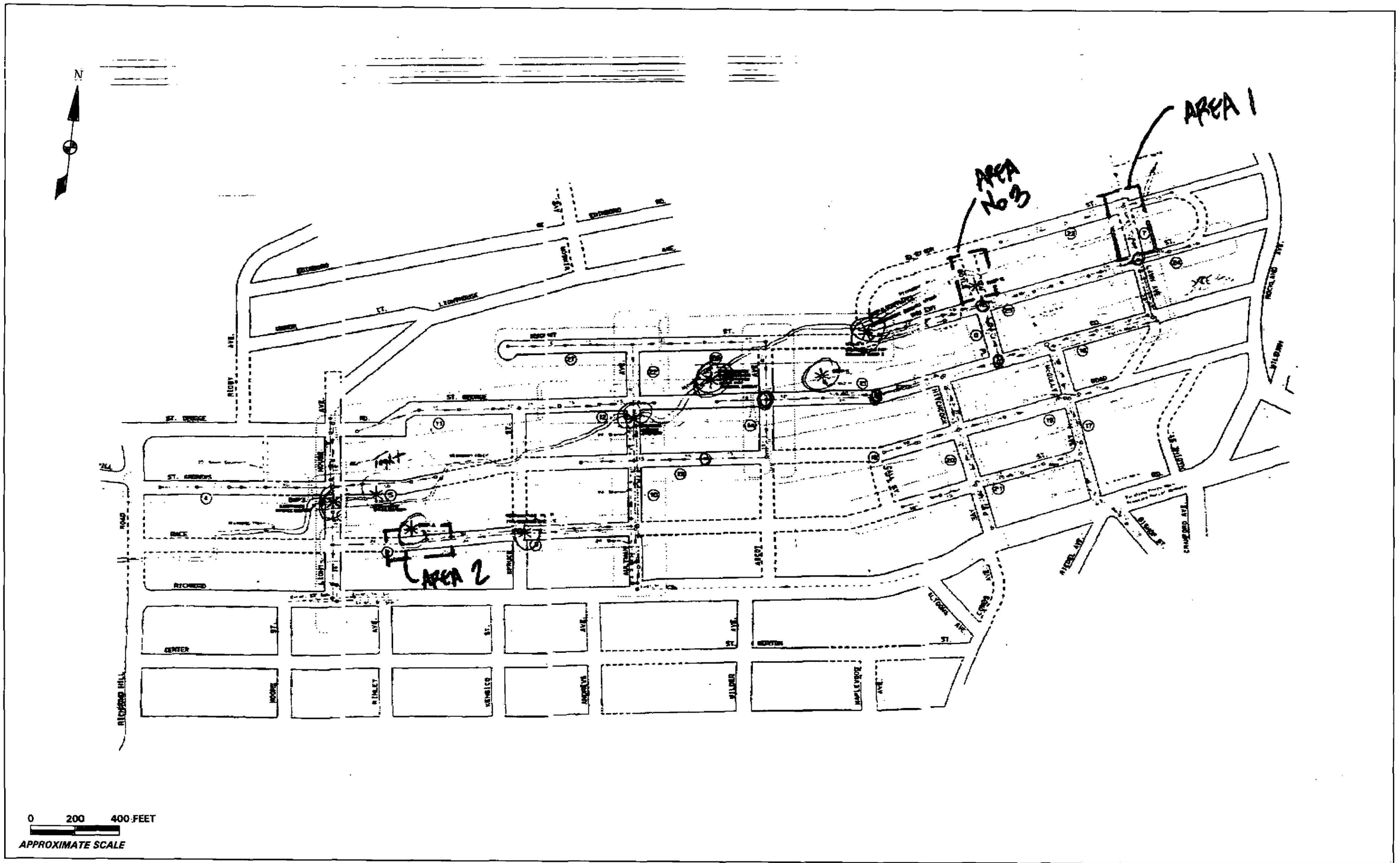

FIGURE 2: Areas of Archaeological Sensitivity in Project Area

SOURCE: Cruz Construction Corporation 1997

II. PREHISTORIC CONTEXT

A. ENVIRONMENTAL SETTING

Staten Island is within the Atlantic Coastal Lowland physiographic province and is geographically related to New Jersey from which it is separated by the Kill Van Kull and the Arthur Kill waterways (Skinner 1909). The bedrock consists of Serpentine and Stockton sandstone of the Triassic period, which forms the hills at the core of the island; one of these, Todt Hill, is at 410 feet above sea level, the highest point not only in New York City, but along the entire Atlantic coastline south of Massachusetts (Schuberth 1968:98, 249). The project area lies at the foot of another Serpentine hill, Richmond Hill, on which stands a circa 1912 lighthouse; this octagonal brick tower, located on Edinboro Road, is operated by the U.S. Coast Guard and is a registered New York City Landmark (Dolkart 1994:235).

Surface features and landforms are mainly the result of continental glaciation which deposited unsorted and unstratified sediments, part of the Harbor Hill terminal moraine that extends from Pennsylvania east through Perth Amboy, New Jersey, across Staten Island and Long Island to Cape Cod, Massachusetts (Schuberth 1968:184-186, 249). Soils in the project area were formed in glacial till and the related outwash sediments.

The project area is located along the headwaters of Richmond Creek, which flows west into Fresh Creek, almost 3 miles to the west, and then to the Arthur Kill. While the western portion of Richmond Creek is tidal, the section in the project area is freshwater. Vegetation in the project area consists of freshwater wetland species along the creek and woodland communities on better-drained soils. Elevations in the project area increase from west to east, with Area 2 at about 10 feet above sea level and Area 1 up to 50 feet above sea level.

When Native Americans first inhabited the New York City area, sea levels may have been 300 feet lower than at present, which would have caused the Atlantic shore to regress approximately 60 to 90 miles from its current position (Kraft 1977). By 5,000 BP (Before Present), the sea level had risen to just 30 feet below its present level, and it continued to rise to a point some 14 feet below the present level by 2,000 BP. Therefore, over the course of human occupation, the environment changed from an upland and inland location of oak/pine forest and grasses into a coastal lowland zone (Silver 1984:5).

B. PREHISTORIC OVERVIEW

Three major periods are commonly used to describe the prehistoric cultures of New York–Paleoindian, Archaic, and Woodland. The earliest recognized aboriginal occupation of New York dates to the Paleoindian period (11,000-9000 BP), which is characterized by the use of distinctive fluted lanceolate points. The location of known Paleoindian sites suggests a preference for high,

well-drained ground, located near streams or wetlands, offering vantage points for observing game. It is probable that many Paleoindian sites were situated on what is now the continental shelf, which has been submerged as a result of rising sea levels since the retreat of the Wisconsin glacier (Edwards and Merrill 1977). Paleoindian economy was dominated by game hunting, an adaptation to the open-forest environments and to the colder climate of the time. The Port Mobil Site, located on the western shore of Staten Island, has produced Paleoindian remains including fluted points, unfluted trianguloid points, scrapers, knives, borers, and gravers (Brennan 1977; Eisenberg 1978).

Climatic warming during the Holocene led to sea level rise and changes in drainage patterns as well as vegetation; by 8500 BP, oak and hemlock forests replaced the predominantly pine forests of the area. The ecological changes brought about by the warmer Holocene climates subsequently encouraged population migrations and the development of the new subsistence strategies which characterize the Archaic period (9000-3000 BP). Compared with the Paleoindian period, a wider variety of artifact types was used during the Archaic. This suggests that a greater diversity of subsistence and technological activities was pursued, although hunting still appears to have been the major focus.

Differences in tool assemblages, projectile point types, and preferred lithic materials characterize the Early, Middle, and Late Archaic subperiods (Coe 1964; Ritchie 1980). Early Archaic sites identified on Staten Island include the Old Place Site, the Ward's Point Site, and the Richmond Hill Site, all of which have produced Kirk components dated circa 7260 to 8250 BP; the Richmond Hill Site also contained a Palmer component that may be associated with a radiocarbon date of 9360 BP (Ritchie and Funk 1971, 1973:38-39).

With the exception of several Kanawha and LeCroy-like points from the Ward's Point Site (Jacobson 1980:56), Middle Archaic remains are rare on Staten Island. This is possibly the result of unclear typological definitions for this period. In contrast, Late Archaic sites are relatively common and are characteristically located along tidal inlets, coves, and bays. Site setting and content suggest that marine resources were important to Late Archaic subsistence, a trend related to the stabilization of coastal environments (Edwards and Merrill 1977).

The Terminal Archaic or Transitional period (3000-2700 BP) is characterized by distinctive technologies that included production of soapstone vessels and a variety of broad-bladed projectile point types. The appearance of soapstone or steatite vessels and artifacts during this period provides evidence of interregional trade and also suggests increased residential stability, since stone bowls are items not easily transportable from site to site. Terminal Archaic remains on Staten Island also have been found in association with shell middens, which represent an intensification of coastal-oriented economies.

The Woodland period (2700 BP to European Contact) is identified by the manufacture and use of ceramics. This period is divided into three subperiods–Early, Middle, and Late–that are characterized by distinctive projectile point types and ceramic styles. The earliest ceramics found in coastal New York are grit-tempered wares similar to Vinette I. Middle Woodland ceramics include shell-

tempered wares with cord and net impressions, and Late Woodland ceramics include various collared vessels with incised, dentate, and cordmarked decoration. The Woodland period is also associated with horticulture; the earliest evidence of domesticated plants occurs in the Middle Woodland.

