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LANDMARKS PRESERVATION
COMMISSION

**BOARD OF EDUCATION
SCHOOL SITE 8
Queens Boulevard,
Ireland and Hillyer
Streets**

1988

CEQR 88-130 Q

**ARCHAEOLOGICAL
ASSESSMENT
REPORT**

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ARCHAEOLOGICAL ASSESSMENT REPORT

for the

BOARD OF EDUCATION SCHOOL SITE 8

Queens Boulevard, Ireland and Hillyer Streets

CEQR 88 - 130 Q

Prepared

For Parsons Brinckerhoff Quade
& Douglas, Inc.
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I. INTRODUCTION

As part of the New York City Board of Education's proposal to construct a number of high schools and elementary schools throughout the metropolitan area, a phase 1A archaeological assessment was requested by the New York City Landmarks Preservation Commission (LPC) on a portion of School Site #8: the Queens Boulevard, Ireland and Hillyer Street School Site in the Borough of Queens. (See Figure 1.) This LPC request was based on a preliminary assessment of the potential archaeological sensitivity of the entire site block (Block 2452) conducted by Historical Perspectives, Inc. (HPI). The preliminary evaluation, included as Appendix 1, identified specific lots of the block as potentially archaeologically sensitive for prehistoric resources. These lots (Lot 1 - the southern one-half, 12, 16, 20, 23, 30, and 38) are situated on the southern end of the block, fronting Hillyer, Ireland, and 51st Street.

The current Board of Education (BoE) plans for Site 8 are to erect a school building on a pile foundation. The preliminary analysis indicated that such deep subsurface disturbance might adversely impact deeply-buried, potential prehistoric resources. The following LPC-requested phase 1A analysis of these specific lots addressed several issues, including: (1) the prehistoric resource potential; (2) the survivability of such resources; and, (3) the advisability of field investigations to retrieve such potential resources. As described in the following Methodology section, various resources were tapped to gain a fuller understanding of the realistic archaeological sensitivity of these lots. A major information resource were soil boring logs from the site block and surrounding area.

Our tentative conclusion is that, although the site does possess a degree of prehistoric potential, the modern landfill overburden, combined with a high water table, argues against field investigations. However, our final recommendation on the necessity for phase 1B fieldwork will depend, as stipulated by LPC, on the archaeological analysis of proposed site-specific soil borings. These borings, taken according to archaeological directives, will be coordinated with future foundation-design required borings.

II. METHODOLOGY

HPI has completed five of the six necessary tasks in order to fully satisfy the requirements of LPC. Each of these tasks, described below, were necessary to finalize the phase 1A study. Task 6, the archaeological analysis of a site soil boring(s), will be scheduled in coordination with the project engineers.

The concerns guiding the phase 1A research were:

- (1) What is the realistic probability that School Site 8 hosted prehistoric activities of significance;
- (2) What is the likelihood that such activities resulted in material culture remains that will contribute substantively to our understanding of past cultures;
- (3) Have such potential resources survived urbanization;
- (4) What is the possibility that such potential resources can be retrieved?

Of crucial importance in assessing the potential for prehistoric site exploitation is the reconstruction of the site's topographic conditions (i.e., elevation and drainage) during various prehistoric cultural periods. Such information was sought during each of the task phases. (See Figure 2.)

Task 1: Primary Source Material

Pertinent data was collected from various borough departments, the Queens Historical Society, the Long Island Division of the Queens Borough Public Library, and the New York Public Library. Of particular help were the "Newtown Register" newspaper holdings of the Queens Borough Public Library.

Task 2: Secondary Source Material

In order to place the BoE site in an historical context, local and regional histories were reviewed for pertinent material (e.g., Erlich's "A Town Study in Colonial New York: Newtown, Queens County," Riker's Annals of Newtown, and Seyfried's The Long Island Railroad and Queens, a Pictorial History). The works by Reginald Bolton, Robert Grumet, and Daniel Denton (on Native American exploitation in western Long Island) were researched.

Task 3: Archaeological Literature

Inquiries on inventoried prehistoric and historic sites were directed to both the New York State Museum and the New York State Historic Preservation Office. Available site reports, photograph collections, journal publications, etc. were reviewed for data specific to the project area.

Task 4: Subsurface Disturbance Record

A disturbance record was compiled on School Site 8. Documentation on past construction and demolition was collected on

a lot by lot basis to determine cycles of early twentieth century subsurface disturbances and to identify the possible impacts these cycles may have had on pre-existing subsurface archaeological resources. The history of the parcel was gleaned, in large part, from atlases, insurance maps, and comparative data.

Task 5: Field Visit and Photographic Record

A photographic record of current conditions was made. See the attached photographs. Interviews were conducted with site-block employees during a field visit and also through telephone interviews.

III. PREHISTORIC ERA

The inventory of known prehistoric sites in southern New York has resulted from years of archaeological investigations, initially by avocational collectors and groups. More recently, spurred by the conservation movement and supporting legislation, professional archaeologists have focused attention on the region. Today a number of archaeological interests, including government agencies, university affiliated individuals and groups, professional cultural resource management firms, and avocationalists are conducting research in southern New England. The body of data which has been, and continues to be, generated by these archaeological efforts, provides expanding insights into the region's past 12,000 years.

The outline presented here summarizes the overall prehistory of the region to provide a contextual understanding of prehistoric land use and subsistence patterns.¹

PaleoIndian Period (12,000 - 9,500 B.P.)

The PaleoIndian period represents the earliest known human occupation in southern New York. During this time period, approximately 12,000 to 9,500 B.P. (Before Present), an open spruce woodland with scrub birch and alder dominated the post-glacial environment. It is postulated that small bands of hunters nomadically roamed large territories, relying predominantly on post-pleistocene megafauna. Artifacts attributed to the PaleoIndian tradition and collected from sites in New Jersey, Connecticut, and southern New York include diagnostic Clovis type fluted projectile points and processing tools such as end and side scrapers, graters and drills. PaleoIndian lithic technologies reflect a preference for highly siliceous materials, primarily cherts from eastern New York and jasper from Pennsylvania and New Jersey. The presence of these exotic materials from sources outside of the immediate region suggests extensive travel or well-defined trade networks in operation during this period.

Relatively little is known of this period in southern New York. Sites are rare and those that have been identified are often found in topographic locations which were once shores of glacial lakes and upon elevated areas along large river drainages. Due to the post-glacial changes in topography, habitation sites are difficult to locate, although spot finds of diagnostic artifacts are more common.

¹ The following synopsis is taken, in large part, from a Historical Perspectives, Inc. study, the "Connecticut Department of Transportation: Route 111 Archaeological Assessment Report," prepared by Faline Schneiderman-Fox, 1988.

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

The time period which spans from approximately 9,500 to 3,000 years ago is known as the Archaic, and has been subdivided into Early, Middle, Late and Terminal periods. During the Early Archaic (9,000 - 7,000 B.P.) the environment of tundra/parkland during the previous period gave way to a pine and oak forest. As the vegetation changed, native groups adapted to newly available resources. It is the general consensus of opinion that there was a shift from a primary dependence on big game during the late glacial environment to a hunting, fishing and gathering strategy reliant upon a diversity of game such as white-tailed deer, bear and elk as well as numerous smaller animals and birds. It is postulated that populations increased with a more reliable and predictable subsistence base provided by the new environment. Bifurcate-base points, diagnostic of this period, are often found along major drainages, and as in the previous period, are often few and far between.

Middle Archaic cultures thrived from approximately 7,000 to 5,000 years ago as the climate continued to warm, allowing new flora and fauna to establish themselves. Resources available seasonally, such as spring anadromous fish runs and fall nut producing trees, became incorporated into a more regulated pattern of movement across the land. It is suggested that with established rounds of resource exploitation, territories in which distinct groups operated became more firmly established. During this time period, tool kits were expanded to include wood-working tools, spear thrower weights, fishhooks and other tools associated with a wide range of resource processing and procurement activities.

From approximately 4,500 to 3,000 B.P. Late Archaic cultures flourished. Warming trends promoted an environment rich in oak and hickory, providing abundant resources. More Late Archaic sites have been reported than either of the two previous periods. It has been suggested that the Late Archaic subsistence pattern was one of a centrally based wandering pattern focused on the exploitation of seasonal resources. Resources available at this time were nuts, deer, elk and other mast eaters. By 3,000 B.P. the sea level had reached its present level and the coastline was much as it is today. During this period a high degree of cultural complexity is represented by the wide range of site types and the great diversity in site locations. Burial ceremonialism became more common, as suggested by the presence of red ochre and grave goods in burial situations.

Woodland Period (3,000 - 500 B.P.)

From approximately 3,000 to 500 years ago, the Woodland period persisted in southern New York. Again divided into three sub-categories, this period consists of the Early, Middle, and Late Woodland periods. The first of these, the Early Woodland

period lasted from c.3,000 to 1,700 years ago. This cultural phase is marked by the introduction of ceramic vessels as part of the material culture. During this time a gradual cooling of the climate occurred, perhaps limiting available resources. Coastal resources providing year round stability were often sought, while upland hunting and gathering remained an important activity.

The Middle Woodland period, lasting from c.1,700 to 1,000 B.P., is marked by regional changes in ceramic styles. A significant amount of exotic lithic materials were utilized for the tool assemblages, perhaps indicating increased trade networks. During this period, maize was introduced from meso-America and horticultural practices were slowly adapted into the lifeways of local Indians. The nature and extent of the use of maize pre-historically has been of much debate to archaeologists working in the Northeast.

During the Late Woodland period, 1,200 to 500 years ago, the climate was similar to what it is today. Sites of this period are known to be located in a number of environmental settings including inland rockshelters, coastal and island sites, inland sites on major drainages, and others located near swamps and along streams. During this period there is marked evidence of an increase in site size, abundance and artifact frequencies. An annual subsistence round of seasonal movements between riverine, coastal estuarine and inland wintering sites may have existed. The increase in horticultural activities may have affected seasonal movements, with spring and summer being spent planting crops.

Contact Period (500 - 300 B.P.)

The period from 500 to 300 B.P. is called the Contact period and is typified by the first contact between Native American groups and Europeans. The native settlement pattern at the beginning of this period was essentially the same as that of the Late Woodland and consisted of seasonal hunting and gathering.

