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HUNTERS POINT
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PHASE 1A ARCHAEOLOGICAL ASSESSMENT REPORT

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PHASE IA ARCHAEOLOGICAL ASSESSMENT REPORT

for the

HUNTERS POINT SITE

QUEENS, NEW YORK

CEQR 85-134Q

Prepared for Allee King Rosen
& Fleming, Inc.
117 East 29th Street
New York, NY 10016

Prepared by Historical Perspectives, Inc.
P.O.Box 331
Riverside, CT 06878

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Primary authors and project directors: Betsy Kearns and Cece Kirkorian
Contributing author: Vincent Seyfried
Researcher: Richard Schaefer

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I. INTRODUCTION

A joint venture of the New York City Public Department Corporation and the Port Authority of New York and New Jersey proposes to develop a c. 92 acre parcel on the Queens shore of the East River. As planned, the project will be a mixed-use development containing commercial offices, retail stores, residential units, and civic, community and recreational facilities. The project area is bounded by Newtown Creek on the south, 2nd and 5th Streets on the east, a canal on the north one block north of 46th Avenue, and the East River on the west. (Figure 1 is a project site map.)

Prior to approval of the proposed action, City Environmental Quality Review requirements must be satisfied. An archaeological assessment is one of the requirements. The purpose of the "Phase IA Archaeological Assessment Report" is to ascertain the potential type, extent, and significance of any cultural resources which might be present on the site. The archival research documents both the possibility that the Hunters Point site hosted prehistoric and/or historic resources, and the likelihood that such resources have survived the subsurface disturbances accompanying cycles of development. The following assessment of sensitivity, prepared by Historical Perspectives, Inc., serves to determine whether or not the proposed action may result in significant adverse impacts to potential archaeological resources on the project parcel.

II. METHODOLOGY

A Phase IA archaeological sensitivity assessment is based on documentary research and a pedestrian survey (or walk-over) of the site. No subsurface testing is involved. The purpose of the archival study and survey is mandated by review agencies in order to address the issues of 1) the potential of the Hunters Point site to have hosted significant prehistoric/historic archaeological resources, and 2) the possibility that any such resources may have survived the subsurface disturbances concomitant with urban development.

A. Documentary Study

1. Information as to whether or not there are already inventoried archaeological sites on or in proximity to the project parcel was requested and received from the New York State Museum and from the New York Historic Preservation Office. (See Appendix 1.) Federal and City lists of landmarked sites were also searched.

2. Available soil boring logs, landfill information, and buildings department files were researched in order to compile a record of subsurface disturbance in the project area. Due to the lack of record keeping before the late nineteenth century, the early construction and earth moving history of the subject parcel was in part assembled from maps, atlases and newspaper accounts. Utility lines were taken into account as well as tunnel and bridge placement. (The result of Block and Lot study is presented in toto as Appendix 2.)

3. In order to place the Hunters Point Project Site in an historical context, local and regional histories were reviewed for pertinent material (e.g. French's HISTORICAL AND STATISTICAL GAZETTEER OF NEW YORK and Armbruster's LONG ISLAND LANDMARKS). Vincent Seyfried's 300 YEARS OF LONG ISLAND CITY, a detailed history that includes the project site, was relied on heavily since his research incorporated earlier, important histories of Queens such as Riker's ANNALS OF NEWTOWN, VonSkal's ILLUSTRATED HISTORY OF THE BOROUGH OF QUEENS, and the Munsell and Company 1882 publication HISTORY OF QUEENS COUNTY. The works by Reginald Bolton, Robert Grumet, and Daniel Denton, among others, on Native American activity in western Long Island were researched.

4. Queens has a long history of archaeological research. Antiquarians recorded nineteenth century interest in local Indian artifacts and since the 1920s both professional and avocational archaeologists have conducted digs and published

reports on their findings. Also, artifact collectors have long been active in the borough. Available site reports, photograph collections, journal publications, etc. were reviewed for data specific to the project area - in particular those in the holdings of the Long Island Division of the Queens Borough Public Library.

5. To augment the documentary research described above, interviews were conducted with both amateur and professional archaeologists and historians knowledgeable in Queens prehistory and history.

B. Pedestrian Survey

Several visits were made to the Hunters Point site during which a photographic record of current conditions was made.

C. Street Grid

In order to aid the researchers and the readers in understanding the site's urban evolution, the historical review included detailing the project area's street openings, closings, and name changes through time. (See Figure 14) The first official street was the "Ravenswood, Hallett's Cove and Williamsburgh Turnpike and Bridge Company" which opened in 1840 and 1841 and connected Queens with Brooklyn. It was later called Central Avenue and generally corresponded to the path of today's Vernon Boulevard. The next north-south street moving west was called West Street and is today named 5th Street. It forms the eastern boundary of the project parcel except for the railroad cut between 48th and 49th Avenues which extends to 11th Street. Second Street is the eastern boundary from that same point down to Newtown Creek, the southern boundary. Second Street was originally Front Street. As for the streets that run east-west, starting at the northernmost one, 46th Avenue was West 10th Street. Likewise, 46th Road was West 9th Street, 47th Avenue was West 8th Street, 47th Road was West 7th Street, 48th Avenue was West 6th Street, 49th Avenue was West 5th Street, 50th Avenue was West 4th Street, 51st Avenue was West 3rd Street, Borden Avenue was West 2nd Street. Another block south was once West 1st Street; it no longer exists. Continuing south, 54th Avenue was once Flushing Street, and 55th Avenue was Pidgeon Street. Two other small streets - Dock and Pier - once ran from 2nd Street (Front St.) to the river; River Street ran southerly from Dock Street to Newtown Creek. (See Figure16 , an 1891 Atlas for an illustration of the early configuration.)

III. ENVIRONMENTAL SETTING

The northeastern shore of Queens is regularly indented by interbay divides - a legacy of both pre-glacial tributaries and the last advance of the Wisconsinian glaciation of 10,000 - 12,000 years ago. (Van Diver, 1985:69) Although not apparent on today's landscape, for thousands of years these bays and estuaries hosted large tracts of wetlands. As can be noted on the attached maps and is discussed in the Historic Era section, until the twentieth century the majority of the project site was situated on such a vast inundated marshland. Therefore, in order to appreciate the prehistoric and historic potential of the Hunters Point site, one must place the project parcel in the context of its pre-nineteenth century condition.

Hunters Point on western Long Island is physiographically part of the Atlantic Coastal Plain. (Kearns and Kirkorian, B 1986) Long Island is the top of a Coastal Plain ridge formation that is covered with glacial drift. In reality the plain is an elevated sea bottom demonstrating low topographic relief and extensive marshy tracts. (Eisenberg, 1978:7) Continental glaciation affected the surficial geology of Long Island as the glacier advanced and receded at least three times in the last million years. "At climax, Wisconsin ice reached to Long Island. The island is not much more than an enormous sand and gravel deposit. The Harbor Hill moraine forms the northern fluke of the island, and the older Ronkonkoma moraine forms the southern fluke. The rest of the island is largely covered with so-called outwash, sand and gravel carried southward by meltwater streams that washed off the ice and over the moraines. (Van Diver, 1985: 32; See Figure 2) For approximately 3,000 years the project site was part of a meandering creek system. The flow of ground water on the Hunters Point site is toward the East River rather than southward toward Long Island Sound as is more generally the case in Queens. (Roy F. Weston Report, 1985:4-7) Most of the projected area lies within the 100 year flood plain.

"In general, the site is underlain by fill which overlies a thin layer of natural soils which in turn overlies" bedrock. (Ibid.,4-6) Currently the topography of the project area is mostly low and flat, registered between the 10 and 25 foot contour on the USGS Brooklyn quandrangel (7.5' series, 1985; see Figure 3). This is the result of massive earth moving - both grading and filling - during the historic era.

Vegetation in the project area consists primarily of flora, such as ailanthus trees and weeds which grow in disturbed areas, but there are exceptions. No fauna were observed, although the

presence of rats in a waterfront setting is inevitable. The current usages of the subject parcels are commercial and industrial. There are a few unused plots; some contain vacant buildings and some have no structures. (the remnants of railroad activity in the area are documented in Thomas Flagg's report of May, 1988)

IV. PREHISTORIC ERA

Human settlement in the southern New York area prior to 13,000 years before present (B.P.), the end of the pleistocene, has not been documented and such a discovery is not anticipated. However, archaeological evidence does indicate human occupation of coastal New York by 13,000 to 10,000 years ago. Native Americans continuously occupied the metropolitan area until after European settlement in the seventeenth century. This occupation is divided into distinct cultural periods discussed below. However, there is no extant, specific knowledge that the project area ever hosted aboriginal activities. Therefore, in order to assess the potential for prehistoric resources in the Hunters Point project area, we must

(1) analyze the topographical, biotic, and climatic characteristics of the project area through time;

(2) assess the likelihood that Native Americans would have exploited the environmental niches provided by the project area through time; and,

(3) evaluate the possibility that the integrity of any such potential resources has survived the destructive impacts concomitant with urbanization.

Although the Hunters Point site borders the East River, it must be appreciated that this current shoreline is relatively new and does not correspond to the shoreline of 10,000 years ago, 3,000 years ago, or even 150 years ago. And, although the current landscape appears relatively level, soil borings information and bedrock elevation contours identify the northeastern extreme of the project site - Blocks 20 and 21 - as naturally elevated land. (Gruzen, 1985: 32, 137) In order to approach the question of prehistoric site potential we must identify periods of time when a lowered sea level caused (1) the entire project area to be elevated above mean high water and/or (2) the sandy hillocks dotting the marshland were exposed and thus be hospitable for human occupation and correlate these time periods with known cultural patterns.

Paleo-Indian Period

"Glacial recession from Long Island was probably complete by about 16,000 years B.C., leaving two terminal moraines and deposits of glacial till and outwash and lacustrine sediments, mostly coarse gravels (Sirkin 1974; Sirkin and Mills 1975). A post-glacial conifer cover consisting mainly of spruce and pine was beginning to be augmented by hardwoods such as oak and hickory at that time (Sirkin 1971; Thomas et al. 1975) --- trees which, because of their food value, have much greater utility for man than conifers. A global warming trend about 12,000 B.C. en-

couraged Paleo-Indian settlement of the Northeast. By 8,000 B.C., when Paleo-Indians may well have been present in coastal New York, deciduous species dominated forests all along the eastern seaboard; the Pleistocene megafauna [e.g., caribou, mammoth, mastodon, bison] were rapidly becoming extinct, perhaps with the help of aboriginal hunters, and were being replaced by the temperate-climate fauna that are indigenous today (Thomas et al. 1975:37)." (Gwynne, 1982: 190-191) The characteristic artifact of the Paleo-Indian period is the fluted point. No fluted points with provenience have been reported from Kings or Queens County. (Saxon, 1978: 252) During the 1868 excavation of the 45th Road basin on the Hunters Point site, however, a mastodon bone was recovered demonstrating that the area supported the big-game thought to be a major food source for Paleo-Indians. (Seyfried, 1984: 92) The depth of the mastodon discovery (13 feet below the 1868 grade) is a reflection of both naturally occurring soil accumulation and the nineteenth century introduction of fill which began in 1852. Adding to the confusion when trying to locate potential Paleo-Indian sites is the rise in the sea level since 10,000 years ago (roughly 75-80 feet) and, to a much lesser degree, crustal subsidence since that time.

Archaic Period

By about 5,000 B. C. the modern distributions of both flora and fauna had been achieved. Environmental changes immediately before and after this stabilization are reflected in the Native American culture of the time, referred to as the Archaic stage (7,000 - 1,000 B.C.). "With the warmer and drier climate, the tundra and spruce forests disappeared and deciduous woodlands gradually appeared. The oak and hickory woodlands of coastal New York attracted mast-easters like the white-tailed deer and wild turkey. During this later post-glacial period, the melting ice no longer poured large amounts of meltwater into local rivers and streams. The slower stream flow allowed the growth of marsh area and mud flats that encouraged the influx of migratory waterfowl and the growth of numerous edible plant species and shellfish. The subsistence and settlement systems of Archaic groups were based on a restricted wandering system which consisted of seasonal movements to and from base camps located near these resources." (Kearns, et al, 1987: 7)

"The Paleo-Indian, Early Archaic, and Middle Archaic cultural periods thus are poorly represented in coastal areas of the Northeast, but by Late Archaic times sea level was so close to present levels that its subsequent small rise has failed to obliterate much of what remains on Long Island from that period." (Gwynne, 1982: 192) Recently, there has been a demonstrated interest by New York archaeologists to consider the realistic potential for investigating these long-submerged sites. (Bert Salwen, personal communication to C. Kirkorian, 3/11/88; see also Kearns and Kirkorian's "East River Landing: Phase IA Archaeological Assessment Report," Mss. on file with Allee, King, Rosen, and Fleming, Inc.) However, the known turbulence

and tidal extremes of the East River argue against the survivability of submerged prehistoric resources at Hunters Point (i.e., Paleo-Indian, Early Archaic, and/or Middle Archaic sites not situated on land raised above the floodplain 3000 years ago).

The archaeological record does present a profile of the Archaic culture: small, multi-component sites usually situated on tidal inlets, coves, and bays, particularly at the heads of the latter, and at fresh water ponds on the islands along the New York coastline; and, by the Late Archaic stage, coastal sites and the exploitation of shellfish resources are heavily represented. (Kearns and Kirkorian, 1986a: 9)

Woodland Period

From approximately 1,000 B.C. to the arrival of Europeans, Native Americans of southern New York shared common attributes of the Woodland stage: the advent of horticulture, large semi-permanent or permanent villages, pipe smoking, the bow and arrow, extensive trade networks, and the production of clay vessels. The habitation sites of the Woodland Indians increased in size and permanence as these people continued to extract food more efficiently from their environment. The archaeological evidence from Woodland stage sites indicates a strong preference for large scale habitation sites to be within very close proximity to a major fresh water source, e.g., a river, a lake, an extensive wetland, and smaller scale extractive-functioning sites to be situated at other resource locales, e.g., quarrying sites, butchering stations, shell gathering localities. Late Woodland stage sites of the East River Tradition in southern New York have been noted on the "second rise of ground above high water level on tidal inlets" and situated on "tidal streams or coves" and on "well-drained sites." (Ritchie, 1980: 16) Professor Carlyle S. Smith, who studied and analyzed the distribution of prehistoric ceramics in coastal New York, states that "village sites" are found on the margins of bays and tidal streams. (Smith, 1950: 130)

Seventeenth century ethnographic reports and, to a large extent, nineteenth and twentieth century archaeological reports have dealt solely with the Woodland stage. Alanson Skinner, researching and writing in the 1920s, stated that "all along the shore, wherever one of the many springs or small brooks, shown on old maps emptied into the Hudson or East River, there were small temporary Indian camps." (Skinner, 1961: 52) The shoreline location for these late prehistoric village and temporary camp sites - near tidal inlets or at the margins of bays and tidal streams - has been interpreted as an extension and adaptation of the economic and settlement patterns during earlier periods. Although the most popular paradigm holds that sedentism increased in the Late Woodland after maize or some maize-marine food combination improved subsistence so as to sustain large populations year-round, the marginal fertility of local soils may have precluded coastal New York from this maize-oriented settlement

system. (Lucinda McWeeney, Yale University, personal communication, 5/19/88)

The Hunters Point area, prior to mid-nineteenth century massive topographic changes, was a tidal wetland, dotted with elevated sandy knolls and traversed by fresh water streams and at least one small pond. The tidal estuaries of these streams, and the marsh into which they emptied, provided prehistoric man with an environment of astounding natural richness. These resources included shellfish (some edible genera available all year long), reeds and shrubs (edible - e.g., beach plum and utility - e.g., cord grass and salt hay), water fowl, fish, and small mammals. As outlined above, Woodland Indians preferred well-drained, elevated sites near a large-scale marsh biome.

From a topographical and ecologial analysis Hunters Point would appear to offer great potential for hosting Late Archaic and Woodland period habitation and processing sites. These sites would, most likely, have been situated on the elevated, dry edges of the wetland and on the flat terraces of the well-drained knolls. In the southern New York area archaeological deposits of the Late Archaic and Woodland times are not deeply buried, often being revealed through erosion, plowing, or house construction. Also, it is very probable that earlier prehistoric period cultural groups exploited the project area and resources from this earlier time were deposited on lands subsequently inundated by the rising sea level.

Archaeologists not only rely on past environmental components to assess site potential but they also rely on tales of "Indian relics," ethnographic accounts, and published archaeological reports. Our extensive experience in Phase IA documentary work, researching all three of these sources, in both Brooklyn and Queens has as yet failed to reveal any suggestion of known and/or recorded archaeological collections/data from Hunters Point. There is evidence that either a subordinate chieftaincy, the Mispat, or a Canarsee division of Native Americans had settlements scattered above the wetlands of Newtown Creek, between the Laurel Hill and Linden Hill areas - but this is southeast of the project site. (Grumet, 1981: 27; Kearns and Kirkorian, 1986b: 18-20) Both the New York State Museum and the Historic Preservation Office/Field Services Bureau (SHPO) place prehistoric sites in the Astoria section of Queens, north of the subject parcel but also located on the East River. Directly north of Hunters Point 1.4 miles, approximately located at present day Rainey Park, a shellheap and aboriginal artifacts were discovered by W. L. Carver and reported by Reginald Bolton. (Bolton, 1922: 174-176) The New York SHPO has identified the Rainey Park area as the location of Bolton's Sunswick Shell Midden Site/Carver collection (#A081-01-0100). Our earliest maps of the area do show the Rainey Park area as dry elevated land at the confluence of the East River and Sunswick Creek. (Kearns, et al, 1988b: 12)

Bolton summarized the potential for prehistoric exploitation of the Hunters Point project area:

> It would seem natural for the neck of land which these creeks [Sunswick to the northeast and Newtown to the southeast] enclosed to afford shelter to the aborigines, especially as the waters between the Hunters Point shore and that of Minnahanonck, or Blackwells Island [Roosevelt Island], must have afforded food fishing, and the shallows of Mespaetches [Newtown Creek] should have been the nursery of countless oysters. (Bolton, 1922: 176)

However, Reginald Bolton's reconstruction of Indian paths and trails, often used as an initial indicator of potential sensitivity, does not show a path crossing or abutting this particular section of the East River waterfront. (see Figure 4) Lightfoot's recent compilation of published archaeological sites does not include notation within close proximity to Hunters Point. (Lightfoot, et at, 1985:61; see Figure 5) Ralph Solecki, retired Columbia University professor active in Queens archaeology since the 1930s, has mapped many of the sites that he knows were extant in the Borough of Queens prior to the 1940s. Hunters Point is not included on Solecki's map (see Figure 6) and, more importantly, is not referred to or listed on Solecki's field photograph files (maintained at the Long Island Division of the Queens Borough Public Library, Merrick Avenue, Jamaica). (Kearns and Kirkorian, 1986b: 20-21)

The New York SHPO and State Museum/Anthropological Services Division were contacted regarding their assessment of prehistoric sensitivity for the Port Authority site. Both offices responded in writing, and do consider the Hunters Point area to host some degree of archaeological potential. (See Appendix 1) This assessment, based on a sensitivity model, relies on a comparison of current geographical and topographical features of known, mapped sited locations with the threatened locations that have undocumented histories. (Philip Lord, personal communication, 5/2/88) Although the SHPO identified the project site as lying "in an area that is archaeologically sensitive," there is no inventoried site in immediate proximity to Hunters Point. The State Museum noted that the Hunters Point site terrain "is similar to terrain in the general vicinity where recorded archaeological sites are indicated," noting an Arthur Parker unnumbered Kings County site (#3613) directly south of the proposed development on the opposite bank of Newtown Creek.

