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PHASE IA ARCHAEOLOGICAL IMPACT REPORT

for the

WATCHTOWER BIBLE AND TRACT SOCIETY

BROOKLYN PROJECT - 1984

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HISTORICAL *(Hp)* PERSPECTIVE

November 6, 1984

Mr. Jim Brown
Parsons-Brinkerhoff Quade and Douglas, Inc.
1 Penn Plaza and 34th Street
New York City, New York 10019

RE: WATCHTOWER BIBLE AND TRACT SOCIETY
BROOKLYN PROJECT

Dear Jim,

Please find enclosed a bound copy (with original photographs) of the Phase IA Archaeological Impact Report on the Watchtower Project in Brooklyn. If there are any questions concerning the report or if a public interview or testimony is required do not hesitate to call.

We have enjoyed this particular project and are most appreciative of the cooperation extended to us by the Watchtower personnel.

Good luck with the
EIS package,

Cece Kirkorian
(203) 661-4786

encl.
cc: R. Maxwell ✓

dispondance in this matter

Joe Ferrappi

P.O. BOX 331 RIVERSIDE, CONNECTICUT 06

PHASE IA ARCHAEOLOGICAL IMPACT REPORT
for the
WATCHTOWER BIBLE AND TRACT SOCIETY
BROOKLYN PROJECT

For: Parsons Brinkerhoff
Quade and Douglas
and the
Watchtower Bible and
Tract Society
By: Historical Perspectives
P. O. Box 331
Riverside, CT 06878
Date: November 5, 1984

TABLE OF CONTENTS

Introduction. 1
Prehistoric 4
Historical Documentation. 9
Conclusions 28
Recommendations 35
References. 40
Photographs 44
Figures 46

INTRODUCTION

The Watchtower Bible and Tract Society has applied to the City of New York for a Commercial District designation of their property on (old) Blocks 203 and 208 in Brooklyn. (See Figs. 1 & 2) Following this Phase I rezoning the Watchtower has proposed a Phase II construction of a residential tower on the southern one-half of Block 208. Buildings presently on the site (48-58 Columbia and 55-67 Furman Street) would have to be demolished. The subsequent construction would disturb the subsurface area of the project site to a greater extent than the extant structures presently do.

The New York City Landmarks Preservation Commission has requested an assessment of the project site's potential archaeological resources in order to determine the presence/absence and degree of adverse impact on these resources by the proposed demolition and tower construction. Archaeological resources are finite and non-renewable and the optimum time to assess their significance and organize for recovery or preservation is in the initial stages of project planning.

The geographic location of the project site - on the original East River bank and within close proximity to both the Brooklyn Heights and the Fulton Ferry Historic Districts - does indicate the potential for pre-historic and historic resources of significance.

The bounds of the study area (see Fig. 3) are the city owned Squibb Park (originally a continuation of Middagh St.) to the south, Furman St. on the west, Columbia Heights on the east and Doughty St. to the north. The north side of where Poplar St. would be if it cut through the block (south of there to old Middagh was once block 203 and is referred to as such in this text) is the limit of actual impact of the proposed

construction. While this is physically a rather small parcel, its history, and thus the significance of any archaeological resources, cannot be understood without relating it to the larger context of its total environment. Therefore, our research focus has gradually narrowed from a general overview of the area through time down to the scrutiny of specific building lots. Even though a given section is obviously not going to be impacted by the project, its history is integral to the whole story of this part of Brookland and cannot be excluded until the final evaluation process.

One of the ancillary benefits of a L-A documentary study is that it affords the opportunity to pull together data that acknowledgeably is in the written record, but which has not undergone the painstaking and time-consuming compilation and analysis which makes it comprehensible as a social record rather than a welter of unrelated facts.

The earliest Dutch farmers that inhabited western Long Island were dependent upon water transportation for their link with Manhattan. As the seventeenth century progressed and Long Island's produce became more vital to the growing urban center across the river, a ferry service was established at the base of what is now called Cadman Plaza. At this locale the inhospitable high sandy bluffs of western Long Island (Brooklyn Heights) sloped gently to the water's edge and therefore facilitated the docking procedures. Within a very short time a village complex evolved around and dependent upon this ferry service. By 1700 a three-story, stepped-gable ferry house and tavern were built at the juncture of the road to the ferry and the dock. By the time Brooklyn was incorporated as a village in 1816 this dockside area supported a public market with slaughter houses. Manhattan by this time had many households that no longer directly procured their

own food; Brooklyn's waterfront area near the ferry became a butcher - processing center to supply the markets across the river. In the early 19th century what is now designated as Block 208 hosted at least two such slaughter house complexes with shipping sharves. Through the 19th century the project block continued to house industrial enterprises - for example distilleries and a cooper's shop that faced on Furman Street which was at the water's edge. Not until the last half of the century was Columbia Heights opened from Middagh to beyond Doughty Street. For approximately fifty years the E. R. Squibb pharmaceutical company dominated the character of the project area as the Watchtower complex has determined its contemporary character. The single most determining factor in the historic evolution of the project area was the topography of the site.

The following report documents the available evidence pertinent to the presence and significance of archaeological resources on the Watchtower Bible and Tract Society's Phase II project area. Not only have we assessed the significance of potential archaeological resources just north of Squibb Park, but also the likelihood that the integrity of these significant resources has survived nineteenth and twentieth century activities. Additionally, we address the impact of the proposed construction and related activities on identified potential archaeological resources.

PREHISTORIC

Our understanding of the Native American inhabitants of the New York area is derived from three sources: 1) Ethnographic reports from the seventeenth and eighteenth centuries described the European perspective of the then living Native Americans; 2) collections of Indian artifacts have yielded site locations and specific knowledge of occupation, food preparation, and hunting activities; and 3) archaeological investigations have produced data on the exploitation of the Long Island habitat for thousands of years prior and up to the Old World influx.

According to maps made prior to 1640 Indians were occupying (at least) four long houses in Kings County. These houses, occupied during the colder seasons, were included on maps in the following vicinities: 1) the present location of Borough Hall, 2) Flatlands, 3) Indian Pond at Bay Parkway and King's Highway, and 4) Fort Hamilton. (Indian Trails of Kings County, compiled by F.B. Cropsey, p.9)

Daniel Denton, writing in c.1660 on the Indians of Long Island, stated:

To say something of the Indians, there is now but few upon the Island, and those few no ways hurtful but rather serviceable to the English, and it is to be admired, how strangely they have decreast by the Hand of God, since the English first settling of those parts; for since my time, where there were six towns, they are reduced to two small Villages, and it hath been generally observed, that where the English come to settle, a Divine Hand makes way for them, by removing or cutting off the Indians either by Wars one with the other, or by some raging mortal Disease.

They live principally by Hunting, Fowling, and Fishing: their Wives being the Husbandmen to till the Land, and plant their corn.

The meat they live most upon is Fish, Fowl, and Venison; they eat like wise Polecats, Skunks, Raccoon, Possum, Turtles, and the like.

They build small moveable Tents, which they remove two or three times a year, having their principal quarters where they plant their Corn: their Hunting quarters, and their Fishing quarters: Their Recreations are chiefly Foot-ball and Cards, at which they will play away all they have, excepting a Flap

to cover their nakedness: They are great lovers of strong drink, yet do not care for drinking, unless they have enough to make themselves drunk; and if there be so many in their Company, that there is not sufficient to make them all drunk, they usually select so many out of their Company, proportionable to the quantity of drink, and the rest must be spectators. And if any one chance to be drunk before he hath finisht his proportion, (which is ordinarily a quart of Brandy, Rum, or Strong-waters) the rest will pour the rest of his part down his throat.

They often kill one another at these drunken Matches, which the friends of the murdered person, do revenge upon the Murderer unless he purchase his life with money, which they sometimes do: Their money is made of a Periwinkle shell of which there is black and white, made much like unto beads, and put upon strings.

(Denton, p. 45)

Denton also states that the west end of Long Island hosted, by this time, four or five Dutch towns and twelve English towns in addition to villages and farm houses. (ibid, p.40) These Dutch and English settlements were situated in part on property obtained by the West India Company, 5/10/1640, from the great chief Penhawitz the head of the Canarsee tribe. (Stiles, 1867-9, p.29) The Canarsee Indians were a strong western Long Island tribe of the Metoac or Matouwas Confederacy. (Solecki, 1982, p.97)

The earliest reports of Indian artifact collecting come from Gabriel Furman's recollections in the early nineteenth century (c.1824-38). Furman recorded 1826 finds from the highest sandy barren hill in Brooklyn (70 feet) that included a deeply buried hemlock board and an oyster and clam shell midden. (Furman, 1874, p.74) Bolton, writing in 1934 located this sandy hill site, which included prehistoric ceramics, projectile points, a tobacco pipe and pipe fragments, in the central portion of Brooklyn (not on the Heights). (Bolton, 1934, pp.144-145) There are additional early references to "immense shell heaps" in Brooklyn but they were noted at Canarsie, Flatlands, Bergen Island, and at 37th Street near Third Ave. In 1837 a cache of stone and flint blades, enough to fill "a wagon load" was found at the narrows. (Lopez and Wisniewski, 1978, p.208)

Indian artifacts are reported to have been within the vicinity of the project area. Stiles wrote: "On the right of the Old Ferry and with

an abruptness which, even at this day, is scarce concealed by streets and buildings covering it, rose the northernmost corner, or edge of the portion of the present city...The face and brow of this noble bluff were covered with a beautiful growth of cedar and locust...the base washed with waves. The red men named it "Ihpetonga' or 'the high sandy bank'...and it must have been a favorite place...judging from the large quantities of stone arrows and other implements, in every stage of manufacture which used formerly to be found here after the washing of the riverbanks by storms or heavy rains." (Stiles, 1869,p.35)

The whereabouts of these early Indian artifact collections is, in most part, unknown. We received a report that Ben DuBose of Brooklyn has a collection of artifacts from the Canarsie area (Stanley Wisniewski, personal communication,10/26/84). The largest collection from the Kings County area, the Tooker Collection, was reportedly transferred from the Brooklyn Institute of Arts and Sciences to the Museum of the American Indian. Recent inquiries of the Museum of the American Indian have been futile in regard to information on any collection from Long Island (Gaynelle Levin^e, personal communication, 10/22 /84). Ira Jacknis has recently begun work at the Brooklyn Museum's Division of Primitive Art on evaluating their North American Indian collection. He believes they may very well have archaeological collections from Long Island, but as of this writing they have not been located. (Ira Jacknis, personal communication,10/30/84)

"At one time there were undoubtedly numerous aboriginal sites in Kings County on the western end of Long Island in coastal New York, especially along the shoreline of the East River, the Narrows, Gowanus Bay and the bays of Gravesend, Jamaica and Sheepshead. Today, however, Kings County, better known as Brooklyn, forms part of the busy skyscraper metropolis of Greater New York City. Not only are the sites gone, but remaining to us is not even a single site report, only a few place references here and there in the early literature. Of these, most refer to Indian place names which Beauchamp (1907), Tooker (1911) and Bolton (1934) compiled from historical and apparently in many instances, from quasi-historical sources." (Lopez and Wisniewski, 1978,p.208) The reinforcement of these often romanticized views and interpretations of pre-Colonial Brooklyn continued well into the twentieth century.

Ralph Solecki, in 1956, lamented the lack of well stratified archaeological sites on western Long Island and the rapidity with which sites in this area were being lost. His report of work done in the second quarter of this century concentrated on that done principally at North Beach, Bayside, and College Point. (Solecki, 1978, pp.4-5) His recent investigations in the Fulton Ferry area of Brooklyn in conjunction with the Red Hook Sewer Project have not yielded prehistoric materials. (Ralph Solecki, personal communication, 9/84)

Even though we know that Paleo-Indians, hunters of big game, were the first inhabitants of southern New York approximately 100,000-12,000 years ago, evidence of these first inhabitants is often very difficult to locate archaeologically because the sea level rise since that time period has inundated the coastal sites. (Saxon, 1973, p.202) However, it is possible to identify the probable locations of upland Paleo-Indian sites through research done by Leonard Eisenberg. He has identified three geographic locations preferred by them:

- 1) "lowland waterside camps near coniferous swamps and near larger rivers
- 2) upland bluff camps in areas where deciduous trees dominated
- 3) ridge-top camps, also where deciduous trees dominated." (as described in Rutsch, 1983, p.33)

The Early Archaic Stage (c. 9,000 years ago) followed the Paleo-Indian Stage in the Long Island area and is represented by numerous small, nearly always multi-component sites, variously situated on tidal inlets, coves, and bays. By the Late Archaic Stage (8,000-6,000 years ago), the exploitation of shellfish resources was in full force; the coastal shell middens still found today are a testament to this activity. The seasonal and functional migratory patterns of the native Americans utilized upland sites in

addition to the coastal areas. (Snow,1980,p.182) High, sandy river terraces were apparently the preferred site locations for the Snook Kill Tradition (a southern sub-area representative of the Transitional Stage). (Ritchie and Funk,1973,p.342) By approximately 3,000 years ago, the Late Woodland Stage, which is noted for occupation sites on knolls or well-drained terraces in close proximity to a water resource, had begun. According to the archaeological record, Early Woodland/Middlesex Phase sites are most likely to be discovered during sand and gravel mining operations located near a lake or river (Ritchie,1980,p.201) and Late Woodland sites are usually found on the "second rise of ground above streams or coves" and on "well-drained sites." (ibid.,pp.264-265)

In order to take advantage of the valuable resources of a marine, riverine, or lacustrine site, native Americans would have, at a minimum, placed their temporary camps within a short distance of the water source. Hunting and gathering within these site locations yielded necessary floral and faunal materials. However, it is not likely that permanent camp and village sites (usually one to three acres in size) would have been located within or directly adjacent to a marshy area, but on a terrace.

There is no doubt that prehistoric peoples could have exploited the riverine resources at what is now Furman Street. The plateau at what is now Columbia Heights would have, likewise, afforded valuable advantages. However, the history of accidental and purposeful earth moving activities on this site over the past 300 years indicates a low probability of locating a prehistoric archaeological component through field work.

HISTORICAL DOCUMENTATION

As a result of their prowess during the Age of Exploration, the Dutch acquired what is now the New York area early in the 17th century and called it New Netherlands. A 1621 grant from the States-General, the governing body of the Netherlands, gave administrative control of the territory to the Dutch West India Company. There is some difference of opinion among historians as to the first land transaction on what is now Brooklyn, in the western section of Long Island, (Fig. 4) but it was probably a 1636 purchase of a huge tract from the Indians by Wouter Van Twiller, Director of the colony, and some associates. (Ment, 1979, p.12) Another purchase in 1636 was of 930 acres by Wm Adrianense Bennet and Jacques Bentyn from the Indians at "Gowanus." (Stiles, 1867-9, p.23) Other transactions, either by private purchasers or under the aegis of Director Willum Kieft, followed quickly until most of the Indian lands on the west end of Long Island had been sold off from the native Americans to the Dutch by c. 1640. However, intense utilization of the land by Europeans was delayed by Indian/white agitation until after 1645.

The Dutch West India Company had the power to grant their newly acquired lands to individuals if they so chose. A small settlement developed at the site of a ferry service to New Amsterdam (Manhattan) in the middle of some of these land grant tracts. It was called Brujkleen or Breuckelen (which means "free loan" since the early colonists could "own" land for a quit-rent of one tenth of their produce after ten years) and was chartered in 1646. The study area, abutting the ferry service settlement to the south was probably originally divided among two owners. The difficulty in

ascertaining exactly where these first tracts lay can be seen from the way the land transfer reads:

On November 14, 1642, Claes Cornelissen Montelaer Van Schouw received from Governor Kieft a patent for land "on Long Island, over against the island of Manhattan, betwixt the ferry and the land of Andries Hudde, as the same lies thereto next, extending from Hudde's land along the river, 102 rods; into the woods SE by S 75 rods; and S SE 75 rods; S by W 30 rods, and along the land of the said Hudde, NW, 173 rods to the beach, amounting to 16 morgen and 175 rods."

(Stiles, 1867-9, p. 73-75)

Apparently one Cornelis Direksen Hoochlandt received a patent in 1645 for some land between Van Schouw and the ferry landing site. (Langstaff, 1937, p. 7, Fig. 5 and a map made May 13, 1763 by Engelbart Lott at the request of Israel Horsfield and found in the Brooklyn Superior Court Building Docket Room) Early maps indicate that a ridge of hills slightly north of Poplar running east-west at this time formed a natural division of land acreage. (Fig. 6)

The placid farmlands of the west end of Long Island were punctuated by six small towns, but it made little difference to the citizens' way of life when English rule superseded Dutch (of course, Breuckelen became Brookland) in 1664.

Whatever records of land transactions involving the study area between the original patents described above and the end of the century have been lost in time. The next records both on early maps and in the Block Files owned by the Long Island Historical Society, (Fig. 7, Farm Plan E) are dated 1692 and show that a large tract, evidently encompassing the entire project area, is owned by George Jacobs and Joras Harmon (or Harmon Joras, depending on which document one quotes). In 1704-5 they sold the vast

majority of the parcel to Garrett (Aert) Middagh (Which means "midday" in Dutch).* He sold off some of his ownings, but the exact meets and bounds of all of these transactions are impossible to identify on today's street grid. One deal is shown on a map of 1709 between Middagh and Michiell Hansen. Hansen quickly sold to Hans Bergen in 1710, and Bergen in turn sold to Israel Horsfield in 1728. (Fig. 5 & Fig. 8) Horsfield came to this country from Liverpool, England in 1720, and with his brother Timothy set up as butchers, first in Manhattan and later in Brooklyn where they eventually owned considerable property both adjacent to the ferry and further south into the project area. DeVoe recounts an incident about Horsfield which illustrates both how land use patterns develop and why it is so difficult to trace them. Israel Horsfield lived at Brooklyn near the ferry, where he had built several buildings, and in doing so, had no doubt by accident overstepped his bounds, and got upon the property of the Corporation; but was fortunate in securing a lease on the 26th Feb. 1735, of that part of the wharfe and slaughter-house he has lately built and put upon the land of this Corporation, near the ferry at Brookland, at the annual rent of 5 shillings. This part of the Corporation's land no doubt he purchased afterwards, and it became possessed by Israel Jr. who advertised it for sale in the NY Gazette and Weekly Mercury, Feb., 1769 consisting of a house and lot of ground, slaughter-house and barn, situate at Brooklyn Ferry, on Long Island. (DeVoe, 1862, p. 93)

The other wharf the Horsfields built at the foot of what later became

* Middagh is listed on the tax roles of 1675 as Jan Aersen Middagh who owns "3 horses, 5 cows, 2 ditto of 2 years, 4 sheep £70, 27 morgens of land £54, Total £124."