The first contact with Europeans was probably with Spanish, Portugese, and English explorers, who began to trade with the native population. With increasing contact, settlement and subsistence patterns changed substantially as European materials, including metals and weapons, were introduced. Shell beads, or wampum, were produced by the Native Americans in large quantities as the medium of exchange. As a result, many Native American groups settled along the shore to gain control of wampum production (Ceci 1980).

In the seventeenth century a number of factors operated to cause a breakdown of native sociopolitical organization. The influence of prized trade goods and the desire to obtain them caused stress between tribal groups. A series of European-introduced plagues depopulated many groups. The conflict due to

rapid colonial expansion resulted in irrevocable change.

Although there has been a large amount of archaeological research conducted in southern New York, there still remain a large number of unanswered questions regarding prehistoric subsistence and settlement pattern changes through time. Questions regarding the interaction of cultural groups, the introduction of horticulture and population fluctuations through time are only some of the questions that remain to be answered. Additional archaeological data is required to determine the precise effects of European contact on Native Americans and their subsequent population decline. Potential information regarding these questions can only be obtained by continually gathering additional data on prehistoric lifeways.

Project Site Prehistoric Potential

As detailed above, Native Americans exploited different environmental niches over time, and each geographical locality represents a specific environmental niche during different time periods. To estimate the degree of probability that Native Americans did or did not exploit the BoE site, the environmental niche it afforded and the likelihood it may have fulfilled the needs of a prehistoric culture must be appreciated. According to the earliest cartographic evidence, we know that the site was, pre-nineteenth century, on a south-facing, gentle slope bordering a portion of the Horse Brook (Horsebrook) wetland. (See Figures 3 and 4.) Therefore, the seminal factor determining the formation of archaeological sites on the project site will be the differing use of the wetland margin zone through time. Results from archaeological fieldwork throughout the Northeast attest to the high probability of Archaic and Woodland period exploitation of low terraces and elevated knolls on well-drained soils within close proximity to a wetland, the confluence of two water systems or a terrace at the edge of a major fresh water source (Kearns and Kirkorian, 1986:7).

There are ethnographic accounts (Denton, 1902), antiquarian writings (Armbruster, 1923), artifact collections (Asadorian; personal communication; Bolton, 1922; Seyfried, 1982), and archaeological reports that place Native Americans in the Elmhurst area of Long Island. Ralph Solecki's 1930s salvage work in Queens is directly pertinent to the site area. "Catalog of Photographs by Ralph Solecki - Long Island And Environs, Local Archaeology, held by the Long Island Division of the Queens Borough Public Library, Photograph Number 108 shows an Elmhurst, Queens site. Looking north across Horsebrook. June 1937. Part of Large swamp running east of Elmhurst. South side of Horse Brook east to Elmhurst swamp. Indian site on north and south banks of stream.' Dr. Solecki is unable at this time to identify the actual position of the photographer in 1937 and the exact location of this site was never plotted on a map. (Ralph Solecki, personal communication, 4/18/86). This photograph contains no identifying characteristics - two boys playing in what is most probably Horsebrook in the center of a neighborhood scene of houses with sloping backyards and a road/telephone poles running in front of the houses" (Kearns and Kirkorian, 1986:13).

Reginald Bolton's early twentieth century research and depiction of Indian trails in the borough of Queens did not place any documented and/or "tales" of Native American activity on the project site (Bolton, 1922). Ralph Solecki's early notations on Indian village centers in the borough did not include the site area (Solecki, 1941). Neither the New York State Historic Preservation Office nor the New York State Museum have inventoried/ filed sites in the immediate vicinity of the School Site 8 property.

It is very probable that prehistoric peoples traversed (c. 9,500 - 300 B.P.), in some manner, the BoE site, taking advantage of the wetland resources, such as tubrous grasses and water fowl. However, there is currently no evidence that the BoE site ever functioned as a food-processing station, a temporary camp site, or as a habitation or burial locus. As a matter of fact there is very limited knowledge of how and to what extent aboriginal peoples did exploit the inland landscape of Long Island. The minimal fieldwork on western Long Island inland sites has definitely limited our understanding of the prehistoric seasonal settlement patterns operative during the different time stages. Lightfoot's documentation on the settlement pattern data of Long Island clearly illustrates this bias, see Figure 5. "Investigations of some of the less disturbed inland sites may reveal that they were stations on the seasonal round, and that many of these localities were the scene of food procuring and/or processing activities from Late Archaic times up into the seventeenth century. Winter deer hunting and fishing, the taking of migratory fowl, and the gathering of wild plant foods such as the ground nut (Apios Americana) are among likely inland food-getting activities" (Wyatt, 1982: 77).

As will be detailed in the following section, Lots 1 (southern section), 12, 16, 10, 23, 30, and 38 have experienced twentieth century development. However, the borough records do not indicate that deep-foundation construction occurred on these lots. Soil boring logs taken from the block and surrounding parcels document the introduction of a fill overburden on the site area. Two borings conducted in 1984 on the northeast section of Block 2451 registered 8' and 5.5' of fill and ground water at 9.5'.² Three borings conducted on the southern half of Block 2453 yielded a fill record of 5', 9', and 6' with a ground water level of 7', 8.5', and 7', respectively.³ We have a record of fifteen borings taken from the site block revealing a mantle of fill, 6' to 11' thick, that has concealed the slope and wetlands that once dominated the neighborhood.⁴ (See Appendix 2.) Out of the fifteen site-block borings, there only two "bog" entries. Such "bog" or peat notations might be indicative of a slowly-inundated wetland - an environment highly valued by prehistoric peoples. However, these two borings were taken from opposite sides of the block and do not indicate a definitive soil lens or peat stratum. Also, these borings are from the 1940s and their

² Boring logs supplied by Parsons Brinckerhoff Quade & Douglas, Inc.

³ Borings logs provided by Parsons Brinckerhoff Quade & Douglas, Inc.

⁴ These borings were obtained through the Queens Borough Building Department Block and Lot files: New Building Permit #513, 1984; #1457, 1947; #4838, 1947.

degree of precision and pertinency to today's terminology may be questioned.

It is very possible that underneath the introduced soil are undisturbed prehistoric resources. Although this might appear to be a reasonable depth from which to retrieve prehistoric resources, the soil boring log data also indicates that the water table is high, registered variously between 4 and 9 feet below curb level. Archaeological field investigations in water-logged sites are expensive in terms of personnel, pumping and screening equipment, conservation techniques, and crew safety. It would not be advisable to undertake such testing at School Site 8 unless there is a more definitive indication of a prehistoric resource-rich environment. For example, if the proposed soil borings were to reveal a substantial peat lens then the prospect of deep tests in such wet fill would be more tenable. The proposed soil borings which are necessary for the foundation design phase will also serve to answer important archaeological questions. Results of these subsurface tests should provide the information needed for a final judgment on the necessity of a phase 1B investigation.

IV. HISTORICAL ERA

In early 1652 The Reverend Francis Doughty and his followers established an inland Long Island village. The center of this early village, called Middleburgh by the Dutch and later known as Newtown, was approximately six blocks southeast of the Board of Education site block (French, 1860:548). The house lots in the village were laid out on the south side of the thoroughfare that preceded Queens Boulevard and on the north side of what is now known as Justice Street. The small Horse Brook water course traversed the settlement on a circuitous northwest - southeast route and Horse Brook-fed wetlands were northwest and southeast of the village center (Kelley, 1909: 297). Although very close to this burgeoning community, the Board of Education parcel apparently remained isolated from village development for over 200 years.

The village slowly grew in the succeeding years; more English settlers drifted in, a Congregational chapel was built, a school taught by the minister opened, a town clerk and magistrate were elected and roads were laid out. From the beginning there were no large homesteads. The Block 2452 land evidently hosted only farm fields/pasturage and no buildings. There were a few craftsmen among the villagers like blacksmiths, millers, and wheelwrights, but the vast majority of the residents depended solely on agriculture for a livelihood. "The early settlers of Long Island, coming as they did chiefly from the New England colonies, naturally followed the same system of tillage and rotation of crops to which they had been accustomed" (History of Queens County, 1882:p. 44).

After New Amsterdam was conquered by the English in 1664, the former Dutch colony was handed over as a personal fief to King Charles II's brother, the Duke of York. One year later the project site settlement area was named Newtown, a name which lasted into the 1890s. The original land grants were confirmed by a succession of English governors - Nicoll/1666 and Dongan/1683 (French, 1860:p. 548). The colonists became dissatisfied with the Duke of York's rule which provided for no representation, and, to pacify them, the Duke in 1683 reorganized the colony on the English model. Long Island was divided into three counties: Kings, Queens and Suffolk. The counties, in turn, were subdivided into Towns. Newtown became one of the six administrative divisions within Queens.

As early as 1666 part of the highway now known as Queens Boulevard was already a main lane of communication from the western end of Long Island as far as Jamaica. This wagon roadway, which intersected with Broadway east of the project

block, was based, in part, on original Indian paths (Kew Gardens Post, 1931:n.p.). In the hundred years between the setting-up of the Towns (1683) and the outbreak of the Revolution (1776), Newtown grew considerably. The population went up by natural increase and Dutch families began to infiltrate from Brooklyn and even New York. There was also some immigration from Europe. The Indian population rapidly declined through European introduced diseases and emigration to Jersey and the West.

"The inhabitants were so entirely given to agriculture, and had pursued it so assiduously, that in 1723 all the land in the township had been taken up" (History of Queen's County, 1882: 333). So the younger sons of Newtown's families had to move off Long Island to find free open land on which to settle. Farm size rapidly diminished in the eighteenth century by subdivision among heirs and sales. By 1776 Newtown was a well-established village with an upper class of landed gentry, small farmers, journeymen and a very tiny professional group.

The Revolution found Newtown divided. The wealthier families had an interest in maintaining the status-quo: the Anglican church had been established against the will of the townspeople in 1704 and it formed the nucleus of Tory sentiment. The Congregationalists and Presbyterians, the only other groups, were strongly anti-Royalist in their sympathies. "Presbyterian churches were everywhere used for military purposes" (French, 1861:545). The Battle of Long Island (August 26-28, 1776) decided the fate of the island; beginning in September 1776 British troops occupied Newtown and its outlying villages, patrolled the roads and exacted both food and lodging from the conquered populace. The local inhabitants were robbed often and all the woods cut down for fires in the soldiers' tents. During the Revolution cold Long Islanders dug peat from the swamps in Queens to use as fuel (Stiles, 1867-9:p. 302). Southeast of the project site, at Queens Boulevard and Grand Avenue and at Queens Boulevard and 57th Avenue were two centers of Revolutionary War activity, the Corner House and the Renne House, respectively. The British occupation forces were said to have commandeered the homes for dances and Howe's headquarters (Kearns and Kirkorian, 1986:20-21).

