ST. JOHN'S UNIVERSITY

JAMAICA, QUEENS

ARCHAEOLOGICAL ASSESSMENT

Prepared For:

Urbitran Associates
71 West 23rd Street
New York, NY 10010

and the

New York City Board of Standards and Appeals
40 Rector Street
New York, NY 10006

Prepared By:

Historical Perspectives, Inc.
P. O. Box 3037
Westport, CT 06880

Principal Investigators and Authors:

Martha Cobbs
Betsy Kearns, RPA
Richard Schaefer, Ph.D.
Cece Saunders, RPA

February 2002

CONTENTS

FIGURES

I. INTRODUCTION AND METHODOLOGY

St. John's University plans to construct a parking garage in the southwest corner of its campus in the Jamaica section of the Borough of Queens, New York. The projected location is in the southern part of Block 7021, Lot 1 (See Figures 1 and 2; Photos A - C). The site is bounded on the south by the Grand Central Parkway access road (formerly 82nd Road) and the Grand Central Parkway and on the west by 168th Street (formerly Grand Avenue). The campus lies on the north and east sides of the proposed site and is bounded by Union Turnpike to its north and Utopia Parkway to its east. The study site is presently an undeveloped portion of the campus' athletic fields. It is unoccupied except for an electrical substation building at the corner of 168th Street and the Grand Central Parkway service road, and a small paved parking area on its highest point, from which the ground slopes downward to the north.

The purpose of this Phase 1A Archaeological Assessment Report is to determine the presence, type, extent and significance of any cultural resources that may be present on the proposed St. John's University development site. It is based on archival research, an inspection, and interviews which document the probability that the proposed parcel has hosted any buried precontact or historical cultural resources, and the likelihood that they may have survived the post-depositional disturbances which have accompanied subsequent development.

In order to address these concerns, various sources of data were examined. Primary source material on the project site was collected to determine the study lot's original topography, and to compile a building history and disturbance record. Historical maps and descriptions of the study area were sought at the Local History and Map Divisions of the New York Public Library, the Long Island Division of the Queensboro Public Library (Jamaica), and in the archives of St. John's University.

William Ritchie's *The Archaeology of New York State* provided a valuable overview of Native American culture and lifeways during the prehistoric period. Works concerning Native American exploitation of the resources of Coastal New York written by Reginald P. Bolton, Arthur C. Parker and Robert S. Grumet were researched as well. Available site reports and journal publications were sought for data specific to the project area. Eugene J. Boesch's *Archaeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of the Borough of Queens,* prepared for the New York City Landmarks Preservation Commission, provided valuable information about known sites and current investigations in the area. Inventories of prehistoric and historical sites from the New York State Museum and the New York State Office of Parks, Recreation and Historic Preservation were also utilized in the site evaluation.

To place the St. John's University site within an historical context, local and regional histories were examined for pertinent material. In addition, pertinent parts of a previous Historical Perspectives' report for Jamaica were utilized for general background (Kearns et al. 1996). Although no subsurface investigations were conducted,

a site visit and examination of current conditions was made on January 16, 2002, and site photographs were taken. Interviews were also conducted with St. John's University staff.

II. ENVIRONMENTAL SETTING

Long Island is the top of a Coastal Plain ridge formation that is covered with glacial drift, in reality an elevated sea bottom demonstrating low topographic relief and extensive marshy tracts. In the last million years, as glaciers advanced and receded three times, the surficial geology of the island, including the St. John's University site, was profoundly altered. "The glacier was an effective agent of erosion, altering the landscape wherever it passed. Tons of soil and stone were carried forward, carving and planing the land surface. At the margins of the ice sheet massive accumulations of glacial debris were deposited, forming a series of low hills or terminal moraines" (Eisenberg 1978:19).

Circa 18,000 years ago, the last ice sheet reached its southern limit, creating the Harbor Hill moraine that traverses the length of Long Island. The moraine is clearly visible on current and historical topographic maps, roughly where the Grand Central Parkway runs today (Figure 1). Before extensive alteration of the landscape during the nineteenth and twentieth centuries, a gently sloping plain extended south of the moraine to the ridge of sand hills forming the Queens mainland. Separating this ridge and the barrier beach known as the Rockaway Peninsula, was a wide expanse of tidal marsh drained into Jamaica Bay by numerous small creeks and their tributaries.

According to early topographical maps, there was a 150' high mound at the center of the project parcel, which is no longer there (Figure 8). In order to determine whether modern development and regrading has strongly altered the topography of the project lot, thereby impacting any buried cultural resources, the following discussion will compare historical and current topographic maps. Observations made during a site inspection conducted on January 16, 2002 will also be included.

III. PRECONTACT ERA

The prehistoric era of western Long Island is traditionally divided into time periods based on prehistoric man's adaptations to changing environmental conditions. These are generally known as the Paleo-Indian (c.12,000 to 9,500 B.P. [before present]), the Archaic (c.9,500 to 3,000 B.P.) and the Woodland (c.3,000 to 500 B.P.). In order to be able to assess the potential of the St. John's University site for aboriginal exploitation, it is first necessary to review these time periods and their associated settlement patterns.

Paleo-Indian Period (c.12,000 to 9,500 B.P.)

The first people probably arrived around 12,000 years ago, when an ice-free corridor opened between two massive glaciers that covered present Canada, although there is currently a lively debate about possible migrations by sea along the coast of both the *Atlantic and Pacific Oceans*. Paleo-Indian sites are rare in the Northeast.

During this period, the Indians relied heavily on large pleistocene herbivores for food, namely mammoth, mastodon, caribou and musk ox. The sea level was much lower than it is today, due to the water trapped in the retreating glaciers, and many Paleo-Indian sites are now offshore. These Indians were hunters and gatherers, nomadic people who roamed widely in search of food, and their settlement pattern consisted of small temporary camps. Recent evidence suggests that they relied on plant materials more than was previously believed. The diagnostic artifact of the Paleo-Indian Period is the fluted projectile point. However, these people made other sophisticated tools as well, including gravers, steep-edge scrapers, knives, drills and other unifacial tools.

Archaic Period (c.9,500 B.P. to 3,000B.P)

The cultures of the Archaic Period are considered to be human adaptations to the changed environmental conditions of the warm and dry hypersithermal interval, during which temperatures are believed to have been considerably warmer than at present. The spruce and pine forest dwindled further, and mixed hardwoods - oak, hickory, chestnut, beech, and elm - became dominant. This essentially modern, open, oak woodland pattern provided ample food for mast-eaters such as white-tailed deer, turkey, moose, beaver and even black bear, and thus the hardwood forest provided a greater carrying capacity for hunters and gatherers (Ritchie 1980:32).

During the Early and Middle Archaic, saltwater fish and shellfish apparently did not play an important dietary role. Although oysters were abundant on the South Atlantic Shelf by 12,000 years ago, they did not become a dietary staple until the Late Archaic. This is mainly because during the early and middle stages the coastal areas were relatively barren environments, providing little aside from oysters. Artifacts recovered from Middle Archaic shell heaps indicate that these sites were temporary processing stations. Larger base camps, indicating a semi-sedentary lifestyle, were generally inland, near freshwater bogs and lakes, which were far more hospitable, providing fresh water, fish, waterfowl, and attracting deer and other game animals (Lavin 1988:103-104).

Archaic man was still highly mobile, but within well-defined territorial limits, moving between seasonally exploitable lacustrine and riverine food resources. Although there was little storable surplus, meat and fish could be dried or smoked, and plant foods such as acorns, chestnuts, beech nuts, and various seeds could be saved. Bark-lined and roofed storage pits for this purpose have been found in up-state New York.

The Archaic tool kit reflects this greater reliance upon seeds and nuts, with grinding tools such as mortars and pestles represented; bone fishhooks and notched pebble netsinkers for fishing; woodworking tools such as adzes, celts, axes and scrapers, as well as many general purpose tools.

The warmer and drier conditions during the thermal maximum, occurring after 7,500 years BP, and definitely by 5,000 to 2,000 BP, caused the shrinkage of interior lakes and streams, and resulted in the crowding of Archaic peoples at the larger and therefore more reliable water and food sources. The population pressure and resource competition thus caused is reflected in the increased incidence of burial ceremonialism during the Late and Terminal Archaic.