If Hunters Point, under ecological evaluation, appears to have been an ideal location for shellfish harvesting during the Late Archaic and Woodland time periods, why hasn't evidence of this past activity, which usually involves very noticeable detritus, been recorded? We propose that very early, very massive land alterations obliterated the Late Archaic and Woodland period stratigraphy and deeply buried the earlier, inundated deposits

that might have been eroding from the river banks.

Vincent Seyfried, an author of numerous Queens County and Long Island histories, reconstructs, from newspaper accounts, deeds, and maps, Hunters Point in 1850. He writes that the Hunters Point downtown area, the junction of Vernon and Jackson Avenues, "was a small island bisected by Vernon Avenue, hardly more than four blocks wide and a little less than that in length. All the rest of Hunters Point was a vast meadow low-lying and flooded at every tide by the waters of the East River. The primeval salt marshes, criss-crossed by dozens of little streams extended as far northward as 44th Drive and eastward to the present Van Dam Street." (Seyfried, 1984: 75) Vernon Avenue itself had not been opened until 1840, as part of the Ravenswood, Hallett's Point and Williamsburgh Turnpike Road, and the sole existing house in that year, on the banks of Newtown Creek, belonged to a Captain Hunter. (Ibid.) As discussed in detail in the Historic Era section, real estate investments, starting in the early 1850s, irrevocably altered the natural landscape of Hunters Point. Messers Crane and Ely, new partners in the ownership of the Point, undertook the leveling of the sand hill on which the early homestead stood and the filling of the marshland. (Ibid., 83) These drastic changes continued for decades, as reported in 1867: "The swamps which disfigure the neighborhood are fast filling up. About 50 men are constantly employed ... A large hill on the northeast, and one which years back existed immediately back of the ferry have been cut away for filling purposes,... Cellar earth and street dirt are brought from New York also for filling purposes." (Ibid., 92)

Work was simultaneously, horizontally expanding the southern and western land mass of Hunters Point - filling to the bulkhead lines. As reported in an 1852 issue of the Astoria Gazette, "A water front of between 300 and 400 feet is being decked out, and four wide avenues running from the Astoria Turnpike to the river have been opened and will soon be graded. The large hills that have become so familiar to our traveling neighbors are rapidly disapperaring and a second Greenpoint will soon take their place." (Ibid., 84) By the mid-1870s a second phase of filling had commenced - raising the grade, 5 to 15 feet, of the original, low-lying, watery streets west of Jackson Avenue - requiring "Nearly every house in the First ward of the city must be raised to correspond to the new grade..." (Ibid., 105) As the years progressed, the introduction of railroad lines, industrial storage tanks, municipal utilities, massive warehouse and factory construction, and rapid transit tunnels further obliterated any remnants of the original topography of Hunters Point - marshland interrupted by sandy hillocks.

It is highly improbable that intact prehistoric resources survived the generations of earth moving activity that Hunters Point experienced. It is also unrealistic to speculate that long submerged sites situated off the pre-1850 shoreline would have survived the intensive erosional action of the East River.

V. HISTORIC ERA

The concerns of the Landmarks Preservation Commission about historic era resources were expressed on several instances such as a letter from LPC to the Port Authority, conversations between LPC archaeologists and the Port Authority staff members, and conversations between LPC and Historical Perspectives Inc. archaeologists. While it was agreed that the likelihood of the existence of significant archaeological remains was small, the conclusion must be supported by documentary research. Specifically, it was incumbent on the researchers "to document ... the lack of colonial settlements in the project area and that the entire site has been either dredged or filled in the 20th century." (LPC,1987 - See Appendix 3 which is a copy of the letter.) For the accomplishment of these tasks, the site lends itself to a convenient time division based on its development history: 1) 1643 to 1852, and 2) 1852 to the present.

A. 1643 - 1852

The first archival record pertaining to that part of Queens which is now called Hunters Point is a ground-brief of 130 acres granted by the Dutch government of New Amsterdam to Everard Bogardus, a Dutch Reformed Church minister. The acreage, mostly low-lying meadows, streams, and marshes contained a high point next to Newtown Creek at approximately where today's Vernon Ave. would run from Borden Ave. for a few blocks north. (The reader may gain some perspective on this original configuration by studying the maps on Figures 7,8,9,10 and comparing them with Figure 1 which shows the modern street grid.) Because of Bogardus' profession, the hill became known as "Dominie's Hook." In 1647 Bogardus perished in a shipwreck and the estate was officially deeded to his widow, Annetie Jans, in 1652 by the Dutch government and again in 1669 by the English Governor Nicoll. The land was purchased from her heirs in 1697 by Captain Peter Praa, a respected local citizen and property owner, who left the parcel to his daughter, Anne, in 1740. Anne was married to William Bennet and one of their children, Jacob, "bought out the interests of his brothers and sisters in the Hook in purchases made in 1767 and 1780 and so gained sole title. Under him the place gradually came to be known as Bennet's Hook." (Seyfried,1984:75 - and see Figure 11 for the extent of the Bennet holdings) When Jacob died in 1817 he left the land to his daughter who was married to Captain George Hunter; hence the appellation "Hunter's Point" which supplanted earlier ones. After the deaths of Capt. Hunter and his wife, the estate descended to their three sons.

The three sons disposed of their property in 1835 by selling it to Jeremiah Johnson for $100,000. Johnson was a businessman and "a specialist in reclaiming submerged lands,"(Seyfried, 1984:83) and in this instance was acting as an agent for Eliphalet Nott, the president of Union College in Schenectady, N.Y.

to whom he released the title in 1837. After some rather complicated transactions during the ensuing years, Nott arranged a managerial agreement in 1852 with Jonathan Crane and Charles Ely who were to develop the property as a real estate venture. With that agreement a new era began for the Hunters Point area.

The question now arises as to how - physically - the Hunters Point area whose history up to 1852 was described above, corresponds to the current land configuration of the project site. The entire southern portion of the site - from 49th Avenue down to Newtown Creek was outboard of the high water line. In fact, the shoreline lay only slightly west of 5th Street. (Figure12) Dominie's Hook which was inland as far east as Vernon Boulevard was even referred to on occasion as an island among the vast tidal salt marshes of western Queens. (E.g. Seyfried,1984:83 and also see Figure 21) North of 49th Avenue where the project site extends a block further eastward to 5th Street, the original land curves westward. That means that from 49th Avenue to the Canal between 5th Street and where 2nd Street would be if it were extended northward is within the early shoreline. By all accounts that area was occupied by tidal marshes interrupted by low sand hills and a few rock outcrops. It is possible that marsh grasses and salt hay were harvested by the generations of the Bennet and/or Hunter families who owned the property, but it would not have been suitable for farming or habitation without landfilling which did not begin until 1852. Prior to that date, no structures or other indications of usage are referred to or depicted except for the house at Dominie's Hook which was outside the project area. No Revolutionary War incidents or other historic activity of note are mentioned in annals such as Henry Onderdonk's REVOLUTIONARY INCIDENTS OF QUEENS COUNTY. It was not until 1840 that the first road was built in the area. It was called the Ravenswood, Hallett's Point and Williamsburgh Turnpike Road and very nearly followed the path of today's Vernon Boulevard, east of the project site.

No evidence indicating the potential for the existence of significant archaeological resources of the period from 1643 until 1852 was found.

(The above summary was compiled from Seyfried,1984; Riker,1852; Landmarks Preservation Commission,1968 for which full notations can be found in the Bibliography. A wide range of maps was scrutinized; the most pertinent and decipherable of these are included as figures in this report. The topographical description of the area was obtained from a combination of documentary and cartographic sources. Soil borings data for the

site was difficult to find, especially for the northernmost blocks. However, through a persistent search, we were able to obtain what we feel is a sufficient number of them. An analysis of the locations and logs corroborates the archival record. That is, the current, generally level surface was achieved by the placement of varying amounts of fill over low lying, watery terrain. Shallow fill in a few loci indicates higher bed rock. The inclusion of a detailed summary of the data was not germane to this report.)

B. 1852 to the Present

In 1852, Messers. Crane and Ely, managing partners of the Nott property, began to "grade the Hunter Farm, level out the sand hills and stake out the first streets." (Seyfried,1984:83) In 1853 they hired an engineer, Charles Perkins,to survey the heretofore unsurveyed farmland and map it so that building lots could be sold. This map, filed May 16, 1854, is the foundation map for the new village of Hunters Point. (Figure 12) The map shows 16 blocks of the former Hunter Farm laid out in 25 x 100 foot lots, and the new streets 1-10 corresponding to the present streets 54th Avenue to 46th Avenue. The then-existing shoreline is depicted and reveals that the present 5th Street is the first street on dry land. The reader should compare the shoreline shown on this map with the project site boundaries as shown on Figure 1 . If one imagines extending 2nd Street from Newtown Creek northward to the Canal, it is evident that all property outboard of 2nd Street represents landfill deposited after the 1853 Survey. That is, the entire southern portion of the project site below 49th Avenue was below water, and the northern part was shoreline.

There were sound economic reasons for creating viable real estate at this location, but the physical process of doing so was arduous. "In 1853 the hill which formed the nucleus of the estate was levelled and the soil used to extend the shore line at Borden Avenue into the East River." (LPC,1968:2) The ASTORIA GAZETTE commented in October of 1852 that "a water front of between 300 and 400 feet is being decked out, and four wide avenues running from the Astoria Turnpike to the river have been opened and will soon be graded. The large hills that have become so familiar to our traveling neighbors are rapidly disappearing..." (Quoted in Seyfried,1984:84) An 1852 Dripps map also shows the proposed area of development. Note that the paper street grid is laid over an area that is generally marshy although we know that there were some "barren sandhills" (ASTORIA GAZETTE,Nov.4,1852) and rock outcrops. (See Figure 10)

Between 1853 and 1861 substantial progress was made in creating a town where no settlement had previously been. Streets were laid out, buildings were erected, a ferry service to Manhattan was inaugurated, and the Flushing Railroad sited a terminus near 54th Ave. and 5th Street. Still, the little village was a scraggly affair. The coming of the Long Island Railroad in 1861 and the outbreak of the Civil War changed everything. The rail company filled in ten acres (the first known landfill out to what is now 2nd Street) and built car houses, engine houses, machine shops, and a depot. The

FLUSHING JOURNAL noted that "machines are busy driving piles to afford a solid foundation for these structures and a fleet of sloops and schooners are employed bringing materials from various places to fill in with." (Quoted in Seyfried,1984:87) (A U.S.G.S. map of 1858 updated to 1861 shows the impressive rail complex amidst the sparsely settled community. Figure 13) The War Between the States created a huge demand for lumber, oil, and iron wares ,and heavy industry began to locate along the waterfront. These were augmented, of course, by support services for the rail center such as hotels and stores. By May 1865 the FLUSHING JOURNAL recorded the presence of foundries, factories, and stores. In May 1868 Henry S. Anable, Nott's nephew and able manager of the development since 1855, supervised the improvement and dredging of a canal along the line of old 12th Street (according to maps it already existed in some form) so that industrial plants could locate along its banks. This short inlet, extending almost to Vernon Avenue, still exists and marks the northern limit of the Hunters Point project area.

This is how French's GAZETTEER OF THE STATE OF NEW YORK described Hunters Point in 1860:

> ...is a newly surveyed and thinly settled village...It has several manufactories, and is rapidly increasing in business and population...Much of the property given to Union College byRev. Dr. Nott as an endowment is located here, and consists of graded lots...The principal manufactories are a flint glass factory, chemical works, paint and varnish factory, foundery for the manufacters of iron pipes, and an oil and locomotive grease factory...Considerable ship-building is also done here.

A few years later - 1867 - the BROOKLYN TIMES ran an article which detailed who was building what, but more to the purpose of this report also described how the building was being accomplished:

> A dozen years ago the region was a waste of swamps and wild land...Ten years ago it remained destitute of houses, but three years after, when the Long Island R.R. established a depot and the ferry began running, buildings rose and the whole section, swamps included, was mapped into streets...The swamps which disfigure the neighborhood are fast filling up. About 50 men are constantly employed by the College company in this work. The meadows on the south side of a short canal at the north of the village, cut for the convenience of the factories have been drained and filled...A large hill on the northeast, and one which years back existed immediately back of the ferry, has been cut away for filling purposes, and Mr. Peter Halsey of this

> city has recently bought a hill with which he intends to fill swamps purchased by him from the company. Cellar earth and street dirt are brought from New York also for filling purposes.
> (BROOKLYN TIMES,Nov.16, 1867 quoted in Seyfried,1984:92)

Industrial businesses grew apace with the improvements. In May and June 1868 the Long Island Oil Co. extended and filled in their East River frontage near the canal and built a 700 foot dock. Additional sheds were completed on the canal, enlarging their capacity to 35,000 barrels of oil. This company and other later ones such as Charles Pratt's were eventually absorbed by Standard Oil Company. Other oil works and such industries as roofing and phosphates works, coalyards, and an ink plant were established.

The great handicap in Hunters Point and the surrounding towns was that they were low-lying and very vulnerable to flooding. The area was surrounded by water on the west and south and even on the north because of Sunswick Creek, and whenever a storm struck, the East River or Newtown Creek would overflow into the streets. This situation gave rise to a determined effort to raise the grade of the whole village. In 1868-1869 Anable laid a narrow gauge railroad inland to high ground along what is now Queens Blvd. and Sunnyside so that dirt could be moved in cars to the low-lying areas along the waterfront. In addition, he kept men busy using carts and horses to distribute dirt and rock brought in by boats.

The incoporation of Long Island City in May 1870 as a consolidation of the villages of Hunters Point, Ravenswood, Astoria and Bowery Bay to the status of a city made possible the raising of the grade on a larger scale. Instead of the individual efforts of Anable and some other businessmen, the new city of Long Island City began reclamation in earnest. The "First Ward Improvement Commission" was formed in 1874. Commissions were important in these early days because the fledgling Long Island City had no monery. A commission on the other hand could legally issue bonds and so supplement the meager tax moneys doled out for street repair. The commission immediately embarked upon a project that profoundly affected the daily life of the village - raising the grades of Jackson Avenue and the streets crossing it from three to eight feet.

The dirt for all this extensive filling was supplied by James Thomson, a New York lawyer, at 10¢ per cubic yard. Thomson had had the foresight and the right political connections to foresee that the city would need thousands of yards of fill for its low areas and in 1874 he prudently purchased the Maria Van Pelt farm of 30 acres along 43rd Avenue from 31st Street to 45th Street, all of it high ground. Two steam shovels were set to work on the farm and a narrow-guage construction railroad was laid out parallel to Thomson and Jackson

Avenues. Two locomotives, each hauling a long train of dirt in cars, transported the fill where needed.

Although Jackson Avenue was the first road to be done, various side streets were also filled and raised to the new grade. The work went on for years and included the grading, sewering, curbing, guttering and flagging of all the streets in downtown Hunters Point. The FLUSHING TIMES of August 31, 1875 recorded the anguish of homeowners who were saddled with the cost of raising their houses and stores from 8 to 15 feet above the old grades in addition to paying the assessments for the work. The immense project was finally completed in 1880. It was estimated that in the five years that the steam shovels had been at work on the Van Pelt Farm, about one million cubic yards of earth had been shaved from the surface of the 30 acres.

While Long Island City in its official capacity was extensively filling in the downtown area, the commercial companies were no less active in pushing out the old waterfront line. A look at the Beer's ATLAS of 1873 (Fig.14) shows the change in the shore line in the twelve years since the 1858 U.S.G.S. map was revised in 1861. The upper end of 5th Street (old West Street), a swamp and creek in 1861, is now all filled in by the Standard Oil Co. to the bulkhead line and from the canal to 46th Road. Anable has similarly improved his own property between 46th Road and 47th Avenue. Between 47th and 49th Avenues the Warren Chemical Works and a shipyard have pushed out to the bulkhead line.

The most extensive filling has been accomplished by the railroads below 49th Avenue where in 1861 there had been water. The Flushing and North Side Railroad, a rival of the LIRR, had built in 1869 a depot at 51st Avenue and an extension freight yard. The Long Island Rail Road built a large train shed just south of Borden Avenue on heavy fill and a large pier for freight out to the pierhead line. Since the railroad usually obtained 5-year leases of the 34th Street ferry as a part of their train operations, they also filled in at the foot of Borden Avenue and erected a much larger and more efficient ferry house for the 34th Street and the James Slip Ferries. By 1873 even the streets south from the railroad down to 56th Avenue (old Dock Street) had been filled in; this previously underwater property was owned by Union College and its agent Henry Anable, as chairman of the Improvement Commission, took good care to upgrade this tract by filling it up to grade and making it commercially desirable. The point of land marking the junction of the East River and Newtown Creek has accordingly been moved two blocks west (over 1000 feet) south from its 1861 location.

During the 1890's and early 1900's there was little change along the waterfront. (Figure 15 is a view near Borden Avenue c.1890) The Standard Oil Company expanded to three blocks from the canal south to 47th Avenue (old 8th Ave.- see Figure 16 , an 1891 map). Stone yards settled around 47th Road (old 7th Avenue) because of the ease of unloading heavy stone; the Barber Asphalt Company and several varnish companies settled adjoining the railroad yards on 48th and 49th Avenues (old 6th and 5th). The biggest change was the purchase of the whole peninsula in 1896 by a sugar refinery which began the erection of massive brick buildings in 1897. (Figure 17 shows the plant as it appeared in 1927. The complex was demolished in the late 1950's and became the site of a DAILY NEWS printing plant built in 1972 and now vacant.) In 1903 the LIRR bought out the lumber companies in the two blocks north of the sugar refinery in order to expand its facilities. These two blocks are numbered 6 and 13 on a 1903 E. Belcher Hyde ATLAS, Figure 18 . Clearly this map was revised after 1903 at least to the extent that the rail tunnels are shown. The other major subsurface developments since then have been the subway tunnel under 50th Street and the Queens Midtown Tunnel under Borden Avenue, opened in 1940.

Down to the Depression years there was no change along the waterfront of consequence. Some stagnation began to set in during the 1930's. The post-war years have wrought other changes. After the Pennsylvania and New York Central railroads were combined, the LIRR gave up lightering freight at the foot of 49th Avenue and abandoned the float bridges in 1967. Since then, all tracks in the once extensive yards have been taken up and the ground disturbed in Blocks 10 and 18. As Thomas Flagg points out in his study of the Industrial Archaeology of Hunters Point, the "freight terminal as a whole is completely without integrity." (Flagg, 1988:1) The seven track viaduct, a below grade cut, once leading to the yards between 48th and 49th Avenues (the portion of the project area in Blocks 31 and 44) also lies abandoned. (See Photographs 1 & 2) *

* Along with other sources, portions of this section were summarized or excerpted by Vincent Seyfried from his writings on Queens history.

The preceding pages have focused on the really extraordinary land manipulation which has taken place in the Hunters Point project area and which would have totally engulfed any remains from earlier periods. Our study also involved an overview of types of land use in conjunction with this land modification during the era from 1852 to the present. For example, we examined lists of types and names of businesses, histories of the vicinity, locations of institutions such as schools and churches, Block and Lot files, and so on. This research did not reveal the probablity of there being extant archaeological resources in such categories as commercial, institutional, ethnic, residential, or affinity group. The issues of transportation/industrial resources are the only ones to have arisen and they have been addressed by Thomas Flagg in a separate report. His only concern which might involve subsurface remains is that there might be remnants of the early oil refining industry in the Pepsi Cola bottling plant site, Blocks 20,21, and 22. Based on our study of available maps, photographs such as Figures 19 and 20, and the Buildings Department Block and Lot Files (Appendix 2), we feel that the possiblity of any such resources being intact - even through adaptive re-use - is remote indeed. However, we concur that without access to the site for a thorough physical inspection, the final judgment cannot be made.