The long period 1783-1850 was a time of healing and recovery from the Revolution with a very small increase in population. The advent of European immigration because of the Irish potato famine (1847) and the revolutions in Central Europe (1848) stirred up the stagnant pace of life in Queens. The Civil War was a further quickening influence. Many Newtown boys saw the outside world for the first time. Although developers began buying up farms and creating new sub-divisions in the

Newtown area, the project block remained agricultural land, see Figures 4 and 6.

As early as 1801 the Flushing and Newtown Turnpike Road and Bridge Co. had opened its road along 51st Avenue and Laurel Hill Boulevard to Greenpoint, Brooklyn, and Newtown Village had become a junction point for travellers when stage coaches were at the peak of their popularity in the late 1840s and 1850s. In 1854 the Flushing Railroad laid its tracks through Newtown Village to the East River. The importance of Newtown Village was further enhanced when Thomson Avenue was laid out and opened from Long Island City to Broadway in 1870, giving a direct through route to New York. In the same year - 1870 - Hoffman Avenue was laid out from Broadway in Newtown, to Jamaica, at that time the most populous village in the county. Thomson Avenue and Hoffman Avenue today are the western and eastern ends, respectively, of Queens Boulevard. The route that is now Queens Boulevard (Hoffman and Thomson Avenue) was regulated at eighty feet wide by an act of the state legislature in 1869-70 (Kearns and Kirkorian, 1984:5).

In the late nineteenth century press Newtown Village was gently mocked for its conservatism, smallness, and general air of somnolence, while the Queens communities of Long Island City and Flushing were praised for their rapid growth (Seyfried, 1985:p. 100). Of course, this could not last; in 1876, the street railway reached Newtown Village with its tracks laid in Broadway. In 1895 another street car line came through Broadway and 43rd Avenue going on to Corona and Flushing. Meanwhile, new villages grew up on all sides. One of these villages was developed in 1893 by Cord Meyer and named "Elmhurst." Though it was located northwest of the Village of Newtown, and of the project area, the name soon came to apply to the whole town (Seyfried, 1982; See Figure 3).

Elmhurst entered New York City in 1898 along with the rest of Queens and shared in the rapid development that began with the opening of the Queensborough Bridge (1909) and the electrification of the Long Island Railroad (1913). The 200 foot wide Queens Boulevard was laid out in 1910 as an arterial highway through the heart of Queens and as an outlet for the automobile traffic that the bridge was beginning to bring in. The exceptional width of the boulevard caused the condemnation of a large number of buildings on the south side of the old road through Newtown and on the north side between 56th Avenue and the Long Island Expressway. Though the full width of the new highway was curbed and guttered, it was not until the 1940's that the full 200 foot width was used for five-lane traffic in each direction (Seyfried, REGISTER Index). In 1913 a trolley

line was built along the new road, linking Elmhurst with Long Island City and bringing New York within the 5 cents fare zone (Reifschneider, 1950:15). In 1937 the Queensborough subway, constructed through Broadway and Queens Boulevard, was opened through to Jamaica, bringing rapid transit to central Queens for the first time.

Project Site Historic Potential

Although Elmhurst, or Newtown, has a long and significant history in the evolution of Long Island, the School Site 8 property escaped involvement in these historic developments. The center of the Village of Newtown, at Justice Avenue, Broadway, and Queens Boulevard, was approximately six blocks east of the proposed construction. The village originally spread along Justice and north on Broadway, not reaching Block 2452. According to Stiles (1867-69:290), the Revolutionary War occupation of Newtown by the British forces was concentrated in the village center and the soldiers' campgrounds were probably south of Grand Avenue.

The subject parcel apparently served as open agricultural land and/or pasturage from earliest settlement into the twentieth century. As can be seen on Figure 9, Block 2452 (originally designated as Block 1569) was part of the large Sackett Moore estate. The Sackett Moore homestead, which stood from the seventeenth century to the 1940s, was at Broadway and 45th Avenue, approximately one-third of a mile northeast of the school parcel (Figure 9). Riker's 1852 "compilation" of Newtown places the site parcel in or immediately north of open land labeled SMITHS MEADOW (Figure 6).

It wasn't until the post-Civil War real estate development period that the site streets of Hillyer, Ireland, and Maurice - now known as 51st Street - were mapped and the forerunner of Queens Boulevard was extended northwest beyond the Broadway intersection. There are no records on the origin of these street names; however, Ireland is an old Long Island name and Maurice was likely named for State Senator James Maurice from Maspeth who died in the 1880s (V. Seyfried, personal communication, 11/3/88).

Queens Boulevard as an arterial highway is a modern creation. The name was coined in 1910 by the Board of Estimate of New York City to describe a great new road that would provide an outlet for traffic coming from Manhattan over the Queensborough Bridge and conduct it through the Queens County heartland to Jamaica and eastern Long Island.

Portions of the road were already in existence though in an unimproved form. Thomson Avenue had been laid out by an Act of the Legislature in 1870 to run from the Court House in Long Island City through to Grand Avenue, Elmhurst [passing the northern boundary of the school site]. Nominally, Thomson Avenue was a 100 foot wide road for its whole length, but much of it was sandy and often nearly impassable. At the intersection of Grand and Broadway [six blocks southeast of the school site] began Hoffman Avenue which was, in effect a continuation of Thomson Avenue from Elmhurst

[south] to Jamaica. It was laid out by the Legislature in 1870 and named for Governor Hoffman of New York.

As soon as the Queensborough Bridge opened in 1909, automobile traffic increased enormously on the new road; as early as 1912, 5000 cars were using Queens Boulevard on Saturdays and Sundays according to The Newtown Register.

In 1913 the Manhattan and Queens Traction Company built a trolley line on the sides of the road. The gradual widening of the road, section by section over its six-mile length, encouraged more traffic and the road would probably have reached saturation had not the Grand Central Parkway and the Long Island Expressway opened providentially in time to siphon off a large portion of the through traffic (Kearns and Kirkorian, 1986:18-19).

During this same nineteenth century development period, railroad bed construction impacted the lands immediately south of the project block. In November 1873 the Newtown and Flushing Rail Road Company opened services on its White Line track, which traversed low-lying lands south of Block 2452, roughly paralleling the Horse Brook stream bed. See Figure 8. "The White Line as completed was a short but well-constructed spur. The track left the main line immediately west of Maurice Avenue [51st Street], crossed that avenue diagonally at grade, crossed Queens Boulevard midway between Goldsmith and Van Alst [Van Loon] Streets, and reached the Newtown station at Broadway, within a few feet of the present stairs into the subway" (Seyfried, 1975-1984, Vol. 3:77) The White Line survived less than five years and the dismantling of the rails started in 1878. It is very probable that filling and grading of the Horse Brook wetlands first began at this time; however, it is unknown if the site block experienced any landfilling at this early time.

The 1903 and the 1908 Hyde Atlas, Vol. II, 1st and 2nd Wards, show Block 2452/1569 as vacant land (Figure 9). The 1915 Atlas also shows the block as un-lotted vacant land. By 1929 the land atlas does depict lotting (Lots 1, 4, 7, 12, 20, 23, 30, and 38) and one structure at the corner of 51st Street and Hillyer (Figures 10 and 11). This cartographic evidence is seemingly contradicted by the Queens Borough Building Department files. The parcel's earliest proposed construction activity, listed on the Block and Lot Folders index cards, took place in 1928 on Lot 7, the corner of Queens Boulevard and Hillyer (NB#11150) and in 1937 on Lot 20, the corner of 51st Street and Hillyer (NB#3271). Most probably the proposed Lot 7 construction followed the 1929 atlas publication, accounting for its absence from the atlas. The Lot 20 new building must have replaced an earlier, unrecorded one-story structure or, in fact, been an alteration of an earlier

construction phase. These Borough records were not found. However, the following lot discussions are based on information from the Block and Lot folders.

Lot 1 - southern 79' 9 1/16" x 100'

Lot 1, originally Lots 1, 4, and 45, had a two-story auto showroom (no basement but with a cellar for the boiler "on ground") erected on it in 1947. The two-story portion of this building directly fronts on Queens Boulevard but the Ireland Street frontage is only a one-story brick building. This construction, or two separate construction phases, did not cover the entire lot. The southern most 79' 9 1/16" x 100', has evidently not experienced deep, subsurface construction. It is this section of Lot 1, not the full southern half of Lot 1, that is apparently undisturbed and potentially sensitive. Eight soil borings taken for the 1947 project noted a fill/mixed sand overburden ranging in depth between 5 and 8 feet. The ground water level was recorded at depths between 4 and 6 feet and always above the first natural soil stratum. (See Appendix 2.)

The next construction record for Lot 1 combines it with Lots 16, 20, 23, 30 and 38 for proposed conversion to an indoor skating rink (the first floor described as "on ground") and vehicular parking. (Alt #923, 1980). The total measurements of this combined, irregular plot are 121.37' on Queens Boulevard, 410.45' on Ireland, 211.21' on 51st Street, and 324.38' through the middle of the block and represent the current distribution of building and parking usage. The most southerly 79' x 100' strip is presently covered in bituminous pavement with a concrete entrance pad.

Lot 12

In 1984 the proposed construction of a one-story masonry building (for auto repair) combined this lot with Lot 7 and Lot 16 (parking only), New Building Permit #513. This construction never took place and currently the lot is an empty bituminous pavement parking lot. However, a set of five borings were taken on the combined Lot 12 and Lot 16 area for this 1984 proposal and they are helpful. The two borings on this lot noted 10 and 11' of fill - clean brown sand with fill, silt, cinders and brick. The boring logs noted a constant ground water depth of 9'.

This degree of introduced overburden is greater than in any other location on the site block and may indicate a dip or slope in the natural topography. During a field inspection (11/22/88) it was impossible to note any significant slope/contour on the block. Immediately south of the block, across 51st Street, there is an approximate 4' down slope to the back alley of the neighboring row houses.