At the time of European contact, Staten Island was occupied by the Munsee, a group of the Algonquian-speaking Lenape, also called the Delaware Indians, who lived in what is now eastern Pennsylvania, New Jersey, and southern New York. The Native populations maintained loosely structured, autonomous bands that resided in small dispersed settlements. The territories of the various Native groups that have been distinguished linguistically are uncertain, partly due to the lack of fixed "tribal" boundaries. Increased contact with European traders and settlers resulted in the breakdown of traditions and increased reliance on European goods in exchange for land and furs (Goddard 1978; Kraft 1986).

C. SENSITIVITY ASSESSMENT

The *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York* by Eugene Boesch (1994) lists the following criteria to assess prehistoric archaeological sensitivity: (1) proximity of known sites or surface artifacts from the immediate vicinity; (2) freshwater source nearby; (3) proximity of marsh, shoreline, river or stream mouth, or ridge; (4) high ground overlooking water with slopes less than 30 percent; and (5) well-drained soil. According to this model (Boesch 1994), the project area is considered to have a high sensitivity because it is situated near Richmond Creek and associated wetlands, and is in proximity to previously recorded sites.

Records at the New York State Museum list four prehistoric sites within a 2-mile radius of the project area (Table 1). Only one of these four sites, the Richmond Hill Site (NYSM #749), located about 1 mile west of the project area, has been assigned to a specific cultural period–the Early Archaic (Ritchie and Funk 1973:39). In addition to these four recorded sites, the SIIAS (n.d.) files indicate that prehistoric remains were recovered along Richmond Road between Moore Street and Hitchcock Avenue, referred to as the Old Wagon Road or the Richmond Kill Site (STD-OW). With the exception of the Richmond Hill Site, these prehistoric site locations are all based on artifacts collected around the turn of the century and lack specific provenience information; therefore, the locations are very approximate (Boesch 1994:123-124).

Alanson Skinner (1909:16-17) described the Richmond Site (NYSM #4616), which he called Site 22, as a large camp situated in a clearing in the woods near Ketchum's Mill Pond on Simonson's Brook. He added that grooved axes and other relics were found on this site near Richmond Creek, but no shell or pottery. Parker, who referred to this site as Richmond County #26, reiterates Skinner's description. Parker also noted "traces of occupation" that extended southwest from the Richmond Site in what appears to be the north side of what is now Arthur Kill Road (Parker 1922:plate 211); these have been given the NYSM Site #8321 and may be what Boesch (1994:105) was referring to when he described a number of small lithic scatters that have been reported in the vicinity of the Richmond Hill Site.

The State Museum site maps show the Site #4616 adjacent to the project area, which contributed to the high sensitivity assessment. As a result of information supplied to the NYSM during this investigation, the state site files have been revised to show the location of the Richmond Site about 1 mile west of the project area near Old Mill Road, rather than the previous map location immediately south of the project area. This revised location places it in the vicinity of the Richmond Hill Site, with which it may be related (Baugher et al. 1991:103).

The New Springerville Site (NYSM #4600), located approximately 2 miles north of the project area, was reported by Skinner (1909) as a Contact period shell midden with associated burials (Parker 1922:682; Skinner 1909:9-10). The Contact period association is derived from the recovery of iron projectile points (Boesch 1994:115; Greenhouse Consultants, Inc. 1994:5-6).

TABLE 1

PREHISTORIC SITES WITHIN TWO MILES OF THE PROJECT AREA

	SITE NAME	NYSM NUMBER	OTHER SITE DESIGNATION	SOURCES	DESCRIPTION
1	Richmond Hill	749	30-RIC-5-AJA	Ritchie and Funk 1973:39	Early Archaic component
2	Richmond	4616	ACP-RICH-26	Skinner 1909:16-17; Parker 1922:685	Large campsite with grooved axes, no pottery
3	Unnamed site	8321	ACP-RICH	Parker 1922:plate 211	Traces of occupation with unspecified components
4	New Springerville	4600	ACP-RICH-10	Skinner 1909:9-10; Parker 1922:682	Camps with shell middens and burials
5	Old Wagon Road or Richmond Kill	None	STD-OW	SIIAS files	Unspecified components

III. HISTORICAL OVERVIEW

The project area is located in the unincorporated village of Richmond, known historically as Richmondtown, on Staten Island. This area was settled in the late seventeenth century and was the county seat before Richmond County became a borough of New York City.

From 1621 to 1664, Staten Island was part of the Province of New Netherland. The province was administered by the Dutch West India Company, under whose jurisdiction the island received its name. The Native American population resisted Dutch settlement, culminating in the Peach War of 1655, which vastly depopulated the island. In 1662, a handful of dwellings and a small blockhouse were erected on a site above lower New York Bay, a short distance south and west of the high ground at The Narrows. This settlement, known as Oude Dorp (Old Town), consisted chiefly of Dutch and French colonists from the Palatinate.

In 1664, New Netherland, including Staten Island, was taken over by Great Britain. The last Native American claims to Staten Island were extinguished in 1670, and in 1683 the island was organized as the County of Richmond. Settlement continued under the British, with significant numbers of Huguenots arriving in the last years of the seventeenth century. By the mid-eighteenth century, Staten Island's population was a mix of people of Dutch, French, Belgian, and English descent (LBA 1985:11).

The Richmondtown area was first settled by European colonists in 1680, and by 1710 the area was developing as a small crossroads hamlet (Baugher et al. 1989:48). Richmondtown was first known as Cocklestown (or Cuckoldestowne), because of the multitude of oysters harvested on the shores of Staten Island. Richmondtown became the county seat in 1728 and remained so until 1898, when Staten Island became a borough of the City of New York and the seat of government was moved to St. George.

Between 1750 and 1760 two gristmills were constructed on streams west of Richmondtown village (Baugher et al. 1989:60). In July 1776, British forces landed on Staten Island and proceeded to establish a military rule that lasted until the close of the Revolutionary War in 1783 (LBA 1985:11). During the Revolutionary War, the Richmondtown courthouse and church were destroyed, and in 1808 a Dutch Reformed church was built on the site of the former church (Baugher et al. 1989:60).

By 1848, Richmondtown was a little village at the center of the social and business affairs of Staten Island (Morris 1898:339). An 1853 map of Richmond County shows the two mills located west of the village center (Butler 1853). Both Richmond Road and Lighthouse Road are shown on this map; several houses are depicted along the north side of Richmond Road, including that of the Reverend D. Moore, situated just east of the Mace Street test area or Area 2 (Figure 3). The Beers (1874) atlas is the earliest map of Richmond County to identify roads, property lines and ownership, and structures in detail. Figure 4 presents a section of this atlas marked with the locations of the three