Doughty Street was "a public landing used by the butchers of Broklyn from time immemorial." (Stiles, 1868-9,p.123) Indeed, it appears that the Horsfield family started land development in the northern sector of the study area. If one looks carefully at two 18th century maps (Figs. 9 & 10), one can see the emerging pattern. The first shows a building under Horsfield's name and the date of his purchase. Running beside the building and dwindling off at what was previously untouched shoreline is a small street or road - presumably leading to his wharf. In Ratzer's 1766-67 view (Fig.11) view, the street has pushed even further along the shore under the heights or bluffs. This little street, however, owed its name to one of Horsfield's neighbors, Thomas Everit. He, too, was a butcher, and by c. 1720 had a slaughter-house "at about the intersection of Columbia and Doughty Streets." (Stiles, 1867-9,p.123) The earliest mention of the street by name that could be found was on a diagram on a deed of 1726 (LIHS - Block Files) which showed "Everet" Street. "To Benjamin (sic) Everit, the pre-Revolutionary resident and owner of considerable property in that neighborhood, we owe the name of this thoroughfare. It was the street which ran at the very edge of the shore in Colonial times from the old ferry to Doughty and thence at an angle southwest to what is now Furman opposite Poplar." (Langstaff,1937,p.24) Stiles comments that the street ran a little distance beyond the foot of Poplar St. (when it once was opened through to the shore) which more nearly matches what is shown on maps. (Stiles, 1867-9,p.123)

One can also see from the above mentioned maps (Figs. 9,10,&11) that land has been "made" by filling in the shore line and out past it into the East River. The present Furman Street which is partly in place in

the early 19th century maps, is not shown on the 18th century drawings. (Fig. 5, third map) It did "not exist because high tide almost lapped the foot of the sandy heights." (Langstaff, 1937,p.8) and it had to be "bulkheaded and filled." (ibid.,p.12) While Furman Street was laid out on the village plan of 1816 (Fig. 9), it was not in fact completed between Fulton and Joralemon Streets much before 1840.

Above the shore and south of the village surrounding the ferry, urban "progress" was much slower. Stiles noted that southward from the ferry along the Heights were Dutch farms c.1640. Through the 18th century the situation was unchanged except that some English settlers joined the Dutch residents. Still, Clover Hill as it was then known, was "considered inaccessible except by a few large land owners: Middagh and his sons-in-law Hicks, Bamper, Swertcope, Colden, Remsen, and Livingston occupied practically the whole of the Heights." (Langstaff, 1937,p.7) Its "precipitous banks were crowned with goodly groves of cedar..." and there "were a few private residences..," but most of that "now (1867) thickly-built portion of the city, embraced between the East River, Joralemon and Fulton Streets, was occupied only by thrifty fruit-orchards, extensive market-gardens, and choice pasture-land." (Stiles, 1867-9,p.242)

During the last quarter of the 18th and first quarter of the 19th century, John and Jacob Hicks and Cary Ludlow owned almost all of the property in the study area, although it is unclear exactly who had what when. (see Figs. 5 & 10) What is clear is that the area was still sparsely settled - about fifty dwellings in the ferry settlement according to Stiles (p.242) - and very rural on the eve of the American Revolution. The war aroused little passion amongst Brooklanders, but they were nevertheless

affected by it. The inner line of shore defenses set up by the Americans ran from Wallabout Bay to Gowanus. The closest actual fortification to Block 208 was Fort Stirling located at Columbia Street between Orange and Clark Streets which Stiles contends was the same as the Half Moon Fort later occupied by Hessians. (ibid.,p.247) The Battle of Long Island in August of 1776, in which Washington deftly evacuated his troops to Manhattan under cover of night rather than face near annihilation at the hands of General Howe and his English and Hessian troops, led to seven years of British military occupation. "For the farmers of Kings County, profits from sales of produce and supplies to the occupation forces were balanced by the expense and inconvenience of compulsory billeting of troops, the loss of valuable timber cut to serve the British army's needs, and occasional theft and disorder from roving bands of privateers." (Ment,1979,p.24)

In the vicinity of Block 208 there is a recorded instance of the occupation of a house - on Doughty Street, fronting on Elizabeth Street - by Hessian troops as a prison and guardhouse "where all persons arrested in this vicinity were detained." (Stiles,1867-9,p.309) That is as close as they could have been since there were no houses on the Heights between Clark and Doughty at this time (ibid,p.308)

Yet other proof we have of the Hessian presence is a gold Hessian cap plate recovered from a sewer cut on Fulton Street in 1978 by Professor Ralph Solecki of Columbia University. The find spot was near the East River at 9 - 13 feet below street level. As Solecki pointed out, the helmet provided "one of the few pieces of tangible evidence that such forces were actually here in Brooklyn." (Demeritt & Solecki,1980,p.276) So there are still physical traces of the Revolutionary War to be found

in modern Brooklyn. It should be kept in mind, however, that Fulton Street was always the main thoroughfare in the community and thus likely to be the scene of continuous activity. But as for the Heights: "At this period, and during the war, the whole of the land embraced between the brow of the Heights on the river and the present Fulton and Joralemon streets - now forming one of the most closely-built and beautiful portions of our city - was then under high cultivation. That portion of it nearest to Fulton street was either used for pasturage, with its beautiful crop of grass browsed upon by fat, well-kept cattle, or was kept, at times, in grain. The middle part was almost entirely occupied by fine and thrifty orchards of apple, pear, and other trees; and the lower portion was used for excellent gardens, which furnished an abundant supply of small fruit and vegetables to the New York markets." (Stiles, 1867-9, p.304)

The last two decades of the 18th century and the first of the 19th saw modest but steady growth in the little village surrounding the ferry. In 1788 (re-affirmed in 1801) it was drawn off by law as a separate fire district. Block 208 contained part of parcels owned by Cary Ludlow and J. and J. Hicks. The extent of their holdings is shown on the 1816-19 map (Fig. 10). However, this map, the 1816 map (Fig. 9) and an 1806 drawing by Jeremiah Lot of part of Hicks property (Fig.12) are misleading because they show both what exists and what is proposed development. For example, Columbia Street, which earlier ran only from Middagh to Clark Street, "slipped down to Poplar by 1841 and on to Doughty by 1849." (Langstaff, 1937, p.312) Also, the lots on the original Block 208 (bounded by Columbia Heights, Middagh, Furman, and half-way north to Poplar) are shown with the longest dimension running north-south, but they were in

reality sold off with the long side running east-west between Furman and Columbia Heights. The Hooker Map of 1827 (Fig.13) is a more accurate rendering of what existed at the date of the map.

The event that really gave impetus to the growth of Brooklyn in earnest was the establishment of steam ferry service to and from Manhattan in 1814. This stimulated the exchange of goods and services on a regular and dependable basis as well as suggesting the possibility of parts of the village being developed residentially as a "bedroom" community for Manhattan businessmen. An 1818 tourist guide (quoted in Weld, 1938,p.3) described these contrasting functions."Crossing over the East River... you will extricate yourself from the narrow, dirty, and disagreeable streets of Brooklyn, with all possible despatch, and turning the first road to the right leading up the hill, you will soon find yourself agreeably raised above the dust and noise of the dull place, and winding along towards the brow of the hill you will have a noble and near view of the city of New York..."

In 1816 the Village of Brooklyn was charted and an official map drawn. (Fig. 9) Let us take a close look at the two blocks of the Watchtower site using that map, Stiles' verbal explanation of the map, and entries in the Brooklyn Business Directory of 1822. Nothing is on Columbia Heights since it does not exist north of Middagh despite being shown on the map. Everitt Street, which was officially closed in the 1840s, is at this time a well-established and built-up street. According to Stiles, Numbers 10,11, and 12 were "Everit's tan-yard, a wooden storehouse for hides, and slaughter-houses and next to them (13) were John Doughty's." Number 15 on the map was Mike Trappel's residence and #14 the house where Thomas Everit was born. Number 17 is not identified. The last building shown

on old Block 203 is number 16 " at one time occupied by Caze and Richaud's distillery, afterwards purchased by Robert Bach (See Fig. 14 which shows Bach's holdings) for the same purpose." (Stiles, 1867-9, p. 123-4) James Caze is listed in the 1822 business directory as a merchant at number 16 Furman Street whose home is at Number 11. Thomas Everitt and Sons hide and leather store is listed as being at #7 Furman Street and Thomas Jenkins, a steam engineer is at #5 Furman which is closer to Fulton Street.

Stiles continues that #18 "was a large brick edifice known, from the name of its occupant and owner, as 'the (John) Sedgfield mansion.'" (Stiles, p. 124) This is an intriguing reference, but one which turned out to be a dead end. The only John Sedgfield listed in the Brooklyn Business Directories of the 18th century through 1840 is shown at an entirely different location. Neither does his name occur in the LIHS Block and Lot files which document land transfers of each block from the first grants through the nineteenth century. As interesting as it might be to trace the actual history of whatever building number 18 represents as well as the business establishments on Everit Street, it is not necessary to the task at hand as one can see when looking at the site showing existing buildings and the proposed construction activity. (Fig. 15) The area where Everit Street once ran is covered by large buildings with very deep basements; even if they did cover archaeological resources, they will not be affected by the proposed construction action, so the questions are not moot.

Four structures show on the Eastern side of Furman between Middagh and Poplar other than the mysterious #18. Stiles says about them, "three or four small houses, in one of which, about where the road debouched to the river beach, resided a man named Coombs, who once had the audacity to

impede the public's right-of-way, by erecting a gate across the road, in front of his place, and allowing no one to pass without paying toll." (Stiles, 1867-9, p. 124) One can surmise from that account that Furman Street was quite narrow. We know that it was widened two feet on either side in 1882 (see Topo bureau map, Fig. 16), and the present width is thirty-four feet. So, even though it was once river shore and a little south of the site the beach "was usually strewn with water-butts, and lined with water-boats, awaiting their cargoes," (ibid., p. 124) the original path if shown on today's map would be below the surface in the middle of a broad street down which run many utility lines. (For example, gas line shown on Fig. 17) One of those four small buildings is probably the turpentine distillery listed in the business directory at #23 Furman. The Perris Atlas of 1855 (Fig. 18) shows such a distillery, and a distillery owned by Cooke is listed in the 1840 business directory. It would have been about where the 55 Furman Street building now stands (see Fig. 15). Another of the small buildings shown on the maps may have been #25 Furman which apparently was a boarding house since at least five people with unrelated names are listed in the business directory as living there.

Just as there are no structures shown on the maps on what is now Columbia Heights, there are no listings in the business directory of 1822, which is further confirmation of the fact that the street had not been opened north of Middagh.

Continued and unregulated build-up in already established sections like Fulton Ferry, expansion into more remote parts of Long Island, and a building boom - too often of jerry-built quality - in the late eighteen twenties

made the village form of government inadequate and in 1834 Brooklyn obtained a city charter from the state legislature. David Ment sees the period between 1834 and 1865 as "an age of transition from a small but active village to a substantial urban center." (Ment,1979,p.37) Change in the project area attests to the accuracy of that statement. That change is not easy to follow with exactitude; documents and maps are often drawn up on one date but filed, thus becoming official, on another. Future projections as well as past anachronisms are recorded on maps, and, as we all know, error perpetuated over time becomes "fact." Complex real estate deals as well as house number, lot number, block number, street name and location changes surely seemed logical and easily accommodated at the time, but they present the researcher with a bewildering array of puzzle pieces to fit into place. If one shifts the pieces around enough, the general picture emerges.

An example both of the change occurring in the project area and the puzzle-like quality some of it had is a map of a property transaction in the 1830s between Ludlow and Henry Western. (Fig. 19) It explains visually the peculiar triangular shaped plot on Columbia Heights at about where Poplar would go through (#48 and it used to extend into where #50 is now). That shape has persisted down to the present day.

On February 15, 1836 Obadiah Jackson was granted the water rights to property starting at Fulton Street and running south to the property of George Thompson who in 1835 had been granted a 345 foot frontage on the river. (Acts Concerning Lands Under Water as quoted in Dikeman, 1870, p.109-111) Jackson also owned inland parcels and Langstaff reports that "In 1832-9 Obadiah Jackson acquired the shore below high water, filled in

two blocks of land, discontinued the angular part of Everit Street and Extended Doughty and Furman Streets to their present positions." (Langstaff, 1937, p.24) Everit Street may have been officially closed but the use of at least the lower half persisted until after mid-century. (see Figs. 14 and 18) It is referred to on an 1845 diagram (LIHS Block Files) as "Old Everitt Street" and, interestingly, is never mentioned in Dikeman's Compendium which collected all data relevant to street openings and closings from 1819 to 1870. But certainly its course through the block determined the diagonally shaped lots and buildings in existence until the late 1920s when the new Squibb buildings were erected. (Figs 20 & 21) Most of the space flanking Everit Street was given over to distilleries according to the 1840 Brooklyn Business Directory which listed tenants by street and block.

There is no entry for Columbia Heights further north than Middagh since it did not exist until that year.

At the middle of the 19th century Brooklyn Heights in comparison to Furman Street below exemplified a really textbook case of socio/economic division - one which topographic features vividly emphasized. We have seen Furman Street developing apace; by mid-century the accelerated activity has created the commercial complexes as shown on the Perris Fire Insurance Map of 1855. (Fig.18), the first one in Brooklyn. The Brooklyn Business Directory of 1841-2 lists on the east side of Furman between Everit Street (so much for official street closings !) and the entrance to the Colonnade Gardens (presumably Middagh Street - the Colonnade Gardens will be discussed below) Cooke and Adams turpentine distillers and James Dougherty. What

Dougherty owns or does is not given, but he also owns the First Ward Hotel directly north of Everit on the east side of Furman which is followed by Robert Bach's distillery. (See Fig. 14 for the extent of Bach's holdings.) The situation on the Heights is quite different. The 1840 Business Directory states that Columbia Heights is opened from Joralemon to Poplar, but no one is listed between Poplar and Middagh. Hazelton comments that in 1840 "half the Heights was yet fields" and that "before 1850 the Heights was sparsely settled. The streets only a few years before had been cut through the old farms and estates of Cary Ludlow, Hicks, Middagh..." (Hazelton, 1924, p. 1186) But gradually the stretch between Middagh to Joralemon nine blocks south was filled with solidly built and elegant homes, even mansions. (Fig. 22) These "brick, brownstone or frame residences...had backyards that extended out on to the tops of warehouses fronting Furman Street below." (Lancaster, 1961, p. 68) A post-1884 drawing with caption produced in a 1930 magazine depicts this phenomenon. (Fig. 23 - found in LIHS Historical File)

In 1840 "no buildings on the Heights backed against the river at the time and a stately building rose at Columbia and Middagh Streets. It was known as the Colonnade Row. It consisted of eight four-story brick buildings having large wooden columns and balustrades along their fronts." (Hazelton, 1924, p. 1185) "One of Brooklyn's old time amusement places [it] stood on Columbia Street opposite Middagh, in a most picturesque spot. The promenade and the lower front boxes commanded a superb view of New York City... The admission was six pence. Family tickets cost \$5 and single tickets \$3, and they were good for the season...The inclosure covered a green, grassy slope. It extended midway to Furman Street whence it was reached by a flight of stairs. (ibid., p. 1184)

Figure 24 shows the Colonnade in the same year - 1853 - when it, like the Gowanus Building behind it, burned. Fire was a constant hazard to life and cription of one of these fires also furnished the most vivid picture of the famous "sloping gardens" that we could find:

Five firemen were killed and six injured in the fire which broke out in Thomas J. Chubb's blacklead factory at 95 Furman Street, on April 4, 1865. It was discovered at 1:10 AM and soon extended to the oil refinery of C.N. Flanders at 93 Furman Street. Both buildings, with their contents, were consumed. They were built against the hill, which made the rear as good as air tight. The roofs were even with the rear gardens of the fine homes along Columbia Heights. Nothing was more alluring than the opportunity they afforded to extend the grounds in the form of hanging gardens reaching to the water's edge. Six feet of earth was placed on the roofs and planted with choice shrubbery, grass, and flowers. Beneath, this mass was supported by the iron girders and brick arches of the warehouses. The earth made the roofs as tight as the rear. The heat and flames could escape only by the front windows or the skylights, which furnished all the light.

(Hazelton, 1924, p.1161-1162)

The Heights/Furman Street relationship posed other dangers as well as fire. There is an account of an avalanche in 1854. "At the base of the hill, under the foot of Cranberry Street, stood Mrs. McColgan's boarding house, a small frame dwelling, two stories high...the earth loosened by thaw had given way and snow, ice, earth and stones came tumbling down... demolishing the house, bringing inmates and filling out to the center of Furman Street..." (Brooklyn and Long Island Scrapbooks in the LIHS, vol.3, p.36)

One of the great Brooklyn blazes directly impacted the Watchtower site. (See Figures 14 and 18 for a more graphic understanding of the path of the

conflagration. The First Ward Hotel probably stood on or next to the triangular lot at the end of Everit on Furman.) Hazelton reported it thus:

The second great Brooklyn fire, also called the Furman Street fire broke out at 3 AM, on July 8, 1850. Dr. R.V.W. Thorne owned a large brick building under the Heights filled with sugar, molasses, saltpetre, salt, and hides. Saltpetre exploded and the warehouse burst into flame. Explosion followed explosion. Burning timbers were hurled on the roof of the frame sheds adjoining where W. & J. Tapscott kept turpentine and naval stores. The rectifying distillery of Bache and Sons and the First Ward Hotel were devoured as well. A brig alongside the pier caught fire, but was towed out in the stream and saved. Barrels of rum and camphene burst through the sides of another vessel and poured over the river until it was a sea of flame.

(Hazelton, 1924, p. 1160)

To recapitulate, by the last half of the 19th century fine homes on Columbia Heights had yard/gardens sloping down the bluffs to rest on the tops of warehouses or business establishments often owned by the Heights dweller himself.** But Block 208 is an anomaly. Old Block 203 (Poplar to Doughty), which was early on cut by and settled along Everit Street, always had a commercial character. It had various buildings and various businesses over the years - as can be seen on the atlases of 1855, 1880, and 1911 as well as maps of 1880 and 1928 (Figs. 18, 25, 26, 27, & 20) - until its consolidation by the Squibb Co. in the twenties. The large Squibb Buildings,

** This arrangement existed in many instances well into the 20th century and in some cases was destroyed only by the construction of the BQE in 1947. An item in the NEWS for Aug. 29, 1954 stated that, "the famous Hanging Gardens of the Heights, overlooking Furman St. either vanished or were shortened when the BQE was built." (LIHS Clippings file)

as stated earlier, have deep basements which would have destroyed any archaeological resources even if they were going to be impacted by the proposed construction. But old Block 208 (Poplar to Middagh) seems to have been different from its neighbors on either side as typified by the Colonnade Gardens on the one hand and the wierdly shaped lots and buildings on the other. It suggests a transition - or a sort of unhappy compromise, if you will - between the contrasting socio-economic manifestations that flank it.