At the end of this warm period, between 4,000 and 3,000 years ago, cooler temperatures slowed the melting of the polar ice cap, substantially reducing the rate of sea level rise. This enabled silt deposits to build up along coasts and at the mouths of rivers and streams, such as those draining into Jamaica Bay, which in turn developed into salt marshes. Established salt grasses such as *Spartina* sp. trapped more silt, building up the marsh to the high tide level, providing ideal environments for clam beds and scallops (Lavin 1988:106). Such salt marshes are incredibly rich in plant and animal life, providing food and breeding grounds for numerous species of fish, shellfish, birds, amphibians and mammals. As elevations rise toward the uplands, and salinity decreases further inland, different econiches are represented, often presenting a year round selection of exploitable plant and animal resources within close proximity to one another (Lavin 1988:108). During the Late and Terminal Archaic, coastal sites and the exploitation of shellfish resources were more heavily represented. Archaic period shell middens excavated in the Hudson Valley indicate that oysters were processed on site, but the meat was taken elsewhere for consumption or exchange. Other types of sites represented include rockshelters and open woodland camps (Schaper 1993:32).

The earliest known pottery type made its appearance during the Terminal Archaic (2,750 years B.P.), which enabled Archaic people to cook longer and more evenly the grains and plants now being gathered from the marshes (Lavin 1988:110). Many Early and Middle Archaic coastal sites have been flooded due to the general stabilization of the sea level since that time. Many Late Archaic coastal sites have also met the same fate. For example, the Late Archaic Wading River Complex, four archaeological sites on the north shore of Suffolk County, was found on the edge of a salt marsh, on dry ground that ranges from only two to seven feet above mean high water (Wyatt 1982:71). At Shelter Island, Suffolk County, a small Late Archaic special purpose camp, probably for tool making and food processing, lies near tidal wetlands, and at its highest elevation is only

five feet above mean high water (although its lowest points indicate a rise in water level since its occupation) (Witek 1988:21, 28).

Woodland Period (c.3,000 to 500 B.P.)

By the beginning of the Woodland period, the climate had stabilized, becoming much as it is today. The trend toward increased exploitation of coastal resources which had begun at the end of the Archaic intensified, with site size and frequency rising until large semi-sedentary settlements appear in the Late Woodland. There are also indications that inland sites declined in number (Lavin 1988:106, 108, 110). The number and size of sites and artifact diversity indicate longer occupations and the increased use of non-local lithic materials. The regionalization of ceramic styles suggests a growing territoriality.

By the late Middle Woodland, the disappearance of mortuary ceremonialism points to an increasingly successful adaptation to the environment. The largest sites of the Late Woodland, generally located on the coast or the intertidal zone near estuary heads, often contain evidence of structures, and are recognized as villages by some archaeologists. People of Woodland times preferred the same sites as those of the Late Archaic in order to exploit both salt and fresh water marsh environments (Lavin 1988:106, 108, 110). The sites are described as well-drained locations on bays and tidal streams close to sources of marine shellfish, with shell heaps or middens covering areas of up to three acres or "situated on tidal streams or coves" (Ritchie 1980:266, 269). Nearly all of the permanent sites are on tidal streams and bays on the second rise of ground above the water (Smith 1950:101).

The Woodland tool kit shows some important additions, notably the bow and arrow for hunting, dugout boats and barbed bone/antler harpoons for sea fishing and hunting of sea mammals. Fish runs in rivers provided a stable and reliable resource, and fish weirs were utilized in rivers and major creeks for the capture of large quantities of anadromous fish (Brumbach 1986:35). Cups, bowls and spoons were fashioned of wood and tortoise shell, and the use of pottery for cooking became more widespread. In fact, pottery sherds become the most common artifact found on Woodland large camp and village sites (Ritchie 1980:267-268). Horticulture appeared in certain areas during Middle to Late Woodland times, but very little evidence of its practice has been found in coastal New York. Although coastal Indians were familiar with maize as early as 1150 A.D., it remained a minor source of nutrition, probably since it was unnecessary to supplement their already rich and bountiful diet (Lavin 1988:113).

European Contact Period (c.500 to 300 B.P.)

Following the earliest known visit of Europeans to the New York City area, the exploration of New York Bay by Giovanni da Verazzano in 1524, descriptions of Native Americans and their settlements were recorded, providing another source of data to buttress archaeological inferences about Indian lifeways in the Contact Period. Daniel Denton, a member of the first group of Jamaica settlers, in his *Description of New York*, published in London in 1670 observed:

> They live principally by hunting, fowling and fishing, their *wives* being the husbandmen, to till the land and plant the corn. The meat they live most upon is fish, fowl and venison . . . They build small moveable tents, which they remove two or three times a year, having their principal quarters where they plant their corn; their hunting quarters and their fishing quarters (Thompson 1843:I 80).

The cultivation of maize (which previously was an unnecessary supplement to an already rich diet) and an increasingly sedentary lifestyle became more widespread on Long Island during the Contact Period, probably due to trade relations with Europeans. Shell bead and wampum production was increased, and furs were collected by Natives for exchange. Although there are many ethnohistorical accounts of trade, there is little archaeological evidence of this in the region (Kraft 1991:213). Shellfish remained an important food source. Isaac Jogues (1862:29), who visited New Netherland in 1633-1634, observed the "great heaps" of oyster shells made by the "savages, who subsist in part by that fishery."

Apparently, the larger villages developed into permanent settlements whose populations expanded and contracted with the availability of various natural food resources, while agriculture provided a storable surplus to maintain a smaller population throughout the year. Part of the population still migrated between food sources, inhabiting smaller seasonal campsites. However, this period of growth was interrupted by epidemics of European diseases against which the Indians had no natural immunity, resulting in decimation of the population. By 1670, Denton reported:

> it is to be admired, how strangely they have decreased, *by the hand of God*, since the English first settling in these parts. For, since my time, where there were six towns, they are now reduced to two small villages (Thompson 1843:I 80).

At this time it is generally believed that western Long Island was inhabited by Munsee-speaking Canarsee and Rockaway Indians, members of the Delaware culture group. Due to the enormous stresses of disease and warfare with European settlers, the socio-political situation of Long Island's Native Americans was extremely fluid, with groups splitting and combining in complex ways. The relationship between western Long Island's Indian groups is still open to debate. The Canarsee had their main village in southeastern Kings County, and the Rockaways had their chief settlement somewhere in Far Rockaway, yet they may have been a subgroup of the Canarsee. The last documentary mention of the Canarsee came in 1684, when they had joined with the Rockaway and another group, the Massapequa (Munsell 1882:195; Grumet 1981:5-6,47). Although Edward M. Ruttenber, in his 1906 article, "Indian Geographical Names of the Valley of the Hudson's River," suggested that Jamaica was the name of a local Indian group, there is no evidence of such a group (Grumet 1981:16), and in their defense, although 19th-century local historians tell the "Jameco" Indian group story, they also report doubts as to its validity (Thompson 1843:II 96).

Jamaica is believed to have been derived from the Algonkian word for beaver. The earliest spelling, Jamaika, appears in a document from 1655, and the word appears as Jamaick, Jamenico, Jemaico, Jameco, etc. during the 17th century. Jamaica referred to a beaver pond in the vicinity of the first European settlement (Grumet 1981:16; Figure 3).

Twentieth-century research conducted by Robert S. Grumet and Reginald Bolton has identified a Native American trail, Mechawanienck, as the precursor of Jamaica Avenue, which abuts the project site on the north. Bolton translates Mechawanienck as meaning, not surprisingly, "old path or trail." (Grumet 1981:33).

The nearest known Indian habitation area is "a village on a creek a mile south of the present village of Jamaica," (Beauchamp 1980:137; Parker 1920:672; Bolton 1972:148,149). The source for this statement, Benjamin Thompson's *History of Long Island*, reports that the Indians resided "near that part of the bay and the stream, or creek south of the Beaver Pond" (Thompson 1843:II 96). Bolton locates the site adjacent to Baisley Pond Park (Grumet 1981:67,71). A second native path branching from Mechawanienck (Jamaica Avenue), which very roughly approximated the path of present 150th Street and Sutphin Boulevard (about 4,000 feet west of the study site), led to this settlement and continued south to Jamaica Bay.