VI. CONCLUSIONS AND RECOMMENDATIONS

Prehistoric Resource Potential

We know that Native Americans exploited the natural resources of western Long Island for thoursands of years before the colonists arrived. The northwest shore of Queens hosted riverine shellfish processing stations. Settlement pattern data of the prehistoric culture periods does indicate a strong association between habitation and processing sites and (1) the confluence of two water courses; (2) the proximity to a major watercourse; (3) the proximity to a marsh resource; and/or, (4) well-drained, elevated land. According to these criteria, portions of the pre-1850 Hunters Point would have been an attractive, preferred site location. These portions - the naturally elevated, well-drained knolls - were likely exploited by prehistoric peoples.

However, Hunters Point no longer resembles the marsh biome of centuries ago. The grading, filling, and excavation activities of the last one hundred and twenty-five years forever removed from the landscape the elevated knolls and marsh margin zones that would have hosted Late Archaic and Woodland resources. Undisturbed archaeological deposits on Long Island are not deeply buried. Post-1850 activities would have severely impacted any subsurface resources. (These development activities were discussed in greater detail in the Historic Era section.) A series of soil boring logs, recorded between 1931 and 1985, substantiates the extent of the subsurface disturbance on Hunters Point. Also, it must be appreciated that concurrent waterfront expansion activities deeply buried any potential resources of the earlier Amerindian period that may have survived the wave and tidal action of the East River.[1]

In appreciation of the ecological resources of Hunters Point and the predicted potential of the area, the mid-nineteenth century drastic land altering activities must account for the lack of association between Hunters Point and reported archaeological sites. The grading of the hills, the introduction of overburden, foundation construction, railroad installation, and transit tunnels each unwittingly acted to insure that prehistoric resources were forever destroyed. It is not estimated that Hunters Point has retained sufficient intact prehistoric archaeological potential to warrant further investigations.

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[1] For a full account of the difficulties of conducting archaeological excavations in a deep landfill site adjacent to the East River, see
Kearns, Betsy and Cece Kirkorian
1988 "Phase IB Archaeological Monitoring of Soil Borings, Block 3438: Shorehaven Project, Bronx New York." Mss on file with NYCLPC.

Historic Resource Potential

From the earliest days of European settlement until the mid-nineteenth century, the Hunters Point project area was either submerged or marshland dotted with sand knolls and rock outcrops. Documentary accounts describing such a topography have been corroborated by twentieth century soil borings. There is no archival or cartographic evidence to indicate the presence of any category of significant archaeological remains prior to urban development c.1852. Even if there had been, they would have been severely impacted by massive earth-moving activities. Therefore, the LPC concern about the possible existence of colonial settlements or other early historic cultural resources may be laid to rest.

Also, this report should have satisfied LPC's other stated query as to whether or not it could be documented that the entire site had been [leveled] "dredged or filled in the 20th century." The Hunters Point project area is a truly remarkable example of land alteration and land creation. With the possible exception of oil refinery remains on the Pepsico blocks (20,21,22)discussed in Thomas Flagg's INDUSTRIAL ARCHAEOLOGY REPORT, no categories were defined and no loci were identified for subsurface cultural resources. It is not estimated that Hunters Point has contained/retained sufficient intact historic archaeological potential to warrant further investigations.

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Figure 1

HUNTERS POINT PROJECT

Site Boundaries

2 Block Numbers

11 Street

Jackson Avenue

Queens - Midtown Tunnel Plaza

Vernon Boulevard

44

31

45 Avenue

46 Road

47 Avenue

47 Road

48 Avenue

49 Avenue

50 Avenue

51 Avenue

Borden Avenue

54 Avenue

5 Street

NEWTOWN CREEK

22

21

20

19

17

18

10

13

12

55 Avenue

11

2 Street

6

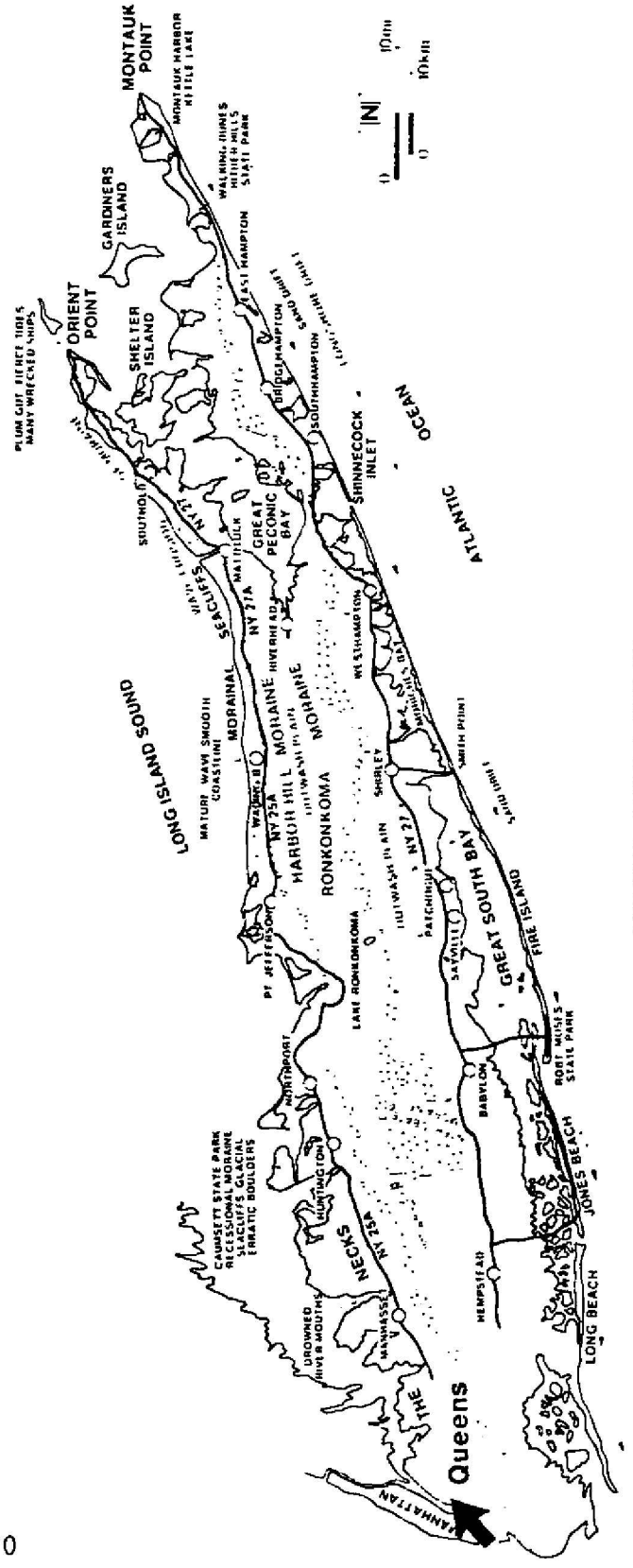
5

3

EAST RIVER

Photocopied from:
Van Diver,1985:70.

Figure 2



NY 25A, NY 27, NY 25
Long Island

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Figure 3

Figure 4

Photocopied from:

Grumet, 1981: p. 71

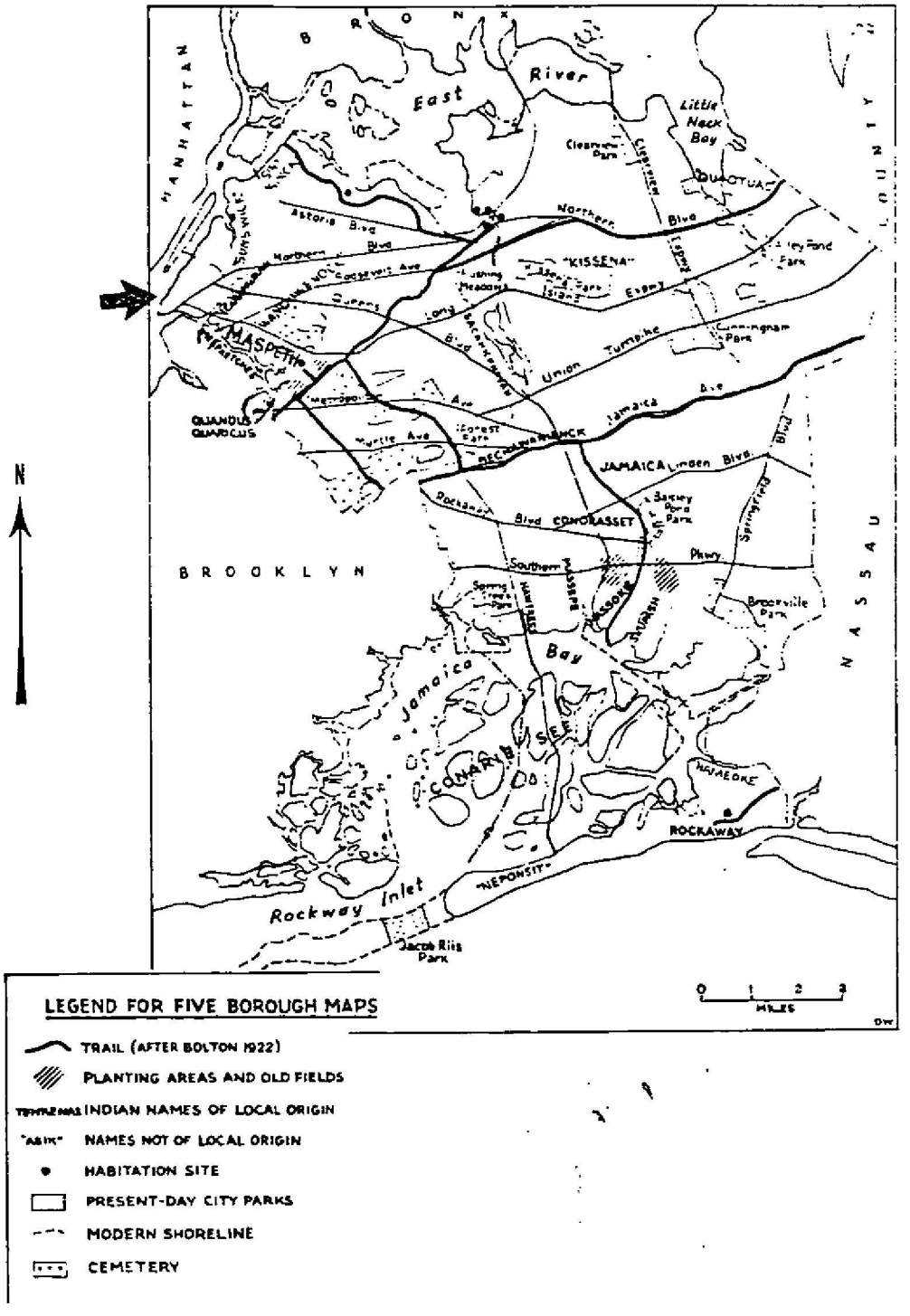


Figure 5

Photocopied from: Lightfoot, et al., 1985: p. 61

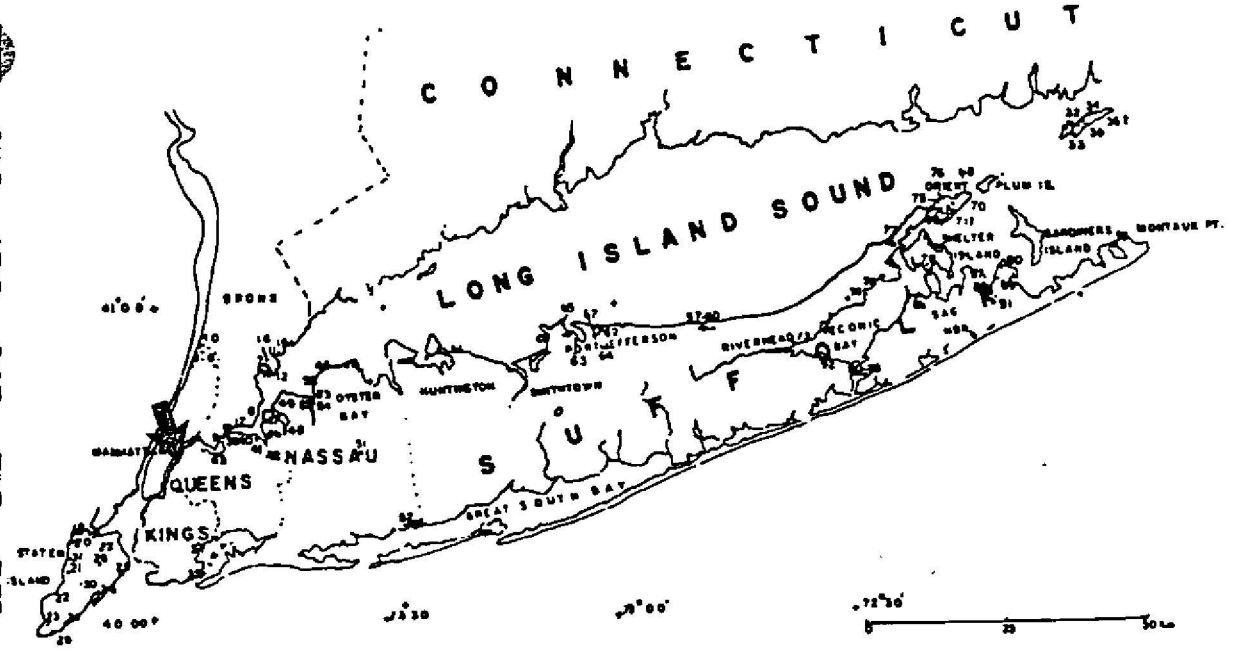
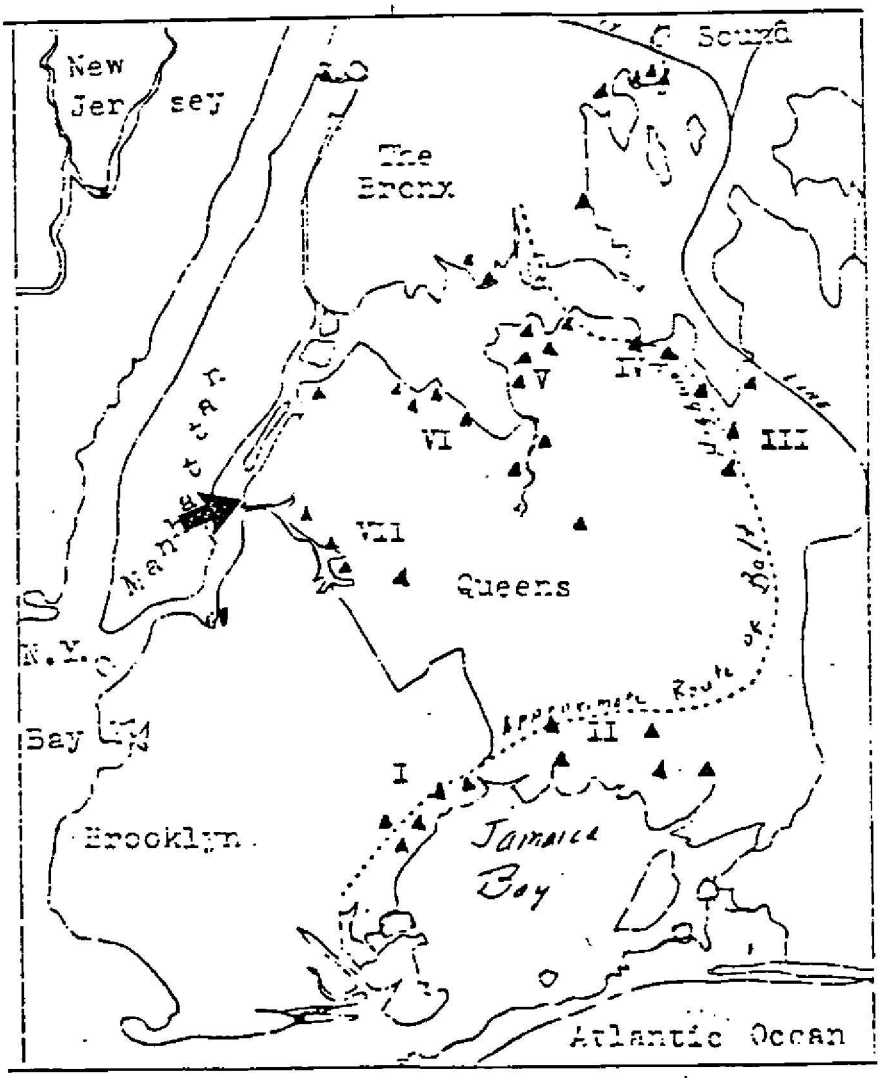


Figure 1. The spatial pattern of coastal New York sites that are reported in the published literature.

Photocopied from
Solecki, 1941



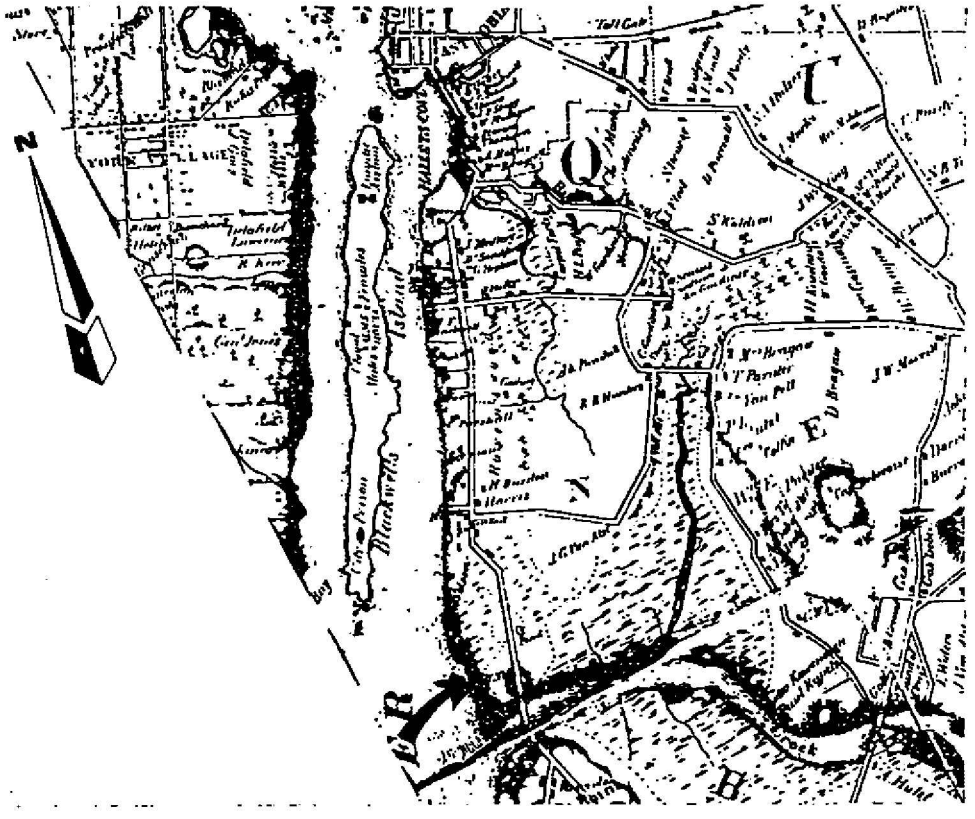
INDIAN VILLAGE SITES: Triangles on diagram indicate sites explored by Committee on American Anthropology of the Flushing Historical Society. Important locations described in accompanying article are numbered.