One may follow the discussion of old Block 208 by comparing the maps mentioned in the previous paragraph plus Ludlam's 1928 survey and 1940 drawings of Squibb Co. property. (Figs. 28 & 21) First, there is the section facing on Furman just south of Everit (through present #55). It had a number of commercial uses from turpentine distillery to candy and soap factory to pharmaceutical and the space is covered by ever more massive and more regularly placed buildings. A 1929 photo from the Squibb archives is illustrative. (Fig. 29)

East of this section and facing on Columbia Heights there were in 1855 (Fig. 18) two other distinct sections. First there is the triangular shaped plot which we discovered was a result of an early Ludlow land transaction. A small frame dwelling is shown on the map and is usually shown on maps moving toward the present. Whether or not it is the same structure as the small house still extant on that lot and slated for demolition is not known. (Fig. 30) This structure - surely post-dating 1840 - is not significant in and of itself and any associated yard deposits would have been obliterated by Squibb Co. storage tanks. Photographs from the Squibb archives showing these tanks and their removal graphically support that conclusion. (Figs. 31&32)

Secondly, on the 1855 Atlas there is the parcel labeled - enigmatically - "distills under the heights." In an effort to create more space, some property owners dug out sections of the bluffs so as to place structures in the hollowed out places. Whether or not there was an above grade building in 1855 is unknown. A three story structure is shown on the 1911 atlas which has grown to an eight story one - four floors below street level - by 1928. The basement areas contained brick arch/vault construction which was observed on a tour through the Watchtower complex. They are also shown on two documents: 1) a blueprint of the Squibb property furnished us by Watchtower personnel which shows the vaults extending under Columbia Heights, and 2) a drawing found in the Brooklyn Building Department Block and Lot folder from a proposed building alteration in 1898 (Fig. 33) shows the arches and suggests that present #50 Columbia Heights was once three buildings. Number 50 will be removed during the proposed project. There is no archaeological reason to oppose it, but the owners might like to photo/document the arched vaults if they are to be destroyed.

Lastly, there are, as shown on the 1855 atlas, three 25' x 150' parcels abutting what is now Squibb Park, but was once Middagh Street. They once were part of Hick's property and are divided similarly to the lots on blocks to the south, perhaps in the expectation that well-to-do gentlemen would build their houses on the crest of the hill overlooking their businesses. But that was not to happen, perhaps partly because of the close proximity to commercial/industrial enterprises in the rest of the block and perhaps because of other factors. William Everdell suggests that at about mid-century there was a separation between the esplanade part of the Heights to the south and the rest so as to create some public spaces. (Everdell, 1973,p.19)

At any rate, despite the fact that the properties changed hands fairly often, these lots never became desirable as residential locations for the wealthy. There is one possible exception. There is a brick building with a rear extension and fronting on Columbia Heights shown on the 1855 Ferris Atlas. It - or another with exactly the same footprint - is shown in a 1903 Belcher-Hyde Atlas and again in the 1911 (Fig.27) where it is labeled three stories with basement. It is shown again in 1928 (labeled "dwelling"), but has been demolished by 1940. The only clue to its appearance is a tantalizing 1929 photograph from the Squibb archives which shows a small section of what appears to be a substantial building with a flower pot in front. (Fig. 34) There is no indication on maps/atlasses/block files that the space behind the house between where it stood and the small brick building still facing on Furman was ever built upon. In fact, the area, though overgrown with weeds, appears to be terraced like a garden or yard. One can see this in an aerial photo furnished by the Watchtower Society. (Fig.35)

Next to this corner lot is a seven story brick building (#58) with a deep basement. It was probably built after 1881 when W.C.& F.R. Fowler acquired 126' footage along Columbia Heights which extended back through to Furman, as were the curved end buildings behind it facing Furman. They all show on the 1903 and 1911 atlases. Note the space between and behind these structures. There is no indication that it has ever been built on. The "coffee warehouses" facing Furman were demolished sometime after 1940 and the debris probably pushed into their deep basements because, according to the only borings record for the site we have been able to locate, "subsurface conditions, as indicated by the borings, generally consist of 9½ feet of building debris fill mixed with sand, over dense to

very dense brown coarse to fine sand" (Thor Engineers, 1983,p.4) If Furman Street is as close to original river shore as all records indicate, there is no way there could be over nine feet between current grade and original grade without massive earthmoving sure to be mentioned in the written record. (Fig. 36). That these two buildings were carved into the bluffs can be seen in a 1970 section elevation drawing from Watchtower files (Fig. 37) and in a 1984 photo. The top of the curved wall of #65 - the shorter one closest to Middagh-is about 25'above Furman Street grade. Columbia Heights is 50' above that level which is only slightly less than it was in 1898. (Fig.38) Whether or not that 50' represents the original slope is impossible to tell without testing to find sterile subsoil along the incline shown on the diagram. (See photos added after Figures)

Finally, there is a small building at #67 Furman Street, next to Squibb Park. On the 1816 and 1819 maps (Figs. 9&10) there is a small building at approximately that location whose ownership and function is unknown. A notation by the researcher on land transaction records for the LIHS Block Files reads: "I find through tax records that Joseph Carter was the owner of [old number] Lot 164 in Columbia Street in 1848 and it also mentions a frame cooper shop on the rear." The little building is labeled "cooper's shop" on the 1855 Ferris Atlas. And a deed of 1860 refers to a cooper shop with tools and implements, the lot "being 25' front and rear and in depth as far back as the stone wall." A structure apparently the same size is shown through time (in 1937 labeled a "store") on maps and is still standing. An "altered building" document of 1950 in the Brooklyn Buildings Department calls it an "old" building of brick on a lot measuring 25'x40'x25'. It is 48'deep today. There is a 7'+ alley

which has existed at least since 1855 between it and the Squibb Park wall. Whether or not this is an altered version of the original early 19th century structure is unknown. It seems highly unlikely that it could have survived onslaughts such as the 1850 fire, but it is possible. The basement is shallow - about four to five feet below grade -, but we know from the 1950 document that part of the cellar has undergone some excavation in the last thirty-five years. Number 67 backs up to a massive retaining wall whose date of construction is unknown, but was mentioned in an 1881 deed.

CONCLUSIONS

A preliminary assessment of this site suggested several research areas for investigation. First, there was the possibility of Indian remains. However, as discussed above in the text, we believe that, while the odd artifact may turn up during construction activity, the possibility of retrieving significant findings about early Native American lifeways is remote.

Next, the fact that this is a waterfront site indicates the possibility of the existence of several categories of archaeological resources. External landfill, the process of making land, which in other parts of the city has revealed important finds such as sunken ships and early wharves, is not a legitimate subject for study in this case. Furman Street runs along the early shoreline between what was low and high water mark. However, it has been widened by at least two feet on both sides, and is not to be impacted by the project.

As the appended maps indicate (Figs. 6, 25, and 40), the original East River shoreline passed through the western side of Block 208. Retaining devices for landfill, piers, and wharves would most probably have been constructed from the high water line along the coast to the west over the beach and into the water. If subsequent construction activity in the nineteenth and twentieth century - e.g. utility placements, street grading, and building foundations - did not destroy these wooden structures, they would only possibly be in the extreme western edge of Block 208. The proposed Phase II demolition and construction will not be exposing or impacting an area sufficient in size that would correspond to potential and external landfill resources to warrant further documentary research or field investigations.

Waterfront sites often exhibit evidence of the earliest commercial development of an area - a factor of primary concern in our investigation. Indeed, we found this to be true as is described in the sections of this report about Everit Street and early butchers, tanneries, and distilleries. However, after pulling the data - which was plentiful but amorphous - into shape, we conclude that physical remains of these early activities have been obliterated by the Squibb/Watchtower buildings on the northern c. two-thirds of the site. And even if there were resources beneath the buildings, the structures are not going to be removed.

Another general research area addressed by New York City's archaeologists is the reflection of activity of the American Revolution. Brooklyn was the scene of considerable activity during the Revolutionary War, but the project area was affected in a general rather than specific manner. Ralph Solecki's find of the Hessian helmet was an important but serendipitous one (and in the middle of Brooklyn's once busiest thoroughfare). It could also be the case on this site that a wonderful artifact might be accidentally found; however, the documentary record simply will not support the validity of recommending subsurface testing to look for artifactual materials of the Revolutionary War era.

These general research topics were addressed during the detailed information gathering process as outlined in the above report. As indicated, each of the research topics impinges in some manner on the proposed project; however, none of the above delineated topics would be to any great degree elucidated by further documentary research or field investigations on this Phase II project area.

One approach basic to urban archaeology involves the comparison of building footprints and foundations through time to determine if, based on the theory of superimposition, significant resources from an earlier time may have survived. The discussion concerned with #67 Furman Street on page 26 of this report reflects such an approach. As noted, there is a 7.5' wide alley covered with a frame staircase between the now defunct bar/ restaurant and Squibb Park's retaining wall. Alleyways and cartpaths that existed through a neighborhood's evolution have the potential for yielding significant resources. However, we feel that the alley between #67 and Squibb Park was disturbed greatly during the foundation construction of the park's massive ashlar retaining wall, thus losing its archaeological integrity.

The basement of the extant structure is only about five feet or less below street grade. From borings logs for #65 we know that the natural soil-sand layer is no more than nine and a half feet below current street level; it is possible that it is considerably less if the 9.5' of building debris fills the cavity of what was once the basement of the coffee warehouse. There is no record of the depth of the cooper's shop that occupied the site from at least 1848 for an unknown time span, but it is highly unlikely that it would have been deeper than the existing cellar which we know to have been enlarged within the past 35 years. How much it was enlarged was not noted on the Building Alteration document in the Buildings Department, and our brief examination (with poor lighting) of the space which is crammed with old restaurant equipment and personal items told us little.

In light of the possibility that #67 may be - or contain part of - a very early 19th century structure and is known to have housed cooper's shop - one of those trades that often leaves physical traces - for a

quarter of a century if not more, the basement area should be tested for resources if no documentary evidence is found to indicate otherwise.

There is also the possibility that the same tests could produce information about the early river beach and its elevation.

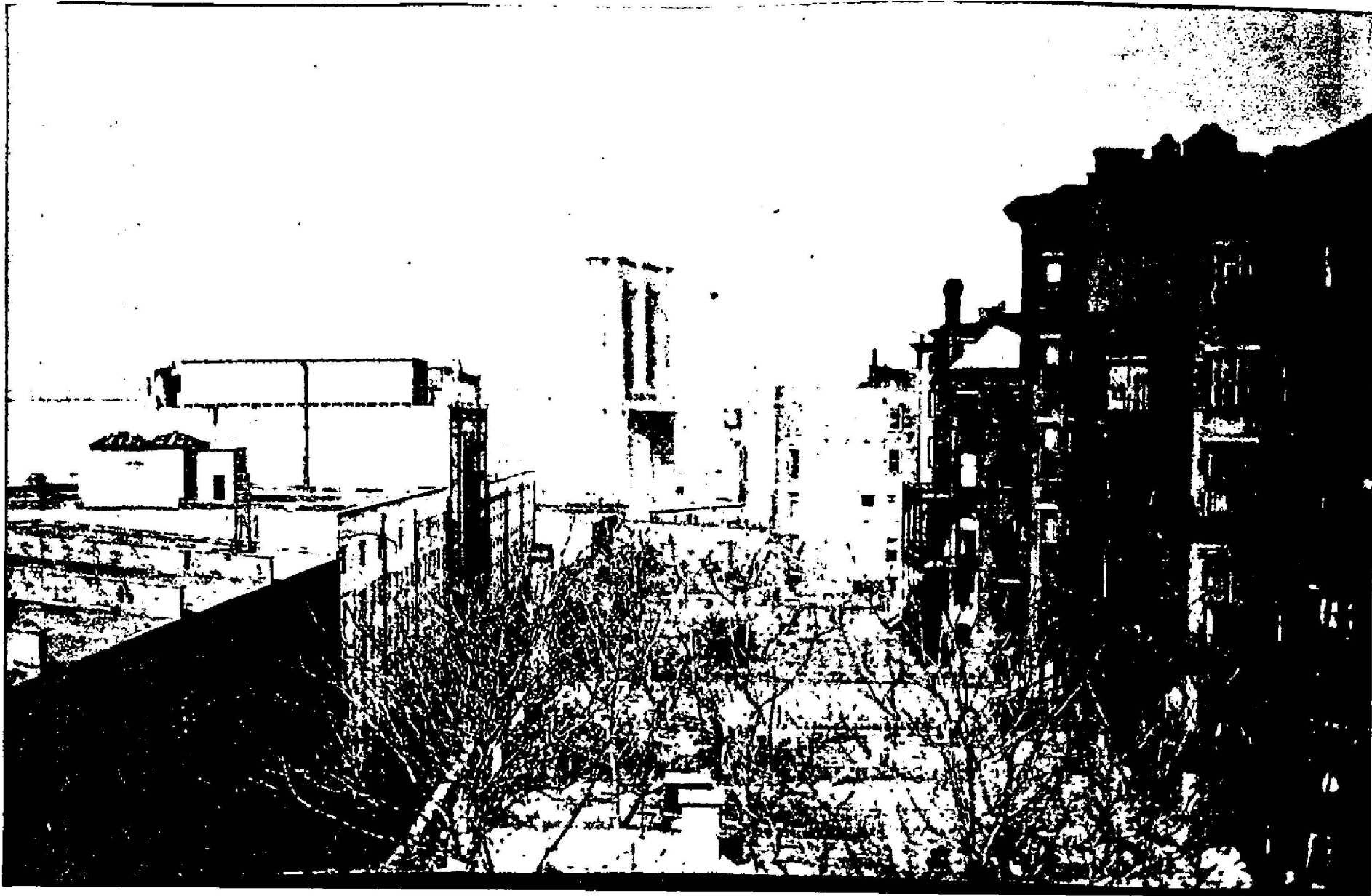
The creation of viable real estate not only developed along the shoreline but also within land-locked blocks. External landfill has been studied by several major archaeological investigations (e.g. Old Slip, Schermerhorn Row, Telco Block, 175 Water Street). The New York Landmarks Preservation Commission's research report "Towards an Archaeological Predictive Model for Manhattan: a Pilot Study," identifies internal landfill as a potentially valuable archaeological resource that might result in a better understanding of the social conditions and interactions of the City's past. (Baugher-Perlin, et.al., 19) Internal landfill was normally a practice aimed at producing a marketable parcel from a low marshy area. Archaeologists can study the fill content and artifacts within the fill in order to connect the filling episode with events, patterns, and people of an earlier time.

The unique topography of the study area coupled with its geographic position in an area containing both prime commercial and residential properties resulted in a unique form of internal landfill - or land manipulation - the creation of deep garden beds in the rear of Columbia Heights residences that rested on the brick arched roofs of the Furman Street commercial structures. The fifty foot elevation difference between Columbia Heights and Furman allowed this symbiotic relationship within the project's one block. Nineteenth century entrepreneurs created a commercial strip -

the east side of Furman Street - out of an untenable parcel of land. The faces of the high sandy bluffs were gouged out and retaining walls and warehouses were erected in the hollows.

Two blocks adjacent to the project site (Middagh - Orange Streets) of the Heights containing these structural phenomena were destroyed when a section of the Brooklyn Queens Expressway was built in 1947. A newspaper write-up of the time gave a first-hand account. (Fig. 39 is a reproduction of the article, but it is so difficult to read that it is excerpted here. Fig.39A) is a photograph from the Brooklyn Eagle taken a few weeks earlier): "...Historic homes edging the bluff top ...have been demolished...Already destroyed are the houses' quaint rear gardens, planted on the earth-covered roofs of old warehouses. Until the attack of the wreckers' sledges, some of these thick-walled vaults built at the foot of the bluff with their backs nestling into the hillside, were redolent with the products of a hundred years of the spice trade... [there were eight foot thick walls in one warehouse] The warehouses were built from 1841 to 1844 after Furman Street was cut through. Merchants who occupied the mansions of the Heights could sit in their gardens and watch their own ships unload the merchandise of the world into their warehouses...At places where no vaults were built against the bluff, an eight feet-thick wall retained the hillside. Laborers digging near this wall a few days ago uncovered a human skeleton. The decomposed bone fragments contained no suggestion of whether they might have been the remains of a member of the Canarsie Indian tribe which had a settlement on the heights called Ihpetonga, or of a British or Hessian soldier, some of whom were buried on the heights after the Battle of Long Island in 1776. The skeleton was returned to its burial place..."

(Herald Tribune, Friday, May 9, 1947, p.109)



This photo and the one on the following page (provided by Watchtower) shows the blocks south of Block 208 before and during BQE construction. The project area is in the background.



RECOMMENDATIONS

The purpose of a Phase 1-A Documentary Study is to research the documentary record and to compile and synthesize and assess the data so obtained so as to identify the potential kinds and location of possibly significant archaeological resources. On the basis of this acquired information and the probable existence of archaeological resources, research topics addressing their significance must be generated before testing should and can take place. To accomplish this goal for the Watchtower site was a tortuous process. It is an interesting but very complex site - one that yields its secrets grudgingly, reluctantly. Pulling the mass of material into workable shape which would make it accessible to every reader was difficult; already assimilated data had to be constantly re-evaluated, re-scrutinized in light of new bits of evidence.

The completed Phase 1-A research has successfully provided both negative and positive information on the Watchtower project's site. Most of the impacted area of the block, although it was developed early in Brooklyn's history and retained a central position in later commercial activity, cannot be considered significant in the evolution of the borough as could be said of the northern neighboring properties. The succession of processing and industrial complexes fronting Furman Street and the later residential units facing Columbia Heights most probably would not yield archaeological resources of sufficient research value to warrant their retrieval.

This Phase 1-A work did locate three areas that warrant further investigation. The unique method of land manipulation that successfully bridged

the elevation span between the bluffs and the beach is, as outlined above, worthy of further study. The possibility of the survival of a very early industrial shop - fronting on original river beach - and its associated detritus should be investigated. Normally subsequent to a Phase 1-A is a Phase 1-B field investigation if necessary. The two small vacant areas, one to the rear of 58 Columbia Heights and one in the vacant lot next to it, and 67 Furman Street are pinpointed as the areas for potential fieldwork. But field investigations in this instance may be found to be unnecessary - or at least limited - if the answers to specific research questions raised can be answered by additional intensive, topic-oriented research.

Specific questions that would guide future scrutiny of the small area of the southern end of Block 208 that has seemingly retained evidence of a unique internal landfill method and a very early building would include the following.

- 1) What was the function of these open spaces? Did they support gardens, or privies/refuse deposits, or some other material? and if so, did the selection of one of those usages reflect socio/economic factors? In fact, was the directing force for creating these gardens social or economic and can it be detected in these lots? This form of internal landfill or alteration may be idiosyncratic to the Brooklyn Heights bluffs/Furman Street area, but the causal factors involved and an understanding of the human factors involved may be broadly applicable to the development of an urban center.
- 2) In view of the dangers involved in these gardens (fires and landslides), why was the practice continued.
- 3) Research indicates that on the Heights lower level warehouses were owned

by businessmen living in the upper level homes. The project block apparently did not host this relationship. What dictated the creation, ownership and function of the garden area and warehouse areas on the project block?

4) Did the internal landfill on the project block antedate or postdate the rest of the Heights' similar manipulation of the topography?

5) Was all the soil removed when the bluffs were cut for the brick warehouse construction and exotic fill introduced for the backyard spaces?