Lot 16

The first entry in the Block and Lot files entails a 1962 alteration (#1919) converting a parking lot to a "contractors yard" described as one story with no basement. The parking lot was constructed/alterd in 1955 according to a reference to Alterations Permit #634, 1955 but this earlier documentation was missing. Lot 16 enters the record again as a "proposed parking area" in a 1984 application for Lot 12, see above. Three soil borings taken in 1984 noted 7'6" to 8'6" feet of fill (fill, sand, silt, gravel, wood, and cinders) with ground water depth at 9'. A notation on Boring B1 - in the southwest corner of the lot - stated "possible underground stream."

Lot 20

As stated above and can be seen on the 1929 Hyde Atlas (Figure 11), a one-story auto parts store was constructed on the 60' x 112.60' x 63.36' x 92.24' lot, currently known as 77-11 51st Street. There are no documents in the Block and Lot files on this construction or any subsequent alterations. The one-story building, with a stone facade, is extant and houses Eskay Precision Transmission Inc. Asphalt parking surface covers the remainder of the lot.

Lot 23

Lot 23 is apparently joined with Lot 16 as a parking lot in 1962, Alteration Permit #1918. There are no other documents in the Block and Lot files on this lot. Currently fencing separates this lot from Lot 20.

Lots 30 and 38

There are no documents in the Block and Lot files on these lots. Presently this section of the block hosts old truck chassis, either abandoned or stored. The pavement on this corner of the block appears to be in poor shape - cracked, with mud and weeds covering a good portion of it.

As can be noted on Figure 2, the elevation of this southwest corner of the site block is slightly depressed.

V. CONCLUSIONS AND RECOMMENDATIONS

As stated above, it is very possible that underneath the landfill overburden of 5 to 11 feet are undisturbed prehistoric resources. The documented construction history of the site block does not indicate extensive deep foundation disturbances that would have adversely impacted these potential resources during historical times. (Figure 12 depicts those areas of the site block that have, apparently, not experienced deep construction excavations.) Although this might appear to be a reasonable depth from which to retrieve prehistoric resources, the soil boring log data also indicates that the water table is high, registered variously between 4 and 9 feet below curb level. Archaeological field investigations in water-logged sites are expensive in terms of personnel, pumping and screening equipment, conservation techniques, and crew safety. It would not be advisable to undertake such testing at School Site 8 unless there is a more definitive indication of a prehistoric resource-rich environment. For example, if the proposed soil borings were to reveal a substantial peat lens then the prospect of deep tests in such wet fill would be more tenable. The proposed soil borings which are necessary for the foundation design phase will also serve to answer important archaeological questions.

Tasks one through five have been completed and the questions of prehistoric sensitivity concerning LPC have been approached. The completion of Task 6, the soil boring(s) monitoring and analysis required by LPC, will be conducted at a later date and will provide the necessary information to determine the advisability of a Phase 1B investigation.

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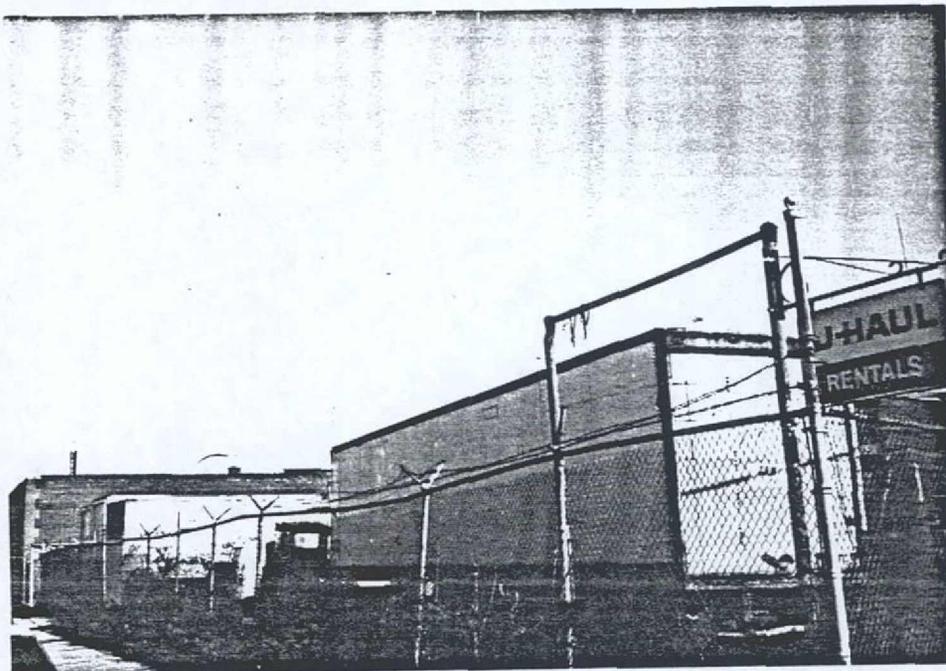
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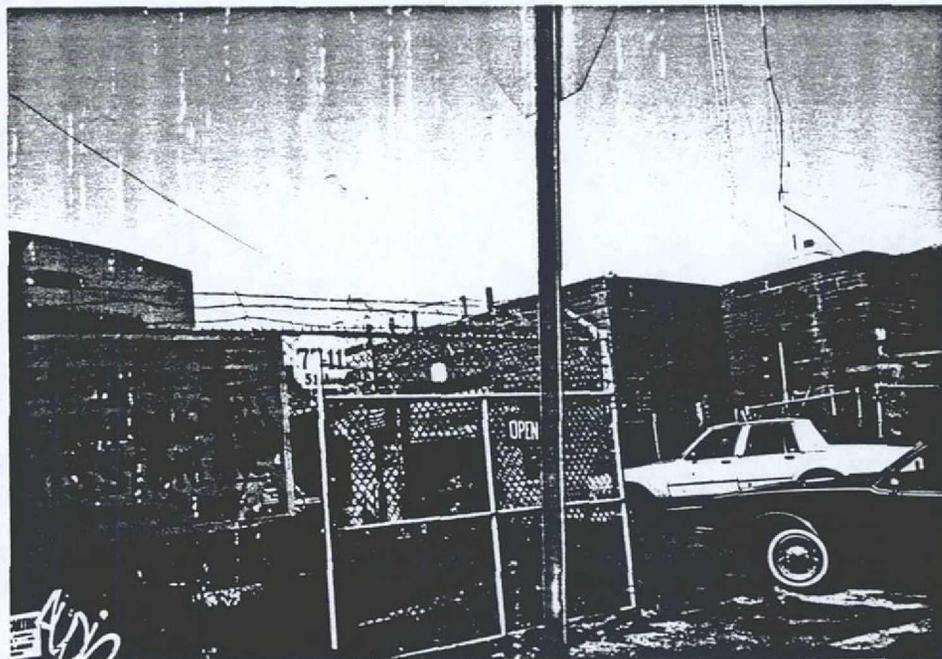
Photograph A
BoE School Site 8

view: southwest to northeast of Lots 30 and 38, Ireland Street on
the left; structure on left is on Lot 1

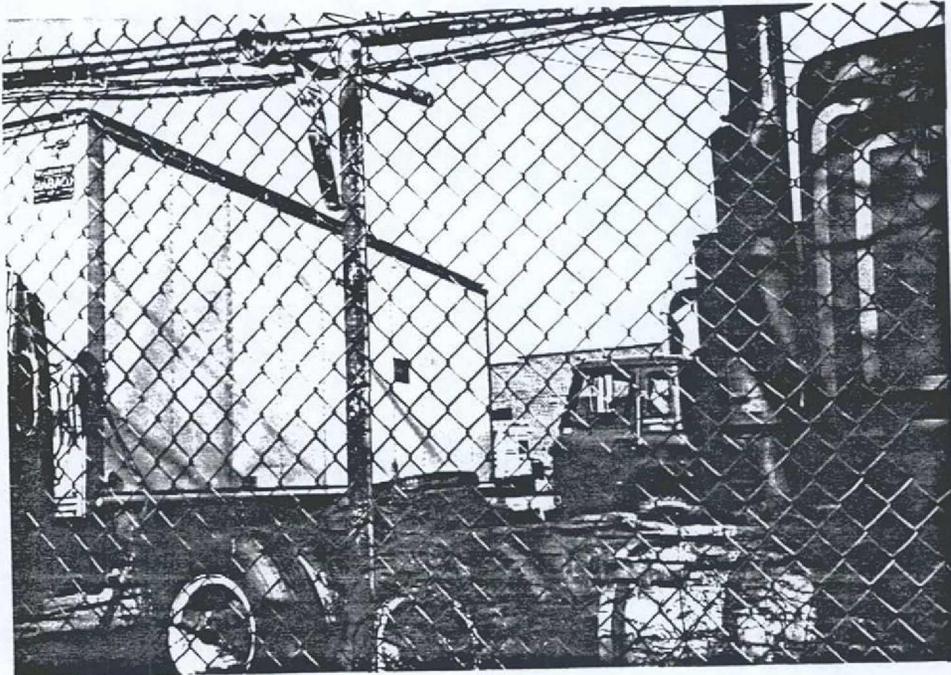


Photograph B
BoE School Site 8

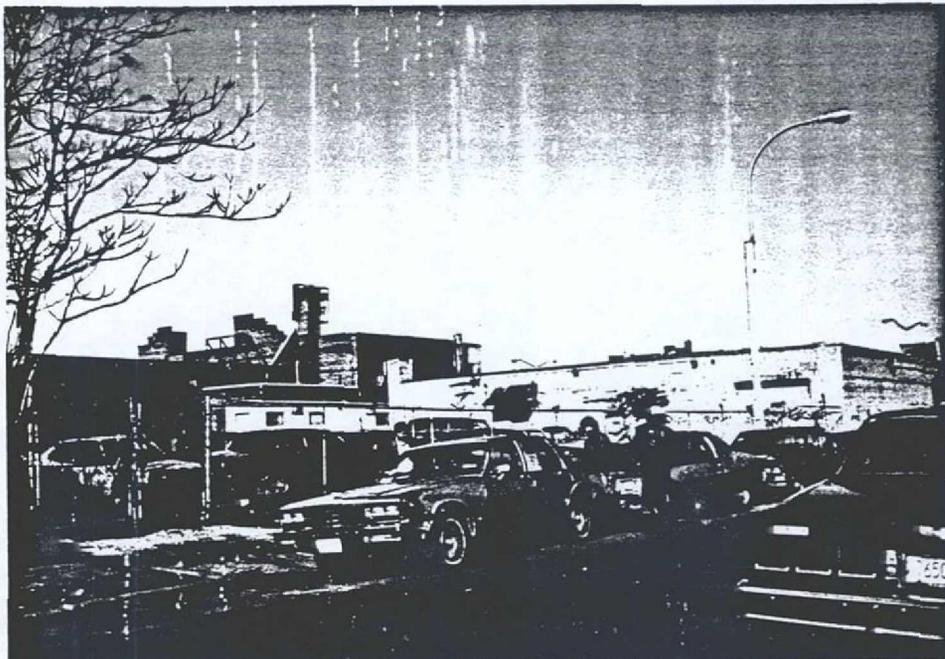
view: southeast to northwest of Lot 20 from the intersection of
51st Street and Hillyer Street



Photograph C
BoE School Site 8
view: south to north of Lot 23



Photograph D
BoE School Site 8
view: east to west of Lot 12, Hillyer Street in the foreground



BROOKLYN QUADRANGLE
 NEW YORK
 7.5 MINUTE SERIES (TOPOGRAPHIC)

6265 IV SE
 (FLUSHING)

GRAND CENTRAL PARKWAY 1/4 MI. 2 030 000 FEET.