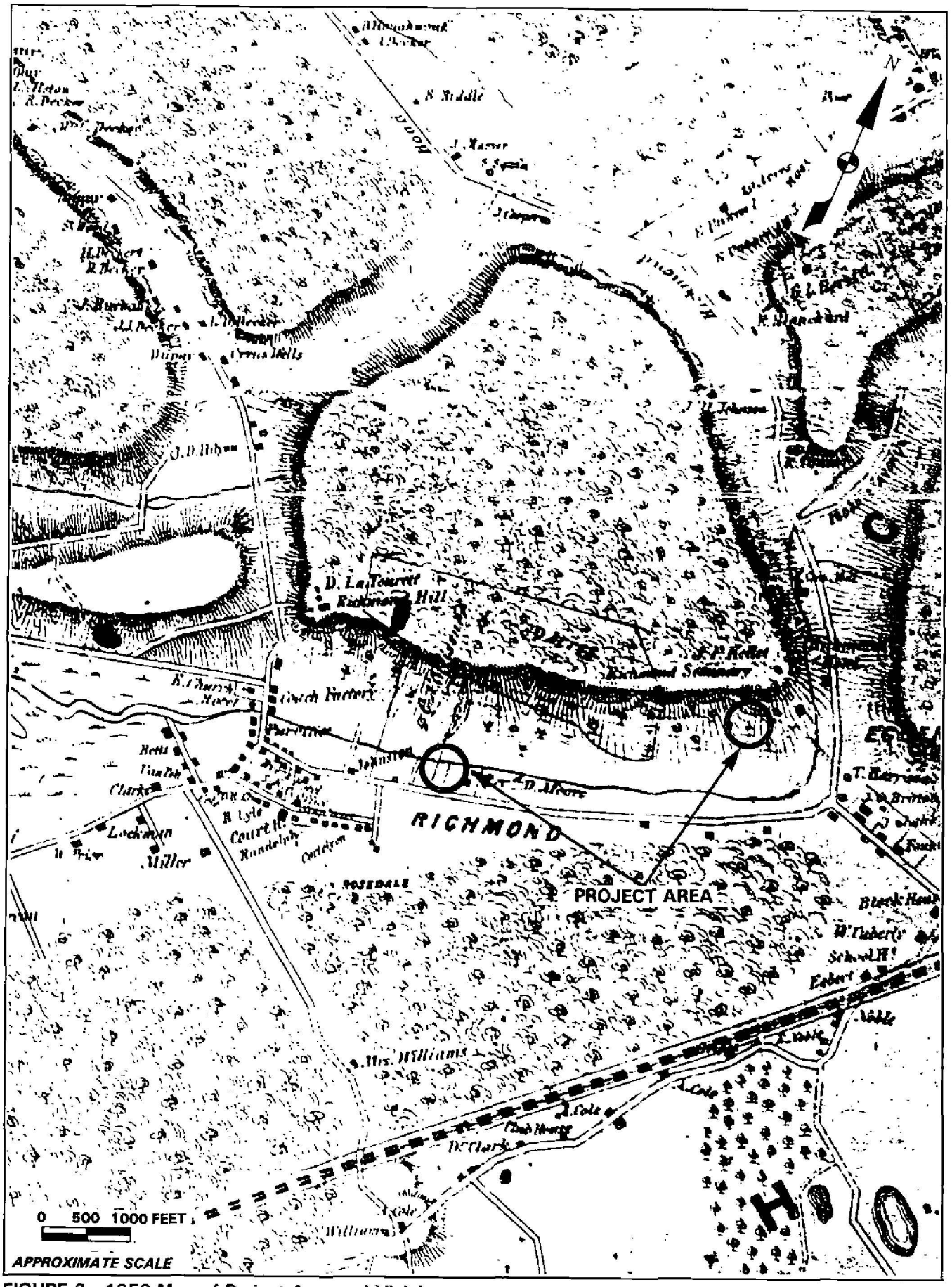

FIGURE 3: 1853 Map of Project Area and Vicinity

SOURCE: Butler 1853

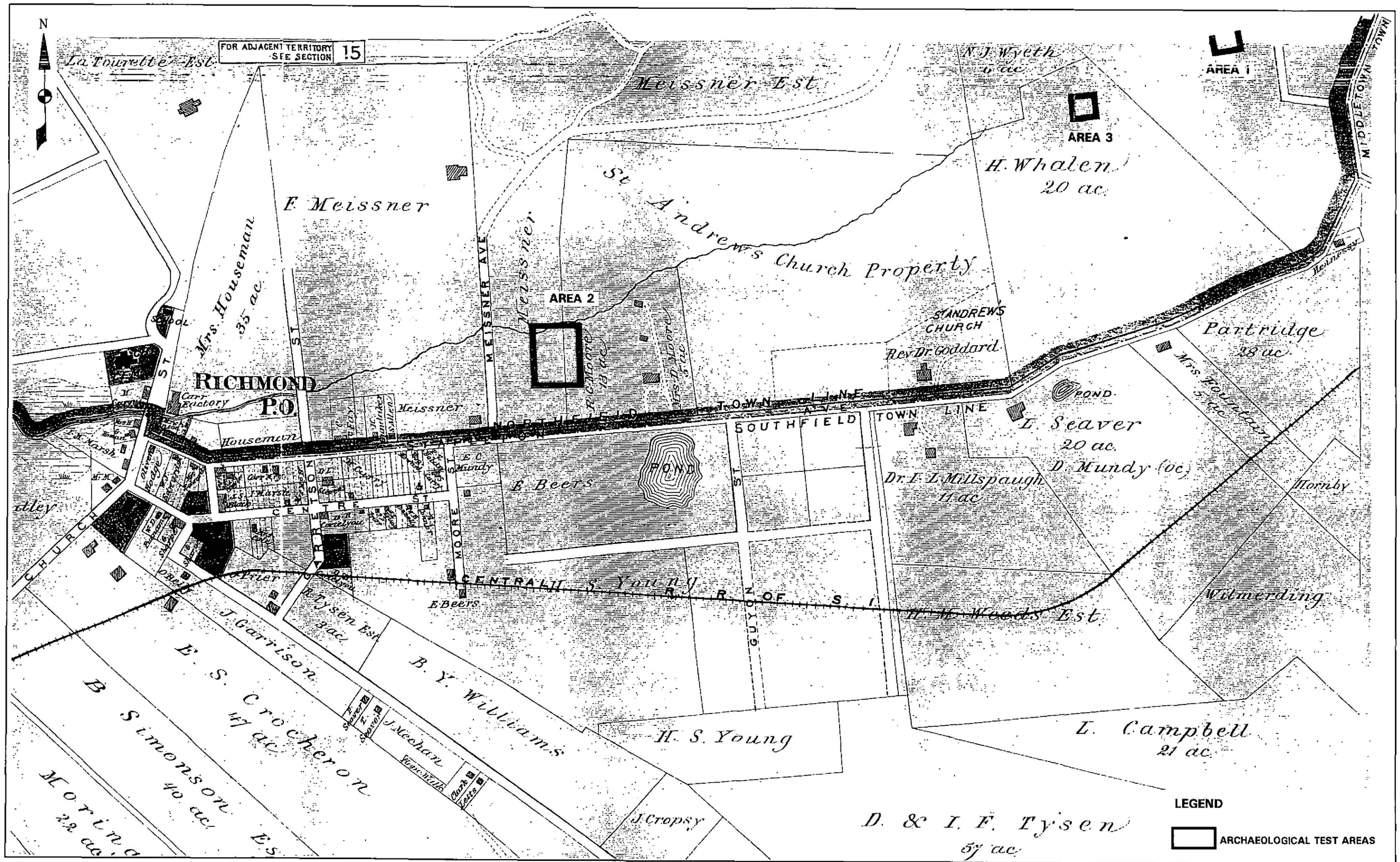

FIGURE 4: Detail of 1874 Beers Atlas Showing Location of Test Areas

SOURCE: Beers 1874

archaeological test areas. Test Area 1 is in an undeveloped tract at the northeast corner of this section map. Area 2 is located at the juncture of the 13-acre R.C. Moore estate and the expansive Meissner Estate, which dominated the hill to the north of Richmond Creek and was reached by Meissner Avenue, later Seaview Avenue and now Lighthouse Avenue. The estate of the former Reverend Moore is located about 300 feet east of Area 2 and consists of a large dwelling, approached by a semicircular drive, and two outbuildings located approximately 200 feet and 300 feet north of the house, overlooking Richmond Creek. Area 3 is located in what was an undeveloped 20-acre parcel owned by H. Whalen, and a large parcel between Areas 2 and 3, spanning both sides of Richmond Creek, was owned by St. Andrews Church, which was located on Richmond Road (then called Stapleton Avenue) (see Figure 4).

The Beers (1887) atlas shows little change in the area (Figure 5). By 1907 the area was significantly changed by a number of housing subdivisions; New Dorp Manor and Hampton Court were located north of Richmond Road, and Richmond Park was located south of Richmond Road (Robinson 1907) (Figure 6). The present roads were platted at this time, although possibly not developed: Mace Street appears as York Road, Nugent Street as Fourth Street, and Boyle Street as Elm Avenue (see Figure 6). Area 2 appears to have been contained within the limits of the R.C. Moore estate, which was reduced to 7 acres by this time. Area 1 was situated in the estate of Carl F. Grieshaber, who owned considerable property on both sides of Richmond Creek, and Area 3 was situated in the New Dorp Manor subdivision.

The Borough of Richmond Topographical Survey (Borough of Richmond 1909, 1910) is the most accurate map of Staten Island that has ever been made and, as such, is still widely utilized. At this time, Richmond Road was the only paved road in the project area. All of the three archaeological test areas were undeveloped. Area 1, north of Lawn Avenue, is shown to have an elevation of 50 feet above the Richmond High Water datum. The portion of this area north of Richmond Creek is shown as cultivated ground (Figure 7). Area 2, which ranges from 10 to 14 feet, contained a swamp that drained north to Richmond Creek; the Moore estate is clearly delineated about 300 feet to the east of the impact area (Figure 8). Area 3 is shown as a wooded area with an elevation of 35 feet along a tributary stream that flowed north to Richmond Creek (Figure 9).