Areas A and B shown on Figure 41, the site map, indicate areas that could possibly provide researchers an opportunity to study two separate and distinct land manipulation techniques and approach the questions raised above. Area C is possibly a mid-nineteenth century cooper's shop adapted for diffuse purposes over a 125 year span. Verification of the age of this structure and a photo documentation by an architectural historian should be undertaken before destruction. It is possible that artifactual remains from a mid-nineteenth century cooper's shop could be found underneath the portion of #67 Furman that has not been re-excavated in this century. The importance of these resources must be weighed by NYCLPC against the available resource data on mid-nineteenth industries and Brooklyn commercial sites.

This intensive research would entail, but would not be limited to:

1) locating and interviewing long time residents of the area whose memories could supplement the written record. (It is regrettable that Mrs. Curzon lately of 48 Columbia Heights declined to be interviewed by Historical Perspectives);

2) locating and interviewing the BQE engineering firm on the details of their work and of the disturbed burial;

3) researching the microfiche of Brooklyn newspapers during the time of the burial discovery for any additional clues on the faunal remains and

how the find might impact the focus of the research/testing.

4) detailing, for each of the three areas, any tax and deed records not evaluated to date; and

5) working with the Watchtower Bible and Tract Society in further refining the location of potentially undisturbed stratigraphy (e.g. Area B).

The above described plan entails research beyond the scope of the 1-A Documentary Survey here presented. We estimate that it would take between five and ten working days for the research effort and another few days to assess and write up the results. An alternative plan would be to go directly to a testing phase on areas A,B, and C with the additional research done concurrently with field work. However, we strongly urge that the data gathering take place prior to sub-surface testing. It is possible that additional research would produce enough information to obviate the need for, or at least narrow the scope of, subsequent excavations.

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Thor Engineers

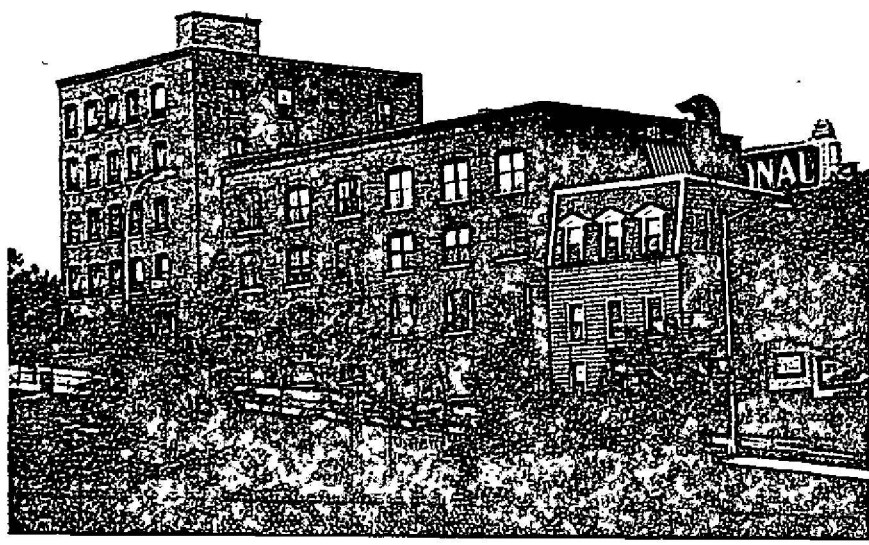
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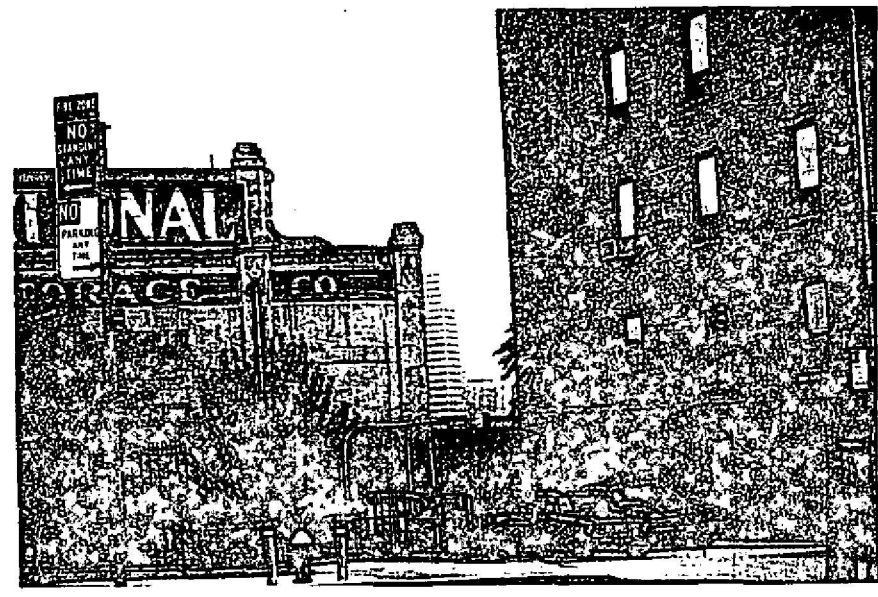
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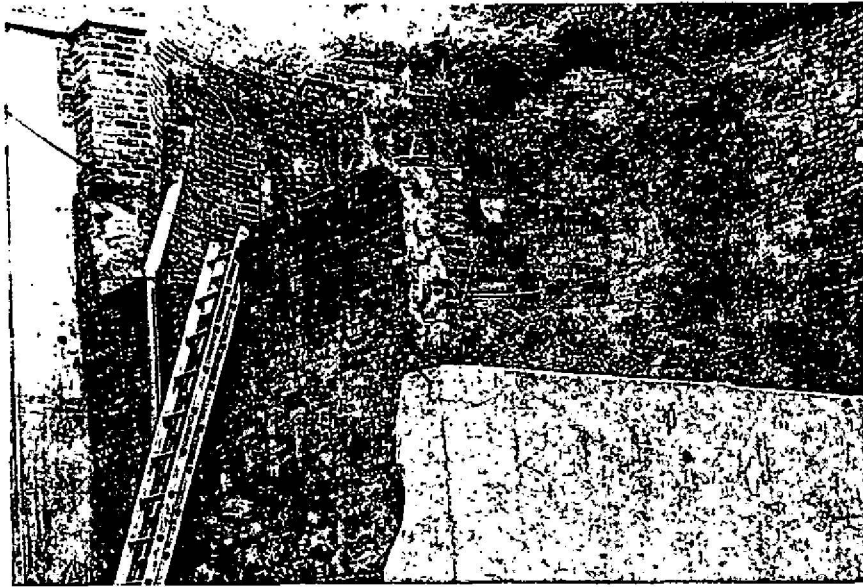


#58 #50 #48

COLUMBIA HEIGHTS, from the southeast at Vine St.



Vacant Lot on Columbia Heights at the rear of 67 Furman Street. Brick Building to the right is #58 Columbia Heights, Squibb Park to the left. View from intersection of Columbia Heights and Middagh.



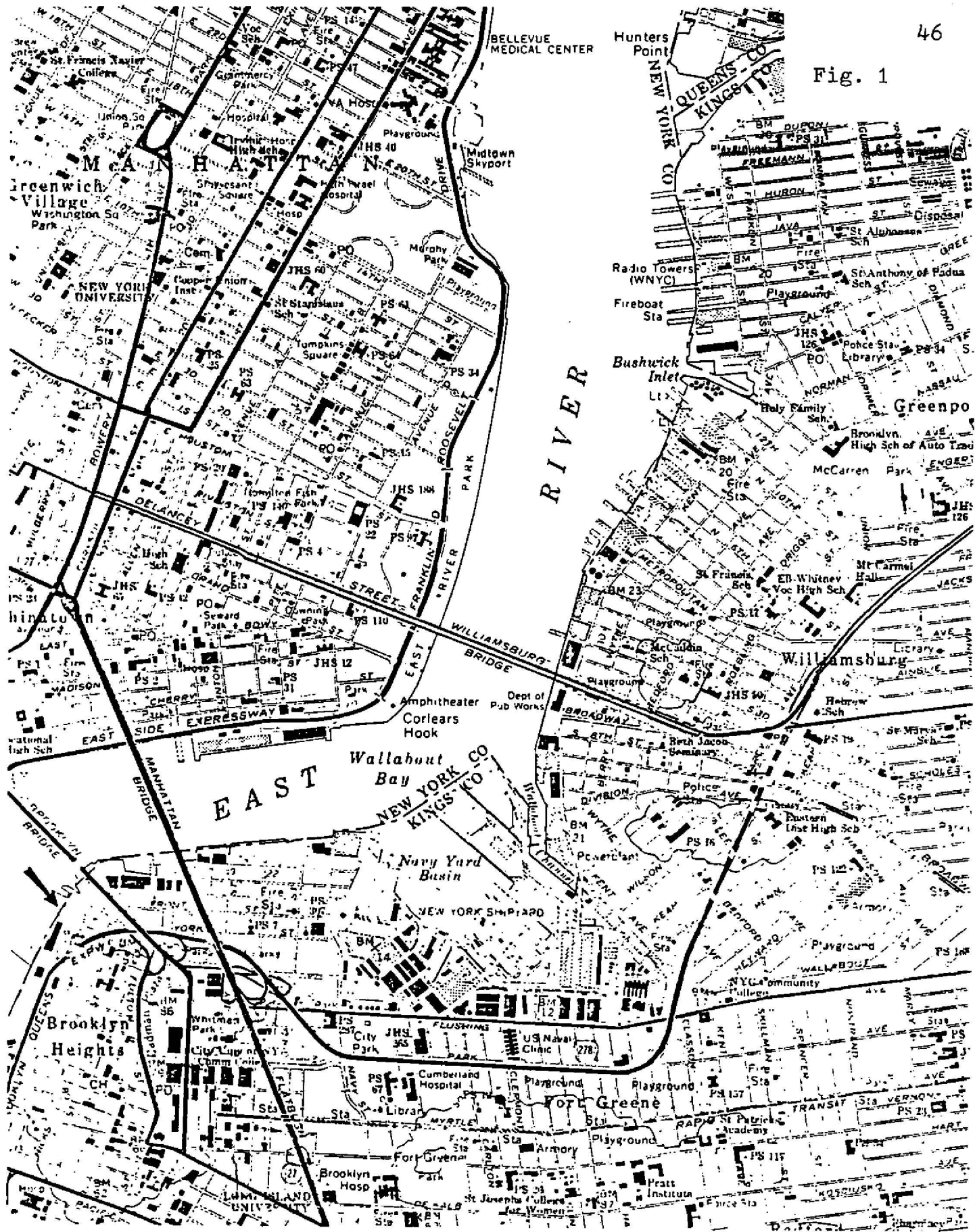
Brick retaining wall on 65 Furman Street.
View north to south.



Southwest
corner of
building at
#58 Columbia Heights.

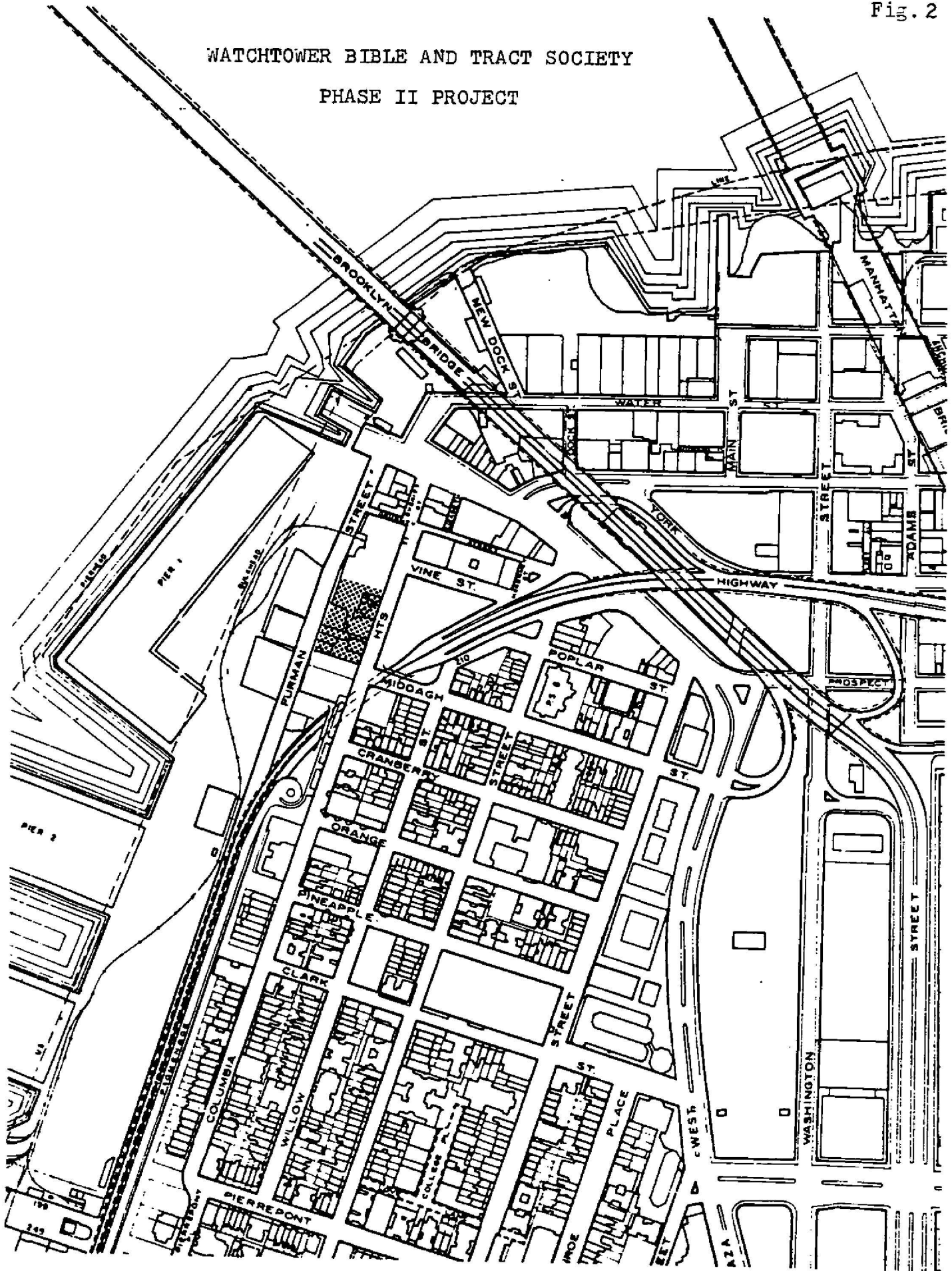
view from the north
to the south

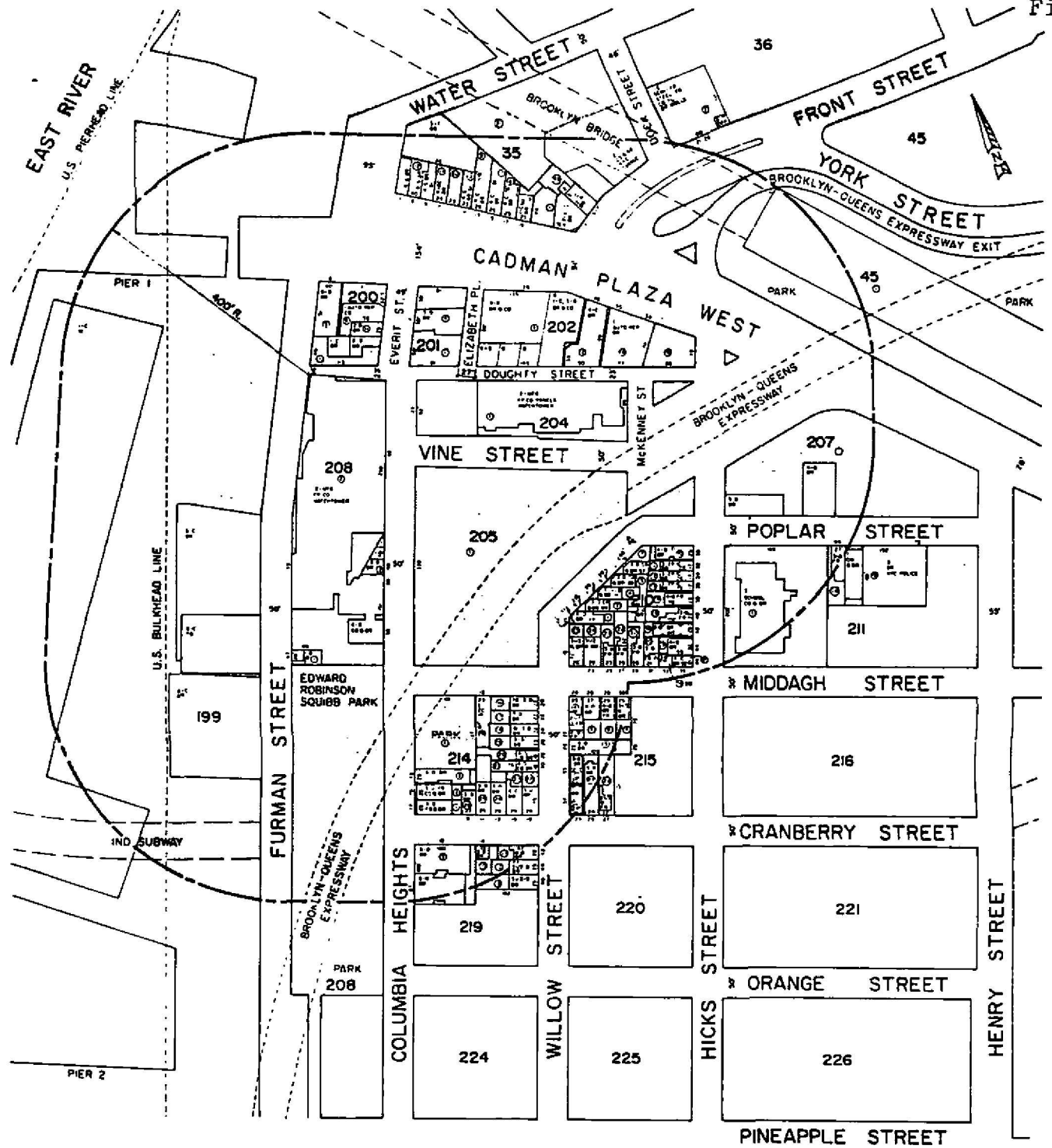
Fig. 1



WATCHTOWER BIBLE AND TRACT SOCIETY SITE
 Brooklyn Quadrangle, USGS 7.5' series

WATCHTOWER BIBLE AND TRACT SOCIETY
PHASE II PROJECT





**WATCHTOWER COMPLEX
FIGURE #8
SANBORN MAP**

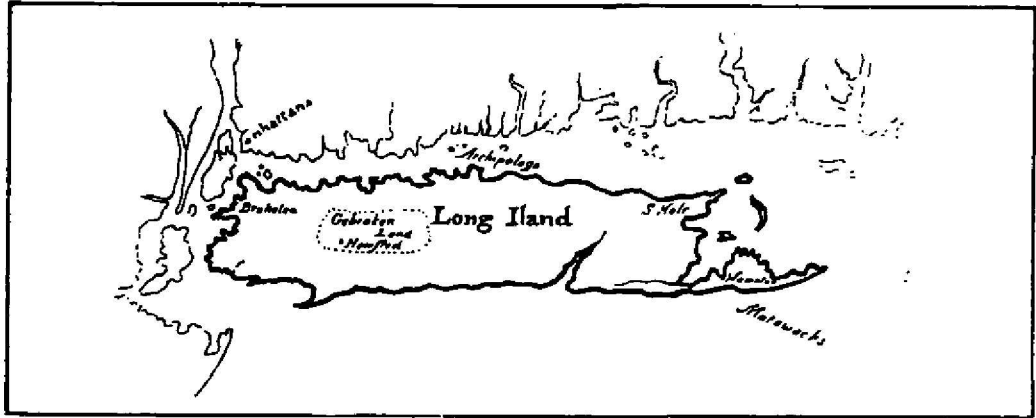
LEGEND

- | | |
|---------------------|-----------------------------------|
| BR - BRICK | FR - FRAME |
| C - COMMERCIAL | M - METAL |
| CB - CONCRETE BLOCK | MFG - MANUFACTURING |
| CO - CONCRETE | R - RESIDENTIAL |
| D - DWELLING | S - STORE |
| FL - FLOOR | VAC - VACANT |
| FP - FIRE PROOF | 1, 2, 3, ETC. - NUMBER OF STORIES |