94

73°52'30"
 40°45'

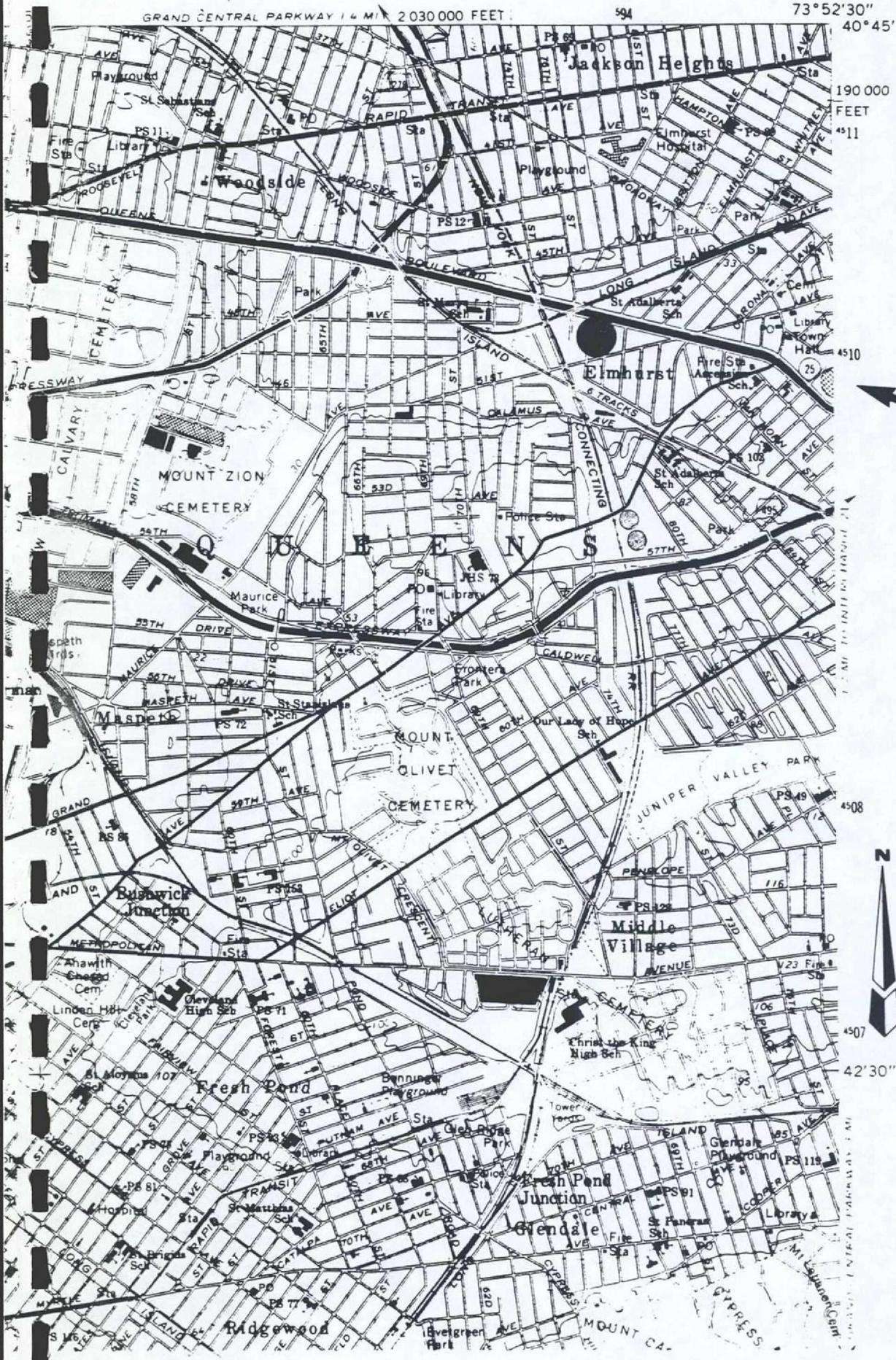
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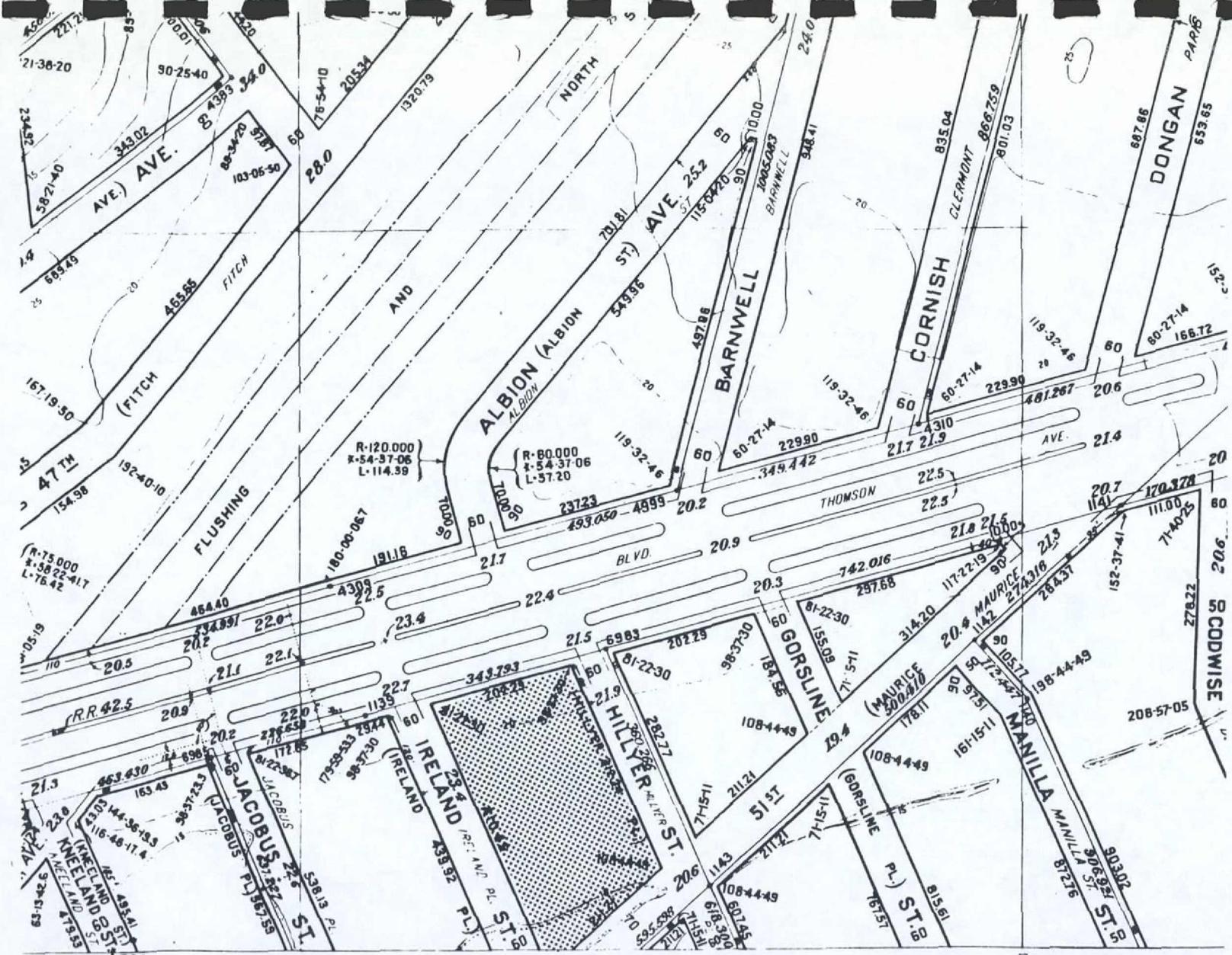
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190 000
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 4511

Board of
 Education

School Site 8





Section 19 of the Final Maps of the Borough of Queens, 1904.
 Copy from the Topographical Bureau, Borough of Queens.
 Note: Project Block 2452 (marked with a pattern) slopes north to south five feet with a depression along the 51st Street frontage.

Figure 2

18
 CITY OF NEW YORK
 Office of the President of the Borough of Queens
 Topographical Bureau



Note
 Date for contours on this map was obtained in 1904

I. Joseph Haug, Secretary of the Board
 that this map is one of three similar maps
 appointed on the 17th day of June 19,
 Section 19 of Final Maps of the B
 the area embraced by said map, in so far
 Prepared for the Board of Estimate an

Dated: New York

* This map includes modifications adopted

Photocopy of
Sir Henry Clinton's Map
1781
Provided by Gaynelle Levine



The arrow is pointing to the approximate location of the Board of Education School Site 8. Note the streambed and the associated wetlands.