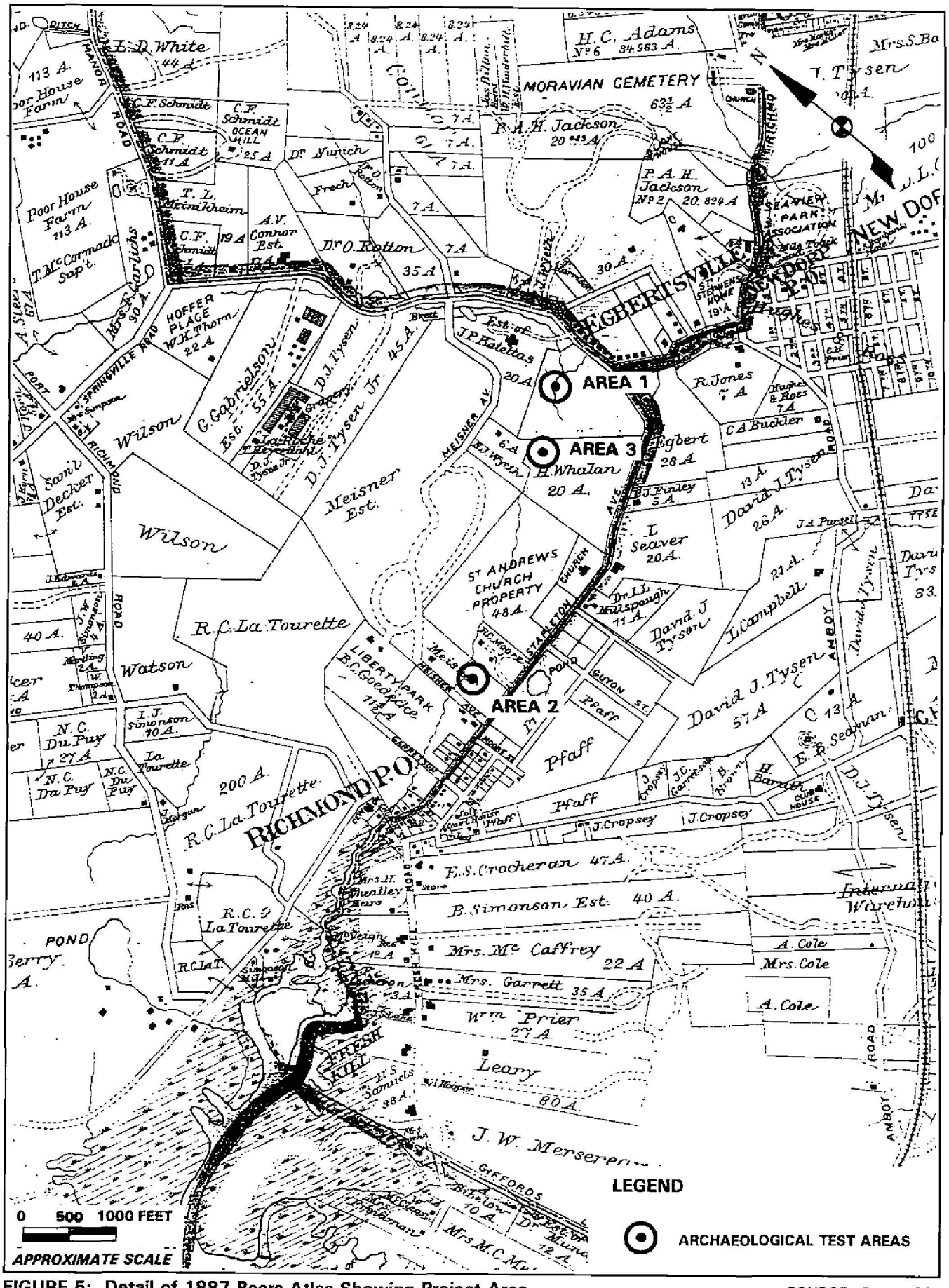

FIGURE 5: Detail of 1887 Beers Atlas Showing Project Area

SOURCE: Beers 1887

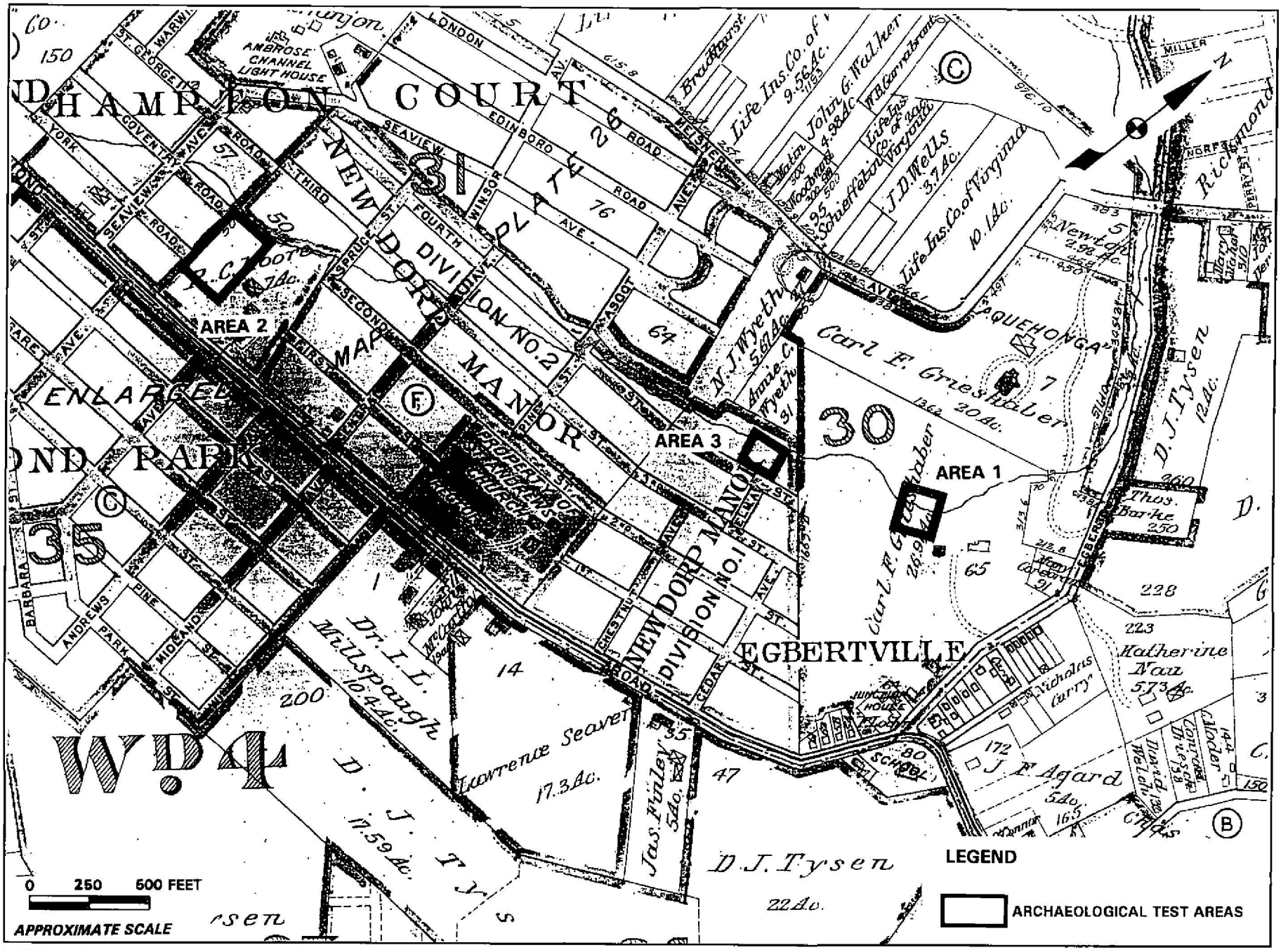

FIGURE 6: Project Area, circa 1907

SOURCE: Robinson 1907

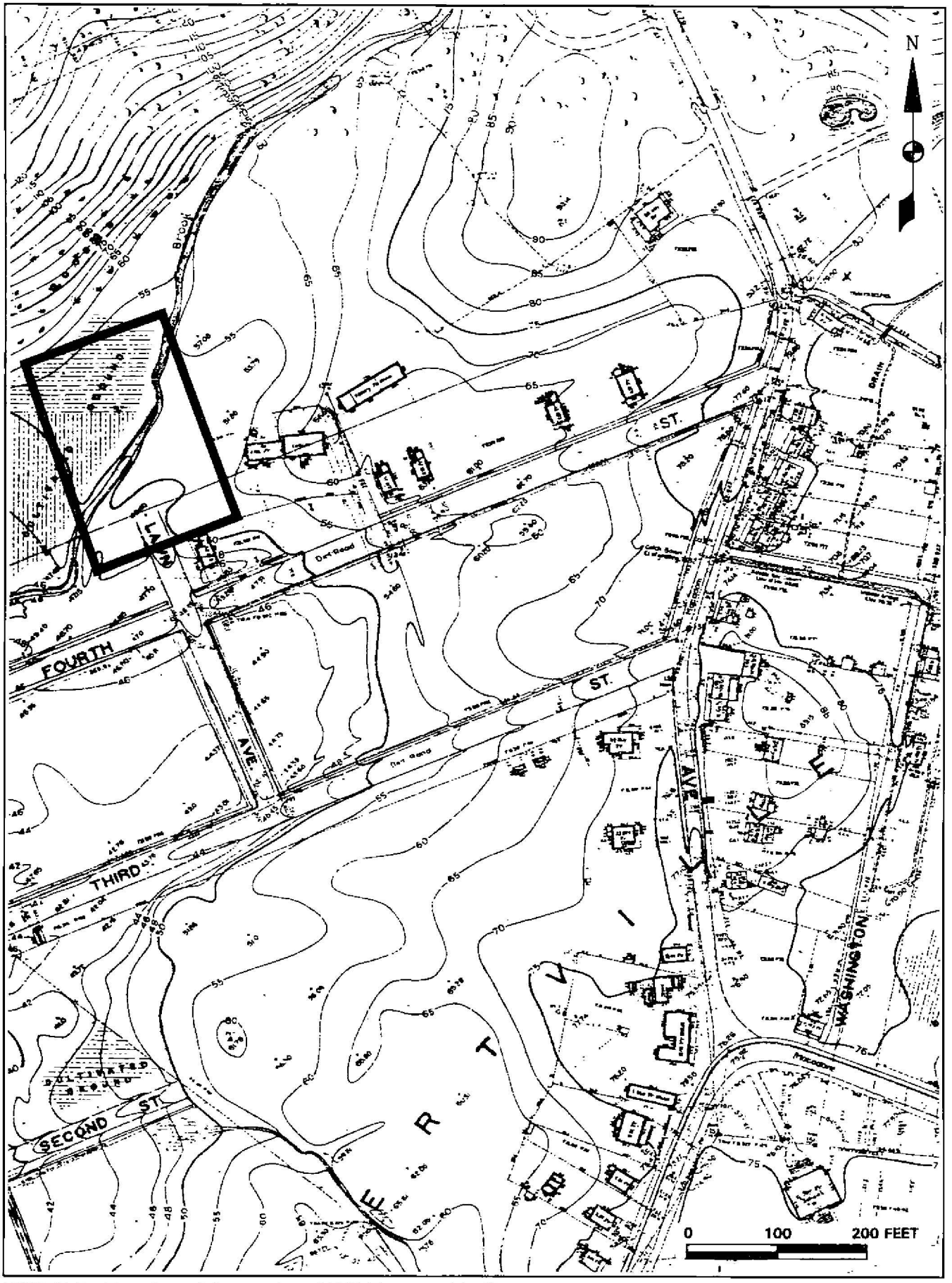

FIGURE 7: Test Area 1 Located on 1909 Topographic Map

SOURCE: Borough of Richmond Topographical Survey Sheet 55, 1909

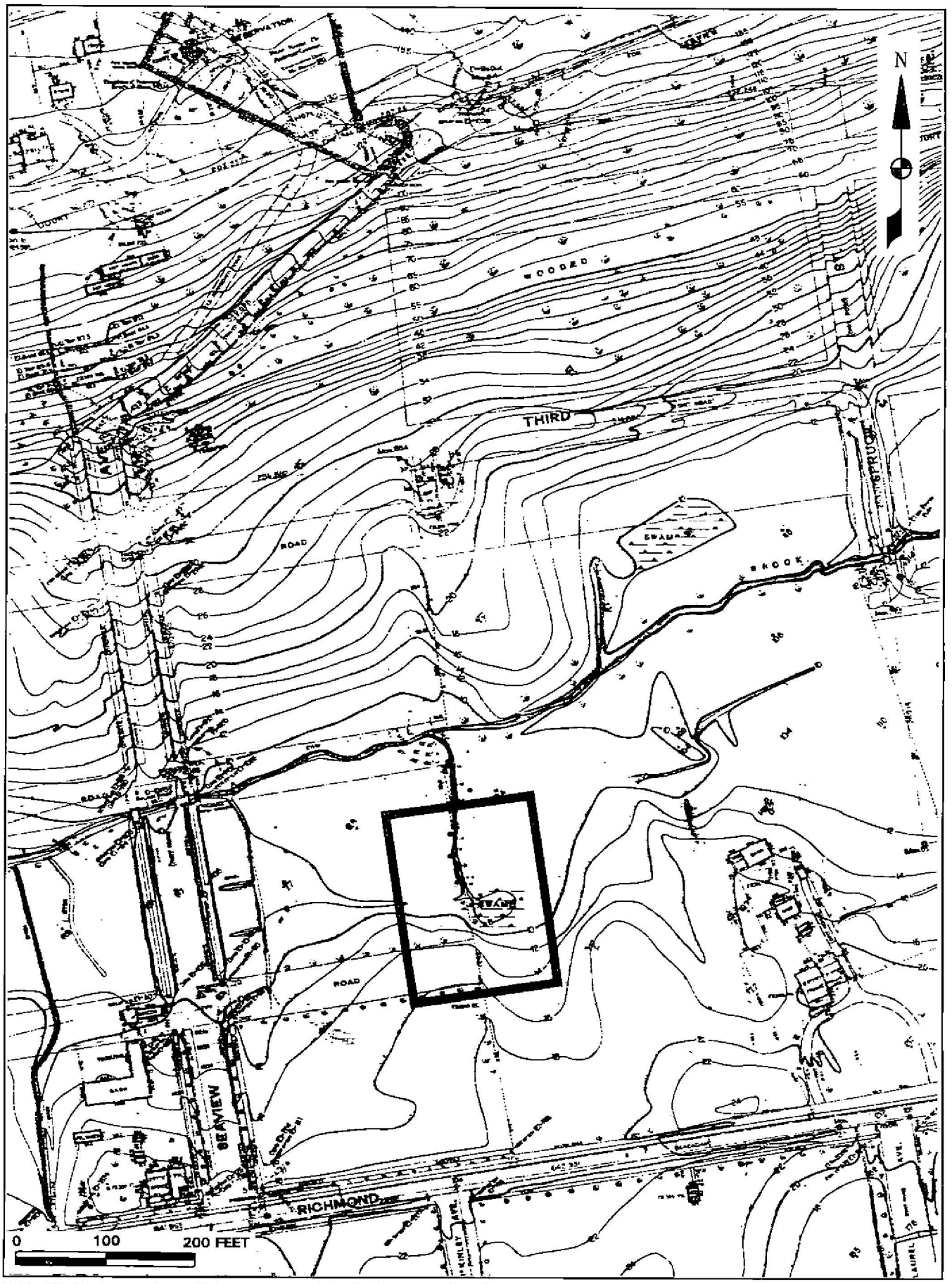

FIGURE 8: Test Area 2 Located on 1910 Topographic Map

SOURCE: Borough of Richmond Topographical Survey Sheet 54, 1910