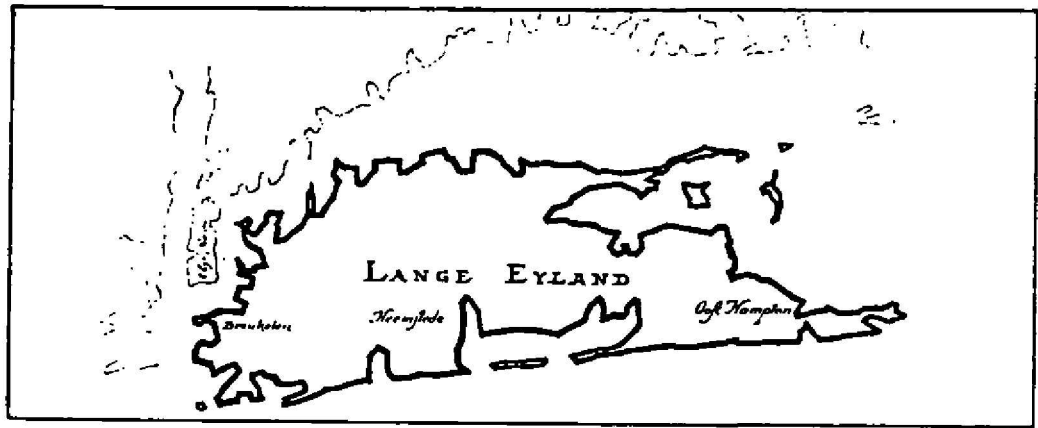
Photocopied from the Watchtower Bible and Tract Society Rezoning Proposal, September 1983.

LARGE NUMBERS ARE BLOCK NUMBERS.
CIRCLED NUMBERS EX. ③ INDICATE LOT NUMBERS.
NUMBERS OUTSIDE OF BUILDINGS INDICATE STREET ADDRESS.
FRONTAGE OF LOTS DIMENSIONED TO NEAREST FOOT.
OPEN SPACES WITHIN 400' RADIUS ARE SHADED.

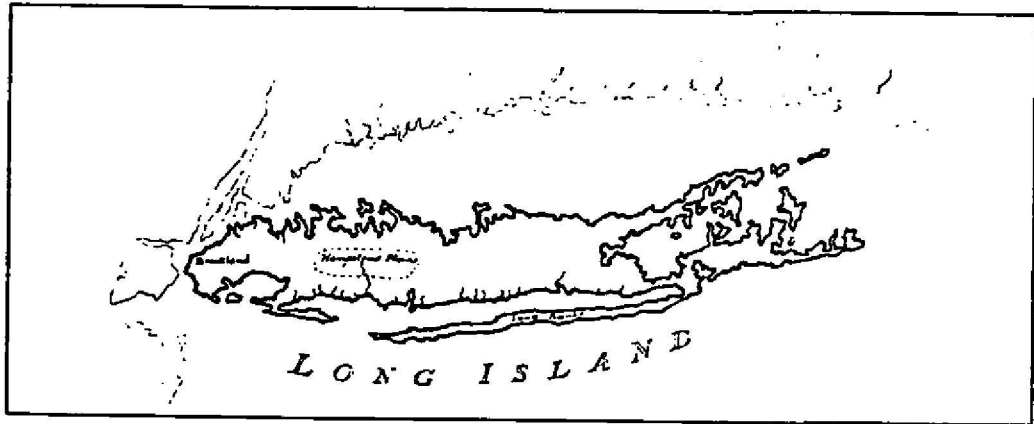
Photocopied from Weigold, 1974, p. 9.



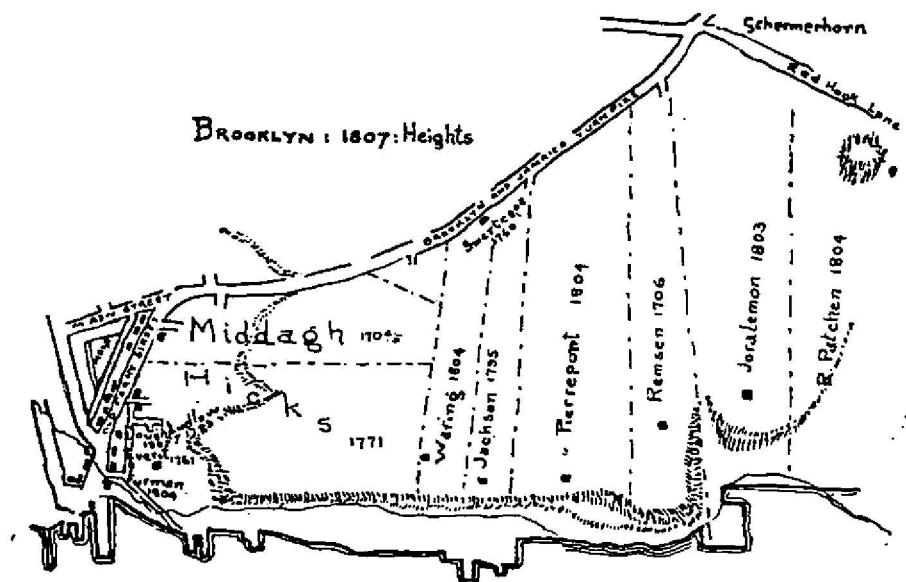
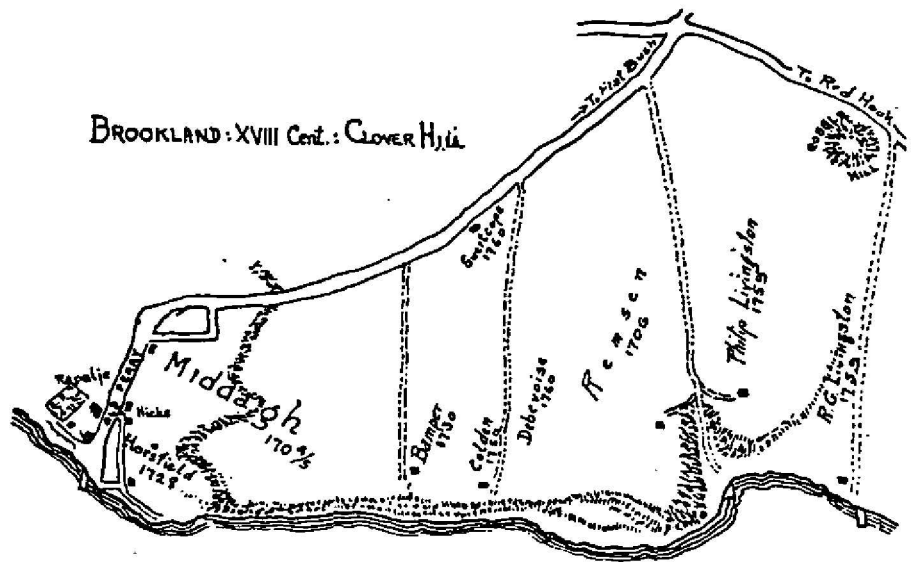
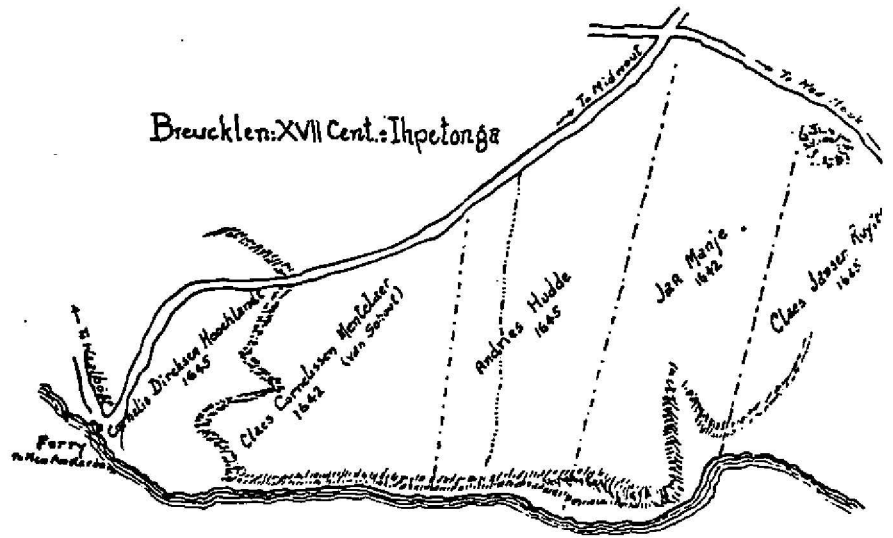
Detail of Map by Nicolaus Visscher of Amsterdam 1662 ("Journal of Long Island History," 1967)



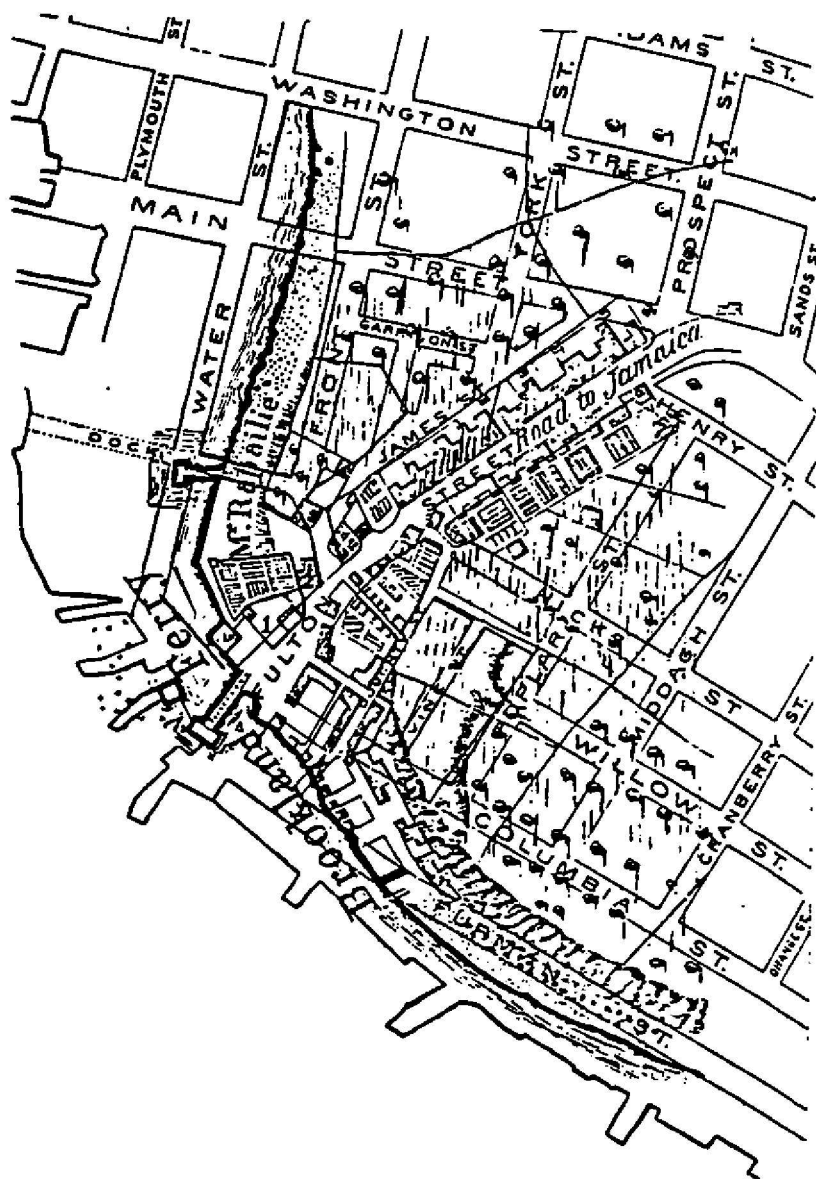
Detail of Map of "Nieu Nederland" by Johannes Van Kevlin of Amsterdam, 1685 ("Journal of Long Island History," 1967)



Detail of Map published in London, circa 1720, an accurate copy of the Morden Map ("Journal of Long Island History," 1967)



Photocopied from Stiles, 1884, p. 311.

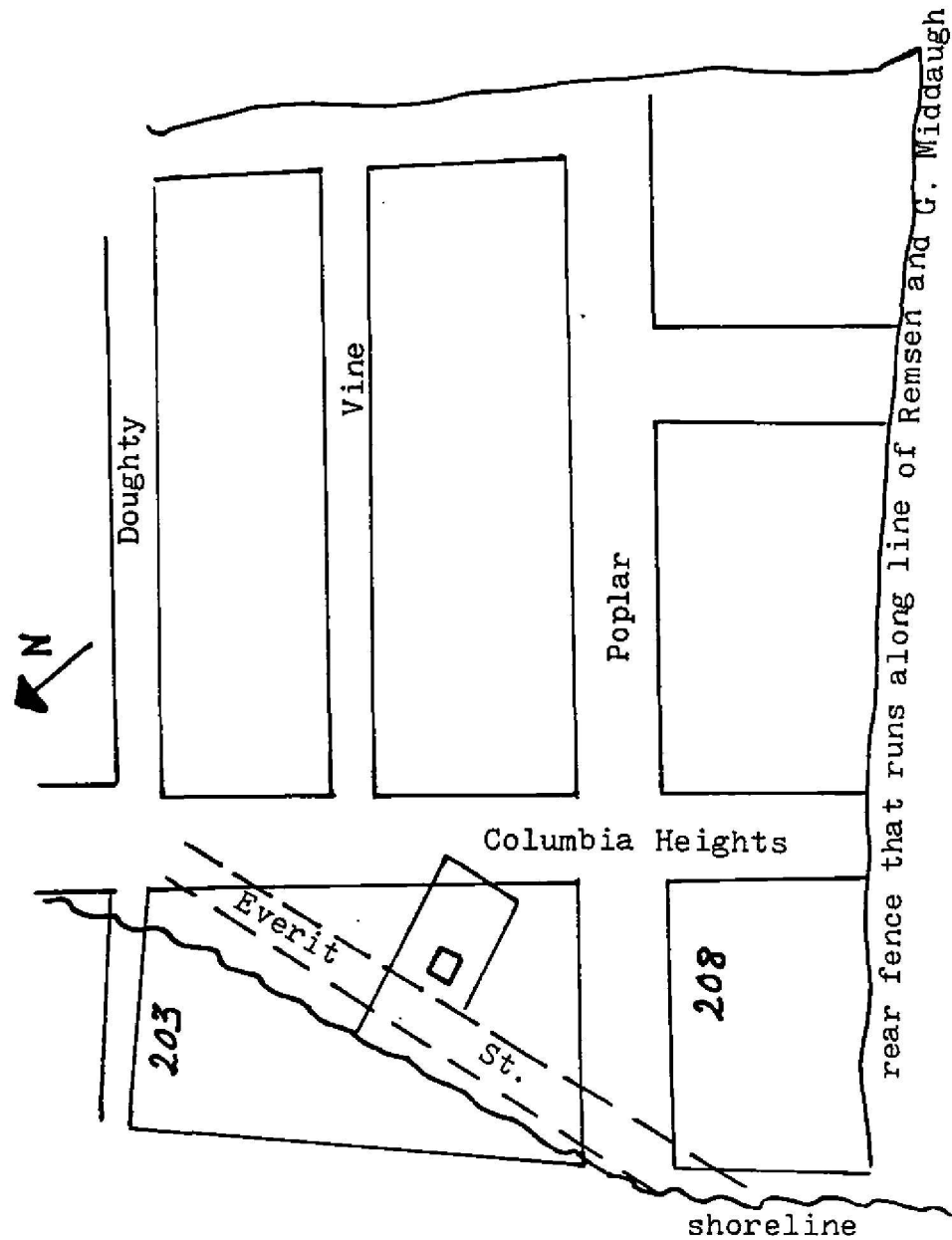


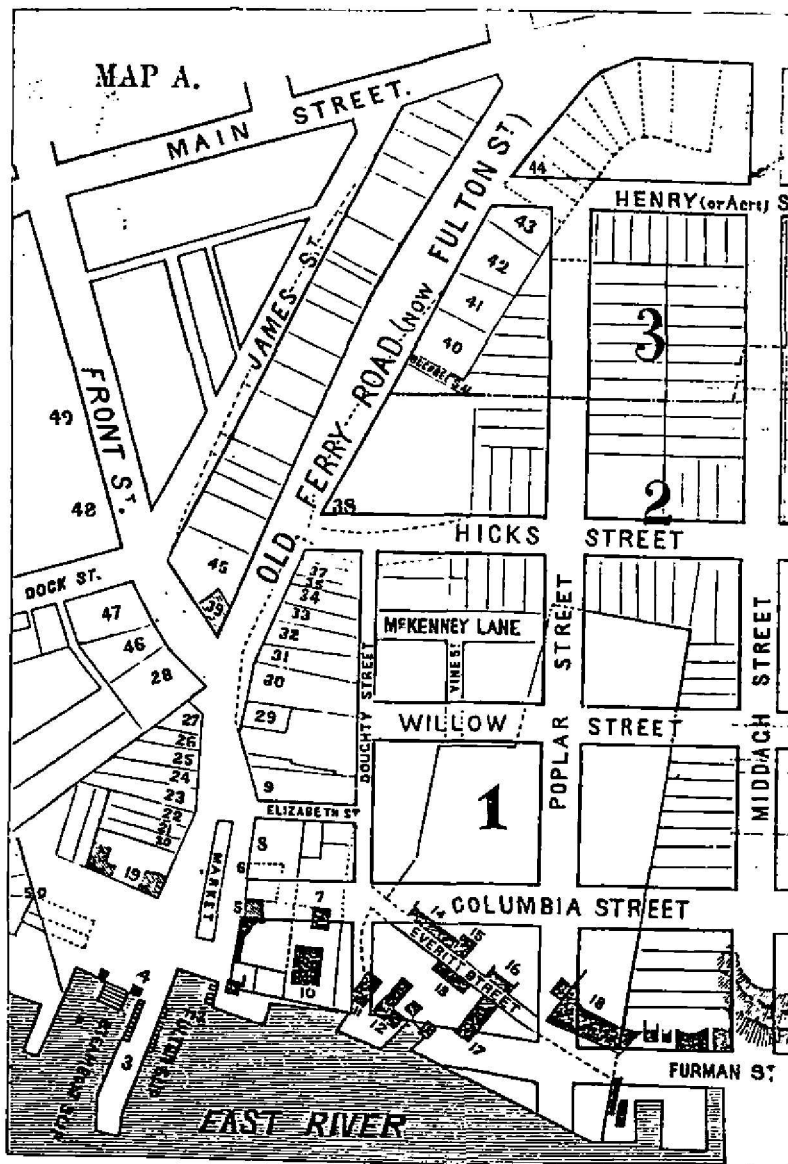
The number 8 at the intersection of Columbia Heights and Everit Street corresponds to the position of the Whalebone Gate.