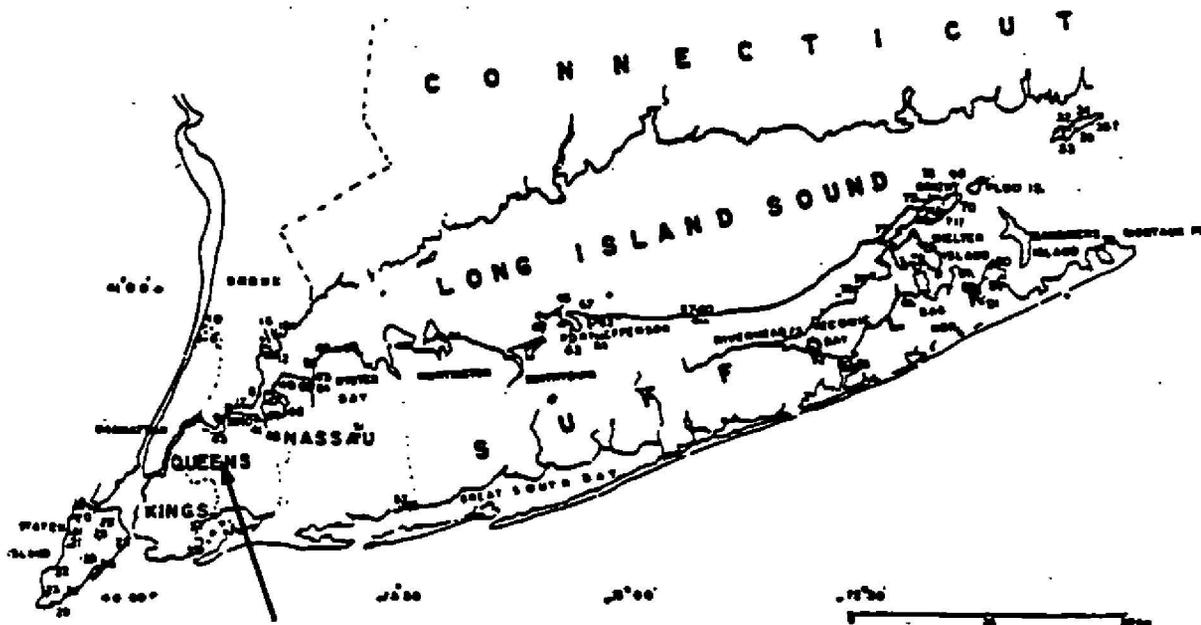
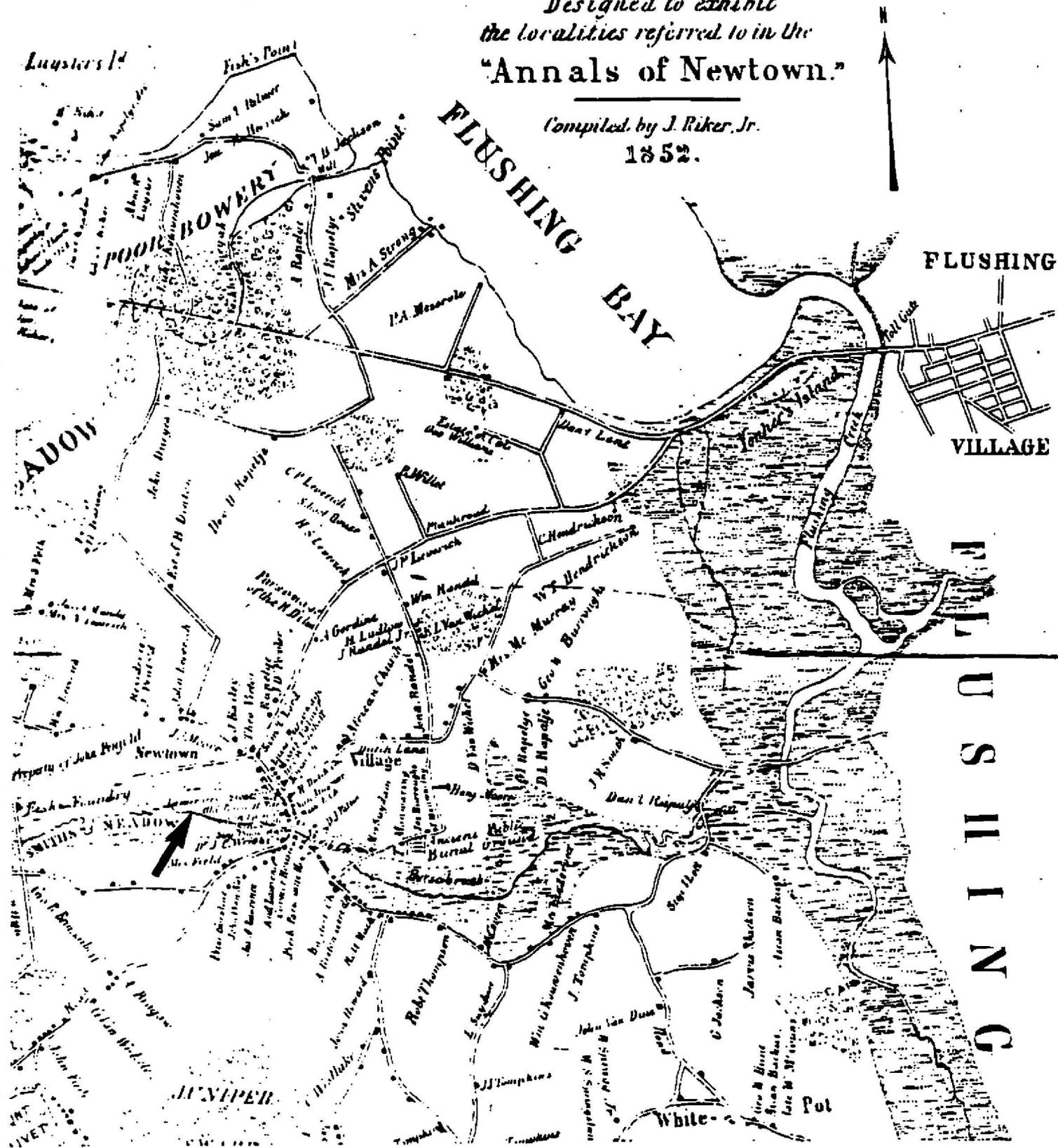


Figure 1. The spatial pattern of coastal New York sites that are reported in the published literature.

Designed to exhibit
the localities referred to in the
"Annals of Newtown."

Compiled by J. Riker, Jr.
1852.



The arrow is pointing to the approximate location of the Board of Education School Site 8. Note the SMITHS MEADOW in site vicinity.

Dripps Map, 1873
Supplied by Vincent Seyfried.

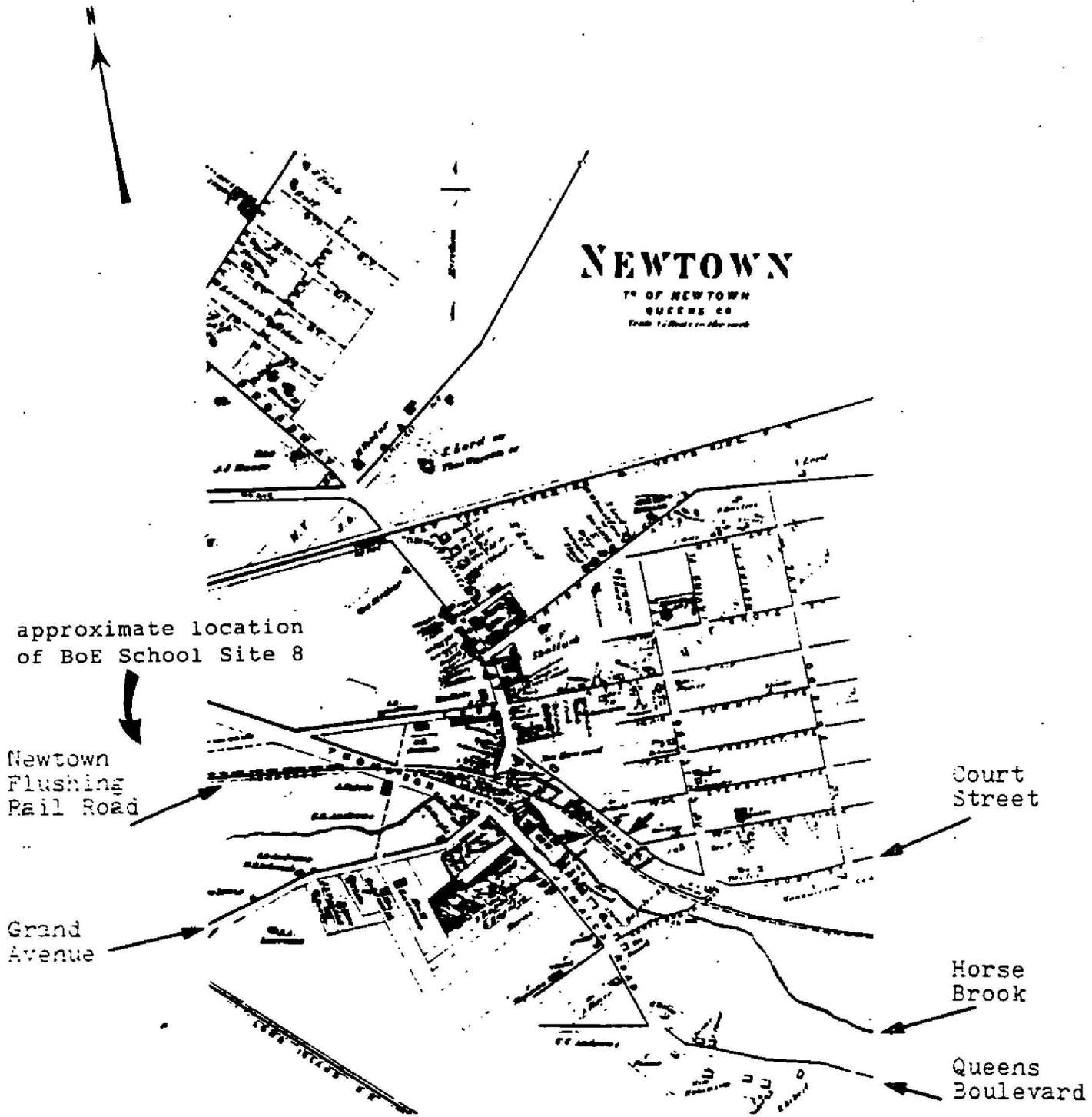


Figure 9

Atlas of the Borough of Queens

1903, E. Belcher Hyde

[Project site block on 1908 version is unchanged from 1903.]