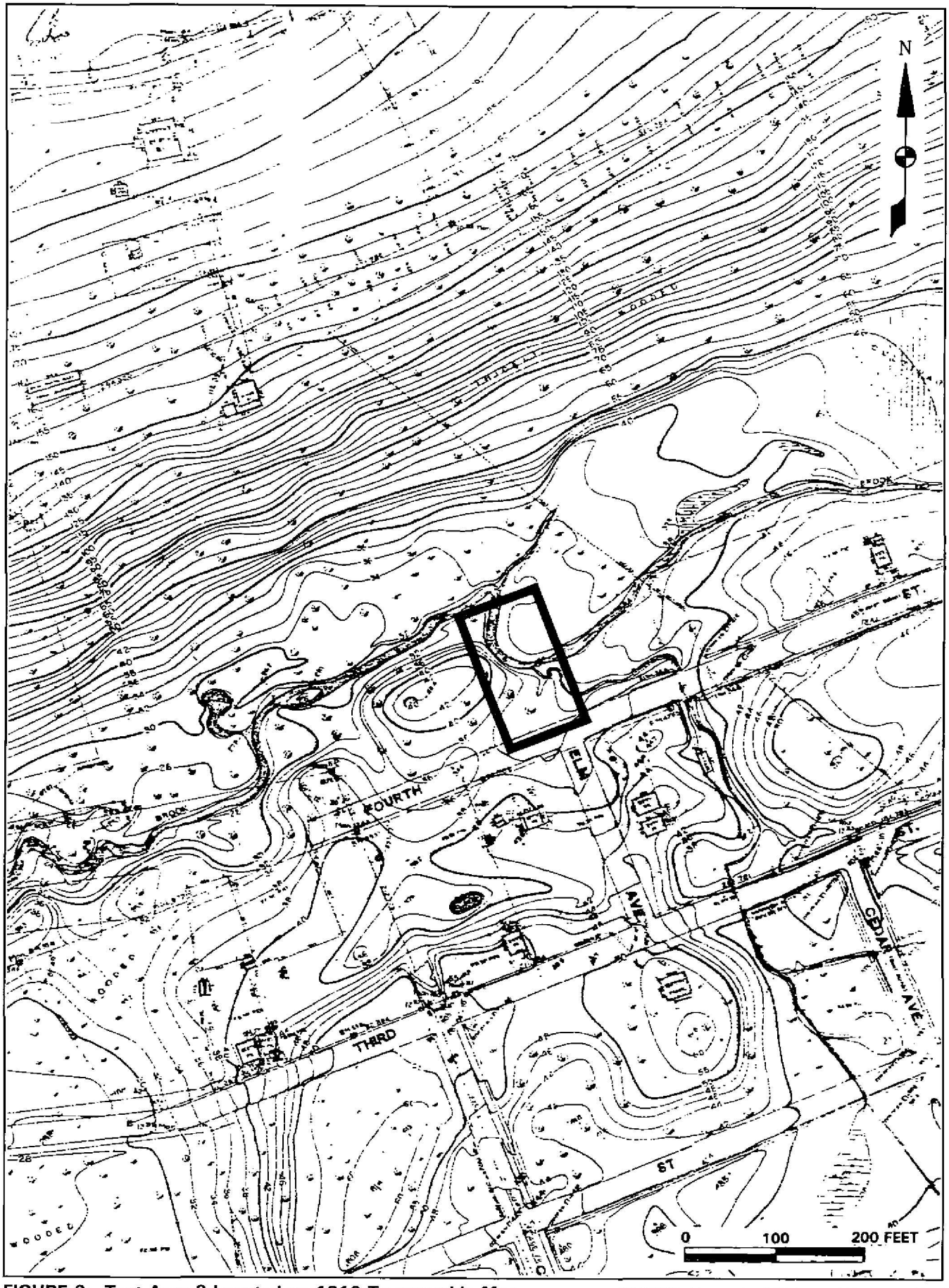

FIGURE 9: Test Area 3 Located on 1910 Topographic Map

SOURCE: Borough of Richmond Topographical Survey Sheet 54, 1910

IV. FIELD INVESTIGATIONS

A. METHODS AND FIELD RECONNAISSANCE

Archaeological testing was confined to three discrete locations that were identified by the New York City DEP as having a moderate to high sensitivity rating for archaeological resources. The three selected test areas are all in proximity to Richmond Creek and its associated tributary streams and wetlands, and were presumably undisturbed.