Tracing from the Long Island Historical Society Block Folder.

Property transfer from Garrett Middagh and wife to Machiell Hansen (L. 3, page 264/old, 178/new):

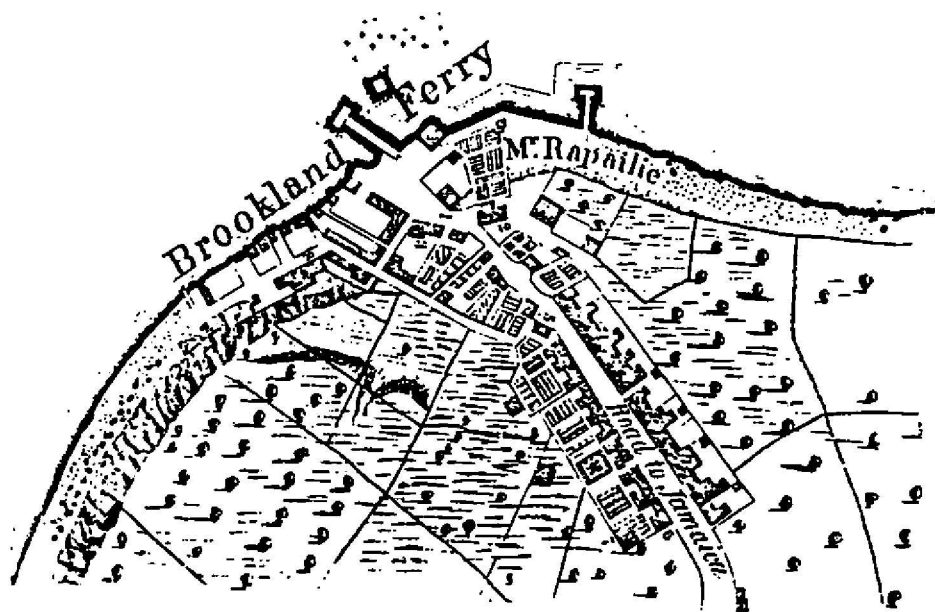
"house orchard and homelot adjoining at the Ferry along the "salt water river."





MAP OF THE OLD FERRY DISTRICT OF THE VILLAGE, IN 1810.
 (The dotted lines designate old roads, lots and estates. Figure 1, the Ludlow Estate; Fig. 2, the Hicks Estate; Fig. 3, the Middagh Estate. The smaller figures are referred to in the text.)

Photocopied from Stiles, n.p.

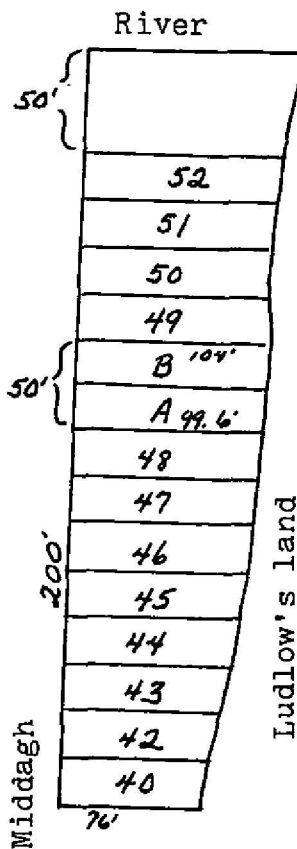


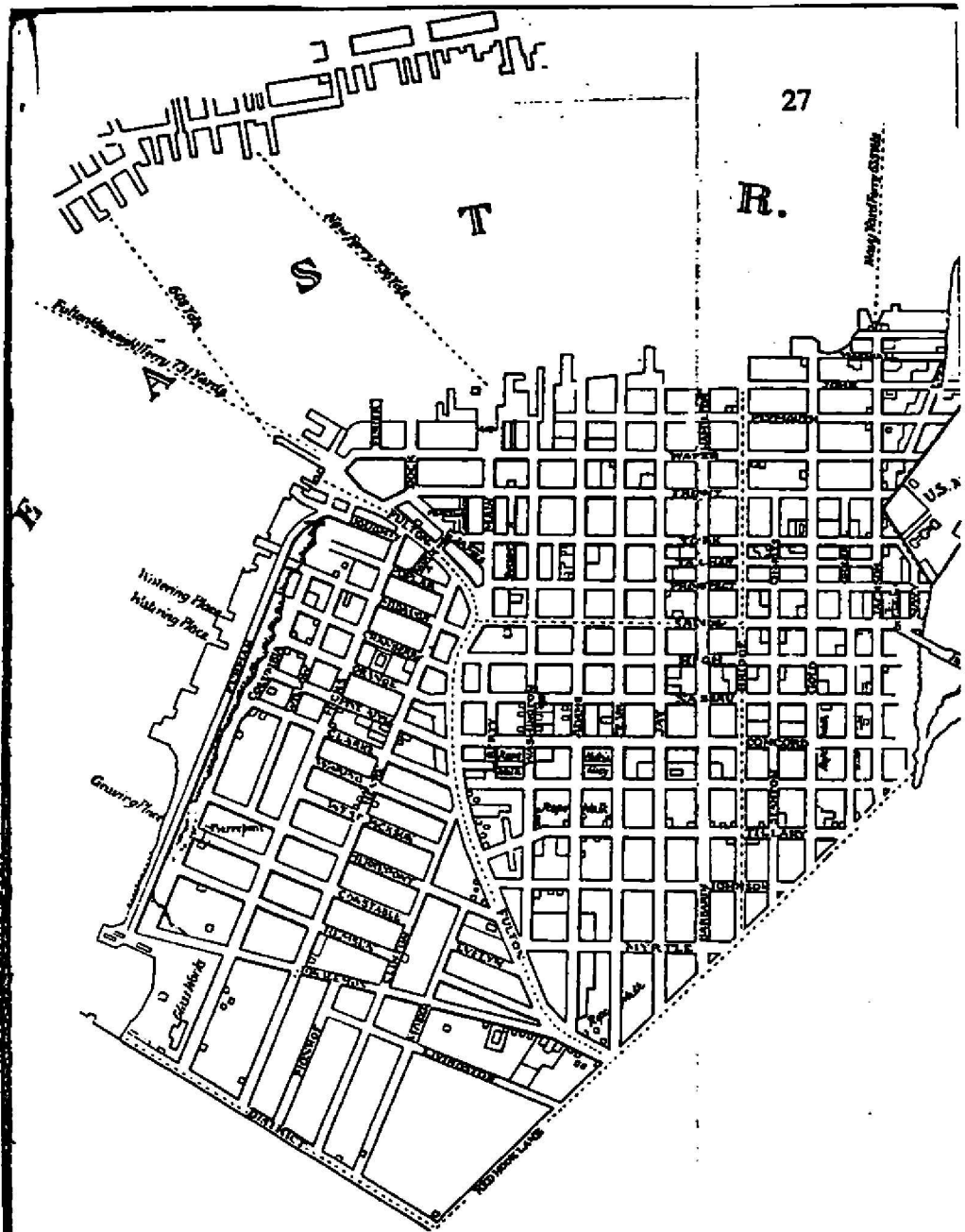
Detail showing the ferry district in "Brookland" from Ratzer's "plan of the City of New York," 1776-67.

Photocopied from Ment, 1979, p. 26.

Tracing of A MAP OF PROPERTY OF J. AND J. HICKS
1806, Jeremiah Lott

Property Map File 222
Registrar's Office
Municipal Building
Brooklyn





BROOKLYN VILLAGE IN 1827

Redrawn from William Hooker's *New Pocket Map of Brooklyn*. Courtesy of the Long Island Historical Society.



SURVEY OF THE ESTATE OF ROBERT BACH, dec'd.
 Silas Ludlam
 April 1856

Property Map File # 646
 Registrar's Office
 Municipal Building
 Brooklyn

X - part of Bach Estate

Columbia Heights

Poplar St.

FURMAN STREET

OVERALL DIMENSION 210'-4"

67 FURMAN ST.
TO BE REMOVED

55 FURMAN ST.
TO BE REMOVED

PROPERTY LINE

6 STORY BUILDING
TO REMAIN

CONNECTOR AND RAMP
TO BE REMOVED

58 COLUMBIA HEIGHTS
TO BE REMOVED

50 COLUMBIA HEIGHTS
TO BE REMOVED

48 COLUMBIA HEIGHTS
TO BE REMOVED

Scale: 1" = 32'

Reduced from copy provided by
Watchtower Bible and Tract Society

OVERALL DIMENSION 95'-9"

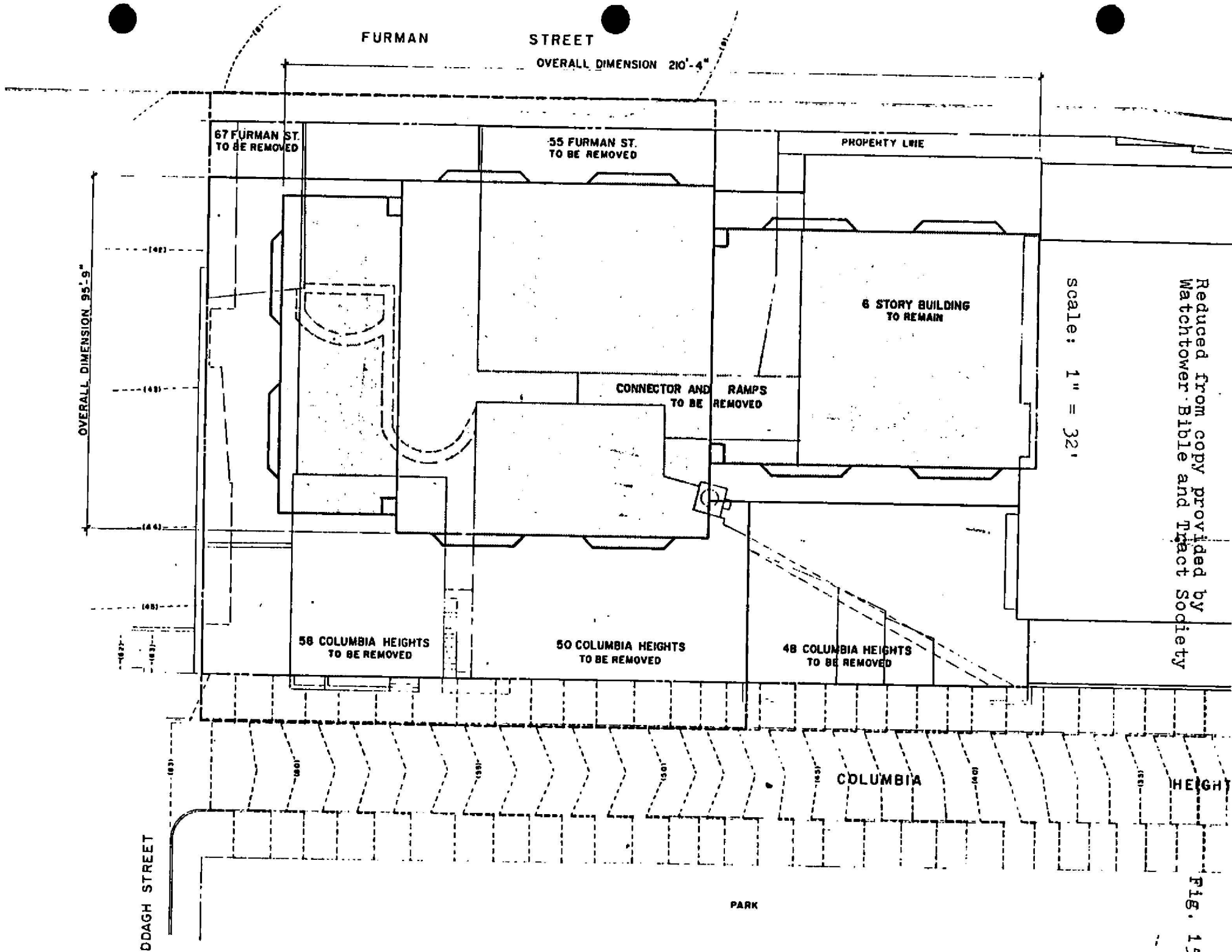
DDAGH STREET

PARK

COLUMBIA

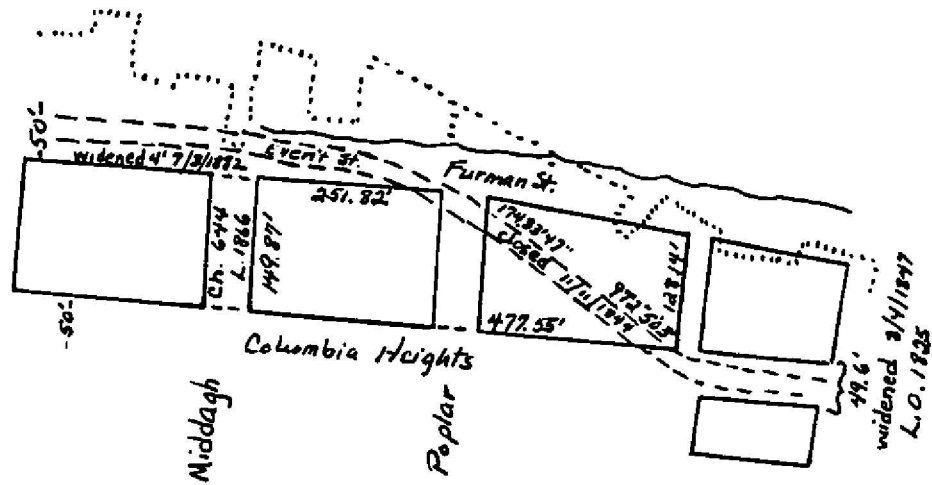
HEIGHT

FIG. 15



Tracing of COMMISSIONER'S SHEET 65
Street Openings and Closings, c.1820-1900

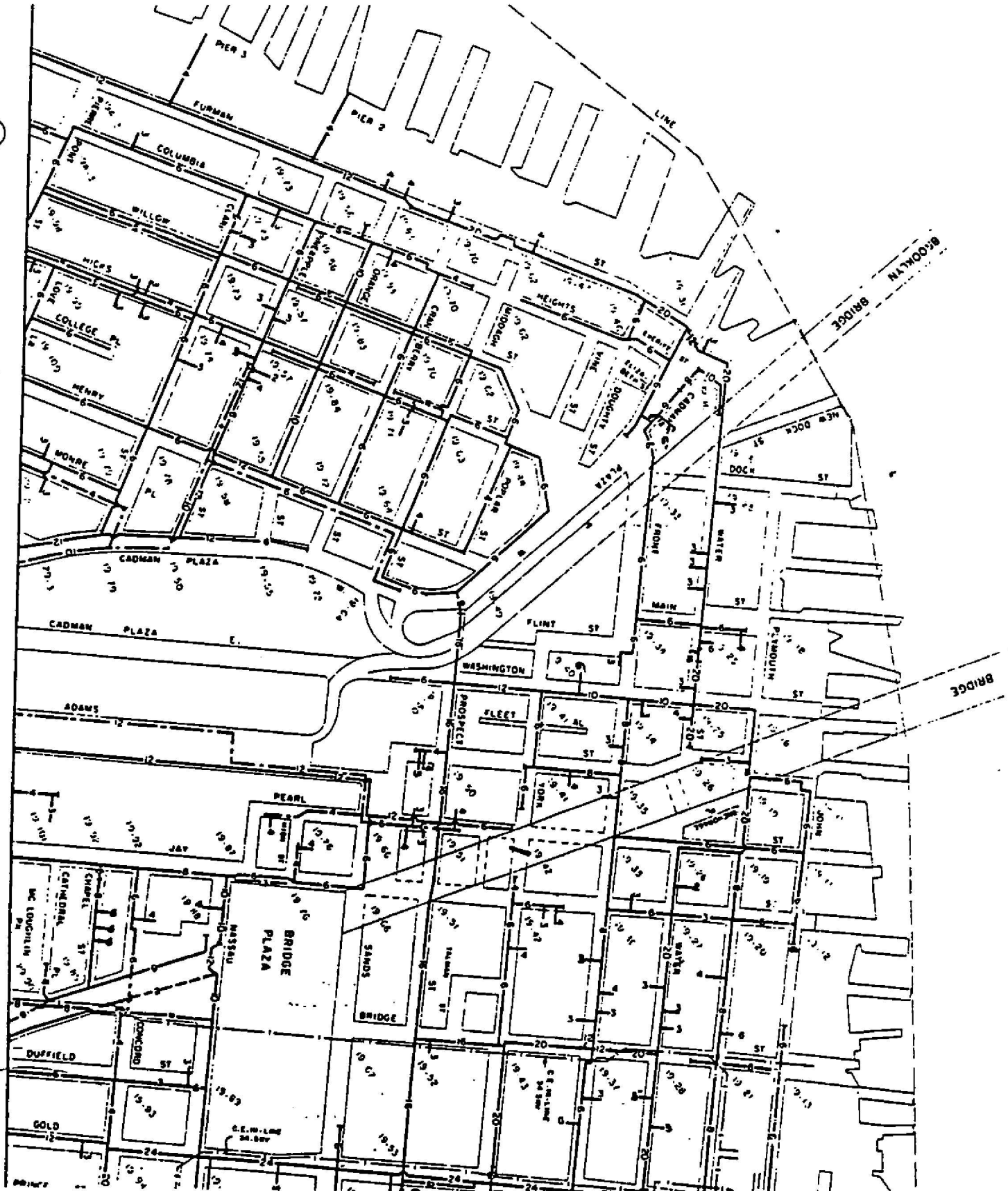
Brooklyn Topographic Bureau
16 Court Street, floor 2A (temporary office)
Brooklyn






MAP OF EXISTING GAS LINES
Furnished by the Brooklyn Union Gas Company
Brooklyn, NY

29


SCALE 1" = 300'



 brick or stone
 frame
 hazardous site

x framed, first class
 light manuf.