Figure 7

Photocopy of Map of New York and Staten Island and Part of Long Island, surveyed and drawn by G. Taylor and An. Skinner General Sir Henry Clinton, 1781

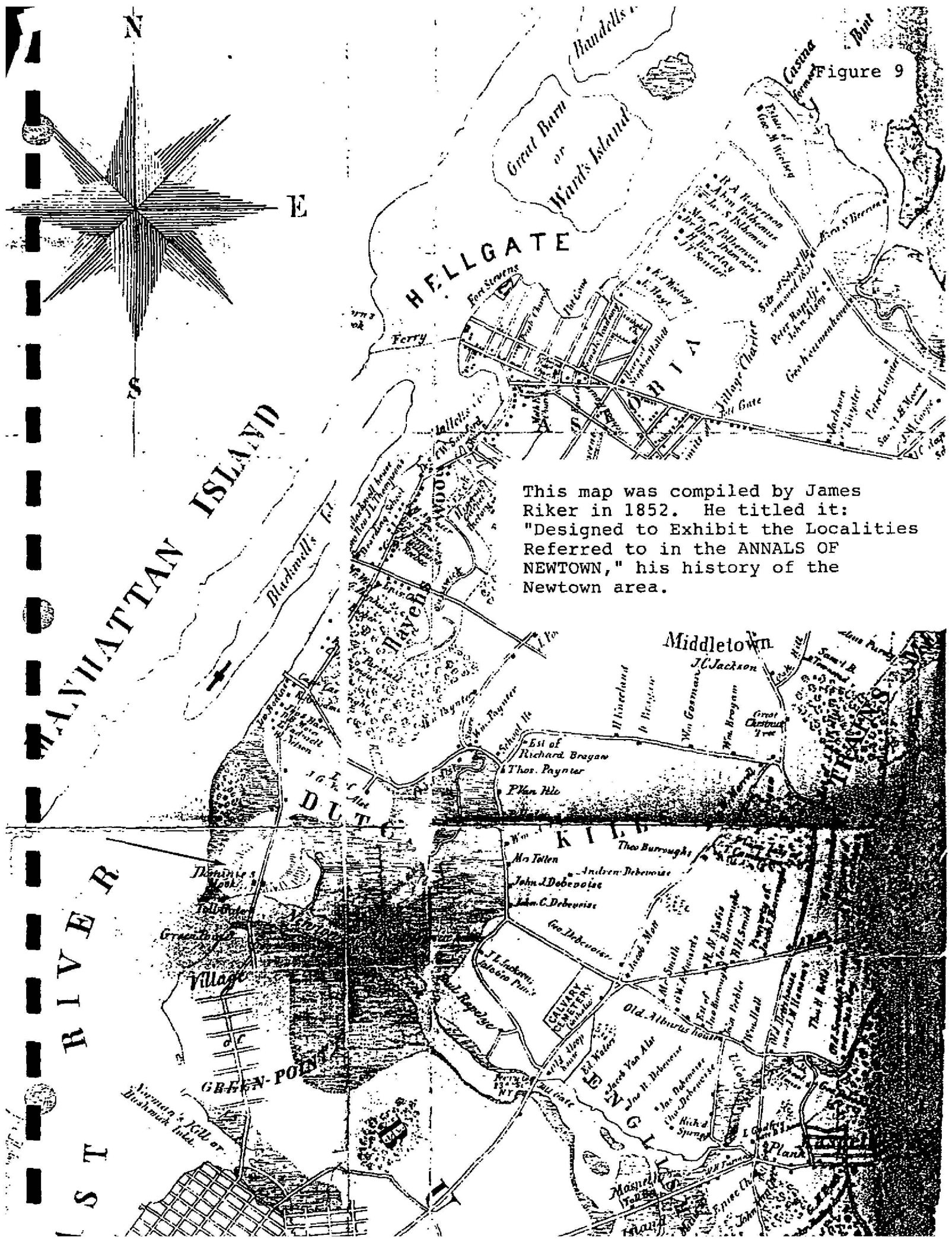
scale: in British Miles

Figure 8



Sydney Map. 1849

Figure 9



This map was compiled by James Riker in 1852. He titled it: "Designed to Exhibit the Localities Referred to in the ANNALS OF NEWTOWN," his history of the Newtown area.

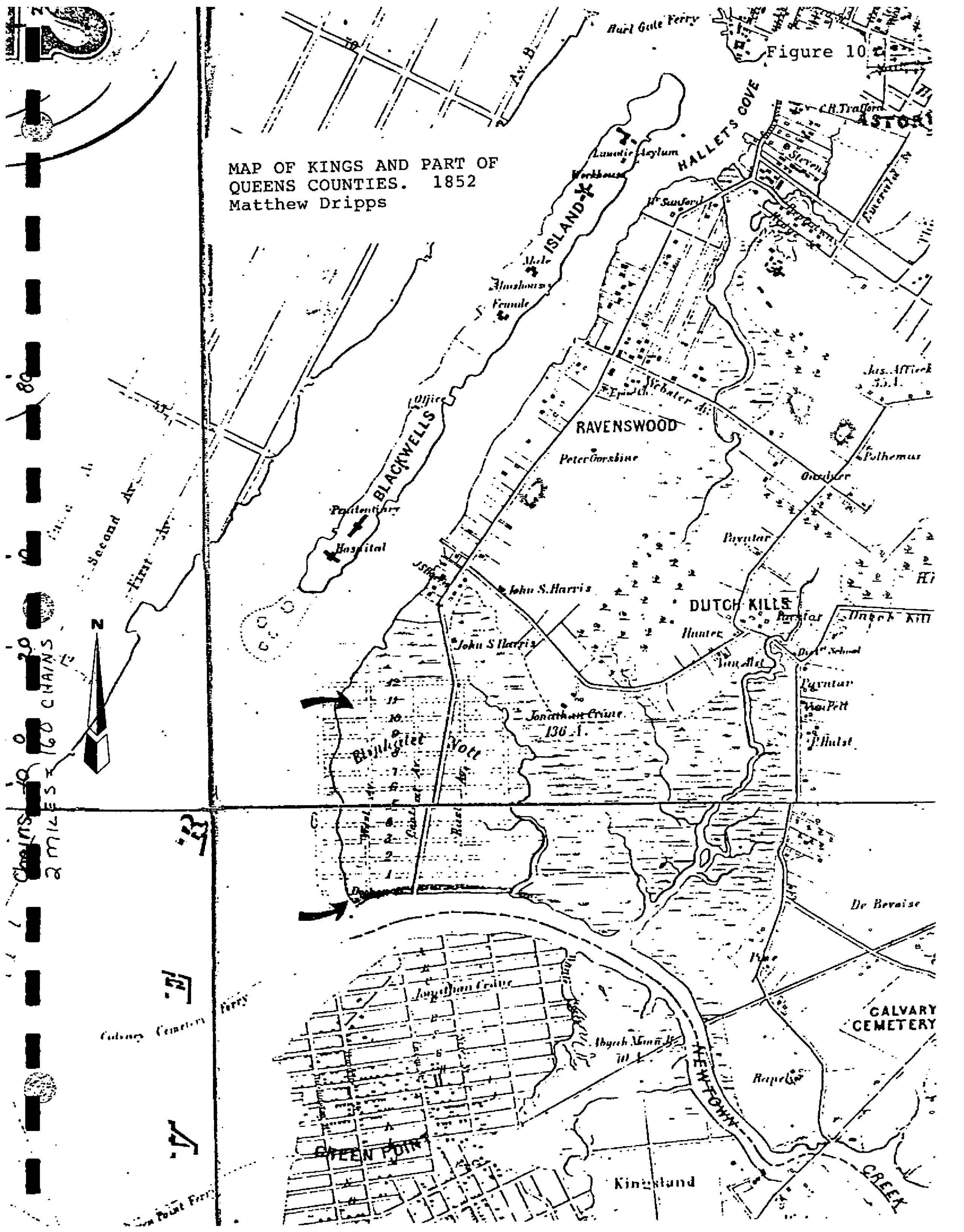
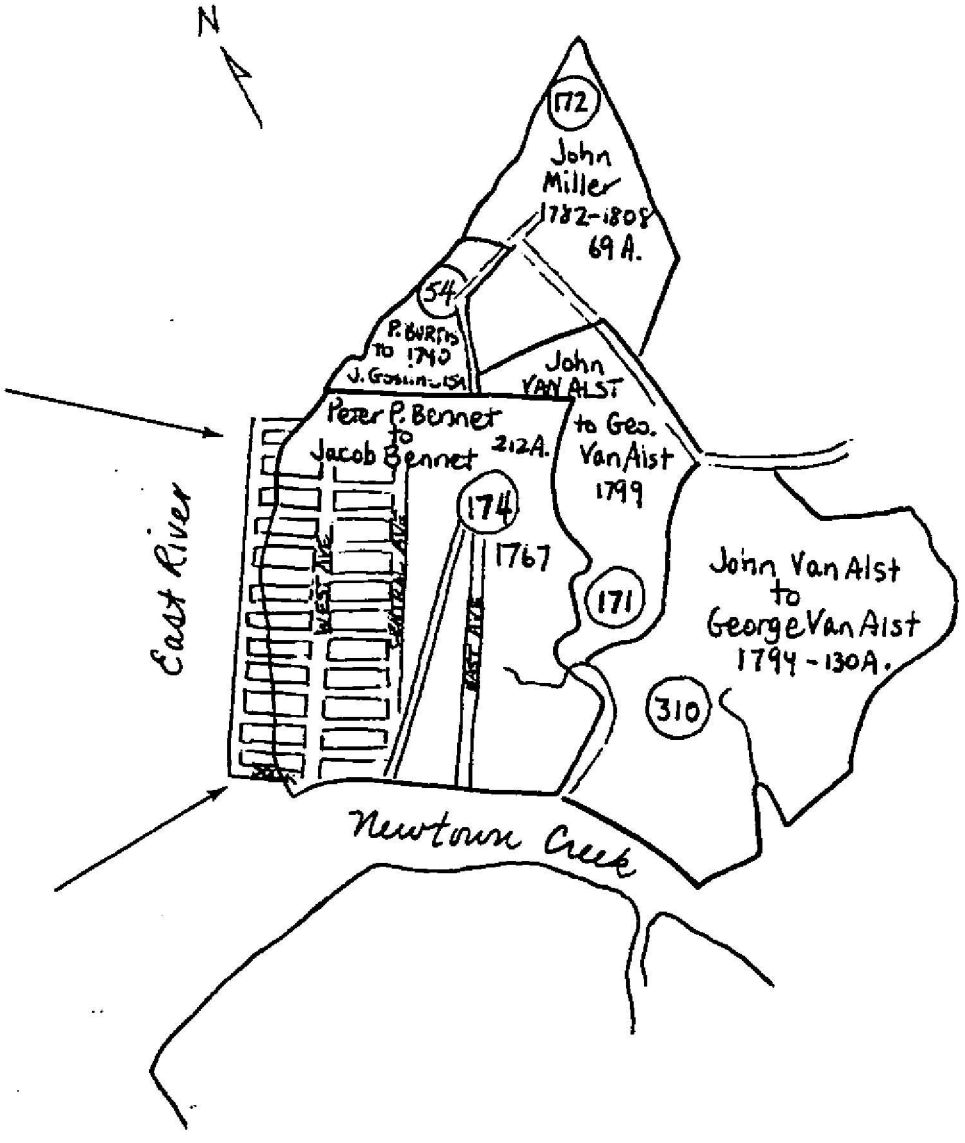


Figure 10
MAP OF KINGS AND PART OF
QUEENS COUNTIES. 1852
Matthew Dripps
Hurl Gate Ferry
HALLETS COVE
ASTORIA
Lunatic Asylum
Workhouse
ISLAND
BLACKWELLS
Almshouse
Penitentiary
Hospital
RAVENSWOOD
Webster Av.
Peter Gorsline
Polhemus
John S. Harris
DUTCH KILLS
Hunter
Jonathan Crane
136 A.
Nott
East Av.
Central Av.
De Bevoise
CALVARY
CEMETERY
NEWTOWN
CREEK
Kingsland
GREEN POINT
Jonathan Crane
Rapelje
Second Av.
First Av.
Calvary Cemetery Ferry
Green Point Ferry
N
160 CHAINS
2 MILES



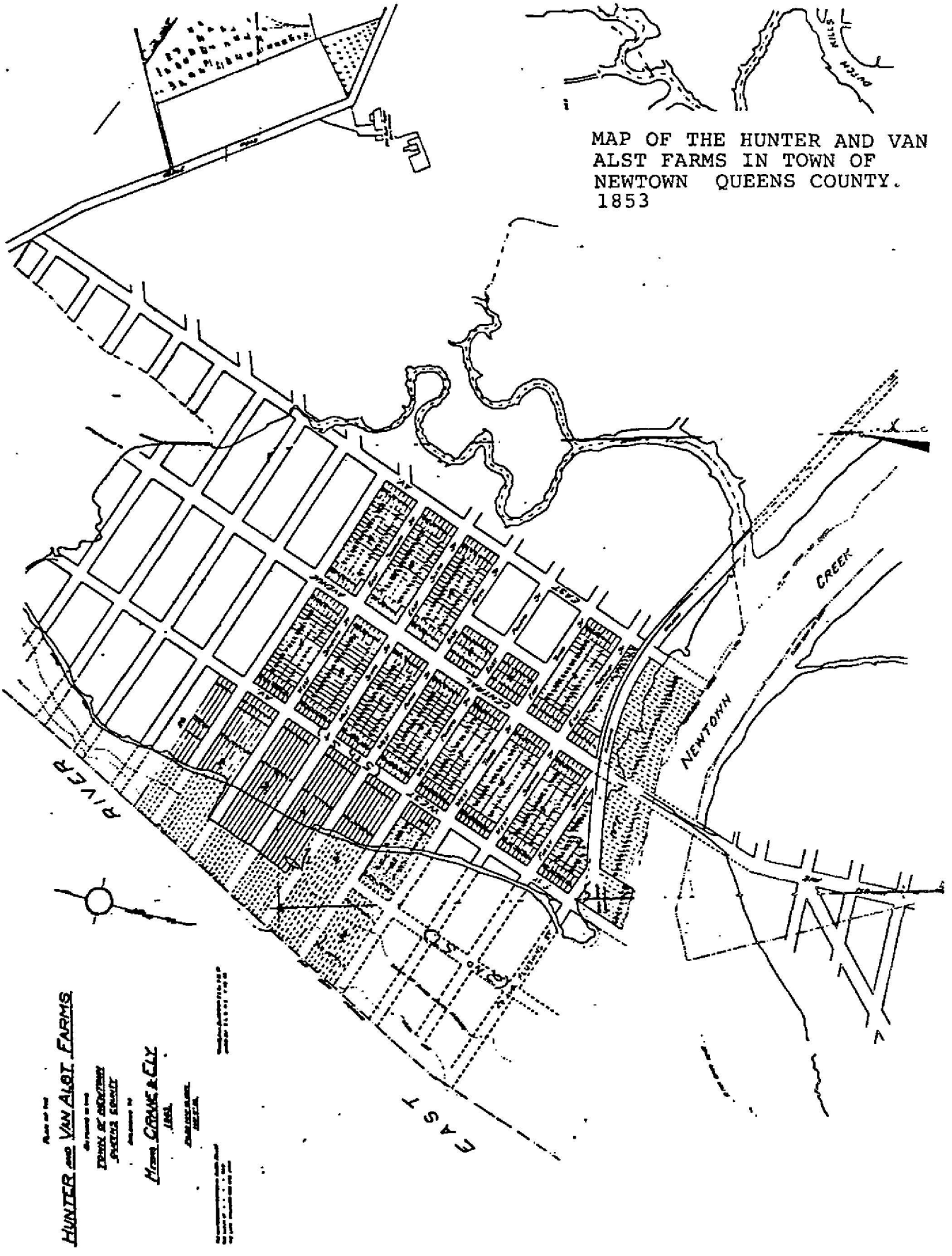
Map of the Borough of Queens

showing ownership as of the year -1800-

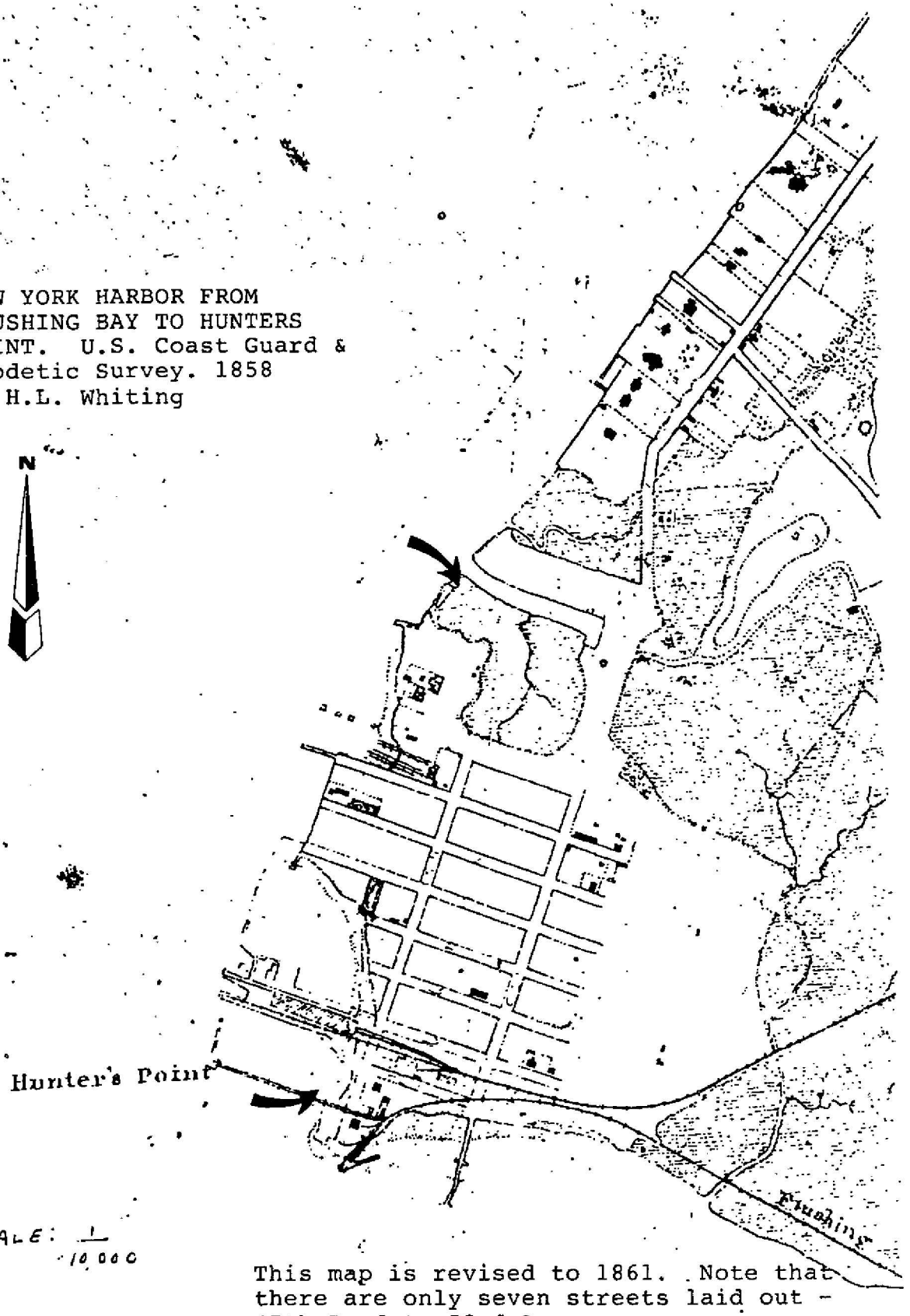
August 19, 1935; Office of the Pres., Topo. Bureau.

Scale 1 inch = 1/3 mile

Figure12



MAP OF THE HUNTER AND VAN ALST FARMS IN TOWN OF NEWTOWN QUEENS COUNTY. 1853



NEW YORK HARBOR FROM FLUSHING BAY TO HUNTERS POINT. U.S. Coast Guard & Geodetic Survey. 1858
By H.L. Whiting

This map is revised to 1861. Note that there are only seven streets laid out - 47th Road to 53rd Avenue.