A reconnaissance of the three test areas included a walkover and selective augering. There were indications that portions of each area were disturbed by activities such as grading and landscaping, refuse dumping, and paving. Stream banks were also examined to evaluate disturbance and look for evidence of archaeological sites. Test excavations were confined to locations within each area that appeared to be relatively undisturbed. Excavations consisted of shovel testing and, in one case, the excavation of a 2x2-foot unit. All test locations were recorded on construction design plans at a scale of 1 inch to 40 feet.

Shovel tests measured approximately 1 foot in diameter and were excavated to depth where sterile subsoil, rock, or water was encountered. All excavated soil was screened through ¼-inch hardware mesh to aid in the recovery of artifacts. In the one instance where a shovel test recovered a potential archaeological find, additional shovel tests were placed at a close interval and the original test was expanded to a 2x2-foot unit. Soil profiles were recorded for each excavation using Mainsail Soil Color and standard texture classifications. Following the completion of excavation, units will be backfilled.

Modern debris was noted in the field, but not collected. Recovered artifacts and any questionable cultural material that could be used to interpret soil deposits were collected and returned to LBA's archaeological laboratory for analysis.

B. AREA 1 RESULTS

Area 1 refers to an undeveloped portion of Lawn Avenue, between Nugent Avenue on the south and Eleanor Street on the north, that is crossed by the headwaters of Richmond Creek (Plate 1). The 1909 topographic map (Borough of Richmond 1909) shows the portion of Area 1 north of the creek as being cultivated ground (see Figure 7). A local resident mentioned that approximately 75 years ago this area contained commercial flower beds operated by Moravian florists.

A total of five shovel tests were excavated in Area 1 (Figure 10). Only one test (STP 1) was placed on the south side of the creek, where most of the ground was either paved or obviously disturbed. Three strata were identified in the soil profile of STP 1. Stratum A, a black (10YR 2/1) loam, contained fragments of coal, styrofoam, window and bottle glass, a flower pot, and a brass circle inlaid with faceted glass, possibly from an ornate button. Stratum B, a dark yellowish brown

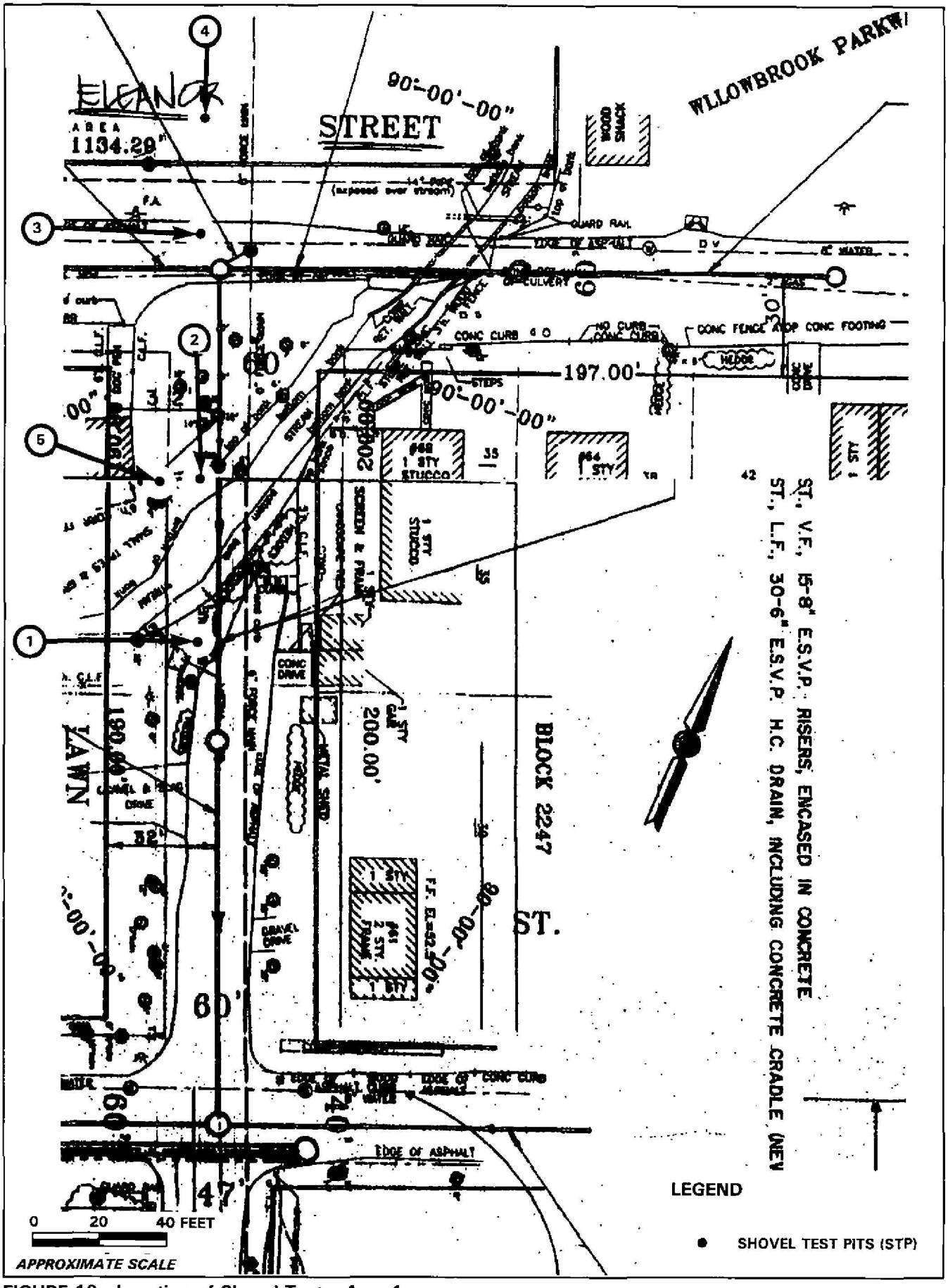

FIGURE 10: Location of Shovel Tests, Area 1

(10YR 3/4) sandy loam, contained coal, clinkers, fragments of window glass, and a small piece of an aqua bottle that may date from the late nineteenth century. Stratum B graded into the natural subsoil, located about 2.5 feet below surface. This subsoil, Stratum C, was a dark brown (7.5YR 3/3) clayey sand that was devoid of cultural material. The test ended at a rock impasse encountered at 3.4 feet below surface.

Four shovel tests were excavated on the north side of the creek (see Figure 10). Two tests (STP 2 and STP 5) were placed near the creek bank; both had a similar soil profile to STP 1. Recovered materials included coal, clamshell fragments, some bottle and window glass, a roof shingle, and styrofoam. The remaining two shovel tests (STP 3 and STP 4) were located on either side of Eleanor Street. The soil profile in STP 3 consisted of a black (10YR 2/1) humus above a dark brown (7.5YR 3/3) clayey sand (Stratum B) that contained some macadam, clinkers, and bottle and window glass. This soil type is consistent with the subsoil identified in the other tests, suggesting that the soils in this area were disturbed and truncated, possibly during road construction.

In summary, the cultural materials recovered from testing in Area 1 include building debris and domestic refuse, most of twentieth-century origin. No historic archaeological resources are present. Testing did not locate any evidence of prehistoric remains in this area.

C. AREA 2 RESULTS

Area 2 is an undeveloped section of Mace Street, between Lighthouse Avenue to the west and Spruce Street to the east. The 1910 topographic map (Borough of Richmond 1910) depicts a swamp in the center of this area that drains north to Richmond Creek (see Figure 8). This area is presently wooded and contains standing water. Proposed construction in Area 2 includes installation of a pipe along the Mace Street alignment and grading and barrier erection associated with the wetland. Surface inspection indicated that Area 2 is considerably disturbed. The eastern half was covered with mounds of leaf litter that were up to 4 feet deep (Plate 2). Refuse, including building debris, was also found in Area 2, primarily in the western end where it appears that earth and concrete have been used to create crude barriers, possibly for flood protection (Plate 3).

Initially, seven shovel tests were excavated in Area 2 along two alignments (Transects A and B) that were spaced 10 feet apart, avoiding obviously disturbed or filled areas. When one of the tests produced a possible prehistoric anvil/hammerstone, an additional two shovel tests were excavated in the vicinity, and the shovel test where the find was made was expanded into a 2x2-foot excavation unit (Figure 11). No other possible prehistoric artifacts were located; it is presumed that the cobblestone with possible surface pitting may be an isolated artifact or simply a stone with natural damage.

Two representative soil profiles were found in Area 2. The soil profile of STPs A-1 and A-2, the furthest to the east, included three levels. Stratum A was a dark yellowish brown (10YR 3/4) clay loam; Stratum B, a yellowish brown (10YR 5/6) sandy clay; and Stratum C a dark brown (7.5YR 3/2 to 3/4) silty clay subsoil. Mottles of a dark gray (7.5YR 4/0) clay were found] within the lower portion of Stratum B and in Stratum C.