A search through the files of the New York State Museum and the Office of Parks, Recreation and Historic Preservation (OPRHP) identified two inventoried prehistoric sites within two miles of the subject parcel. NYSM #4546 (ACP Quns-no#), described as "traces of occupation," is generally located about ½ of a mile southeast of the project lot (Parker 1920:672,pl.208). Further to the south is NYSM #4531 (ACP Quns-8), "village of the 'Jameco Indians,'" which is the settlement near Baisley Pond Park described in the preceding paragraph. The OPRHP locates this village very generally, placing it somewhat north of Baisley Pond Park, approximately 2 miles south/southeast of the project lot.

As outlined in the prehistoric overview above, an important consideration in the determination of a site's potential for hosting precontact cultural remains is the attractiveness of the subject parcel's environmental resources to the aboriginal Americans. These factors include the presence of protected, dry, elevated land, a source of fresh water, and the proximity to a marsh environment, which would have provided a rich source of edible and useful plant and animal species.

Eugene Boesch's study, noted in the Introduction, gives a rating of high sensitivity to the area around St. John's University campus but excludes the campus itself (Boesch 1996). He identifies a pond and a stream that was located at 76th Avenue and 166th Street in 1890, approximately 3,000 feet north-northwest of the project site, although some distance removed from the St. John's campus area, the pond/stream would have provided a useful source of fresh water, and the pond and its vicinity an attractive hunting, fishing and foraging ground. The study site itself was in a dry, elevated location, with a number of knolls from which to observe game. These environmental factors suggest that the project parcel would have been moderately attractive to

exploitation by prehistoric Americans, although there were places nearer to fresh water sources that would have been even more desirable. The presence of a major Native American path, now Jamaica Avenue, approximately a mile south of the study lot indicates that Native Americans were present in, and familiar with the project area.

Based on this review of historical, archaeological and environmental data, the study site has only a moderate potential for having hosted buried cultural remains from the precontact period. However, due to the usually shallow nature of such deposits, often less than three to four feet below the pre-development surface, they are extremely vulnerable to the ravages of historical period construction. The impact of 19th- and 20th-century construction on this prehistoric potential will be discussed in the Conclusions section of this report.

IV. HISTORICAL PERIOD

History of Jamaica

Incorporated in 1656, Jamaica Village was first established by a group of English settlers from Heemstede (Hempstead in present Nassau County), who requested permission from Director-General Peter Stuyvesant to establish a town on Dutch West India Company territory between Heemstede (Hempstead) and Amersfoort (Flatlands). Although the Dutch chose the official name, Rustdorp (ROOST-dore-up), meaning restful or peaceful village, the settlers preferred a number of other names, including Canorasset and Crawford, but eventually adopted the name Jamaica, after the Indian name of the beaver pond near the settlement (Brodhead 1853:619; Thompson 1843:96-97).

Jamaica's proprietors purchased property surrounding the village from the local Native Americans in order to strengthen the settlement's title to lands granted by the Dutch authorities and later confirmed by the English colonial governors. Interestingly, the first recorded transaction occurred in 1655 (before official permission to settle was granted), with the payment of "two guns, a coat and a certain quantity of powder & lead," to Casperonn, Adam or Achitterenose, Ruckquakek, Runnasuk, Anmerhas, Caumeuk, Manguaope and Waumetompack. The same property was repurchased in 1662 from *Waumitumpack* (Waumetompack?), the "Sachem of Rockeway," for a trooper's coat and a kettle. However, instead of the kettle, it is reported that the sachem was satisfied with "8 bottles of licker." Each original proprietor received ten acres of planting land, twenty acres of meadow and a homelot near the settlement. As new residents arrived, land was allotted to "respectable" settlers, admitted by vote at the town meeting (Munsell 1882:193-195).

Jamaica assumed a new importance as an administrative center following the English conquest of New Netherland in 1664. Governor Nicoll confirmed the town's patent in 1665, and made the village the judicial and legislative seat of the region. The other Long Island towns levied special taxes to build a larger court and meeting house in the village, which was completed adjacent to the original building in 1667.

The Jamaica of the eighteenth century was a sparsely-built village near the crossing of the roads to Flushing and Rockaway (now Parsons Boulevard and 150th Street/Sutphin Boulevard) and present Jamaica Avenue, which led to Brooklyn and New York on the west and Hempstead on the east. The latter road, widened one hundred feet by c.1703, was the chief route by which the farmers of Queens County's outlying areas brought their crops to market. As they returned home from Brooklyn and New York they passed through Jamaica and spent their money in the village's stores, inns and taverns. Merchants and innkeepers established a "stage wagon" in 1767, which took passengers from Jamaica to Brooklyn three times a week for 2 shillings, or 3 pence a mile for any distance in between. Alexander Hamilton recorded a visit to a Jamaica tavern in 1744, where his party "paid dear for our breakfast which was bread and mouldy cheese, stale

beer, and sour cider" (Herndon 1974:10-12,16). The sour cider was likely a local product, from the products of the numerous orchards which dotted the landscape.

As an important transportation hub, Jamaica was occupied by the British in 1776 during the Revolutionary War. After the Battle of Long Island in Brooklyn, the retreating Continental soldiers dug their rifle pits approximately 4,000 feet southwest of the St. John's campus at what is now the intersection of 150th Street and 85th Drive (Willensky and White 1988:783). After they were gone, British soldiers were billeted in most houses, and troops camped in the hills north of the village during the winter. Some soldiers remained as late as 1783, but the occupation had its benefits, since the officers and men supported the local economy, mainly the taverns and inns. It was the army's seizure of local resources that probably adversely affected a greater part of the population. The confiscation of cattle and sheep caused a food shortage. The great demand for wood for cooking, heating and construction, particularly during the winters, meant that many orchards were cut down and fences and buildings stripped. Among other structures, the jail and the old court house were torn down for building materials. After the war, the county court moved to Hempstead, because there was no longer any place to meet in Jamaica (Herndon 1974:14-15; Onderdonk 1876:7,8).

Timothy Dwight, who visited the town in 1804, reported about 100 houses, three churches and the academy mainly along Jamaica Avenue in this "customary resort" for New York. Vacationers, and later wealthy country residents and retirees settled in Jamaica village (Herndon 1974:17,19-21).

By 1836 Jamaica had grown into:

> A neat and pleasant village, approached by roads running through a district highly cultivated and richly adorned, with splendid country seats and productive farms . . . It contains one Presbyterian, one Episcopalian, one Dutch Reformed churches, each with its tower and belfry, giving grace to the town, and one small plain Methodist meeting house, all of wood, as are most of the dwellings. Two academies are incorporated; the Union Hall, for males; the other for females; the fireproof office of the county clerk and surrogate, established here by special act of assembly; two printing offices, publishing weekly journals, two physicians, three lawyers, seven stores, four inns, and the usual handicrafts, and 140 dwellings, generally two stories high, many of them large and commodious, surrounded by grass lots and shrubbery; inhabited by retired merchants from New York (Thomas Gordon, in Herndon 1974:24).

The town's growth is attributable to a number of improvements in transportation which occurred during the first half of the 19th century, solidifying Jamaica's position as the transportation hub of Queens County. The first was the rebuilding of the road to New York by the Brooklyn, Jamaica & Flatbush Turnpike Company in c.1809. The eastern terminus was present Jamaica Avenue at 168th Street, but was later extended to

Hempstead and Jericho. This turnpike was privately operated until 1897, and tollgate houses were still standing during the 20th century.

Another important event was the creation of the Brooklyn & Jamaica Railroad Company in 1832. The first steam trains from the ferry landing in Brooklyn reached Jamaica in 1833. The company was a financial failure, but in 1836 the line was leased by the Long Island Railroad Company (LIRR), which had been formed in 1834. The LIRR extended the line and ran cars as far as Hicksville by 1837, and Greenport was reached in 1844, from whence passengers debarked for a ferry across Long Island Sound. The line, which ran approximately 5 block south of the St. John's University parcel, was an important link in the New York to Boston route, for which an all overland route was not considered possible, that is until it was completed in 1848. This event forced a difficult reorientation of the LIRR toward local Long Island traffic (Smith 1958:1,4,15).

Another important transportation improvement was the replacement of the horsecar lines with trolleys in 1887. As Jamaica became cheaply, quickly and easily accessible to workers, and with the consolidation of Queens County with New York City in 1898, commuters began to dominate the population. Agriculture declined, as large estates were broken up and groups of single-family suburban residences were constructed.