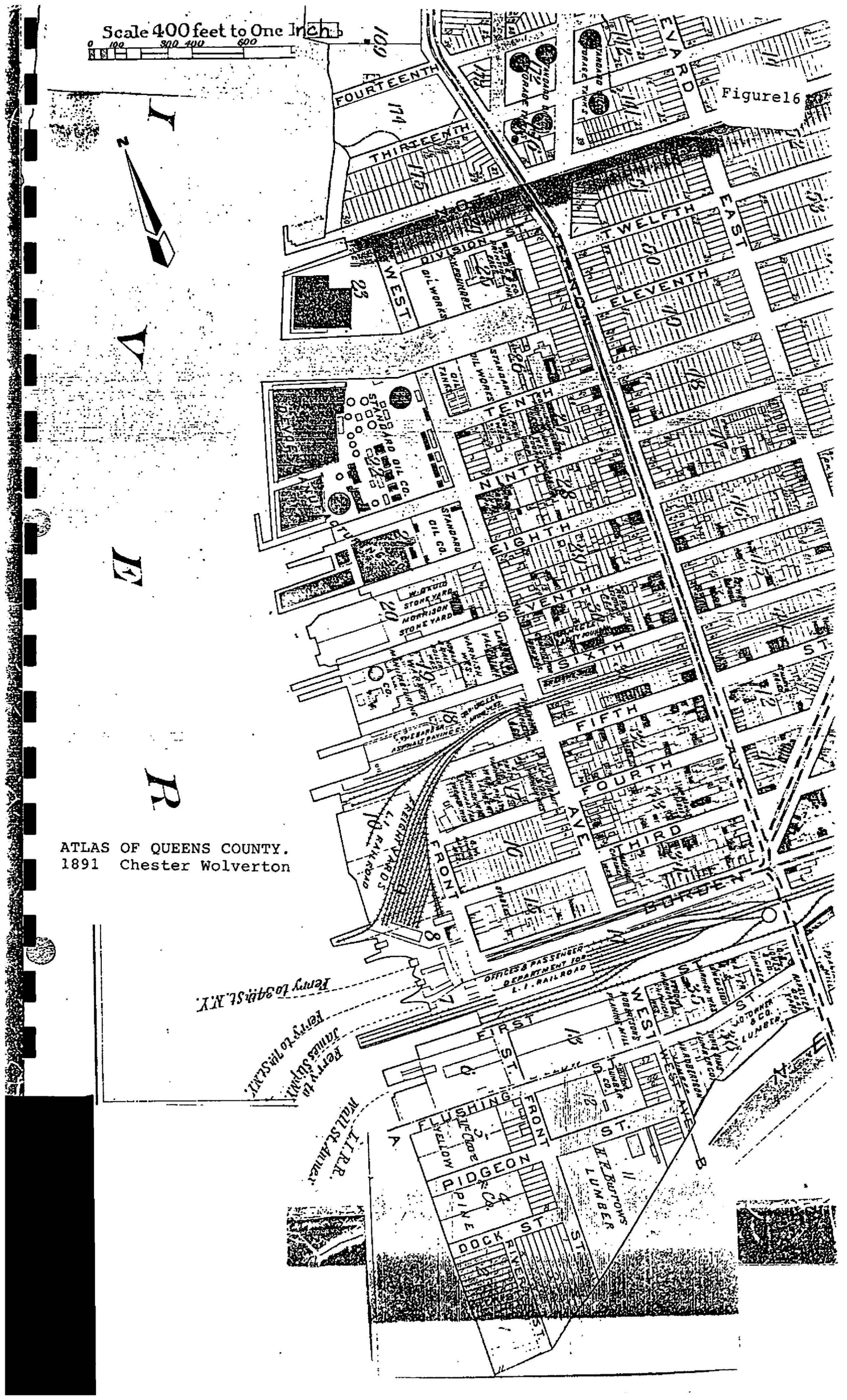
~~Queensborough Bridge~~
Long Island City (N.Y.)

Borden avenue, Long Island City, as it appeared in an earlier day, looking from the roof of the Long Island Railroad station. In center foreground is Miller's Hotel, where throngs of travelers waiting for trains or ferries sated their thirsts. In the background is seen part of old Hunter's Point industrial bee hive. c.1890

Queens Borough Public Library. Long Island Division. Long Island City Photo File.

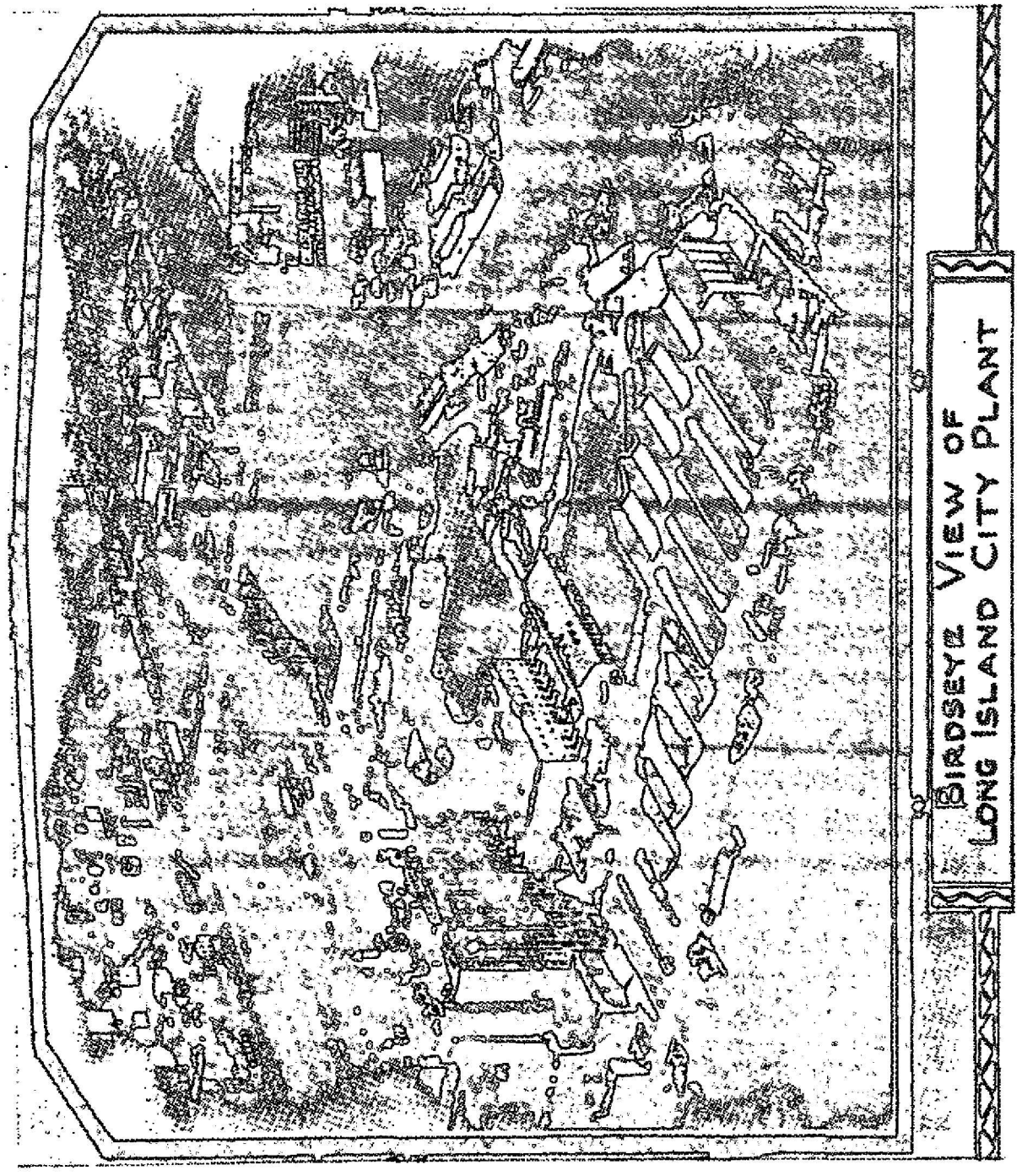
Figure15

Figure16



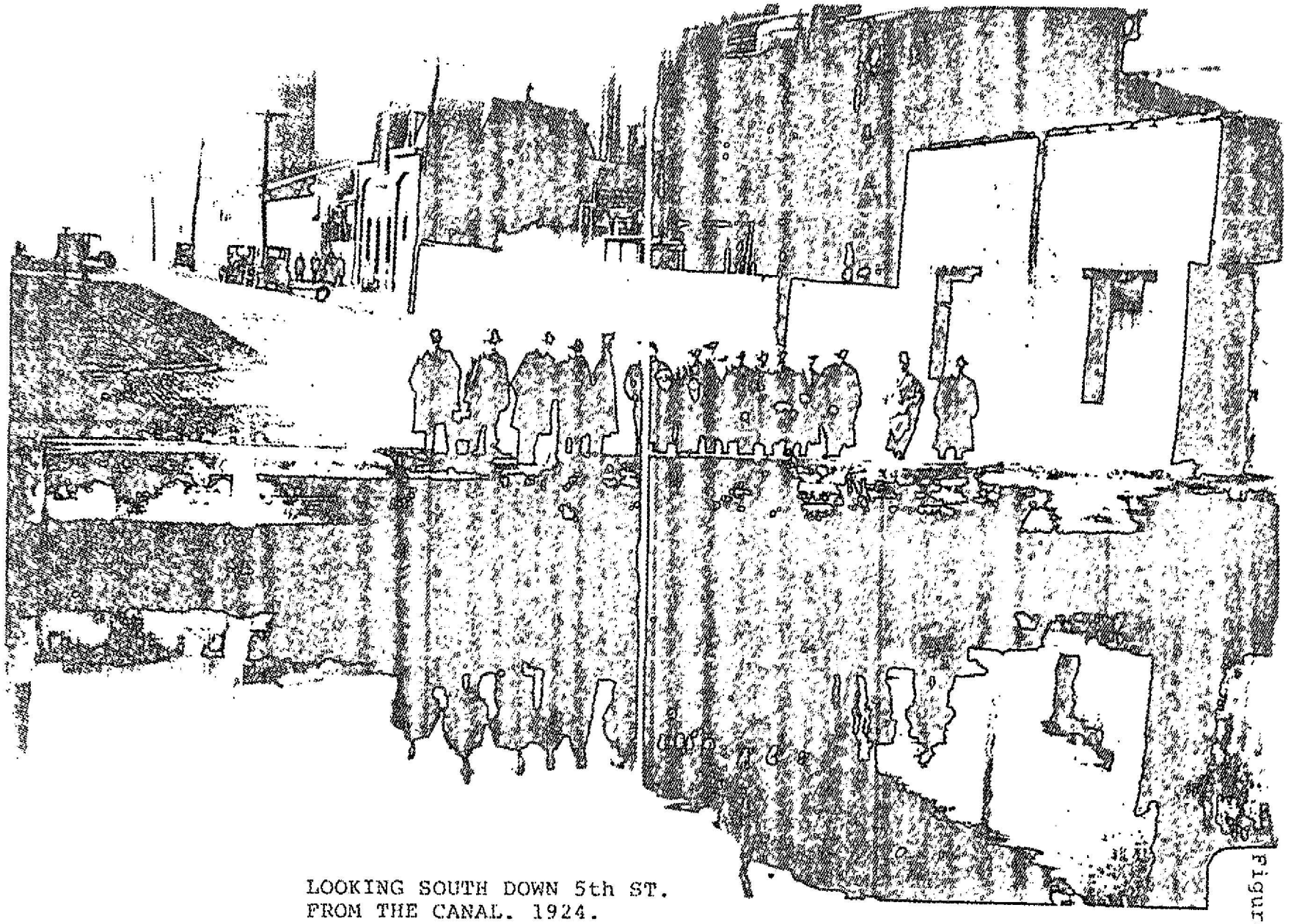
ATLAS OF QUEENS COUNTY.
1891 Chester Wolverton

Figure17



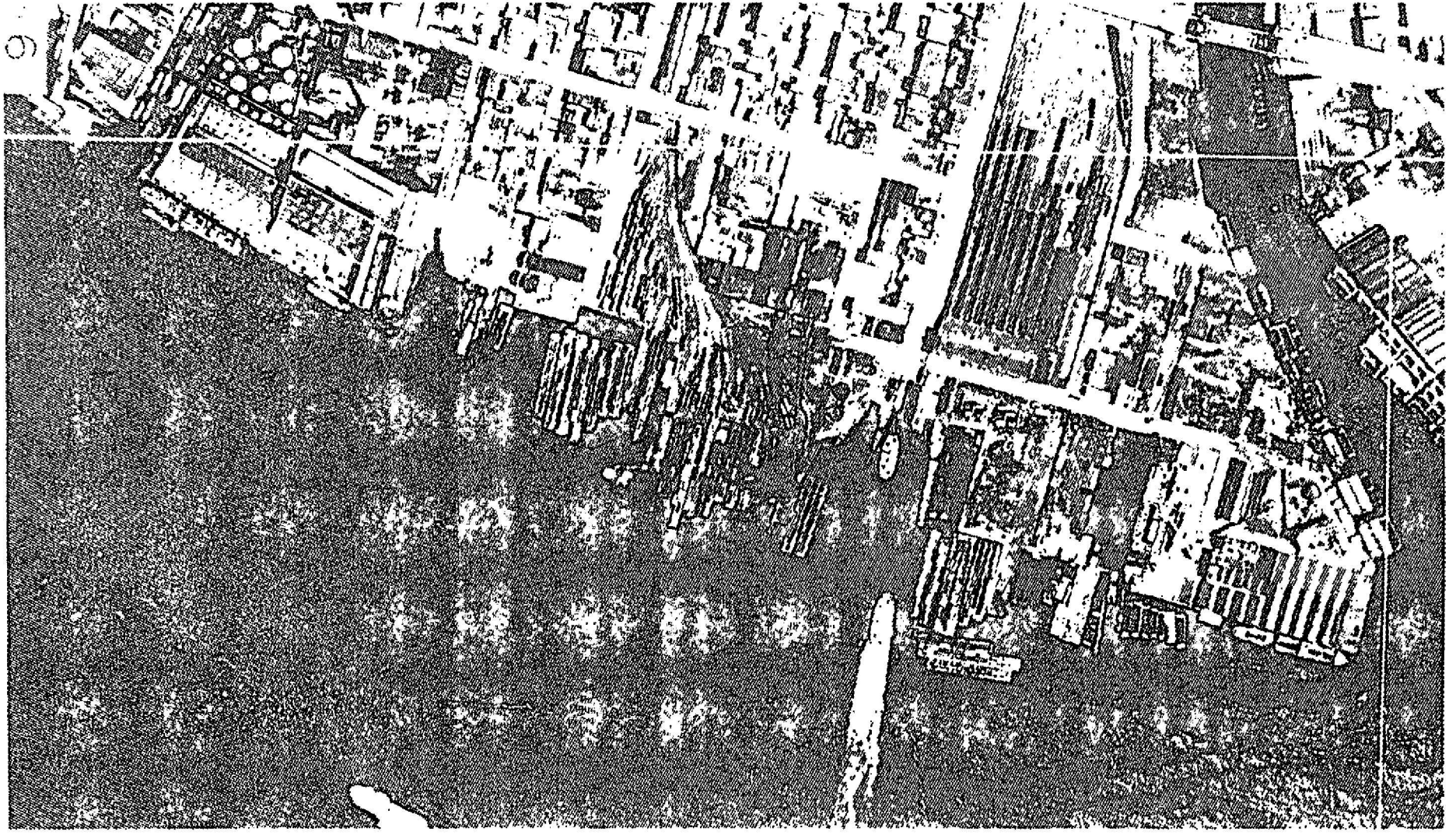
The plant once occupied the southern portion of the Hunters Point site at Newtown Creek.

NATIONAL SUGAR REFINING CO.
HUNTERS POINT PLANT. 1927
Photo furnished by Vincent Seyfried.



LOOKING SOUTH DOWN 5th ST.
FROM THE CANAL. 1924.
Standard Oil at right.
Photo furnished by Vincent
Seyfried

figure19



AERIAL VIEW OF HUNTERS POINT
1924. Photo furnished by
Vincent Seyfried.

figure 28

Figure 21

EXCURSION

PLANNED FOR THE

CITY HISTORY CLUB

OF

NEW YORK

L. I.

BY

FRANK BERGEN KELLEY, A. M., Ph. D.

No. XI—HISTORIC QUEENS.

Compiled from an unpublished Manuscript entitled

"ANCIENT LANDMARKS OF QUEENS BOROUGH."

By J. H. INNES

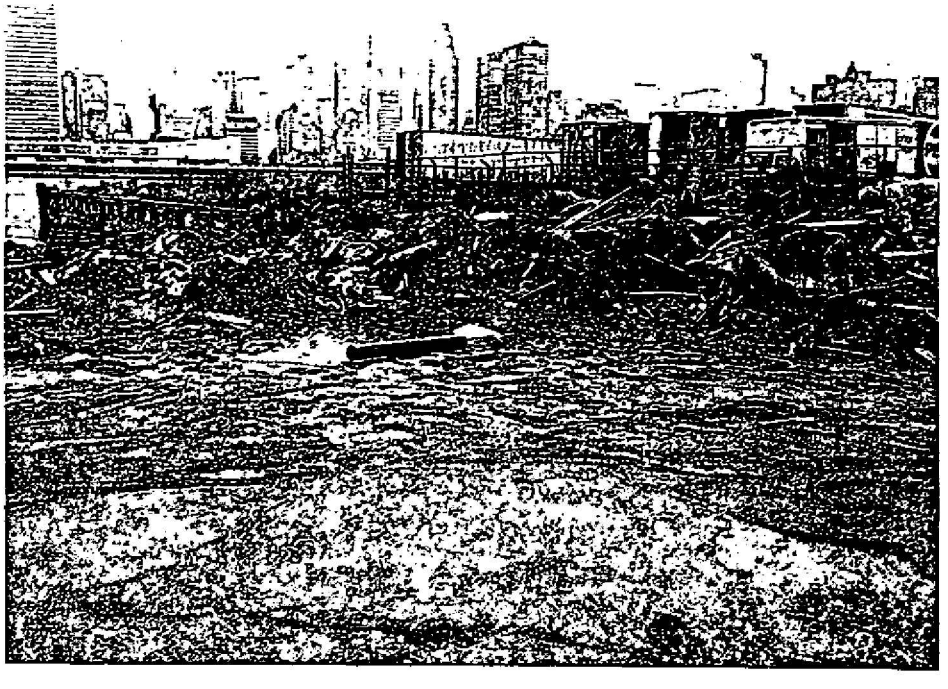
Author of "New Amsterdam and Its People," "The Old Bark Mill, or First Place of Religious Worship in New York," etc.

A. *Dominies' Hook.*—Originally an island surrounded by salt water marshes, possessed by Dominie Everardus Bogardus and his wife Anneke Jans Bogardus, about 1642; later confirmed by patent, and still later owned by the Bennett family, who sold much of it to Dr. Nott of Union College,

Photocopy of the Title Page of a 1908 Pamphlet. Insert is a Paragraph from Page 1.