PLATE 1: View of Area 1, Looking North to Richmond Creek

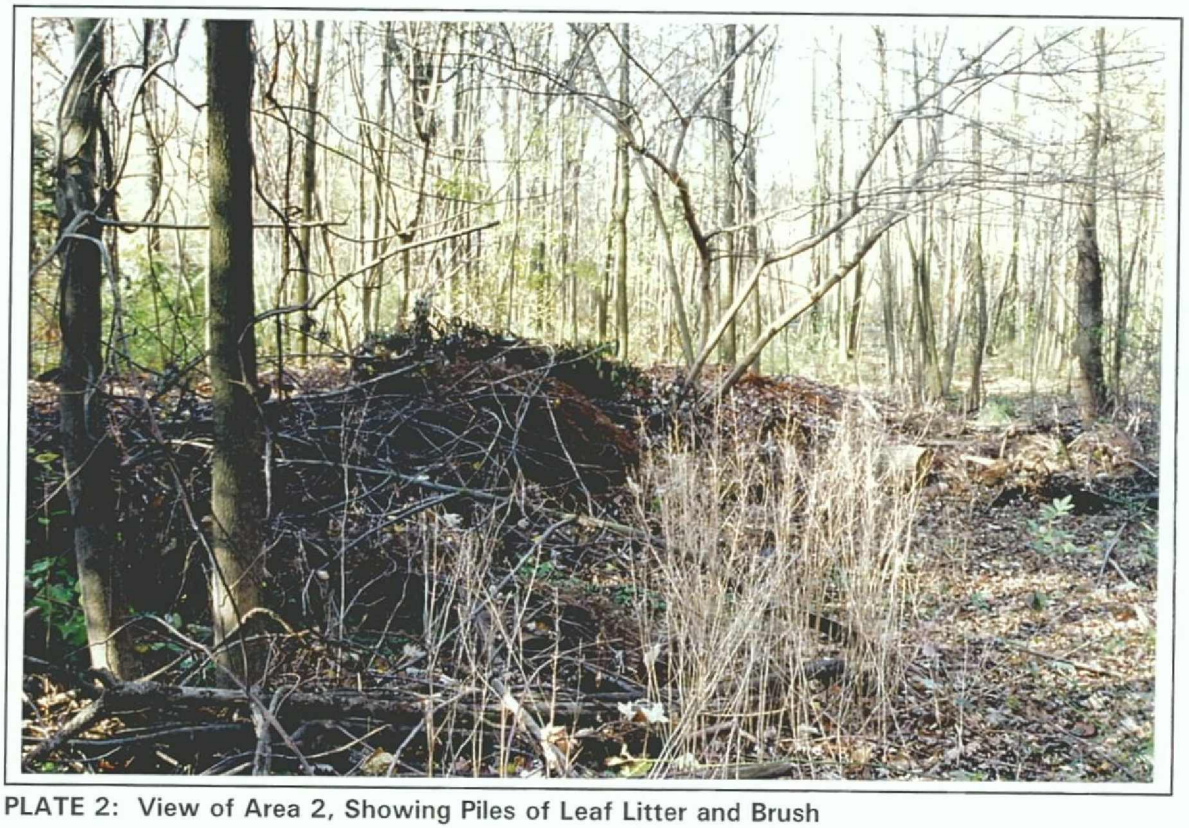

PLATE 2: View of Area 2, Showing Piles of Leaf Litter and Brush

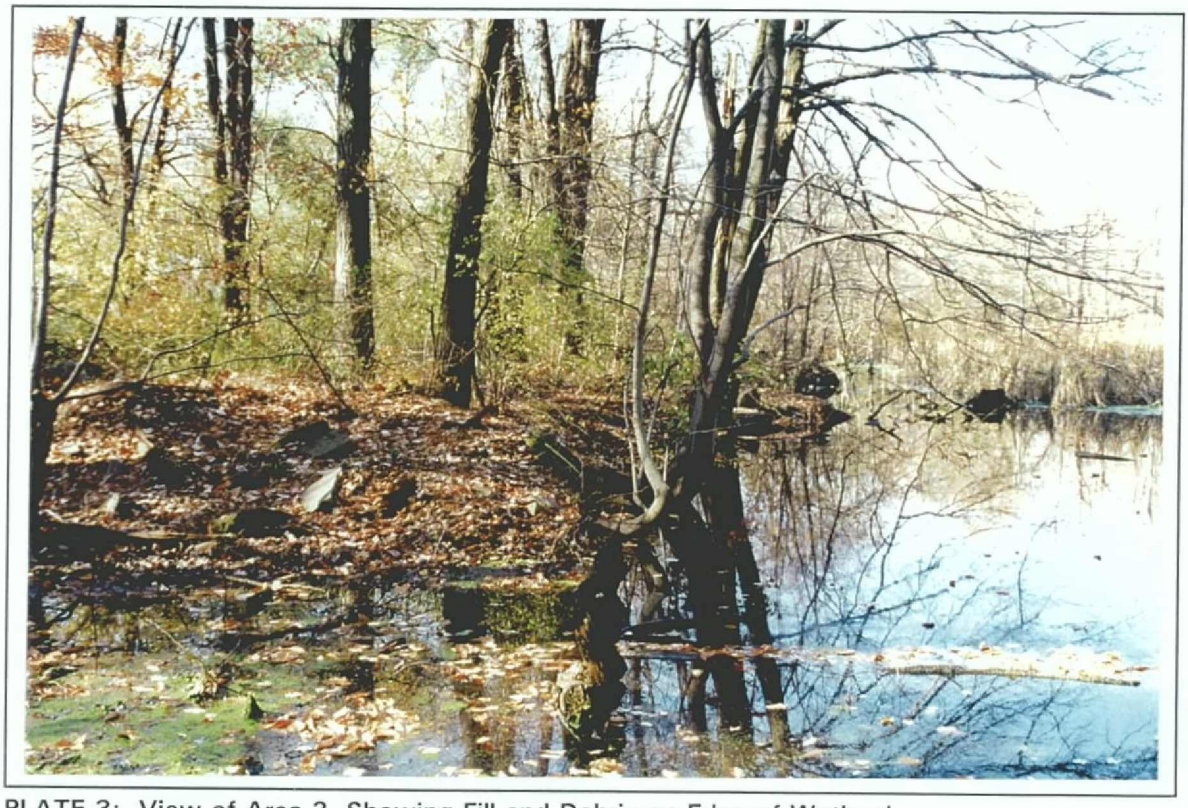

PLATE 3: View of Area 2, Showing Fill and Debris on Edge of Wetland

PLATE 4: View of Area 3, Looking North from Nugent Street

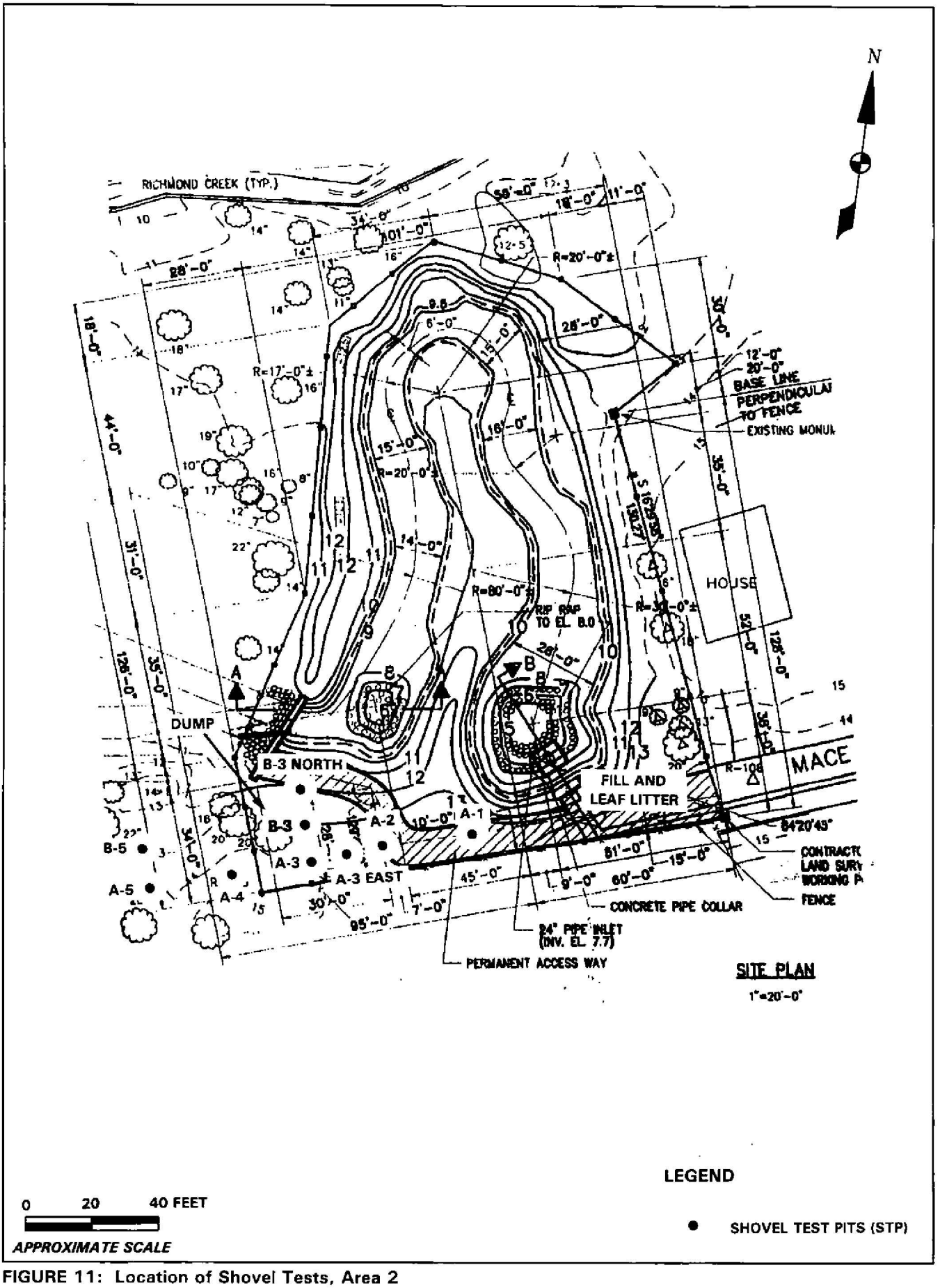

FIGURE 11: Location of Shovel Tests, Area 2

The profile of STP A-3, where the possible anvilstone was found, is typical of the central portion of Area 2. Stratum A was a dark brown (7.5YR 3/3) clay loam; Stratum B, in which the possible prehistoric artifact was found along with some coal and animal bone, was a reddish brown (5YR 4/4) silty clay; Stratum C, which did not contain any cultural material, was a brownish yellow (10YR 6/6) fine sand; and Stratum D was a dark gray (10YR 4/2) clay with decayed vegetation. When this test was expanded into a 2x2-foot unit (Unit 1), a piece of clear bottle glass and a piece of plastic were found in the same stratum as the possible anvilstone, along with other smooth pebbles and cobbles of various size.

The other shovel tests in the vicinity of STP A-3 (STP A-3 East, STP B-3, and STP B-3 North) all had similar soil profiles. Cultural material, all from Stratum B, included several pieces of bottle glass and a single fragment of flat cobalt-colored glass.

The three shovel tests in the western end of Area 2 (STP A-4, STP A-5, and STP B-5) contained small quantities of debris including macadam, cement, window glass and putty, bottle glass, floor tile, nails, and plastic food wrap.

In summary, testing in Area 2 recovered a cobble that could be either an isolated prehistoric anvil/ hammerstone or a cobble with natural battering. This cobble was found in a context with late historic and modern debris; no other potential prehistoric artifacts were recovered from this area. The other cultural materials that were found were mostly building debris and domestic refuse of twentieth-century origin. No historic or prehistoric archaeological resources were identified.

D. AREA 3 RESULTS

Area 3, located north of the intersection of Nugent Avenue and Boyle Place, contains an unnamed stream that runs through the eastern portion of this area north to Richmond Creek. The stream banks were examined and no evidence of prehistoric remains were observed. Testing was confined to the area west of the stream which contains lawn and shrubs adjacent to a paved driveway (Figure 12; Plate 4).

STP A-1 was located 50 feet from the curb of Nugent Street and 20 feet east of the driveway that defines the boundary of Area 3. The soil profile consisted of a dark brown (7.5YR 3/3) loam (Stratum A) above a layer of ash and black (10YR 2/1) clay (Stratum B), which contained fragments of coal, clinkers, flower pot, animal bone, bottle glass, and a large piece of wood with nails imbedded in it. Stratum C, a yellowish red (5YR 4/6) clayey sand, contained lumps of tar, a chunk of pavement, and a glass fruit jar rim. At a depth of 2.4 feet, very large tree roots were encountered and the test was terminated.