The future St. John's University site, however, remained vacant (Beers 1873) (Figure 4). Estates and large middle class houses dominated the surrounding area, while to the south of Jamaica Avenue, smaller lots had a higher concentration of middle and lower class dwellings, as well as industrial structures (Smith 1958: 30-32). In 1909, Garrett Van Sicklen owned a 49.6 acre parcel on the north side of Union Avenue (now Turnpike) across from the future St. John's University campus; it contained a dwelling, a large barn and two smaller outbuildings (Hyde 1909). Van Sicklen Avenue later became 81st Avenue, implying that his estate holding originally extended further south.

Another large dwelling was south of 82nd Street and the lands of the future campus (Sanborn 1911). The campus site itself was vacant except for a few small buildings, but the property had been named "Hillcrest of Jamaica," and the location of proposed streets had been mapped. The project parcel was part of two larger vacant lots, the 31 acres on the west belonging to D.K. James and the 29 acres on the east to W.E. Wykoff.

As late as 1934, these planned but un-regulated "Hillcrest" streets were still depicted on Sanborn maps (Figure 6).

Hillcrest Golf Club

The subdivision of the property, with all its planned streets, never took place. Instead, the projected 100+ acre development became the Hillcrest Golf Club, with an eighteen-ole course and a large clubhouse (Hyde 1928; Figure 5). It was one of nine golf courses north of Grand Central Parkway between Alley Creek on the east and Flushing

Meadow Park on the west (WPA 1939). An undated topographical map shows the course layout, with several of the greens located on knolls, the largest of which was on the project site (St. John's University; Figure 7). Here, the 16th hole was on the 125' contour line of the 150' high mound. Typically, golf course designs incorporate existing landscape features, e.g., hillocks and ravines, into an artificial landscape of tees, fairways, and greens. It is impossible to discern from the existing topographic maps and historic photographs of the golf course precisely how much of the project site knoll was natural and how much was a contoured landscape (St. John's University). Regardless, the elevated 16th hole was subsequently leveled and now serves as a paved parking lot.

The large two-story frame clubhouse stood at the corner of Union Turnpike and Utopia Parkway, removed from the project site. It later served the new St. John's University campus as everything from locker room space for the school athletes to reception and meeting rooms for alumni, faculty and staff functions. The building was razed in the early 1960s when it became too expensive to keep up without extensive renovations, and other buildings had been erected on the campus (Ibid.).

St. John's University

St. John's University was founded in 1870. It began in Brooklyn in a small wooden farmhouse with five Vincentian Fathers as faculty and 40 students. Within twenty-five years the student body had grown to 300 and a three-winged building, still in use, had been constructed. By 1930, there were uptown and downtown divisions with 5,198 students and a faculty of 168. The existing space had been rapidly outgrown, and the administration sought a property where larger and more modern facilities could be built. Since St. John's University was not then a residential college, one of the prime criteria for its location was convenience to good public transportation.

In 1936 the Vincentian Fathers purchased the 100 acre Hillside Golf Club (St. John's University 1956). There were two stations of the IND subway adjacent to the property, a BMT station was nearby, bus service was convenient, the Tri-boro Bridge gave access to Manhattan and the Bronx, and the Jamaica Railroad station was only a ten minute walk away. According to a press release prepared for the college newsletter, the old Hillcrest Golf Club provided "a beautiful 100-acre tract of rolling, wooded land...an ideal site for a metropolitan education center, a part of New York City yet remote from all its disturbances, permanently rural in an urban setting that not even the passage of time will change" (St. John's University: n.d.). According to Salvatore Ciampo, St. John's University Director of Design and Construction, the priests kept the three holes of the golf course in the southwest part of the campus, including the project parcel, for their own use (personal communication, February 8, 2002).

Development of the new campus was delayed until 1946 by World War II, but a grand plan had been formulated. Thirteen new buildings were to be constructed, at an estimated cost of $25,000,000, with the development program culminating with the centennial of the university in 1970. The Liberal Arts building was the first to open, in 1955, with a student body of over 2,000. Next were the Science-Pharmacy Hall and the

Faculty Residence, housing a chapel and about 60 priests, both targeted to be completed in 1958. The fourth building was the Library (St. John's University 1956).

The Federal Government leased the southwest corner of the campus from the university and, in 1959, erected the Second Lieutenant Thomas J. McDonald Army Reserve Training Center north of the project parcel. The Army building, fronting on Goethals Avenue and outside the project parcel to the north, is still standing (Blythe E. Roveland-Brenton, St. John's University Archivist, personal communication February 8, 2002). Shortly thereafter, during the construction of the World's Fair in the early 1960's, fifty feet was shaved off the top of the 150' high mound on the site and sold to the fair administration to fill in the swamp on the proposed Flushing Meadows Fair site (Salvatore Ciampo, personal communication, February 8, 2002). This severe grading is evident through a comparison of the topographic map from the golf course era (Figure 7) and the most recent U.S.G.S. topographic map (Figure 1).

An Athletic Center-Alumni Hall and Athletic Field and Stadium had been added by 1983, as had the Student Center, the Center for Asian Studies, a building for faculty offices and additional classrooms.

The only evidence for any buildings ever being on the project parcel itself is the still extant, small electrical substation in the most southwestern corner of the property. The remainder of the project site is currently in use as a parking lot and staging area for the current building program: construction of dormitories.

V. CONCLUSIONS AND RECOMMENDATIONS

Although overwhelming evidence exists that Native Americans exploited the natural resources of Long Island for thousands of years before the arrival of Europeans, the project site location has none of the features that would have attracted these people for anything except hunting and perhaps gathering wood. Settlement pattern data of the prehistoric culture periods show a strong correlation between habitation and/or processing sites and a fresh water source, the confluence of two watercourses, proximity to a major waterway, a marsh resource, and/or well-drained, elevated land. Only the latter applies to the immediate project parcel.

Known settlement areas were at the head of Flushing Bay over 1.5 miles to the west and at Alley Pond 1.5 miles to the east. The nearest source of fresh water was a pond and stream 3,000 feet to the north/northwest. The main Indian trail and the beaver pond that gave Jamaica its name are over a mile to the south. Boesch gives the areas near the project site (north of Union Turnpike, the southeastern part of the campus and the area south of Coolidge Avenue) a high sensitivity rating, but he does not rate the project site as highly sensitive. It is unlikely that the project site was ever heavily exploited by Native Americans.

Native American sites are rarely buried more than two to three feet below the surface. In the case of the St. John's University parcel, if the project site area had experienced Native American exploitation, the early twentieth century manipulation of the landscape to create the Hillcrest Golf Club would have more than likely severely impacted subsurface resources. In addition, according to cartographic comparisons and eye-witness accounts, the former 150' knoll that was the site of a green for the Hillcrest Golf Club was truncated; at least 50' of topsoil and substrata were "shaved" off the top of the knoll for use as fill at the World's Fair. This action destroyed any potential Native American archaeological resources.

There is no evidence for any buildings on the project site during the historic period, except for a modern electrical substation in the most southwesterly corner of the project site. In any case, the leveling of the mound would also have totally destroyed any historical archaeological resources.

No further archaeological consideration is recommended.

REFERENCES

Beauchamp, William M.
1980 *The Aboriginal Occupation of New York*. Reprint of 1900 edition, AMS Press, New York.

Beers, F. W.
1873 *Atlas of Long Island, New York*. Beers, Comstock & Clive, New York.

Boesch, Eugene J.
1997 *Archaeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of the Borough of Queens.* Prepared for the New York City Landmarks Preservation Commission.

Bolton, Reginald P.
1972 *Indian Life of Long Ago in the City of New York*. Enlarged edition. Harmony Books, New York.

Brodhead, John R.
1853 *History of the State of New York*. Harper and Bros., New York.

Brumbach, Hetty Jo
1986 "Anadromous Fish and Fishing: A Synthesis of Data from the Hudson River Drainage." *Man in the Northeast*. 32:35-66.

Ciampo, Salvatore
2/8/02 Director of Design and Construction, St. John's University. Personal Communication.

Eisenberg, Leonard
1978 "Paleo-Indian Settlement Pattern in the Hudson and Delaware River Drainages," in *Occasional Publications in Northeastern Anthropology*, vol. 4.