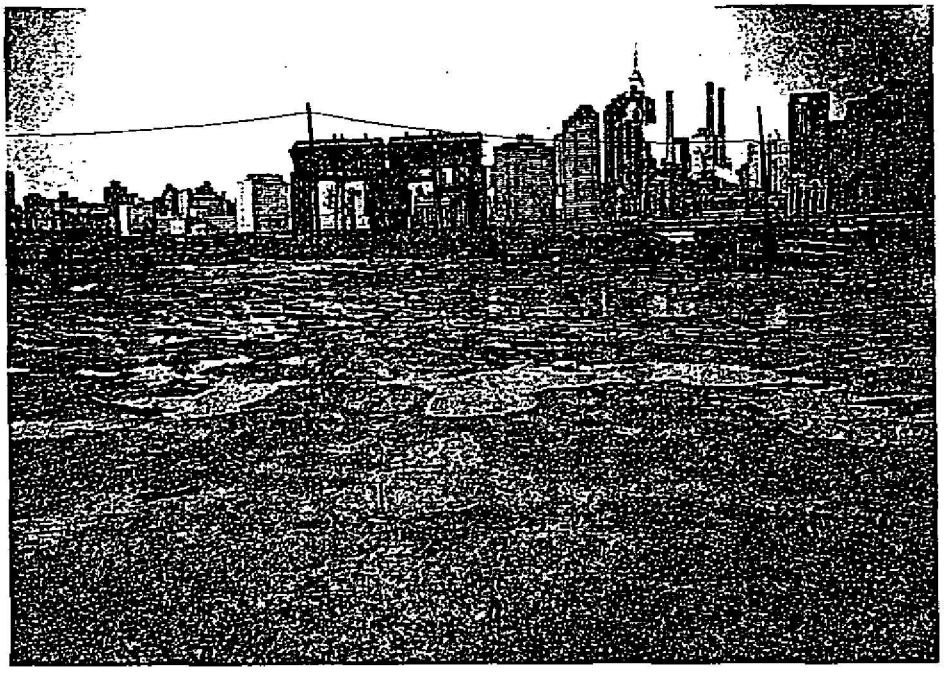
Hunters Point Project Site
view: East River shoreline,
northeast to southwest from 47th Road

Hunters Point Project Site
view: East River shoreline,
southeast to northwest from 47th Road
Note: Landfill is a continuing process.

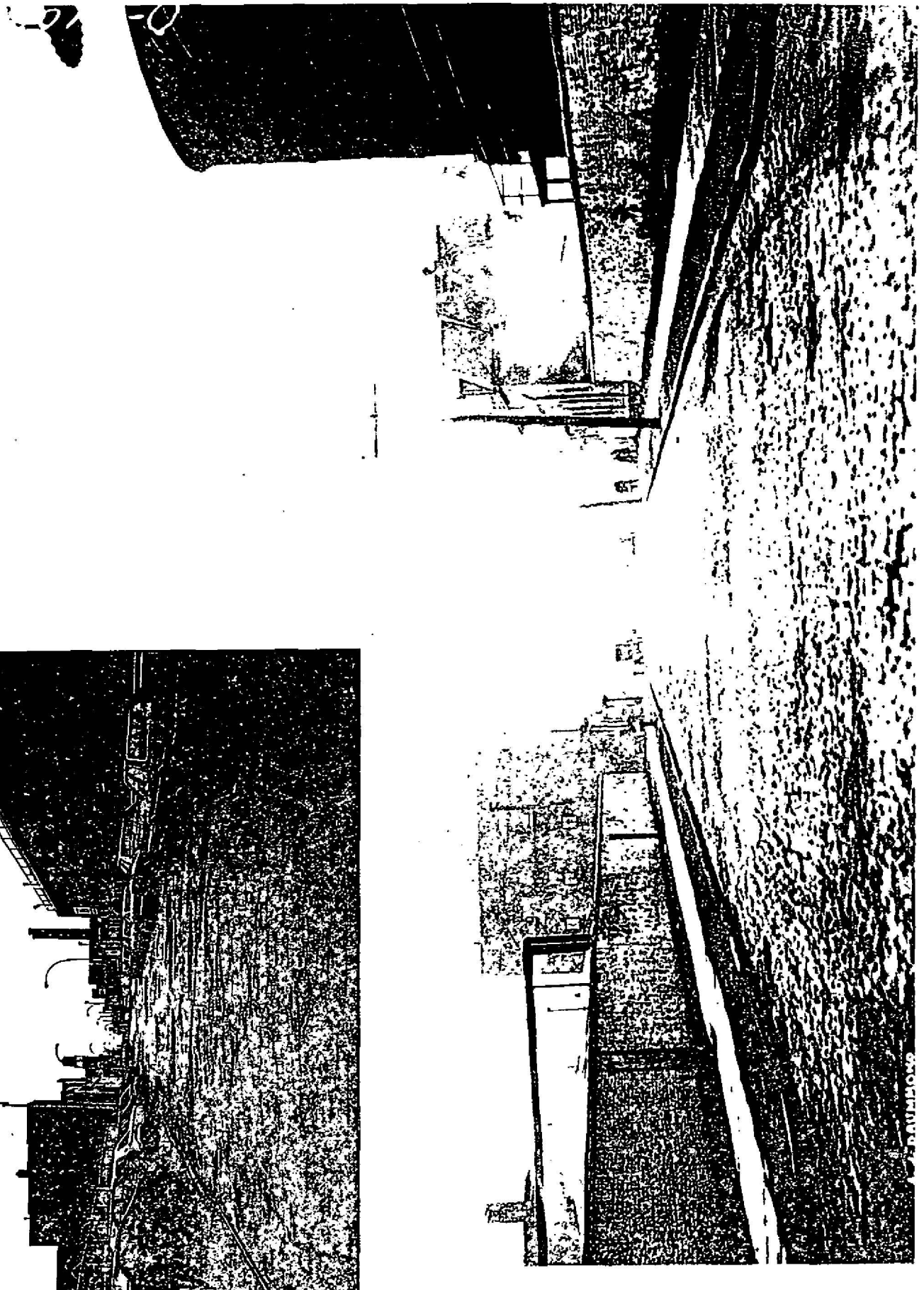


Hunters Point Project Site
view: Viaduct between 48th and 49th Avenues,
west to east

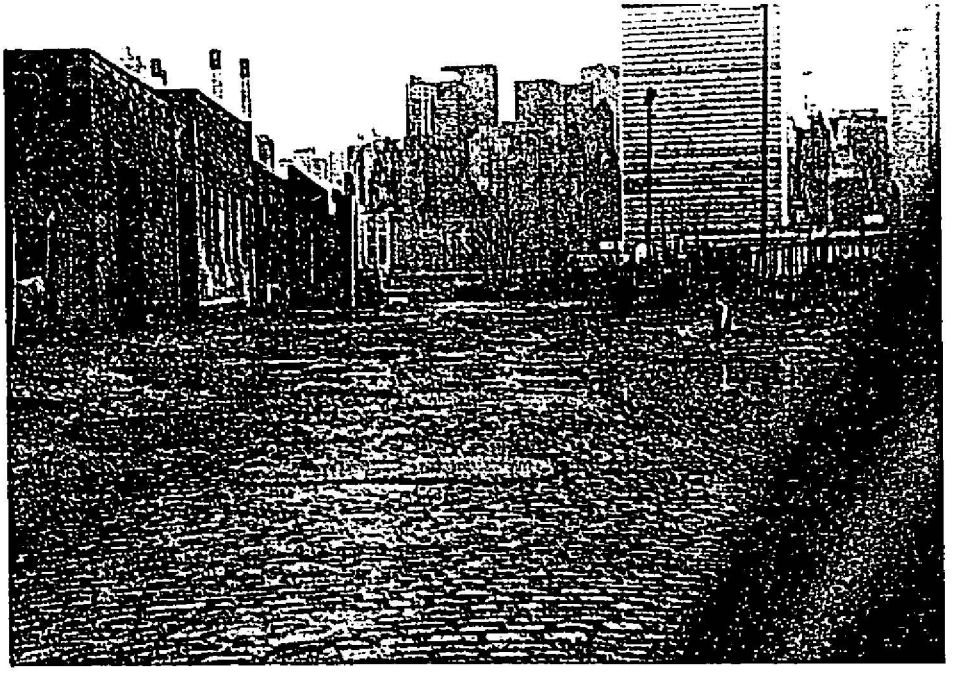
Hunters Point Project Site
view: "gantry,"
east to west from 49th Avenue



Looking south down 5th Street from the Canal.
c. 1924, Photograph furnished by Vincent Seyfried.
Upper left: same view, 1988.



Hunters Point Project Site
view: 47th Road, note the Belgian Block pavement,
east to west



Hunters Point Project Site
view: 2nd Street,
north to south from the intersection with 50th

APPENDIX 1

NEW YORK STATE PARKS, RECREATION HISTORIC PRESERVATION
Orin Lehman
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
The Governor Nelson A. Rockefeller Empire State Plaza
Agency Building 1. Albany. New York 12238-0001

April 25, 1988

Mr. Cece Kirkorian
Historical Perspectives
P.O. Box 331
Riverside, Connecticut 06878

Dear Mr. Kirkorian:

Re: Information Request
Phase IA Archaeological Assessment
Hunter's Point, Queens County

The Field Services Bureau of the New York State Office of Parks, Recreation and Historic Preservation/State Historic Preservation Officer has received your request for information on properties or sites which are included in or may be eligible for inclusion in the National and State Registers of Historic Places.

Based upon the information which you provided and a file search conducted by our staff, we have been able to determine that:

☐ The project area has been comprehensively surveyed by a qualified professional and reviewed by this office. To the best of our knowledge, the project area contains no buildings, objects, or districts which are eligible for or included in the National or State Registers of Historic Places.

☐ To our knowledge, the project area has not been professionally surveyed for historic resources. We recommend that any buildings or structures proximal to or within this area should be documented and evaluated for potential importance. Any information we do have on file from sources other than a comprehensive survey are noted on the following page.

☐ The project area has been comprehensively surveyed by a qualified professional and reviewed by this office. The results of this survey are described on the following page.

☒ No architectural information requested.

☐ The following resources have been reported to our office and are located in or in the vicinity of the project area which you identified:

☐ I. National/State Register of Historic Places listed or eligible properties:

☐ II. Properties included in Statewide Inventory:

☒ III. Archaeology

☒ With regard to archeology, it is the opinion of this office that your project lies in an area that is archaeologically sensitive. This determination is based upon our office's archaeological sensitivity model. Archaeologically sensitive areas are determined by proximity to known archaeological sites, as well as the area's likelihood of producing other archaeological materials. It is our opinion that unless substantial ground disturbance can be documented, an archaeological survey should be undertaken to determine the nature and extent of archaeological resources in your project area. If you wish to submit evidence regarding ground disturbance, it should include statements concerning the nature and date of the disturbances as well as a map indicating the locations and depths of such activities. Photographs of recent construction activities keyed to a map are very useful in this regard. Once we have had an opportunity to review the additional information provided as the evidence regarding prior disturbance or as a result of the archaeological survey, we will be able to complete our review of this project and issue our final comments.

☐ At the present time, there are no previously reported archaeological resources in your project area or immediately adjacent to it. This finding is based upon our office's archaeological sensitivity model. Archaeologically sensitive areas are determined by proximity to *known* archaeological sites, as well as the area's likelihood of producing other archaeological materials.

☐ Regarding your request for site file information, the following archaeological resources are located within or proximal to the project area:

☒ Additional Comments:

There are no sites reported to OPRHP for the project vicinity. Might wish to contact NYS Museum and/or more localized sources.

Should you have any further questions, please contact our Project Review Staff at (518) 474-3176.

Sincerely,

David S. Gillespie
Director
Field Services Bureau

DSG:VJD:sm
#2a (10/86)

Attachment: Map

THE STATE EDUCATION DEPARTMENT THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, N.Y. 12230

NEW YORK STATE MUSEUM
DIVISION OF RESEARCH AND COLLECTIONS

Search Results:

NEW YORK STATE MUSEUM
Prehistoric Site File

Date: April 5, 1988

To: Cece Kirkorian
Historic Prespectives
P.O. Box 331
Riverside, Connecticut 06878

Area Searched: Near Hunter's Point Queens, (see attached map).

In response to your request our staff has conducted a search of our data files* for locations and descriptions of prehistoric archaeological sites within the area indicated above.

The results of the search are given below. Please refer to the NYSM site identification numbers when requesting additional information.

If specific information requested has not been provided by this letter, it is likely that we are not able to provide it at this time, either because of staff limitations or policy regarding disclosure of archaeological site data.

Any questions regarding this reply can be directed to Philip Lord, Jr., at (518) 473-1503 or the above address, mark as Atten: Site File.

*[NOTE: Our files normally do not contain historic period sites or architectural properties. Contact Chuck Florence, Office of Parks Recreation and Historic Preservation, Albany at (518) 474-3176 to begin the process of collecting data on these types of sites.]

RESULTS OF THE FILE SEARCH:

The following sites are located in or adjacent to the project area:

See attached list.

Code "ACP" = sites reported by Arthur C. Parker in The Archeology Of New York, 1922, as transcribed from his unpublished maps.

SEARCH CONDUCTED BY: B.W. (initials)
Staff, Office of the State Archaeologist

ARCHAEOLOGICAL SITE FILE SEARCH
NEW YORK STATE MUSEUM
CULTURAL EDUCATION CENTER
ALBANY, NEW YORK

NYSM #	OTHER SITE #'S	SITE NAME	TIME PERIOD	SITE TYPE	SOURCE OF DATA	15' QUAD NAME	7.5' QUAD NAME	REPORTER'S NAME	PROJECT NAME OR #
3613	ACP KNGS-(UNNUMBERED)	NO INFO	NO INFO	TRACES OF OCCUPATION		BROOKLYN QUAD	BROOKLYN QUAD	PARKER	NO INFO

EVALUATION OF ARCHAEOLOGICAL SENSITIVITY FOR PREHISTORIC (INDIAN) SITES
Examination of the data suggests that the location indicated has the following sensitivity rating:

[√] HIGHER THAN AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.

[ ] AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.

[ ] LOWER THAN AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.

[ ] MIXED PROBABILITY OF PRODUCING PREHISTORIC ARCHEOLOGICAL DATA.

The reasons for this finding are given below:

[ ] A RECORDED SITE IS INDICATED IN OR IMMEDIATELY ADJACENT TO THE LOCATION AND WE HAVE REASON TO BELIEVE IT COULD BE IMPACTED BY CONSTRUCTION.

[ ] A RECORDED SITE IS INDICATED SOME DISTANCE AWAY BUT DUE TO THE MARGIN OF ERROR IN THE LOCATION DATA IT IS POSSIBLE THE SITE ACTUALLY EXISTS IN OR IMMEDIATELY ADJACENT TO THE LOCATION.

[√] THE TERRAIN IN THE LOCATION IS SIMILAR TO TERRAIN IN THE GENERAL VICINITY WHERE RECORDED ARCHAEOLOGICAL SITES ARE INDICATED.

[ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION SUGGEST A HIGH PROBABILITY OF PREHISTORIC OCCUPATION OR USE.

[ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION SUGGEST A MEDIUM PROBABILITY OF PREHISTORIC OCCUPATION OR USE.

[ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION ARE SUCH AS SUGGEST A LOW PROBABILITY OF PREHISTORIC OCCUPATION OR USE.

[ ] EVIDENCE OF PRIOR DESTRUCTIVE IMPACTS FROM CULTURAL OR NATURAL SOURCES SUGGESTS A LOSS OF ORIGINAL CULTURAL DEPOSITS IN THIS LOCATION.

[ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION ARE MIXED, A HIGHER THAN AVERAGE PROBABILITY OF PREHISTORIC OCCUPATION OR USE IS SUGGESTED FOR AREAS IN THE VICINITY OF STREAMS OR SWAMPS. LOW PROBABILITY IS SUGGESTED FOR AREAS OF EROSIONAL STEEP SLOPE. OTHER AREAS WITHIN THE PROJECT SUGGEST AVERAGE PROBABILITY OF USE.

COMMENTS:


BROOKLYN QUADRANGLE
NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)
TRIBOROUGH BRIDGE 4.6 MI
QUEENSBORO BRIDGE 0.8 MI
CENTRAL PARK 3.0
73°52'30"
40°45'
57'30"
UNITED NATIONS HEADQUARTERS
Belmont Island
Long Island City
Sunnyside
Jackson Heights
Elmhurst
Hunters Point
NEWTOWN CREEK
Bushwick Inlet
Greenpoint
Williamsburg
Middle Village
Maspeth
Calvary Cemetery
Penny Bridge
Kosciuszko Bridge
Radio Towers (WNYC)
Fireboat Sta
McCarren Park
McGolrick Park
Cooper Park
Juniper Valley Park
Queens Midtown Tunnel
Queensboro Bridge
Brooklyn-Queens Expressway
Long Island Expressway
1.7 MI TO INTERCHANGE
190 000 FEET

Blocks 21 and 22

Block 21 is presently bounded by 46th Road on the north, 47th Avenue on the south, the East River on the west and 5th Street on the east. Directly north of Block 21 is Block 22, bounded on the north by the "Canal" (formerly the 11th Street Basin or Standard Canal), 46th Road on the south, 5th Street on the east and the East River on the west. If 46th Avenue were cut through to the River, it would bisect Block 22, and many of the building records locate structures using 46th Avenue as a point of reference. In addition, 46th Road was not cut through the block until the 1940's, hence Blocks 21 and 22 were as one for much of their history. According to Hyde's Atlas of the Borough of Queens (1928 updated to 1987), Block 22 is presently labelled 21, but in order to distinguish between the two areas it will be called 22 in this discussion. From the earliest building records available (1900) to the 1930's, the two blocks were the site of a Standard Oil of New York plant. From at least 1938 (to the present), the site has been utilized by the Pepsi-Cola Company, as a sugar storage, syrup making and bottling plant.

The earliest recorded building activity was in 1900, while the Blocks were under the hegemony of Standard Oil. The applications and plans often locate buildings inadequately, which is a particular problem with so large a parcel. The building files record no cellars in any of the structures on this block. However there is some below-surface disturbance from buried tanks and exceptionally deep foundations. The western half of the block, along the East River, has had most of its area filled with structures since the early half of the 20th century. These brick edificesare referred to in the plans as buildings A, B, C and D. (See sketch) Building A, which crosses over 46th Road to Block 21, is certainly the two-story factory which was built for the Standard Oil Company in 1915. This 140' by 385' structure, located 265' east of the river bulkhead, 420' south of the Canal and 95' north of 8th Street (47th Avenue), was erected on "filled ground," but no foundation walls and cellar are described (NB#1099-15). In a 1923 alteration it is described as part of Standard Oil's Devoe Oil Works, and built on piles with no basement (Alt#351-23). When the complex was taken over by Pepsi, Building A housed the Box and Crown (bottlecap) Department (Alt#1103-39). It is depicted numerous times (Misc#30-40; Alt#299-39; BN#903-41; NB#31-44).

Building B was erected in 1914, as a three-story warehouse. Abutting A to the east, it was 125' east of the river bulkhead and 165' north of 8th Street (present 47th Avenue). Building B, 330' by 140', was built on filled ground on concrete piles, with no basement (NB#1100-14). In 1939 the fireproof building was being used to store raw sugar, as a syrup plant and later as office space (Alt#1103-39; Alt#229-38; Alt#508-44).

The site of Building C, along the East River, was depicted and labelled as "shipping sheds" in 1923 (Alt#351-23). By 1939 the structure named C was present, and used for the storage of raw sugar (Alt#1103-39). There are no building records which concern Building C specifically, and therefore no indications of the extent of ground disturbance caused by its erection.

Building D was built at the northwestern corner of Block 22, running 332' along the Canal, and 291' along the East River. The one-story brick building was used as a bottling plant by Pepsi (Alt#1103-39). There is no reference to D before 1939. Also in 1939, a shipping platform was added to the east side of the building, 151' along the Canal and 316' long. This addition had no basement, but did have 18 3" floor drains at an unspecified depth.

Aside from Buildings A, B, C and D, the only other major building on the western half of Block 22 was a tin can factory at the northeast corner of 9th Street (46th Road) and the River, a two-story brick building, 150' by 250' (later described as 161' by 212'), which is never shown in any of the drawings. That one wall of the edifice was being repaired indicates the structure was in poor condition and eventually razed (Alt#611-09; Alt#337-10).