Supplied by Vincent Seyfried

BoE Project Site shown as part of the Sackett Moore Estate.

scale: 160 feet to the inch

Figure 10

Atlas of the Borough of Queens
1915, E. Belcher Hyde
Supplied by Vincent Seyfried

BoE Project Block 1569/3025

scale: 160 feet to the inch

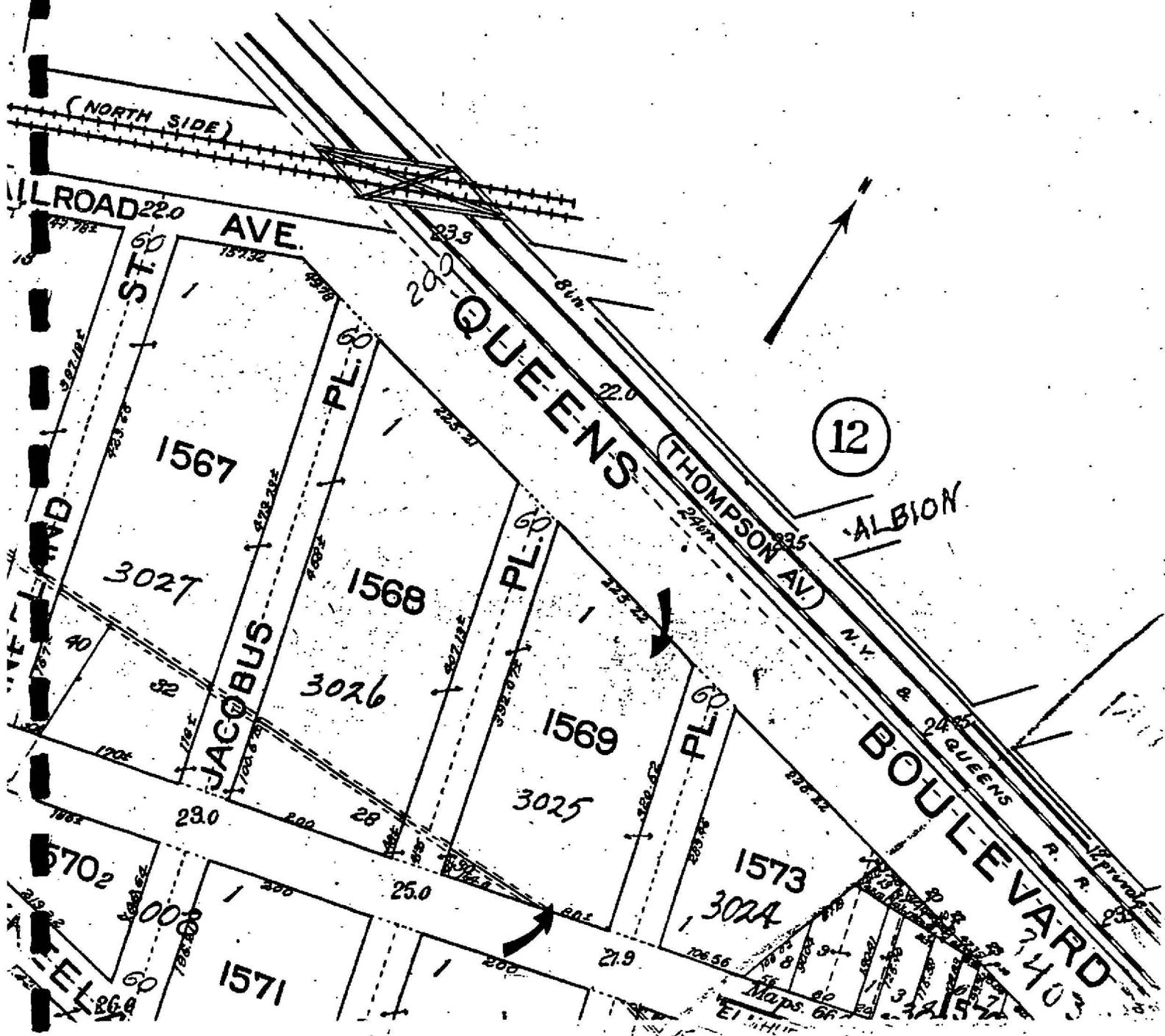
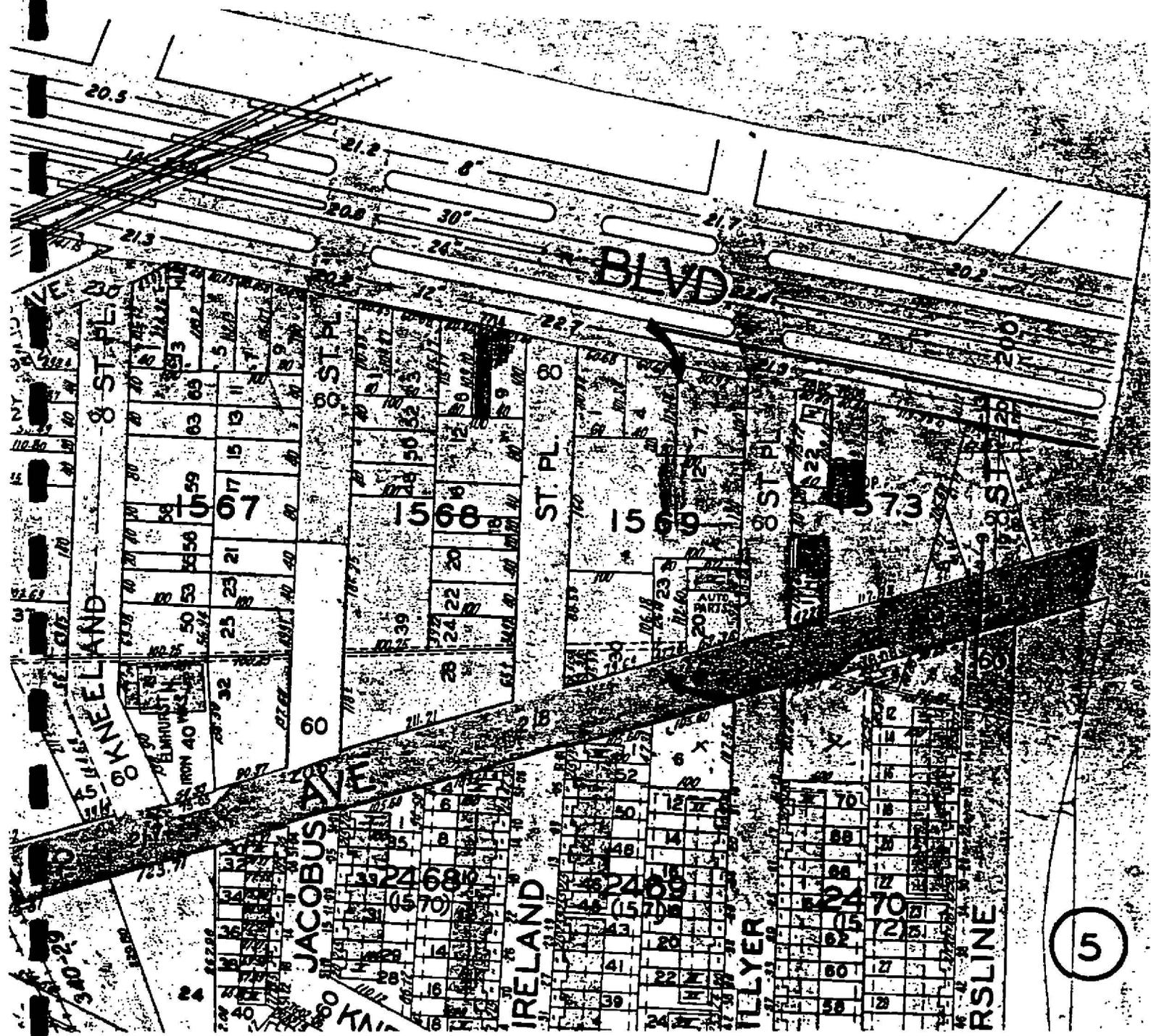


Figure 11

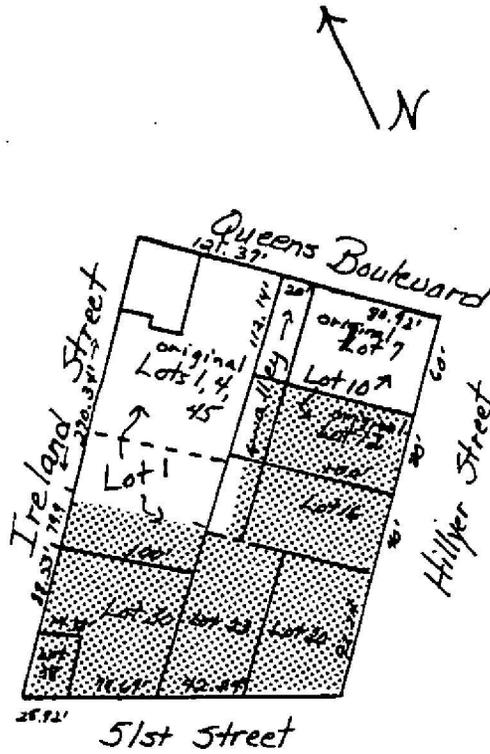
Atlas of the Borough of Queens
1929, E. Belcher Hyde
Supplied by Vincent Seyfried

BoE Project Block 1569

scale: 160 feet to the inch



Archaeological Sensitivity Map based on documented construction histories. To be revised after soil borings. (Schematic, not-to-scale, measurements given.)



 Lots or portions of lots that have not been adversely impacted during historical times based on documented construction histories.

APPENDIX 1

"Preliminary Archaeological Assessment: Queens Boulevard, School Site 8, School District 24, Betsy Kearns and Cece Kirkorian, Historical Perspectives, Inc., 1988. Mss on file with Parsons Brinckerhoff Quade & Douglas, Inc.

QUEENS BOULEVARD Site 8

School District 24

Block 2452

BOUNDED BY: Queens Boulevard, Ireland and Hillyer Streets, and 51st Street.

CURRENT CONDITIONS: The northwestern corner of the parcel, Queens Boulevard and Ireland, is dominated by the Liz Furniture showroom/warehouse. Mid-block, fronting on QB is L'Amour East Discotheque. Also mid-block is an alley/parking lane that exits into QB. Speed World Auto Parts covers the northeastern corner of the parcel, 77-20 Queens Boulevard. Two large parcels on the site are used for vehicular parking, and one is vacant. The businesses on the site are oriented towards Queens Boulevard and Hillyer Street. See attached photographs 1 and 2.

LAND USE HISTORY: The first white men to inhabit that part of Long Island now known as Queens were fur traders under the administration of the Dutch West India Company who came in the early years of the seventeenth century. But toward the middle of that century the lands were opened to settlement by both Dutch and English. The intersection of Broadway and Queens Boulevard - a few blocks southeast of the project site - is the site of one of the earliest colonial towns founded in 1652 and called Middleburg until 1665 when it was renamed Newtown. It is presently known as Elmhurst.