Grumet, Robert Steven
1981 *Native American Place Names in New York City*. Museum of the City of New York, New York.

Herndon, Joseph L.
1973 "The History of the Development of Jamaica, NY." In *Jamaica, Queens County, New York: Aspects of Its History*. (T. H. M. Prudon, ed.) Long Island Collection, Queens Borough Public Library.

Hyde, E. Belcher
1909 *Atlas of the Borough of Queens*.
1928 *Atlas of the Borough of Queens*. Vol. 3A-2, Plate 25.

Jogues, Isaac
1862 *Novum Belgium: an Account of New Netherland 1633-1634*. Privately printed, Collection of the New York Public Library.

Kearns, Betsy, Richard Schaefer and Cece Kirkorian
1996 Queens Family Court and Family Court Agencies Facility, Jamaica Avenue, City of New York Department of General Services. Phase 1A Archaeological Assessment. Prepared by Historical Perspectives, Inc. for Edwards and Kelcey, Inc.

Kraft. Herbert. C.
1991 "The Indians of the Lower Hudson Valley at the Time of European Contact." *The Archaeology and Ethnohistory of the Lower Hudson Valley and Neighboring Regions: Essays in Honor of Louis A. Brennan*. Herbert C. Kraft, ed. Occasional Publications in Northeastern Anthropology, No. 11:193-222. Archaeological Services, Bethlehem, CT.

Lavin, Lucianne
1988 "Coastal Adaptations in Southern New England and Southern New York." *Archaeology of Eastern North America*. 16:101-120.

Munsell & Co.
1882 *History of Queens County New York, with Illustrations, Portraits and Sketches of Prominent Families and Individuals*. Part 5. W. W. Munsell & Co., New York.

Onderdonk, Henry Jr.
1876 "Jamaica Centennial, July 4th, 1876." Long Island Collection, Queens Borough Public Library.

1865 *Queens County in Olden Times*. Charles Welling, Jamaica, New York.

Parker, Arthur
1920 "The Archaeological History of New York." Part 1, *New York State Museum Bulletin*. Nos. 237/238, pp471-743.

Ritchie, William
1979 *The Archaeology of New York State*, Revised edition. Harbor Hill Books, Harrison, NY.

Roveland-Brenton, Blythe E.
2/8/02 Archivist. St. John's University. Personal Communication.

St. John's University Archives (St. John's University)
Vertical files: History of University. Blythe E. Roveland-Brenton, Ph.D., Archivist. 8000 Utopia Parkway, Jamaica, NY 11439.

Sanborn Map Company
1911 *Atlas of Queens County*. Sanborn Map Company, New York.
1934
1983

Schaper, Hans F.
1993 "Oysters and Settlement in the Lower Hudson Valley." *The Bulletin: Journal of the New York State Archaeological Association*. 106:24-36.

Smith, Carlyle Shreeve
1950 "The Archaeology of Coastal New York," vol. 43, part 2, Anthropological Papers of the Museum of Natural History, New York.

Smith, Mildred H.
1958 *Early History of the Long Island Railroad 1834-1900*. Salisbury Printers, Uniondale. New York.

Thompson, Benjamin F.
1843 *The History of Long Island from Its Discovery and Settlement to the Present Time*. Second edition, 2 vols. Gould, Banks & Co., New York.

Walling, H. F.
1859 "Topographical Map of the Counties of Kings and Queens" (New York Public Library).

Willensky, Elliot and Norval White
1988 *The AIA Guide to New York City.* Harcourt Brace Jovanovich, New York.

Witek, John C.
1987 "A Preliminary Report Concerning a Unique Tangency of Susquehanna Tradition and Wading River Traits at a Buried Multi-Component Site on Shelter Island, New York." *NYSAA Journal*, 97(Fall):21-29.

Works Progress Administration (WPA)
1939 *Borough of Queens Map.*

Wyatt, Ronald J.
1982 "The Archaic on Long Island," in *The Second Coastal Archaeology Reader*, vol. V (J. Truex, ed.). SCAA, Stony Brook, NY.

JAMAICA QUADRANGLE
NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)

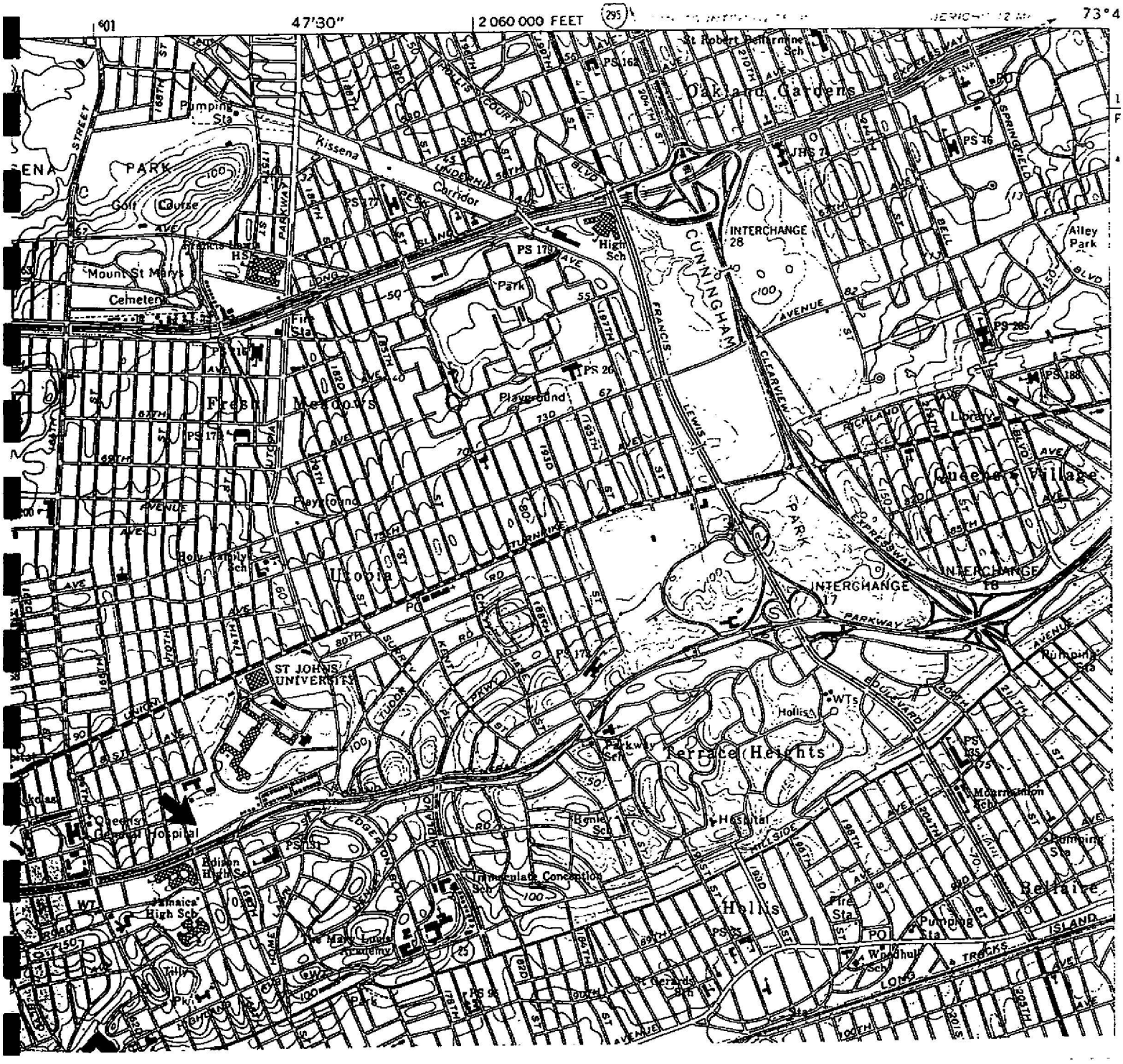
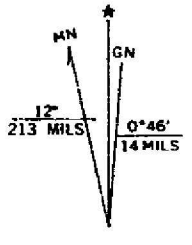
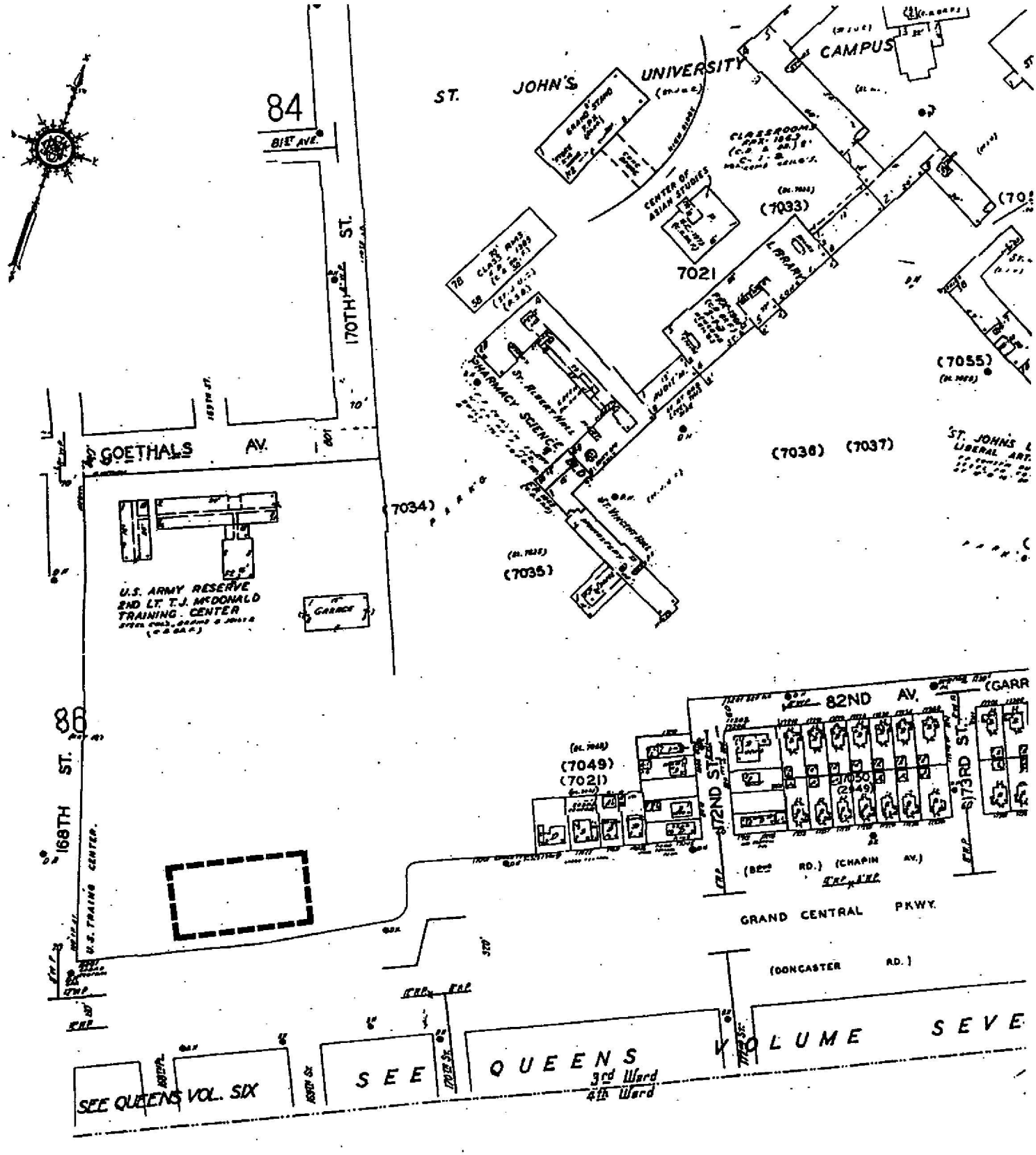