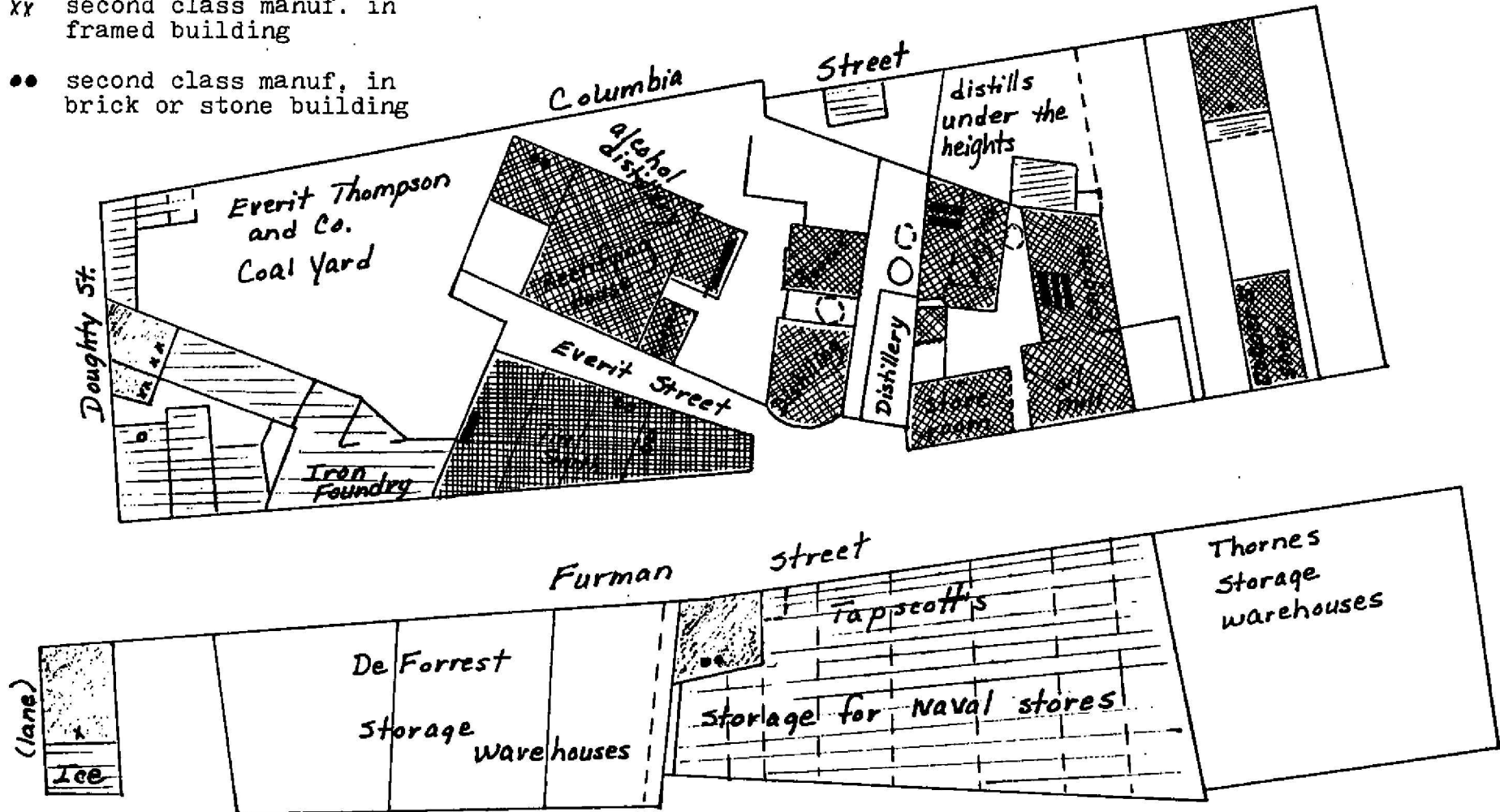
oo second class dwelling
 with stores underneath

 engine/boiler

• first class dwelling

xy second class manuf. in
 framed building

•• second class manuf. in
 brick or stone building

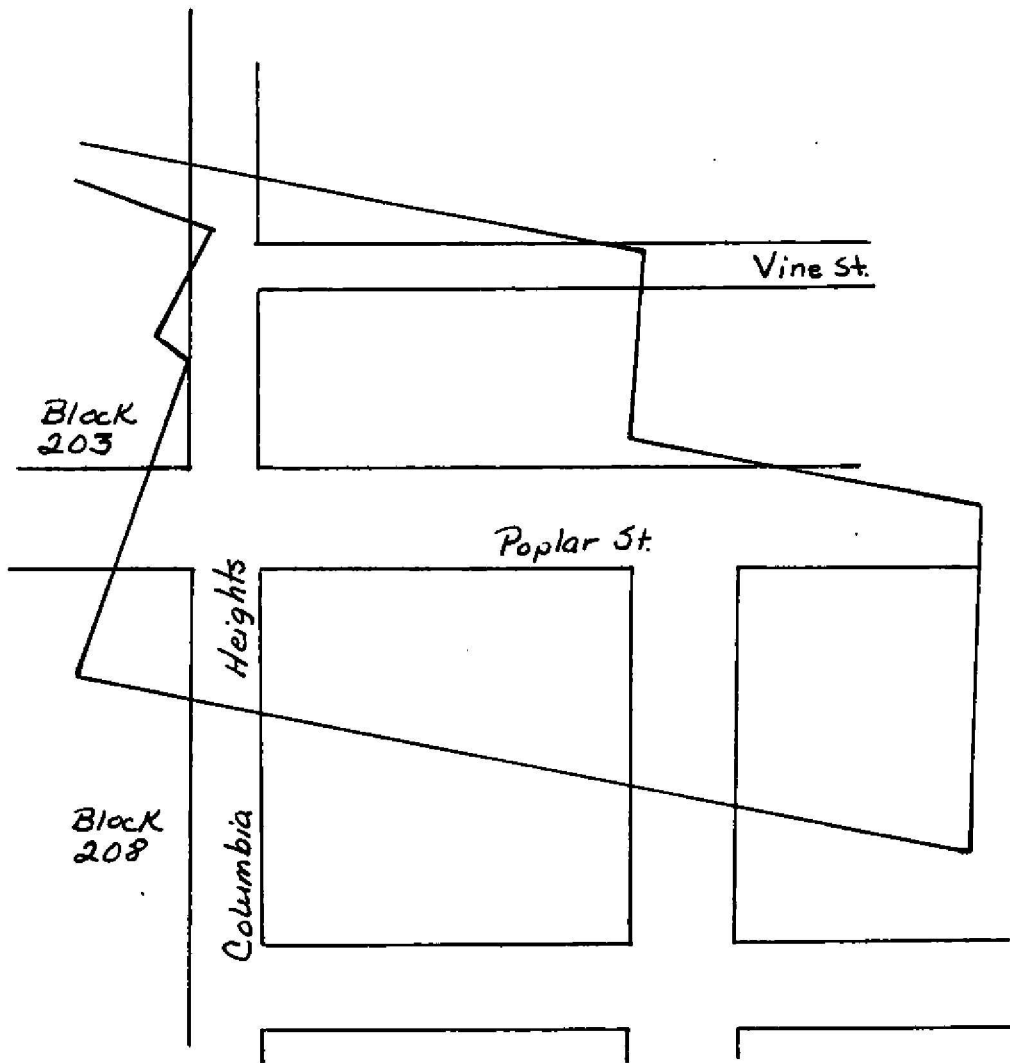


Tracing of MAP OF THE CITY
 OF BROOKLYN, Vol. 1, pl. 5

1855 William Perris

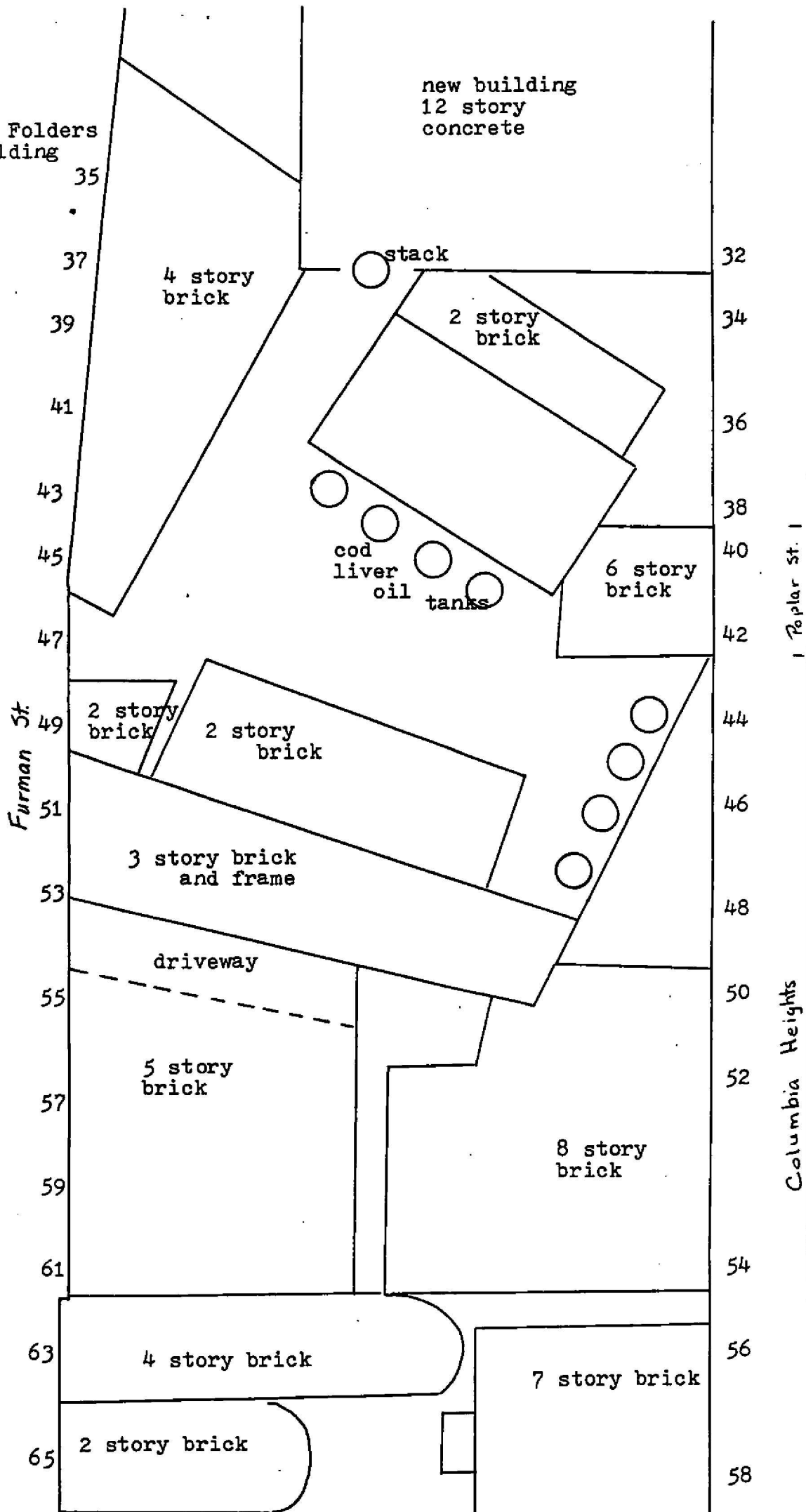
Tracing of map from property transaction
on file at the Long Island Historical
Society - Block Folder.

Ludlow to Henry Western, 1830 or 1833
L. 36 p. 178/180.



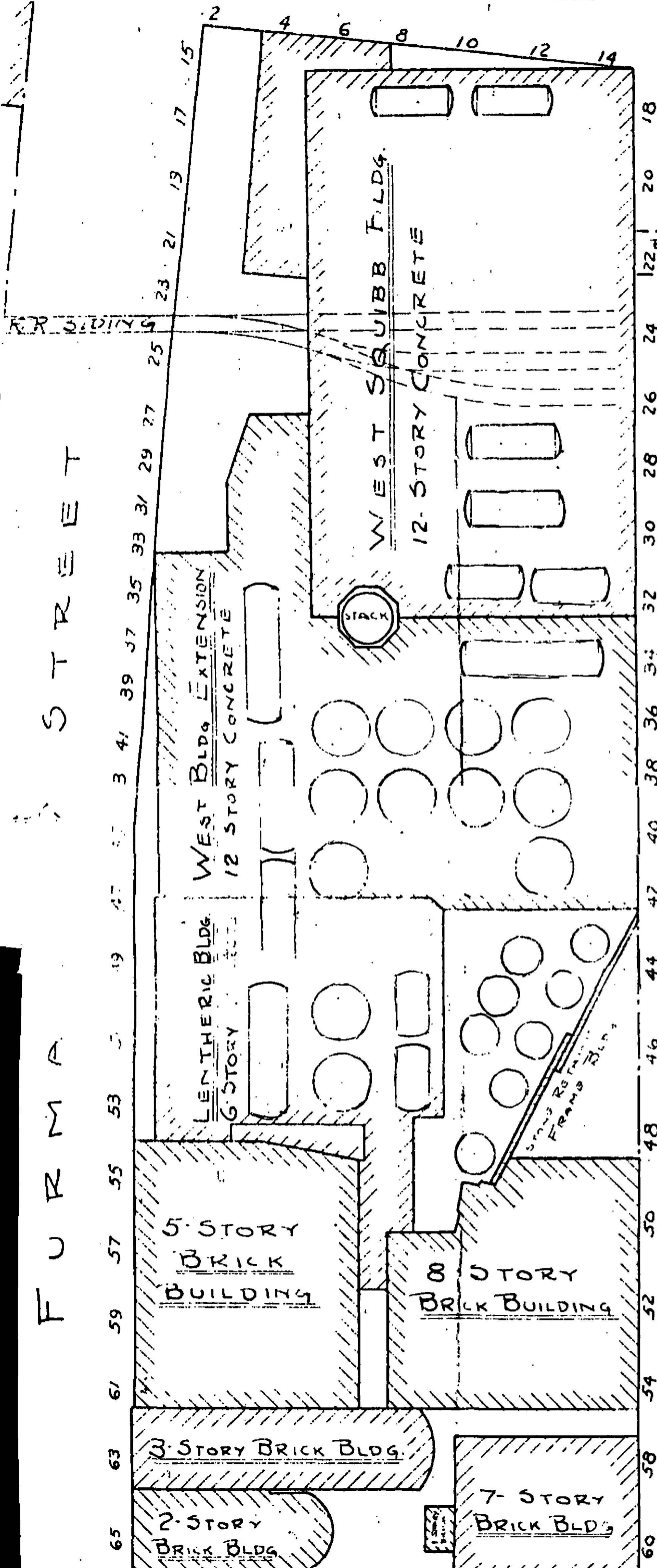
E. R. Squibb Property
October 13, 1928

Block and Lot Folders
Municipal Building
Brooklyn



Photocopy provided by Dr. W. B. McDowell,
Director, Squibb, Inc. Archives,
Princeton, NJ