The eastern half of the block was not as intensively built up, and was used for parking and access to the factory complex. The major ground disturbances are here listed: At the northwest corner of 46th Avenue and 5th Street was a two-story office building (43' along 5th), behind which was buried an unspecified number of fuel tanks. These tanks were approximately 35' west of 5th and 43' north of 46th Avenue. Their exact depth is also unclear (Alt#168-42).

At the northwest corner of 5th Street and 46th Road was a private parking area for Pepsi employees, which was equipped with five 550 gallon gas tanks and a pump, buried from 2' to 6' below grade. The tanks were approximately 9' wide and 16' long (Misc#4846-45; Misc#3728-40).

In 1914 Standard Oil built a building for barrel storage on West Avenue (5th Street), 200' north of 10th Street (46th Avenue). This

building, 42' front, 48' rear and 62' long, was built on a 6' concrete foundation. It had no cellar, and the soil was described as "Soft clay" (NB#2849-14).

A chimney was built at the northeast corner of the boiler house shown on the Block 22 sketch. It was 20' north of 46th Road, and 200' west of 5th Street. The chimney, of a height equivalent to a 13-story building, had a 15' foundation that was 19' by 19' (NB#1853-12).

There were also a number of other structures scattered on Block 22 whose foundations did not disturb the ground to a depth greater than 4'. These are often impossible to locate or identify precisely using the sketches and information in the block and lot folders. Refer to the contemporaneous maps supplied with this report for more exact location of the following structures, as well as for those on the Block 22 sketch, for which there were no building records:

Receiving house for oil from stills: one-story, brick, 52' by 14', 150' from 5th Street (NB#371-1900).

Barrel storage: shed, 60' by 35', northwest corner of 46th Road and 5th Street (NB#1505-1911).

Foremen's office: one-story, 16' by 23', 46th Avenue 500' west of 5th Street (NB#1910-1912).

Tank house: one-story, brick, 28' by 47', 46th Avenue 250' west of 5th Street (NB#3708-1912).

Dressing room and boiler repair shop (NB#1845-1913).

Temporary frame shed: 20' by 12', northeast of boiler house (Misc#3449-43).

According to Alt#2511-1939, eleven soil borings were drilled along the Canal, east of Building D (location approximate). They are listed on a table.

The East River shore of Block 21 is indented by a basin between 258' and 270' long and 47' wide. Formerly, Building A extended as far south as the southern side of the basin. In 1941 an extension was built onto A, extending 96' from its southern wall to 47th Avenue. This two-story factory/warehouse was 146' wide at 47th Street, beginning 200' west of the River (Alt#1989-41). There are no building records for the one-story brick and metal buildings shown in the southwest corner of Block 21, nor for the metal sheds surrounding the shores of the basin. However, on the east side of the block, there are several buildings that are identifiable. First there is the brick

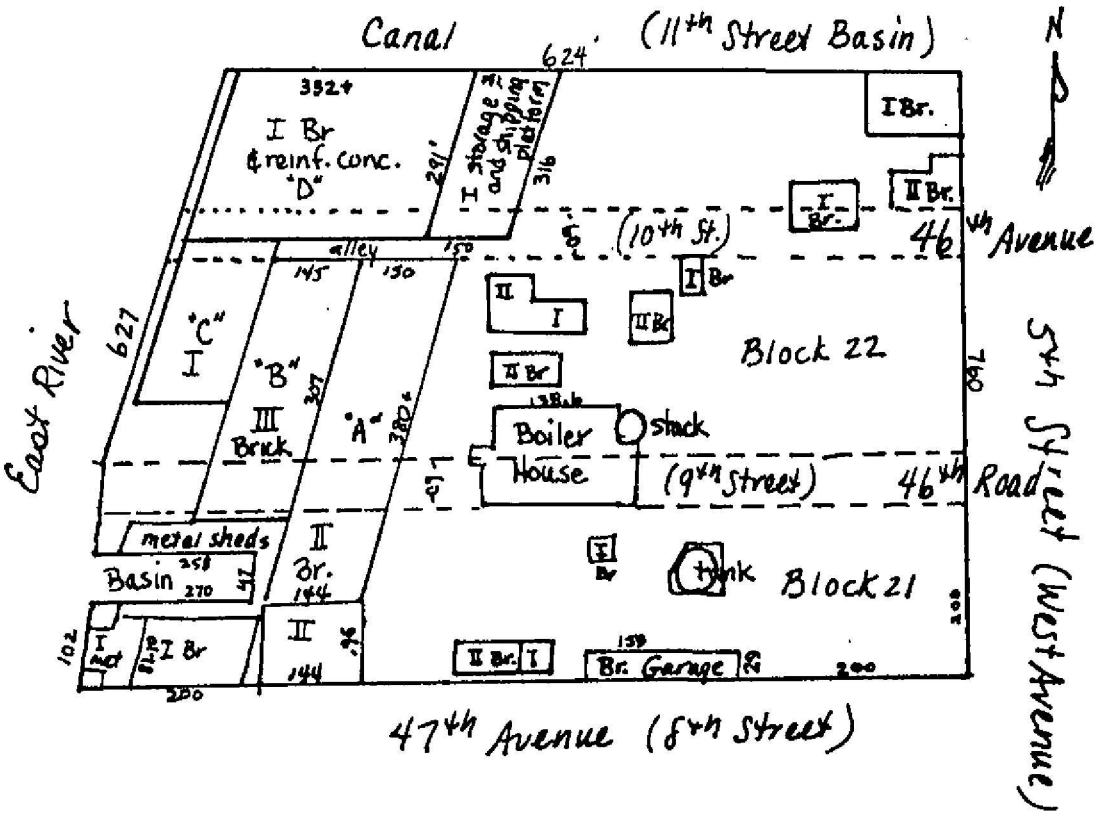
one-story garage, erected by Standard Oil in 1918. 200' from 5th Street, the building ran 159' along 47th Avenue, and was 29' wide. It stood on a 4' foundation (NB#18-18). Also on the north side of 47th Street, 400' west of 5th Street, was a two-story building containing showers and sinks for Pepsi employees, installed in 1945 (PR#1532-45). Neither building was equipped with a cellar.

On the south side of 46th Road were two buildings erected while Standard Oil owned the property. One 10' by 17', was 175' from West Avenue, and contained 6 toilets for employees on a firm 4' concrete foundation (NB#3706-12). The second building, referred to as a "bathhouse" was a wash house for "the men," 17' by 27'. Both were set 15' back from 46th Road, and were connected to a private sewer which ran along that street (NB#3707-12).

Soil borings were taken when a temporary coal bin was erected in 1942 to save oil for the War. The 36'2" by 14'2" bin was built directly south of the boiler house, approximately 280' west of 5th Street. The borings data is described in Appendix 2 (NB#1350-42).

Three other buildings were mentioned in the files, but for their location the contemporary maps provided should be examined. A boiler room, of wood, galvinized iron and brick was demolished in 1940. This can not be the same as the boiler house, since that edifice was still standing in 1942. Its location was not given (Dem#7287-40). In 1941 a new toilet room was built for the Pepsi "office," but no location is given. There must have been considerable ground disturbance, since the drain went to a depth of 8' (NB#903-41). A "temporary" building, combination "blacksmith shop and cook house" was put up 375' west of 5th Street and 80' north of 47th Avenue in 1914. It was 20' by 20' (NB#1616-14).

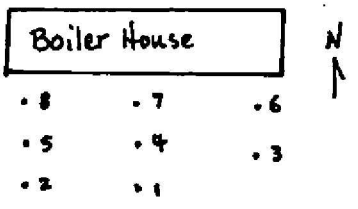
The one tank present c.1941 and the three present today are not mentioned in the Building Department's files.



Map of Blocks 21 & 22
compiled from Building Dept. files
showing buildings and measurements
c. 1941
(Alt # 1103-39; Alt # 299-39; et al.)
not to scale – measurements given.

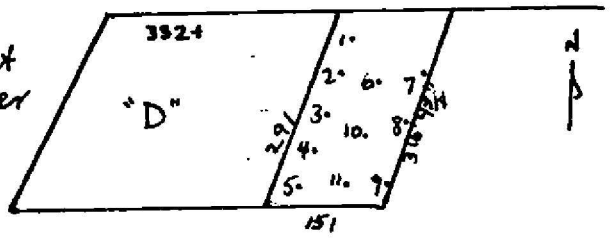
Block 21

Building (coal bin) is 36'2" by 14'2" approx. 280' W of 5th St. No further measurements given. Site was excavated before (!) borings were taken. Borings were often not continued beyond 9'. (NB#1350-42)



Boring #	Excavation "pit" depth, before boring	1st layer			
1.	8'3"	sand 8'9"			
2.	4'6"	mud, fill, sand 9'4"			
3.	5'0"	mud 6'0"			
4.	3'8"	mud, fill, sand 8'6"			
5	0" (?)	mud & fill 6'7"	small boulders 6'9"	gray sand 8'11"	rock 9'0"
6.	4'6"	fill, 5'6"			
7.	4'0"	mud, fill, and sand. (packed) 7'8"			
8.	4'2"	mud, fill, sand hard-packed 8'5"			

Canal



Block 22

Along canal bulkhead, directly east of existing building for - loading platform extension to Building D. (AH #2511-39). Borings 1-3 were listed as "excavated" to a certain depth before borings took place. No datum given.

Boring #	elev.	1st layer	2nd layer	3rd layer	4th layer
1	5.42'	7' excav.	peat & clay 18'6"	clay sand and gravel 26'9"	hard rock to 31'9"
2	5.42'	6'6" excav.	peat, clay & fine sand 19'	coarse gravel, sand & clay 25'8"	30'8" hard rock
3	5.42'	6'8" excav.	peat, wood, clay very fine sand 12'	med. sand & clay 15'	
4.	5.68'	1' concrete	fill, mud, wood 6'	fine sand & clay 11'6"	
5.	5.68'	1' concrete	fill, mud, brick wood 7'6"	sand & gravel, 4'10"	
6.	6.60	9'1" cinders, bricks, wood and sand	mud 13'1"	sand and 18'1" cinders	sand w. little clay, very small gravel 25'6"
7	7'0"	bricks, cinders, 5'7" wood concrete	mud 10'1"	gray clay and sand 14'2"	
8.	7.10	2'6" cinders & brick	6'2" mud	sand & clay 12'2"	
9	7.0'	3'+ brick, mud, cinders	sand & small gravel 7'8"	medium sand & clay 12'7"	
10	6.75'	1'8" brick & cinders	5'11 sand	8'3" mud	13'0" sand & gravel
11	6.9'	7' brick, wood concrete	sand, gravel, wood & clay 13'	hard dry clay and sand 13'10"	rock 14'10"

Block 18

Block 18 is bounded by 48th Avenue to the north, 49th Avenue to the south, 5th Street to the east and the East River to the west. It is presently divided into two lots, 1 and 5.

Lot 1

Lot 1 is located at the southeastern corner of Block 18. It is roughly triangular in shape. It runs 100' along 5th Street and 303' along 49th Avenue. The first recorded structure on the lot was a stable put up in 1909, on 49th Avenue 110' west of 5th Street. The stable was 155'3" by 26'8". At that time there were no other buildings on the lot (Lot 5, NB#252-09). Other buildings must have been erected later, because a 1915 permit describes the installation of gas pipes for a 25' by 25' varnish works (Alt#633-15). A later alteration details the repair of a 25' by 20' brick storage structure which had sustained fire damage (Alt#2174-20). Neither of these edifices can be located within the lot, nor can the three-family, 20' by 40' brick house which had gas lines installed in 1928 (Alt#429-28). Two buildings, owned by the Chase Varnish Company were demolished in 1944, but again the only information given is their total dimensions, 75' by 90' (Dem#2145-44). By 1957, Lot 1 was owned by Anheuser-Busch, which took the now vacant lot and built a one-story steel, concrete and brick warehouse and offices there. The L-shaped building, which had no basement, stood at the corner of 49th and 5th, 140' along 49th Avenue and 92' along 5th Street. The east side of the edifice extended 160' to the rear of the lot. The east side of the lot was left vacant and used for parking. Borings done on the building site revealed between 7 and 9' of fill, beneath which was "bog" (NB#54-57).

Lot 5

Lot 5 makes up the rest of Block 18. Presently it is almost completely covered by the tracks of the Long Island Railroad. NB#252-09 shows a series of buildings clustered in the northeast corner of the block, but does not give a description, exact location or size. A one-story cement block extension was built onto the existing two-story yardmaster's office in 1945. It probably corresponds to the structure depicted on the lot in the 1987 Hyde atlas. It contained locker rooms and tool storage, with a drain system. The 5' deep foundation pene-

trated approximately 1' of cinder fill, with packed earth below that. The 90' by 18' building was situated 500' west of 5th Street and 80' south of 48th Avenue (NB#182-45).

Block 19

Block 19 has the most complicated building history of the five blocks in the study area. Due to the number of structures erected on these lots, and the difficulty in determining their positions because of incomplete building records, the major disturbances will be discussed, an attempt will be made to pinpoint undisturbed areas and buildings which do not have foundations below a depth of 4' will be mentioned. The lot by lot analysis will follow the lot numbers as shown on the sketch provided.

Block 19 is bounded on the north by 47th Road, on the south by 48th Avenue, on the east by 5th Street and on the west by the East River.

Lot 1

Lot 1 is located at the corner of 48th Avenue and 5th Street. The earliest structure mentioned in the building records was a three-story brick factory, that according to BN#25-54 was built before 1898. At different times this building is shown as a one-story or a one- and two-story building (Misc#411-45; Lot 9, NB#2279-65). Although no cellar for this structure is ever mentioned, a 1954 plan indicates stairs leading down from the first floor, when the building was occupied as an office and laboratory (BN#125-54). All structures (one three-story and two two-story buildings are listed) on the lot were demolished in 1975 (Dem#97 and 98-75). A plot plan for an adjacent lot shows a 25' wide strip along 48th Avenue that has had no recorded construction (Lot 9, Alt#527-41).

Lot 5

Lot 5 (corner of 5th Street and 47th Road) has had several buildings with cellars, as well as buried tanks for the varnish factory which encompassed most of the east side of Block 19 at mid-century. The first recorded major disturbance was a chimney with a foundation 6' deep and 9' in diameter, built in 1920. It was located at the rear of a boiler house, which was 50' west of 5th Street (16' along 47th Road and 40' long toward the south) (NB#830-20; Alt#5615-33). This boiler house had a basement 5'6" below sidewalk level (BN#1104-51). At the corner of 5th Street and 47th Road was a two-story brick varnish factory, 40' (on 47th Road) by approximately 70' (along 5th). This factory also had a basement. Another structure with a cellar was built in the 10' space between the two-story factory and the boiler

house (Misc#778-65). Along the length of the southern lot line (100.46') stood still another section of the factory, about 30' wide. It was a one story edifice with a basement. An extension of this structure, along the western lot line as far as 47th Road (about 70' long by 15' wide) was added by 1965. This construction had a basement 7'8" below grade (Misc778-65). In the same general area there had been a 15'8" long, 1,500 gallon fuel tank buried roughly 5' below grade in 1945 (Misc#411-45).

According to the building records, the only apparently undisturbed section of the lot is at its center, an area roughly 45' by 30' (beginning 40' west of 5th Street, 40' south of 47th Road, 30' north of the south lot line and 15' east of the west lot line).

Lots 9 (southern half), 60 and 63

These three lots all border on 48th Avenue. They are being discussed in the same section because they were eventually combined in the 1960's.

The dimensions of the southern half of Lot 9 (9S), is indicated on the accompanying sketch. This unofficial division was made to insure greater clarity in this section. The earliest building record available for 9S is from 1941, when this section was part of the Fernow Varnish Works (along with Lots 1 and 5). Along 75' of the 87' 48th Avenue frontage, extending 42' north into the lot, stood a two-story brick building with basement. The areas left empty were to the east and north (Alt#527-41). Subsequent plans indicate that the basement, used as a boiler room, and for storage, extended 4' below the ground surface (Alt#100-54), and that on the north side of the building was a loading platform, and to the east, a driveway (Misc#3883-45). This structure remained until 1965.

A three-story factory was erected on Lot 60 before 1944. At the southwestern corner of the lot, it had a 60' frontage on 48th Avenue, and extended 46'4" into the lot. The cellar boiler room was located in the northeastern corner of the building. This factory was later extended to 75' by 100'. Although the addition had only a 4' foundation, an "existing solid circular stone concrete foundation over 8'-0" in depth" was uncovered approximately 54' north of 48th Avenue. Further disturbance was caused when a drain was installed at the rear of the lot, with a connection to the 48th Street sewer running near the eastern lot border (Alt#1478-44). It is possible that this exten-

sion was not completed to the original specifications, since a 1947 plan indicates that a strip of land along the northern side of the lot was still empty (Misc#8025-47). However, by 1965 the original plan is complete, with the whole lot built on (NB#2279-65).

The earliest building record which gives any information about structures on Lot 63 is from 1965. At that time there was a one-story brick building covering the entire lot (100' by 100'). It is not known whether there was a basement (NB#2279-65).

In 1965, Lots 9S, 60 and 63 were combined, and all the structures standing on the lot were razed. They were replaced with a one-story cinderblock and brick warehouse, 100' by 250', with no cellar. At least eight soil borings were taken, of which only five were reported. These show between 10' and 11' of fill, beneath which is a layer of 1' to 3' of bog (NB#2279-65).

Lot 9N

The northern section of Lot 9 sits on 47th Road. It was also owned by the Fernow Varnish Company. In 1941 it had a one-story brick building on it, irregularly shaped, but approximately 75' wide. It had no cellar (Alt#3078-41; Alt#527-41). Two 1,500 gallon tanks were installed in 1945 to replace an old one. 12' long, the bottoms of the tanks were buried about 8' below the surface, surrounded with 2' of clean fill. They were situated near the southwestern corner of the building. In 1956 the same structure is called a "cooker building," laboratory and office. A canopy was built over the rear of the property (Misc#142-56)

Lots 12, 14 and 17

Lots 12, 14 and 17, all fronting on 47th Road, were combined by 1965, along with Lot 9.

Lot 12 had 3 1,500 gallon tanks, 18' by 12' installed in 1950, near the front of the lot. They were buried 6' down (Misc#332-50). There seems to be little other building activity on Lot 12, except for a canopy over the rear section. A 1949 permit for an elevator was in the Lot 12 folder, and the shaft extended from basement to second floor. Since there is no record of a two-story building on this lot, it must be an error (Elev#60-49). Otherwise, plans for neighboring lots indicate that it was used as a "drive" to facilitate access to the neighboring lots (Misc#142-56; Misc#414-53).

Lots 14 and 17 were associated with one another by 1912, when a 62' by 100' building without a cellar was raised on the combined lots (NB#1735-11 or 12). It is difficult to place the factory, but it apparently stood completely on Lot 17 (Misc#1187-57). It was enlarged to take up all of that lot (67' by 100') in 1959 (Alt#2306-59).

In 1922 a one-story brick structure was built along the eastern border of Lot 14, roughly 20' east of Lot 17. Like the 1912 building, it had no cellar. In 1959 the owner of both lots, Fernow Varnish, roofed over the space between the buildings on Lots 14 and 17, creating a new 30' by 100' building (partly on each lot), also without a basement, used for storage, manufacturing, receiving and shipping (Alt#2307-59). Beneath this new section, Fernow Varnish had several tanks installed for the storage of kerosene, fuel oil and mineral spirits. The plan indicates that they were at least 50' long and the width of the building, buried approximately 7' below ground level (Misc#1502-60). Before this, a 10,000 gallon tank had been in this general area, buried at least 2' below grade, but it can not be precisely located (Misc#414-54).