Figure 1. Current U.S.G.S. Topographical Map
Scale - 1:24000





--- Approximate Site Location

Figure 2. St. John's University Parking Expansion Project Site Current Sanborn

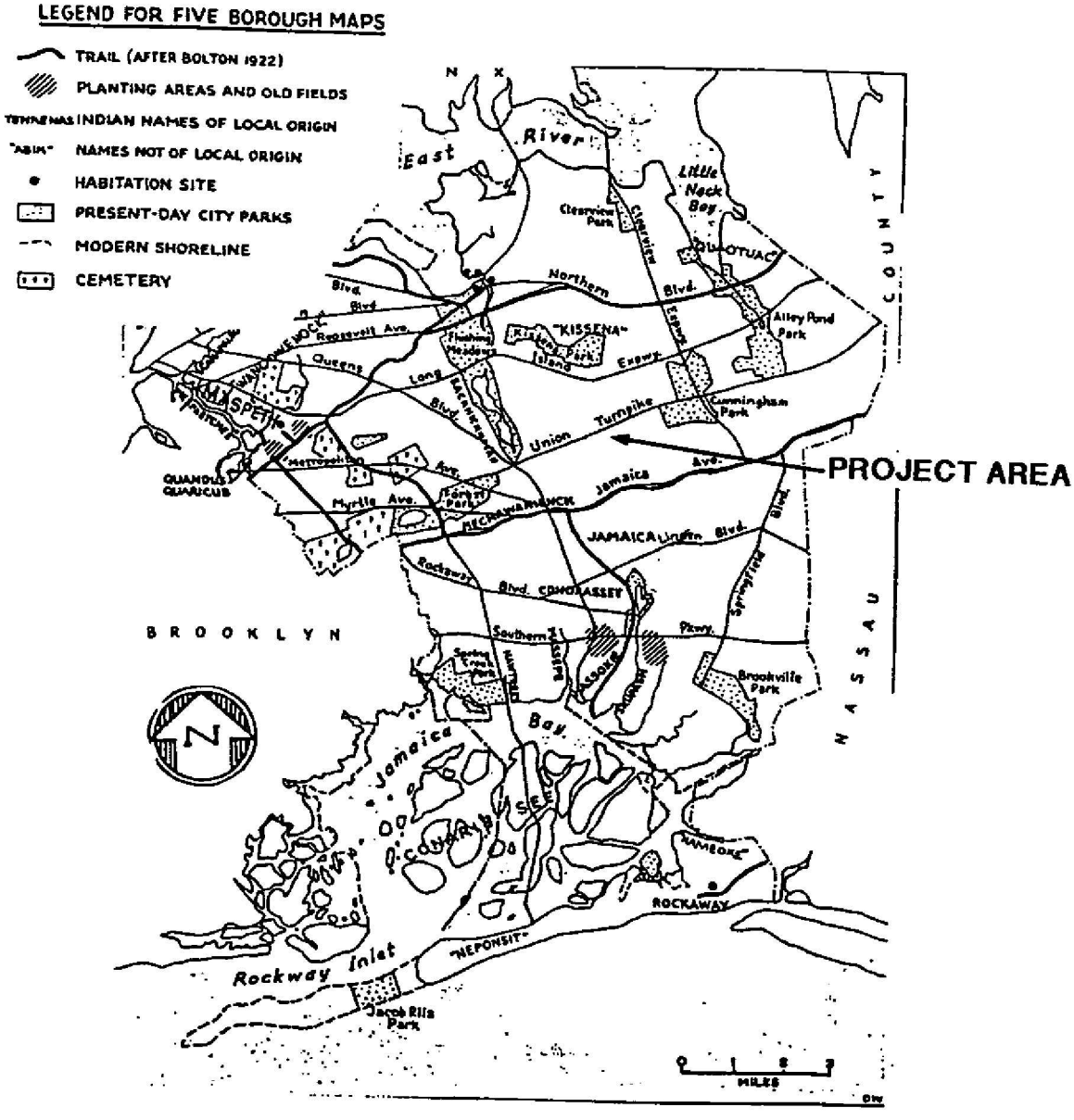


Figure 3. Grumet, Native Trails, Planting Areas and Habitation Sites, 1981

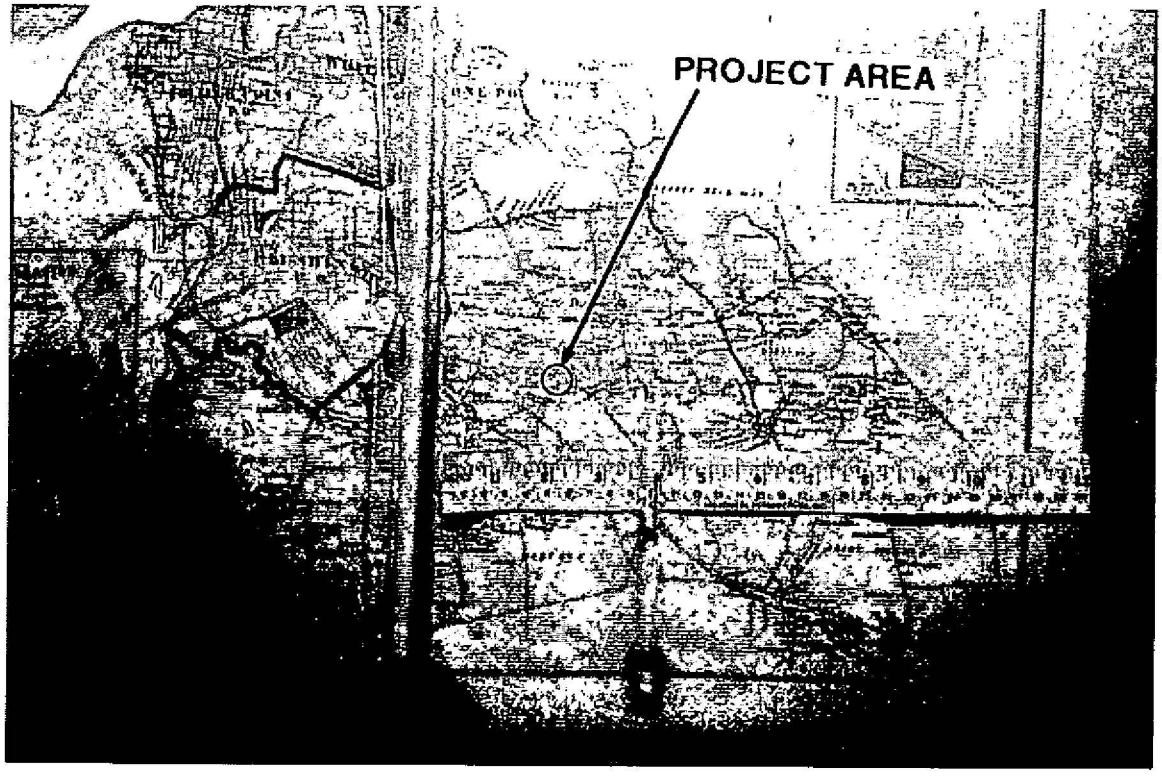