Climate, water supply, and soil conditions favored agricultural use of the land. Early on, a large part of the land was swamp and bog, "but improved methods in farming and subsoil drainage have made it very valuable." (Von Skall, 1908:24) The house lots in the village were laid out on the south side of the thoroughfare that preceded Queens Boulevard and on the north side of what is now known as Justice Street, "the intervening space being occupied by a wet tract traversed by the small Horse Brook." (Kelley, 1909:297) "Much land was left for grazing, for the farmers also raised a considerable number of horses, cattle and sheep ..." (HISTORY OF QUEEN'S COUNTY, 1882:333) From the beginning there were no large estates. People lived in small houses in the neighborhood of what is now Queens Boulevard and walked to their fields on the outskirts of the village. This land use pattern persisted well into the twentieth century. (Kearns and Kirkorian, 1984:5)

Elmhurst entered New York City in 1898 along with the rest of Queens and shared in the development that began with the opening of the Queensborough Bridge (1909) and the electrification of the Long Island Railroad (1913). The 200 foot wide Queens Boulevard was laid out in 1910 and its width caused the condemnation of a large number of buildings on the south side of the old road through Newtown. (Kearns and Kirkorian, 1986:n.p.)

The area that now comprises Block 2452 was shown as a vacant portion of the Sackett Moore Estate in the 1909 Hyde Atlas

(1908 corrected to 1909, vol.2, Plate 16). The earliest proposed construction activity supposedly took place in 1928 on Lot 7 (NB#11150/28), and in 1937 on Lot 20 (NB#3271/37). The Borough records for these constructions were not found. To further confuse the issue, the 1929 Hyde Atlas (vol.2a, Plate 4) disagrees with the Block and Lot Folder Index cards, showing an auto parts shop on Lot 20, and the rest of the block vacant. (See Map 1) There is no way to assess the possible impact of this early, scantily documented building phase.

Map 2 shows the configuration of Block 2452 in 1941.

Lot 7 is presently occupied by the one story brick building of Speed World Auto Parts, at the corner of Hillyer and Queens Boulevard. A field visit to Speed World noted a basement/boiler room under a portion of the building. This may be the same cellar noted in a 1947 permit (NB#4838/47) for a factory "at the rear of lot." Lot 7 was combined with Lots 12 and 16 in a proposed 1984 masonry building construction, and the new lot was named Lot 10. The former Lot 12 was the site of this structure which had no basement level listed in the specifications. (See Map 3)

We were unable to locate any building records for the north-western corner of Block 2452, the original Lot 1, now occupied by Liz Furniture. It was named by a used car lot and a used car building in 1947 documents, but more specific information was unavailable.

In 1947 a major portion of the northern half of the Block was combined as Lot 1 for the construction of a two-story auto showroom (NB#1457/47). A cellar (for boiler) was placed "on ground" according to the specifications.

Subsequent activities and proposals on the entire Block involve surficial activities only - e.g. vehicular parking and conversion to a roller skating ring (Alt#1919/62; Alt#1918/62; Alt#923/80)..

BORINGS DATA: Eight borings taken (1947) on the western portion of the parcel, revealed fill, mixed with sand, to a depth of 6-8 feet. Only at one boring location was a one foot lens of "bog" noted. Two borings taken on the QB and Hillyer corner also revealed 8 feet of fill. During 1984 five borings were reported for Lots 12 and 16, indicating up to 11 feet of fill overburden (cinders, gravel, sand).

POTENTIAL SENSITIVITY: The Newtown/Elmhurst area has been an important hub of human activity since the first days of colonization. An ARCHAEOLOGICAL IMPACT REPORT FOR THE QUEENS BOULEVARD REZONING PROPOSAL PROJECT, prepared by Historical Perspectives in 1986-7, traced the history of the many events and structures which once took place and occupied parts of the area. Evidence amassed during that study lead to the conclusion that there were no usages of any part of Block 2452 during the historic era which would have resulted in deposits of significant archaeological resources. It was the locus of agricultural activity until its modern commercial development. (Kearns and Kirkorian, 1986-7:18-25,29)

It is known that Native Americans were active in the Borough of Queens for centuries; it is also known that prehistoric peoples practised many of these activities (e.g. food gathering and processing) near a fresh water source such as the Horse Brook. The southernmost portion of Block 2452 was possibly traversed by the western extremity of Horse Brook. According to archaeological research data, there is a strong likelihood that this parcel could have hosted both Archaic and Woodland sites such as work stations. The subsurface disturbance of the parcel below the fill overburden is not fully known. It is possible that the parking lot on the southern of the site is covering heretofore undisturbed fill that may be covering the Horse Brook wetland zone. (Ibid:26-27)

Documents, field inspections, and atlases indicate that the lots fronting on Queens Boulevard have most probably been disturbed to a sufficient degree to eliminate them from archaeological consideration. It is possible that the alleyway west of the original Lot 7 has always been undeveloped land. (See Map 3) Even so, we feel that the impacts on this narrow space from the deep excavations on the bordering properties have, in all probability, severely disturbed any potential for intact archaeological resources. However, the rear portion of the block (Lots 12,16,20,23,30,38, and the rear half of Lot 1) is potentially sensitive to prehistoric archaeological resources beneath the 6-11 feet of fill overburden.

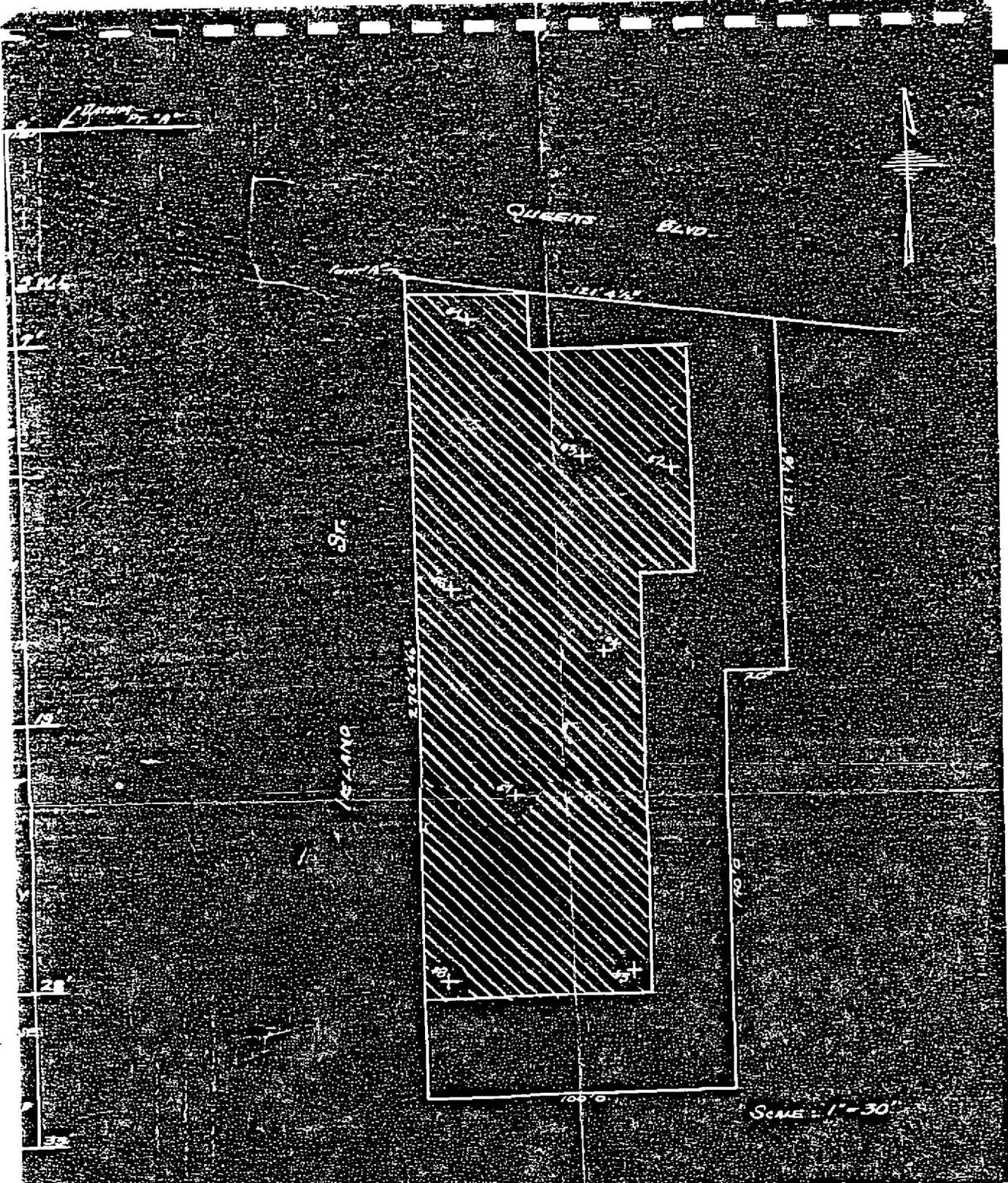
PROPOSED CONSTRUCTION: The drawings for the Queens Boulevard Intermediate School were furnished by the Liebman-Melting Partnership. The three story structure will front on Queens Boulevard and the subsurface portions of the school will be placed in that portion. However, the total footprint of the building encroaches on the potentially sensitive zone, although the elevations as shown do not go below ground. Unless foundation pilings, playground equipment supports, or some other below grade disturbance should go below the protective fill mantle, any extant prehistoric archaeological resources will not be impacted.

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APPENDIX 2

Block 2452, Lot 1: 1947 Soil Borings Location Map and Logs.
Borough of Queens, Building Department, Block and Lot Files.



Scale: 1" = 30'

WATER ENCOUNTERED
AS INDICATED.

BORINGS

MADE AT
 SITE: S. E. CORNER QUEENS BLVD. &
 IRELAND ST. ELMHURST, N. Y.
 FOR: CHRISTENSON & WEISS MOTORS, INC.
 58-30 MASPETH AVE. MASPETH, N. Y.
 ARCHTS. - MAX WECHSLER - MARIANO SCHIMMERT
 17 E 42ND ST. NEW YORK CITY
 BORING SWEENEY & GRAY CO. INC.
 543 49th AVE. L.I. CITY, N.Y.
 1/20/47