Oddly enough, there are no building records for the remainder of the block, between Lots 17 and 60, and the River. NB#2279-65 (Lots 9 and 60) is the only permit that even shows the buildings standing in this area. It is reproduced on the block sketch provided.

Block 20

Block 20 is bounded on the east by 5th Street, the south by 47th Road, the north by 47th Avenue and on the west by the East River. The shore is irregularly-shaped, with a pier jutting out 221.8' into the River. The block is presently divided in to Lots 1, 5 and 15.

Lot 1

Lot 1 was formerly divided into the southern half of old Lot 1, Lots 19, 35 and the southern part of 56 (which overlaps old lot 1). On the old Lot 1 section, 90' north of 47th Road, a 2,500 gallon 13'8" by 6' fuel tank was installed in 1939. It was buried 2' to 8' below the ground surface (Fuel Oil 9850-39). In 1954 a plot plan in a permit for adjacent Lot 7 shows two attached sheds, one frame and one brick on the property, approximately 39' west of 5th Street (Alt#70-54).

Lot 56 extended 175' along 47th Road, west of 5th Street. Only the first 50' from 5th Street is included in old Lot 1. In the next 125' westward, only one structure is recorded in the building records, a 98'6" by 24' three-sided metal storage shed, built for the National Varnish Company in 1923. It was built 100' west of 5th Street and 4' back from the 47th Road curb, the long axis running north-south (NB#11124-23).

Lot 19 (south side of 47th Avenue) was the site of the Standard Oil laboratory. This one story building, 55'4" by 26'4", was built on piles, without a basement (NB#3089-32). By 1941, the site was vacant, and used for parking (BN#5872-41).

Lot 35 (47th Road) was the site of a rock crushing plant in 1900. It was one story, without a cellar, built on an "Old concrete foundation." The position of the building, 64' by 30', was not indicated in the file (NB#631-00; NB#696-01). The only other building recorded for lot 35 was a 20' by 20', two-story brick shed, which was demolished in 1945 (Dem#1234-45).

Present Lot 1 was labelled "vacant" in 1968 (BN#2407-68), and no structures are drawn on it in the Hyde Atlas updated to 1987 in the House Numbers Division of the Queens Department of Buildings.

Lot 5

At various times, Lot 5, at the corner of 5th Street and 47th Avenue, was combined with neighboring lots, as Lot 9, old Lot 1 and lot

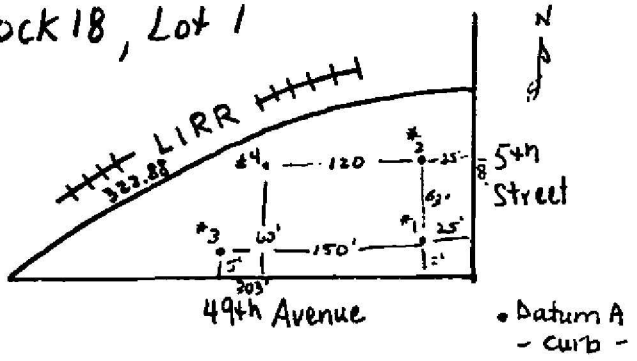
56. It was also called Lot 7. Misfiled, incorrect and inadequate permits and plot plans further complicate the piecing together of the lot's building history. The earliest building record available is for 1908, an alteration to the National Varnish Company's 100'6" by 99'7½" brick building. A cellar is mentioned, but neither it nor the location of the building is pinpointed (Lot 5, Alt#861-08). It must be the L-shaped structure standing at the cornerof 5th and 47th Avenue twelve years later (Lot 5, Alt#332-20). In this same 1920 permit, National Varnish added two new one-story brick buildings adjacent to the earlier structure. No basements were excavated, but below-ground storage tanks were installed at the southeastern corner of the new buildings, approximately 26' west of 5th and 80' south of 47th Avenue (Lot 5, Alt#118-20; Alt#332-20). In the 1950s the Quality Varnish Corporation enlarged the factory complex by adding a new one-story concrete block addition in the southwest corner of the lot. It was erected on piles, and the soil described as sand and gravel. The only unbuilt section of Lot 5 was an area at the lot's northwest corner, running 70' south of 47th Street, varying from 35' to 45' wide. The western 12' strip of this was a concrete driveway (Lot 7, Alt#1611-53; Alt#70-54). The latest reference to the lot is for the installation of a paint drying oven for the Valiant Metal Products Corporation in 1968, in the original L-shaped building. The plot plan shows no new additions, but approximately 20' of the southern arm of the L-shaped structure is labelled "yard" (Lot 5, BN#2407-68), which does not agree with the 1987 Hyde atlas depiction of the property, that shows the edifice unchanged.

Lot 15

Lot 15, beginning 135' west of 5th Street and continuing westward, extends 215' along 47th Avenue and 100 feet south of it. In 1923 a factory building was erected 250' west of 5th Street. A three-story brick building, 84' fronted on 47th Avenue, and it was 56' wide. The soil was described as medium rock, and the structure included a cellar. Neither the size of the cellar, nor its depth below the surface is mentioned (NB#274-23). In 1943 the factory was owned by the Buchmann Spark-Wheel Corporation, and the cellar was being used as an ordinary. In 1951 the cellar was employed as a boiler room and also for storage (Alt#1487-51). It contained two 2,500 gallon fuel oil tanks (Misc#586-74).Along the south lot line once stood a combination storage shed and garage, which in 1945 was enlarged from 30' by 23' to 90' by 23' (Alt#732-45). However, in the same year it burned and had to be

demolished (Dem#5671-45). This building was replaced with a smaller structure, further to the west of the original, by 1954 (Lot 7, Alt#70-54). From 1946 to 1951 a two-story extension was added to the east of the Buchmann Spark-Wheel building. The L-shaped addition 119' along 47th Avenue, and 99+' along the eastern lot line had no cellar, and was erected on "Good Fill" (Alt#3459-46; Alt#1487-51).

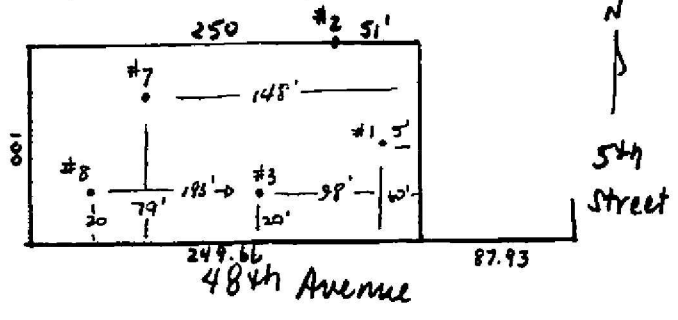
Block 18, Lot 1



NB#54-57

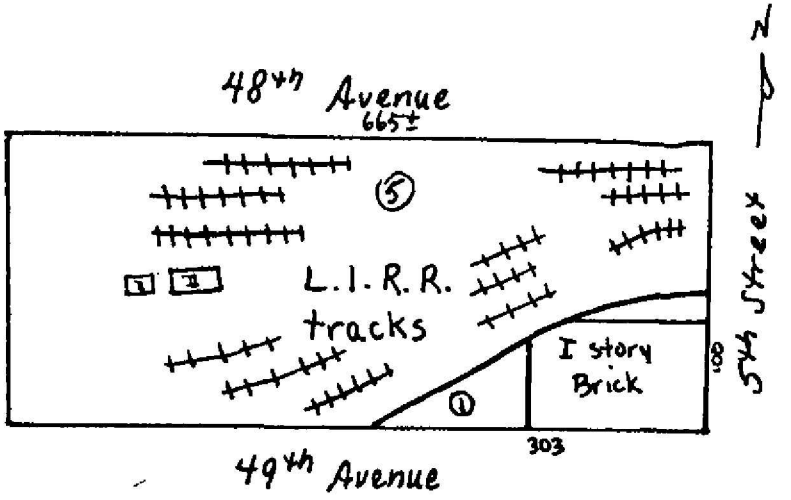
Boring#	Fill	2nd Layer	3rd Layer	water level
1	mixed fill to 9'	bog to 10'	fine sand & bog 13'	7'0"
2	11 to 9'	bog to 11'	fine sand & bog 14'	6'2"
3	mixed fill to 7'	bog to 9'	loose fine sand to 17'	5'11"
4	mixed fill to 4' sand fill to 9'	bog to 11'	fine sand & bog to 13'	5'3"

Block 19, Lots 9, 60, 63

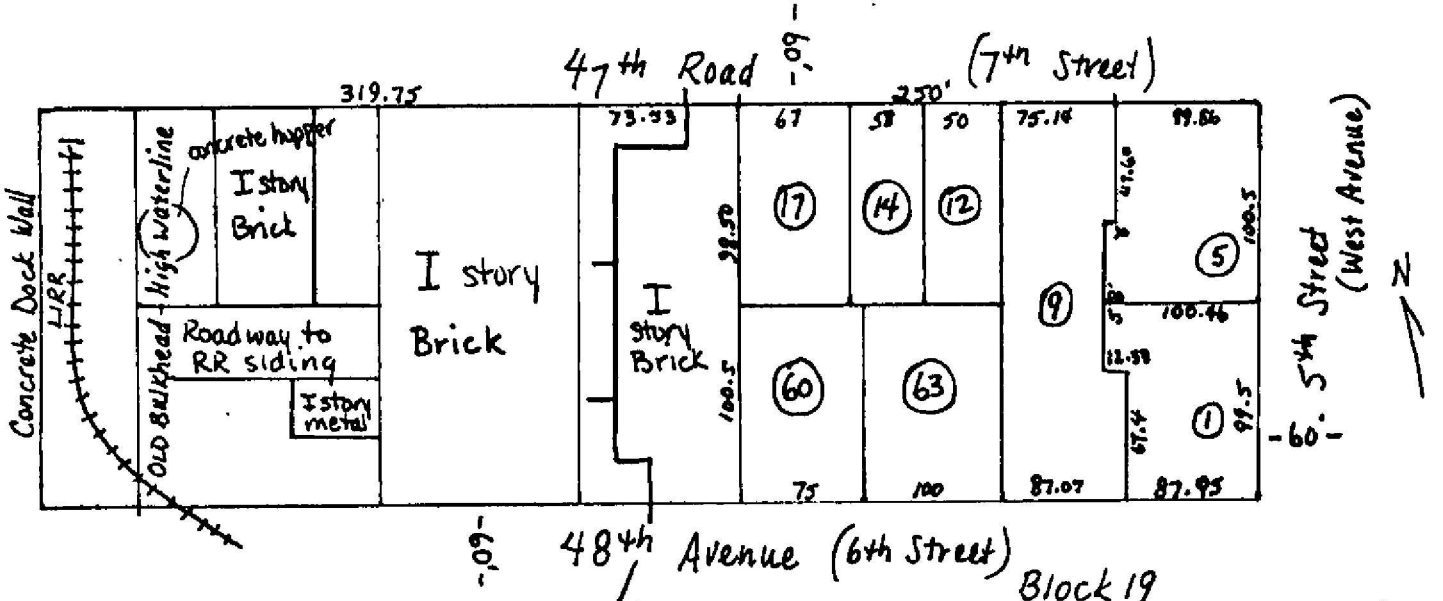


NB#2279-65

Boring#	Fill	2nd Layer	3rd Layer	water level
1	misc. earth, stone brick & cinder fill 10'	bog to 13'	medium compact sand, trace clay 17'9"	6'6"
2	fill to 11'	bog to 13'	bog & clay to 15'	7'2"
3	fill to 10'	bog to 11'	bog & clay to 14'	5'10"
7	fill to 11'	bog to 13'	bog & clay to 16'	8'3"
8	fill to 11'	bog to 12'	bog & clay to 15'	9'11"



Block 18
Hyde, Atlas of Queens
vol. 1, plate 1
(1928 corr. to 1957)

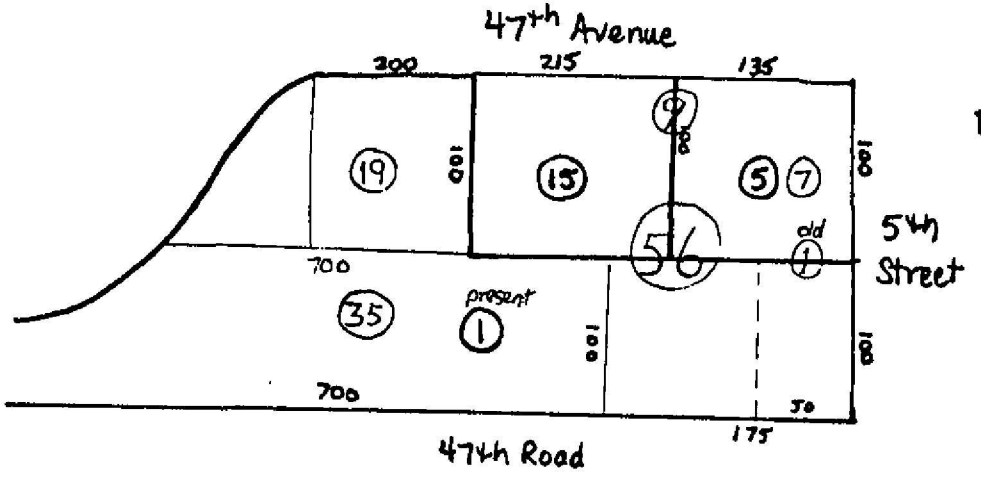


"existing 6" underground cross connection"

Block 19

with measurements (not to scale)

compiled from Buildings Dept. records OSP NB 2279-65 and Hyde, Atlas of Queens, Ward 1, vol. 1, plate 1 (1928 corr. to 1987 – House Numbers Division, Borough Hall, Kew Gardens, Queens.)



Block 20

Present lot numbers & boundaries in bold-face.
Compiled from Building's Department records, & Hyde, Atlas of Queens (1928 corr. to 1987). vol. 1. plate 1.

APPENDIX 3

LANDMARKS PRESERVATION COMMISSION

2 LAFAYETTE STREET, NEW YORK, NEW YORK 10007

~~566-3028~~
566-0302

October 28, 1987

Ronald Roth
Port Authority of New York and New Jersey
Department of Economic Development
1 World Trade Center 74S
New York, NY

Dear Mr. Roth:

We have reviewed the Hunter's Point Waterfront Development Draft Master Plan dated October 1986. Attached is a summary of an analysis of the site provided by our Survey Department. This analysis supplements the information on historic resources in the draft master plan as well as that provided by Elaine Baranowski of your office, a copy of which I sent you earlier. Our preference is that the historic resources identified be incorporated into the project plans as they are developed and that every effort be made to re-use these structures in situ.

Concerning possible impacts on archaeological resources, our archaeologist believes, based on conversations with Ms. Baranowski, that there are no archaeological resources on the project site. It will be necessary, however, to document the conditions reported by Ms. Baranowski, including the lack of colonial settlements in the project area and that the entire site has been either dredged or filled in the 20th century.

Please let me know if I can be of further assistance.

Yours truly,

Jeremy Woodoff

Jeremy Woodoff
director of planning

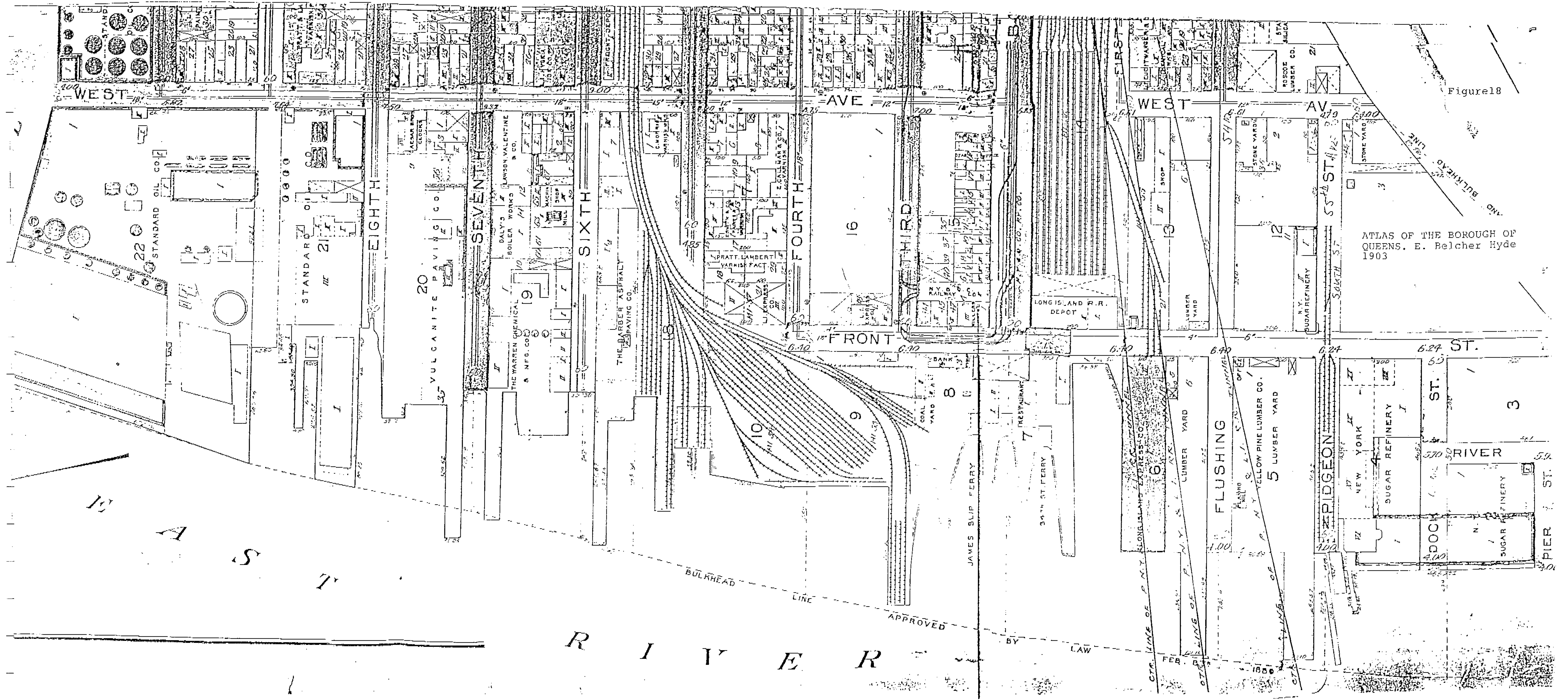

EAST RIVER
BULKHEAD LINE APPROVED BY LAW
WEST AVE
FRONT ST.
FIRST
THIRD
FOURTH
SIXTH
SEVENTH
EIGHTH
PIDGEON
FLUSHING
55th ST.
RIVER
PIER ST.
DOCK ST.
SOUTH ST.
LONG ISLAND R.R. DEPOT
JAMES SLIP FERRY
34th ST. FERRY
RESTAURANT
COAL YARD
BANK
STANDARD OIL CO.
STANDARD
VULCANITE PAVING CO.
THE WARREN CHEMICAL & MFG. CO.
DALY'S BOILER WORKS
LAWSON VALENTINE & CO.
THE BARBER ASPHALT PAVING CO.
PRATT LAMBERT VARNISH FACT.
L.I. EXPRESS CO.
N.Y. RAILWAY CO.
LUMBER YARD
YELLOW PINE LUMBER CO.
NEW YORK SUGAR REFINERY
SUGAR REFINERY
N.Y. SUGAR REFINERY
STONE YARD
ROSCOE LUMBER CO.
LONG ISLAND EXPRESS CO.
LINE OF P. N.Y. & L.I. R.R. TUNNEL
FREIGHT DEPOT
SHOP
BULKHEAD LINE

Figure18

ATLAS OF THE BOROUGH OF QUEENS. E. Belcher Hyde 1903

Figure 14

Beers' ATLAS. 1873