Figure 4. Beers, Atlas of Long Island, 1873

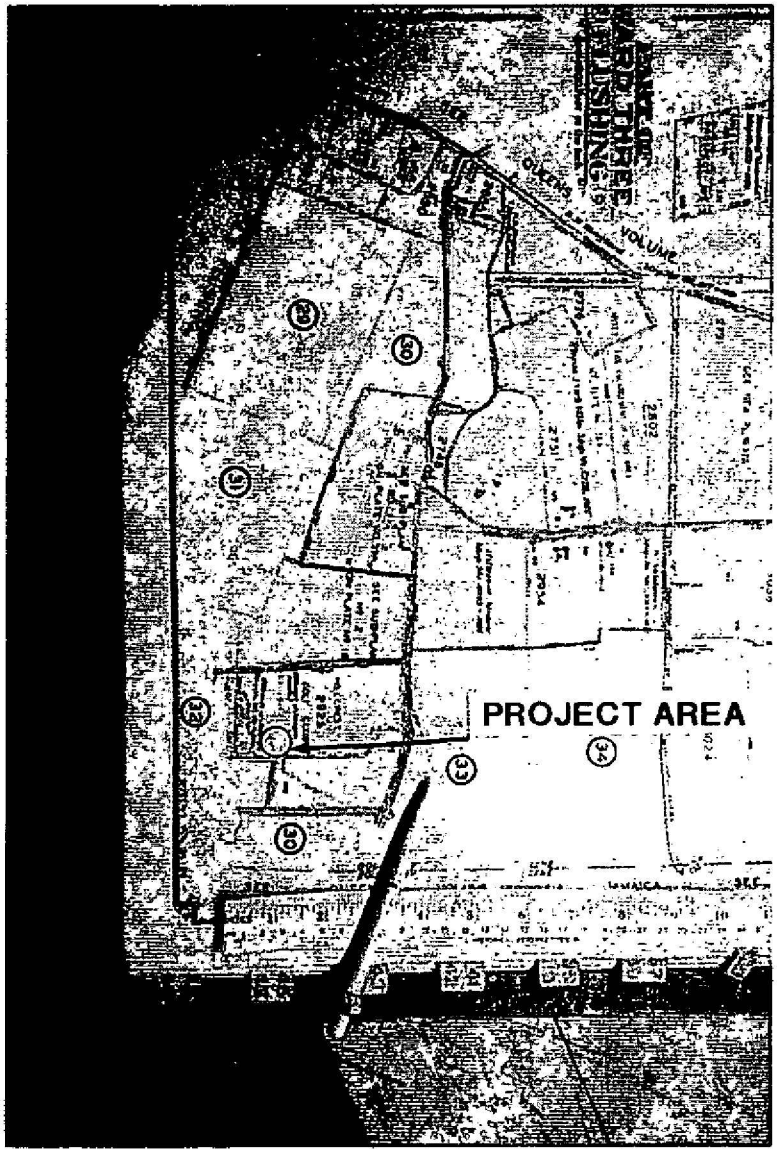


Figure 5. Hyde, Atlas of Queens, 1928

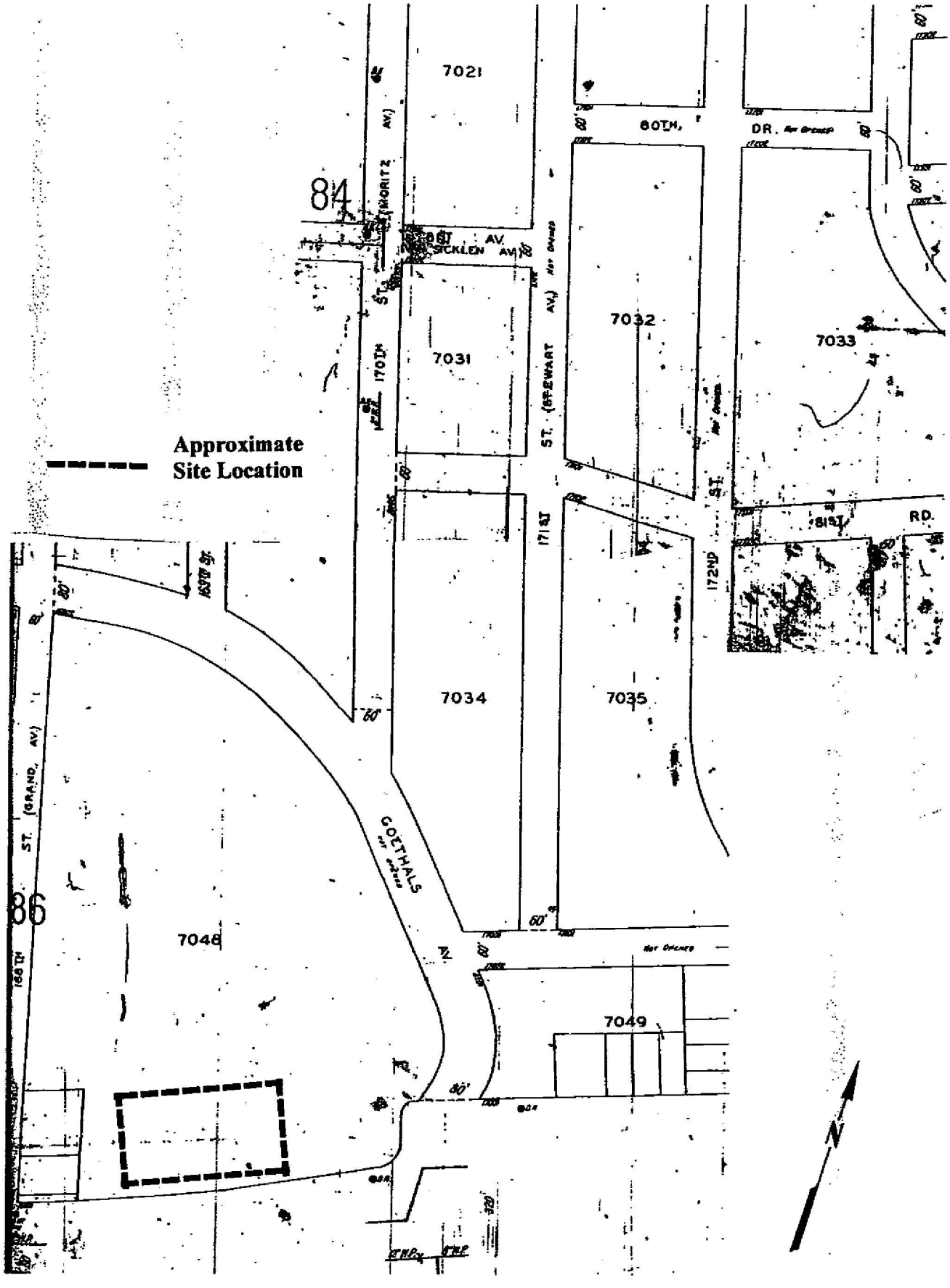


Figure 6. Sanborn, Borough of Queens, 1934

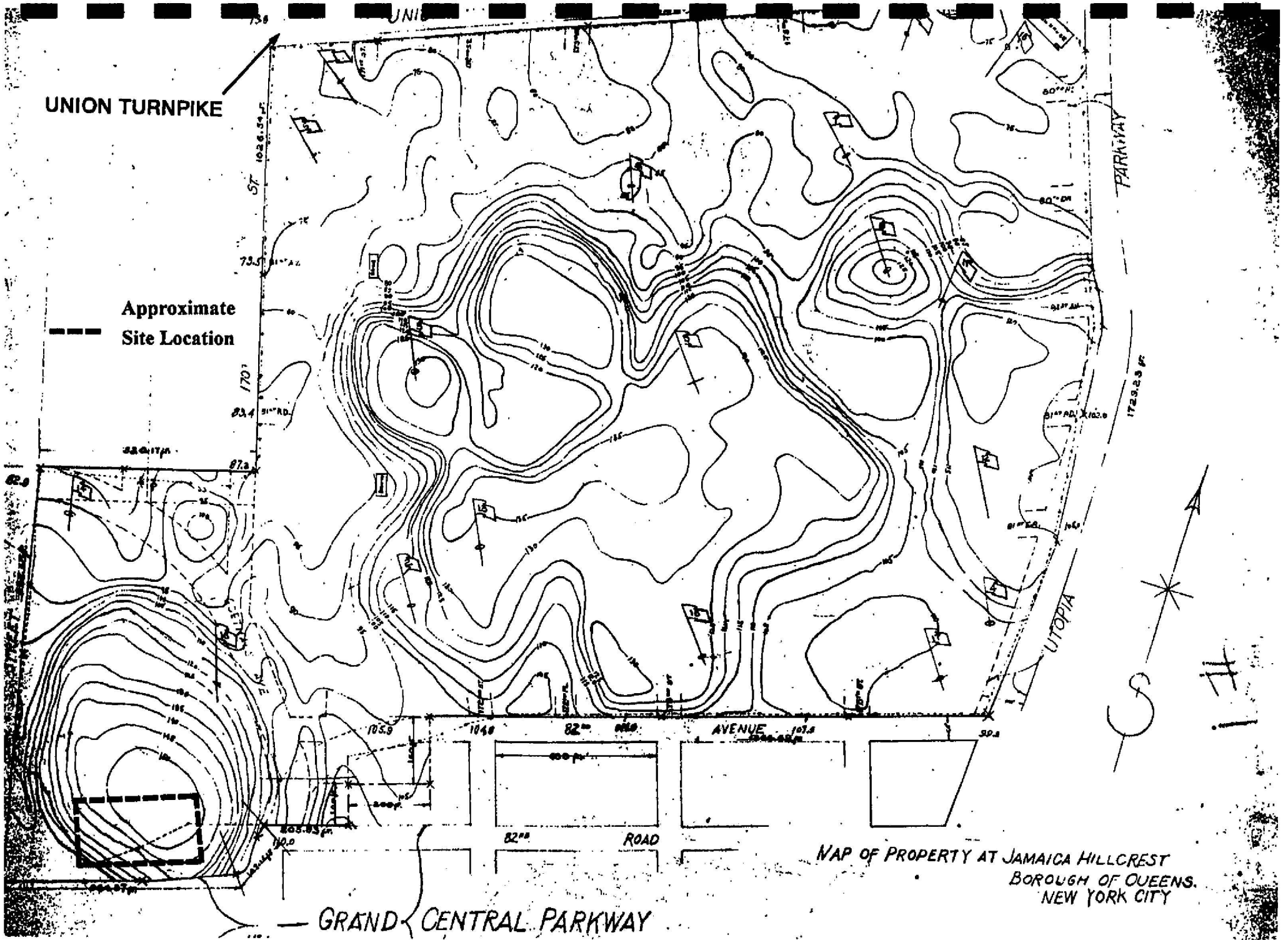
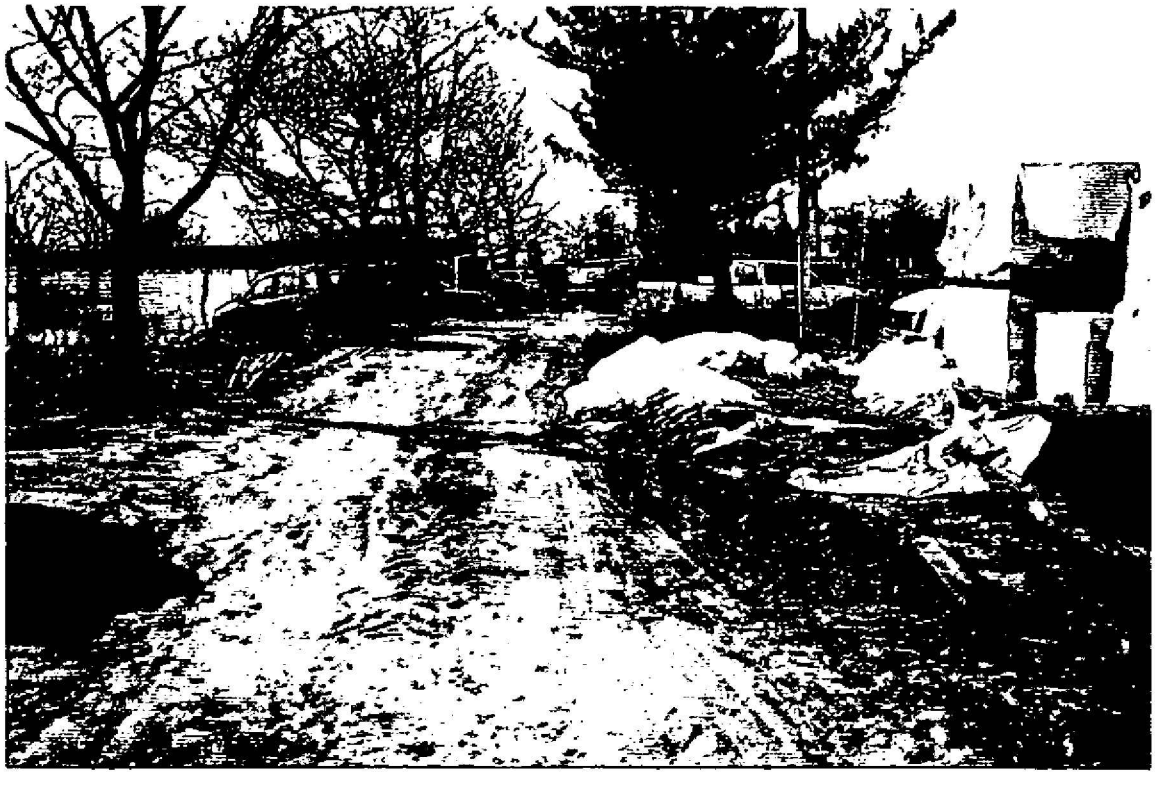


Figure 7. Map of Property at Jamaica Hillcrest (St. John's University Archives)

Photograph A
St. John's University Parking Expansion
Project Site
View: north to south

Photograph B
St. John's University Parking Expansion
Project Site, southern boundary along Grand Central Parkway
View: east to west



Photograph C
St. John's University Parking Expansion
Project Site, University dorms to the left
View: west to east