The soil profile in STP A-2, which was located 25 feet north of STP A-1, included a dark reddish brown (2.5YR 3/4) silty clay (Stratum A) that was devoid of cultural material. Stratum B was a dark reddish brown (5YR 2.5/2) clay that contained coal and bottle glass. Stratum C, which did not contain any cultural material, was a dark yellowish brown (10YR 4/4) sandy clay with stones.

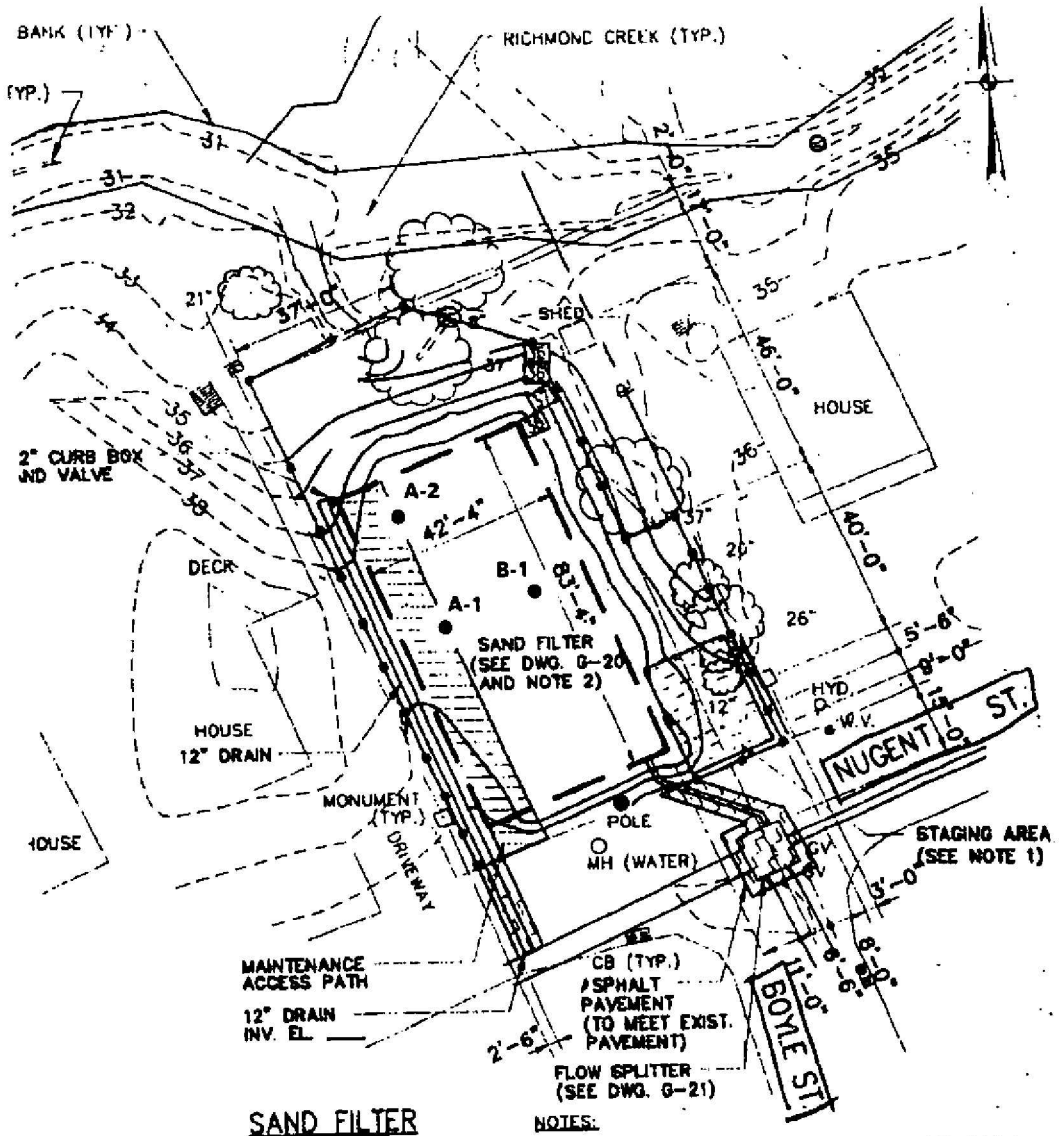

FIGURE 12: Location of Shovel Tests, Area 3

STP B-1, located 20 feet east of STP A-1, encountered a quantity of linoleum scrap in a matrix of dark brown (7.5YR 3/2) silt loam. The shovel test was terminated when ground water was encountered at a depth of 1.7 feet.

Three shovel tests were excavated and all contained modern debris indicative of recent disturbance and fill, including roofing tar, a quantity of linoleum scrap, pavement, coal, and ash. No significant cultural resources were identified in Area 3.

V. SUMMARY AND RECOMMENDATIONS

This report presented the results of a Phase IB archaeological study associated with sewer construction in the Richmondtown area of Staten Island. Testing was performed in three undeveloped areas that were considered to have sensitivity for prehistoric resources because of their proximity to Richmond Creek and a recorded prehistoric site. The Phase IB investigation consisted of limited background research, a reconnaissance survey that consisted of surface inspection and auger testing, and the excavation of shovel tests in areas that appeared to contain intact soils.

The study revealed that most of the project area has been disturbed by soil erosion, grading, landscaping, and dumping. No archaeological sites were identified during this testing project and no further investigation is recommended.

The project did make an important contribution to local archaeology in correcting the location of a previously recorded prehistoric site. According to the records at the New York State Museum, the location of the Richmond Site (NYSM #4616) was contradicted by the site description found in Skinner (1909) and Parker (1922). The Project Manager submitted copies of several historic maps to the NYSM to support a recommendation that the site location be changed. As a result, the site files have been revised to show Site #4616 as being in the vicinity of the former mill pond, incorporating flats and adjacent uplands north of Richmond Creek, more than 1 mile west of the project area.

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