c. 1940



22	23
10	11
12	13
14	15

252 FT. TO CORNER

BLOCK 208 LOT 2 SEC. 1; VOL. 3

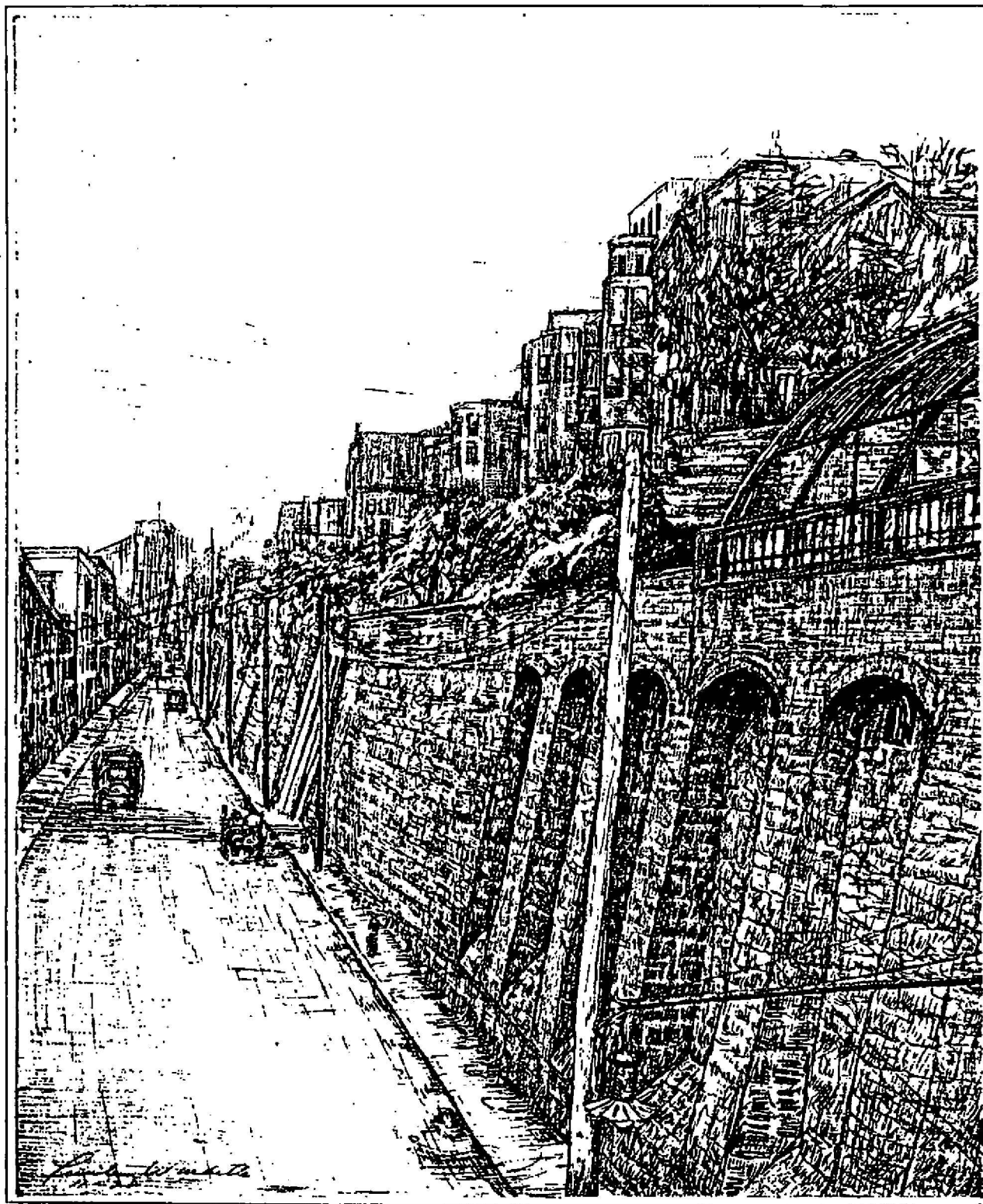
208.0 FT

C O L U M B I A H E I G H T S



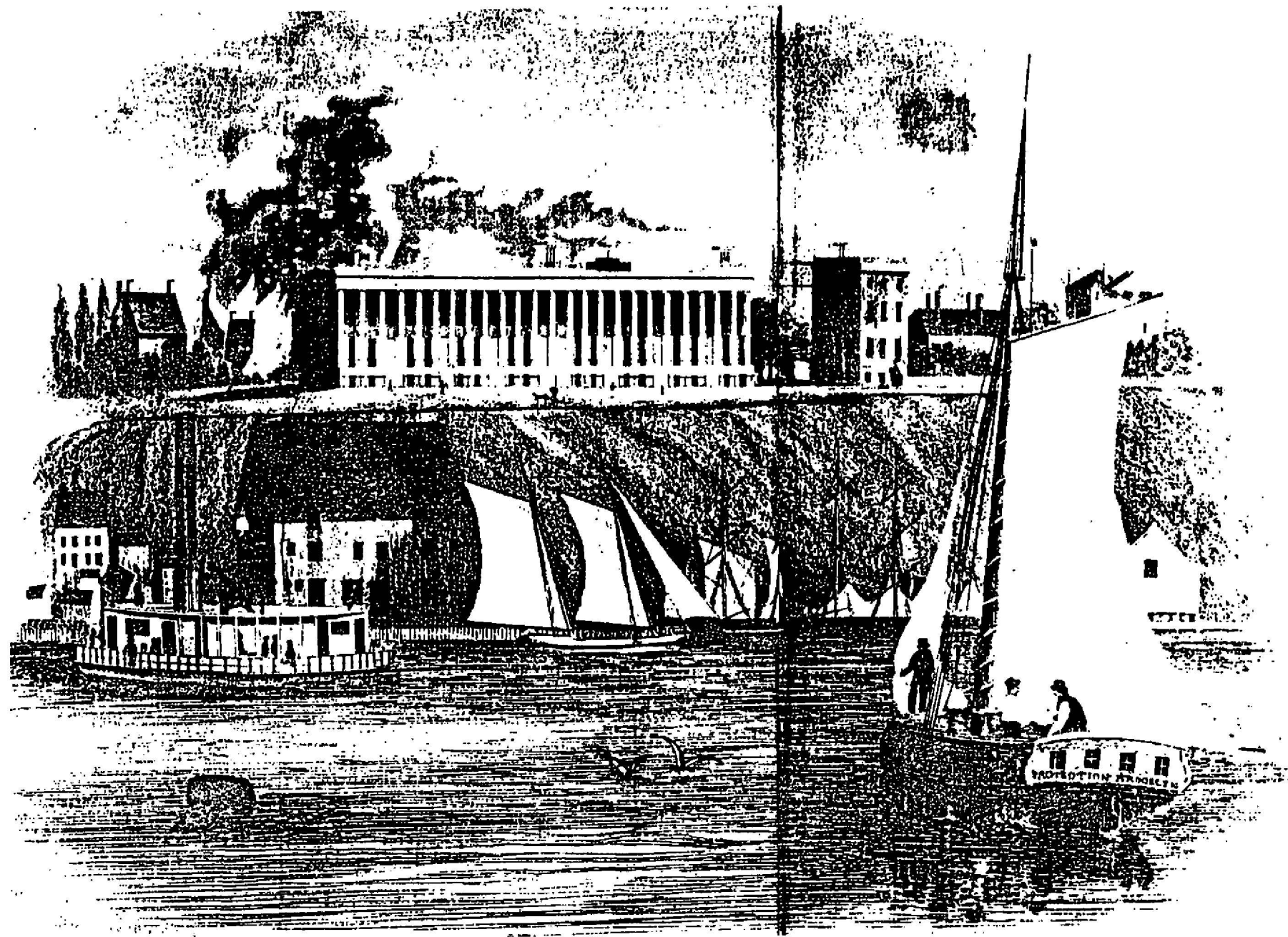
*23. The Leavitt-Downen mansion from Columbia Heights. Razed in 1904.
Courtesy Long Island Historical Society.*

Long Island Historical Society files.
January 1930.



A QUIET MOMENT ON FURMAN STREET—AN OFTEN BUSY ARTERY

Bisecting the Rush and Turmoil Associated with Waterfront Activities and the Peace and Quiet of Brooklyn Heights Aristocratic Neighborhood. Along the Stone Facade Are Old Warehouses Topped by the Gardens and Homes of the Old Regime. In the Background Looms One of the Towers of Brooklyn Bridge.

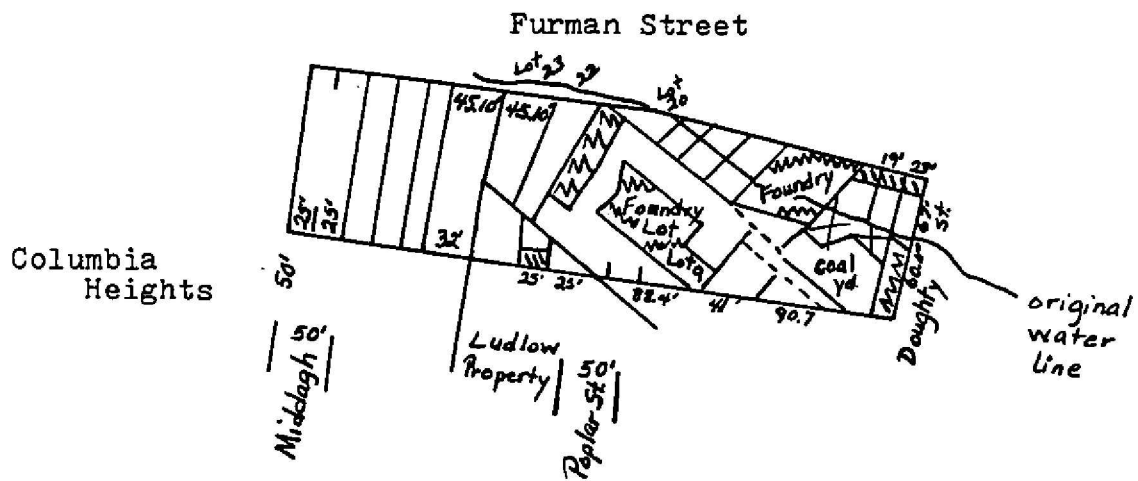


1. Brooklyn Heights in 1853. Engraving showing Underhill's
Colonnade Row and the burning of the Gowanus Building.
Courtesy Long Island Historical Society.

Traced from ATLAS OF THE CITY OF BROOKLYN,
 1880
 New York: G. W. Bromley and E. Robinson
 Plate 1

▨▨▨ frame construction
 ▨▨▨ brick construction
 X shed, stable
 street railway on Furman Street

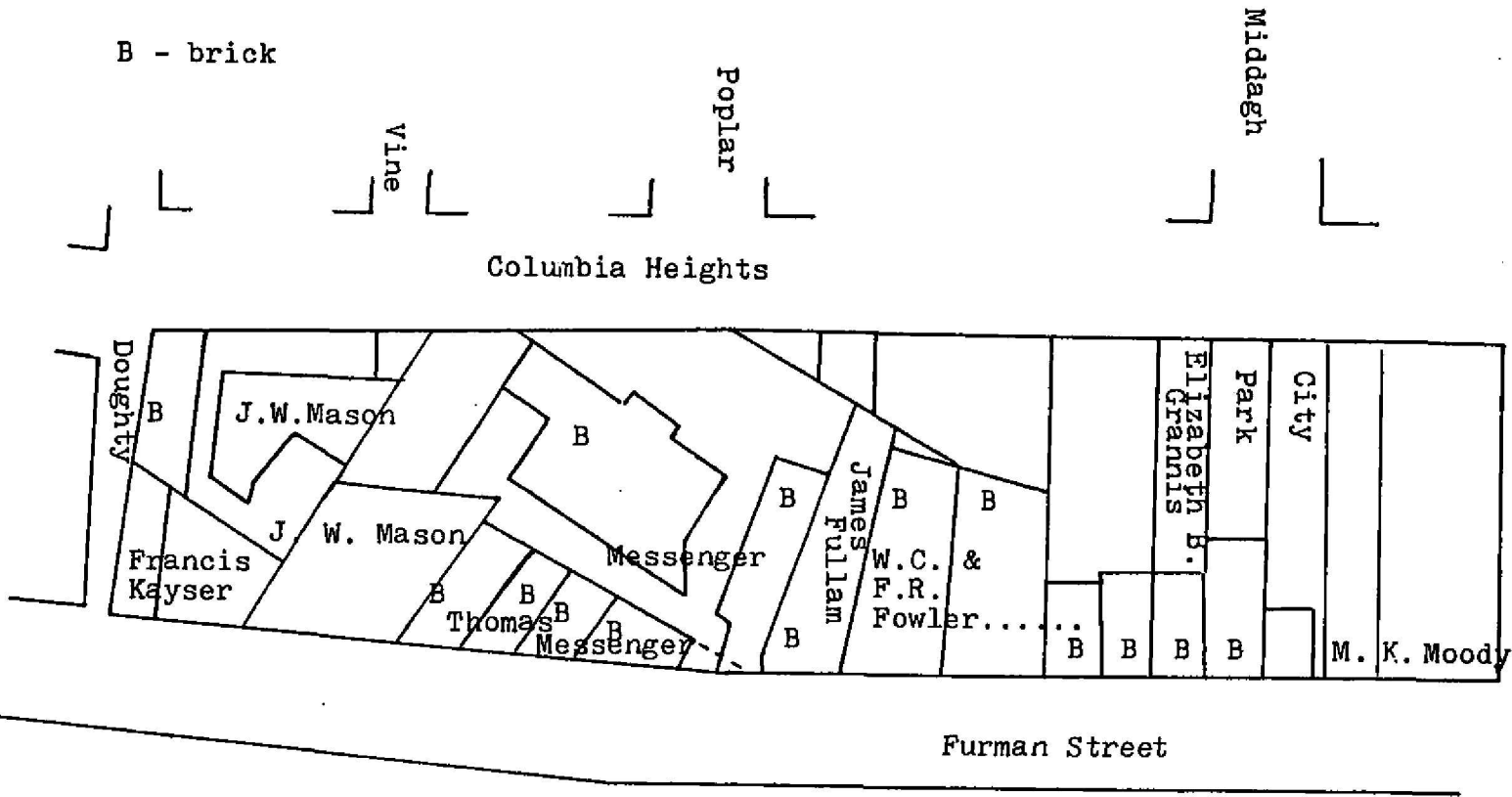
BLOCK 5



Tracing of SUPPLEMENTAL SURVEY, MAP AND PROFILE OF ADDITIONAL
 GROUNDS REQUIRED AND INTENDED TO BE TAKEN FOR RAILROAD
 PURPOSES BY THE BROOKLYN ELEVATED AND ATLANTIC BEACH RAILWAY
 COMPANY. William Kowalski, C.E., Brooklyn, May 25, 1880

Registrar's Office
 Municipal Building
 Brooklyn

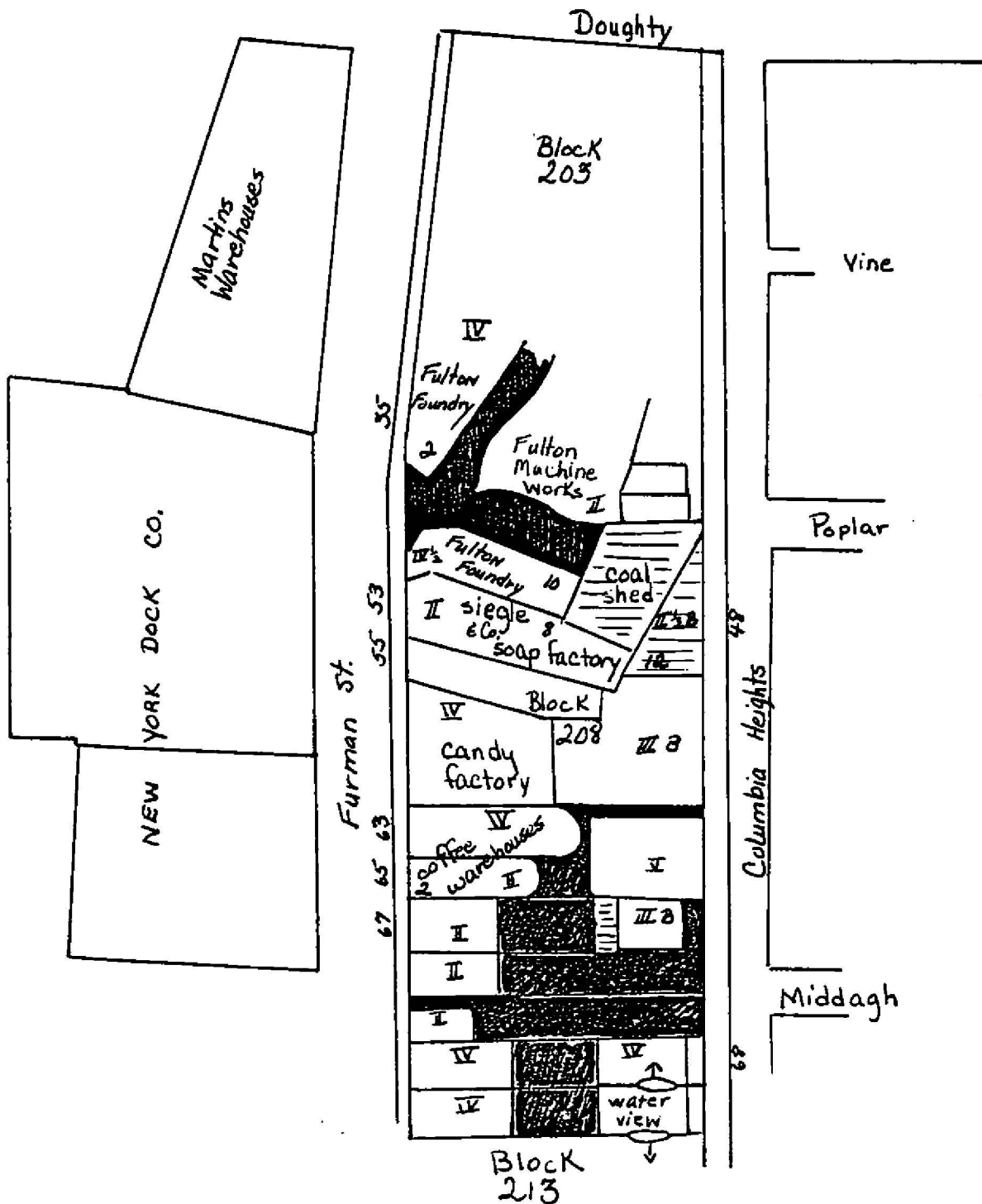
Property Map File #50



Tracing of ATLAS OF BOROUGH OF BROOKLYN
 Brooklyn: E. Belcher Hyde
 1911

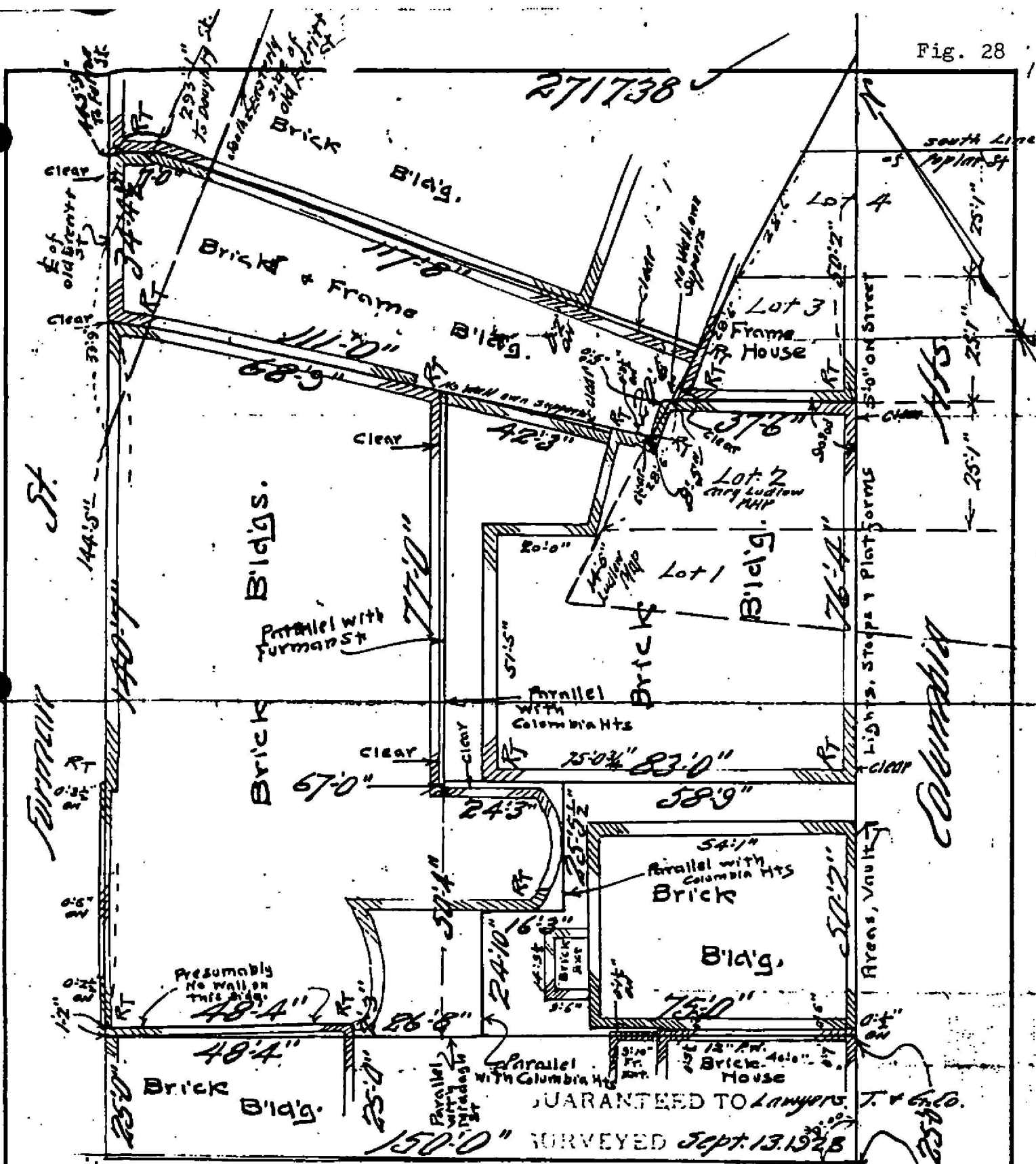
Blocks 203 and 208 are old Block 5.

- /0 Lot numbers
- II number of stories
- B basement
- ≡ frame construction
- vacant land
- brick construction



271738

271738



GUARANTEED TO LAWYERS, T. & G. CO.
SURVEYED Sept. 13, 1923

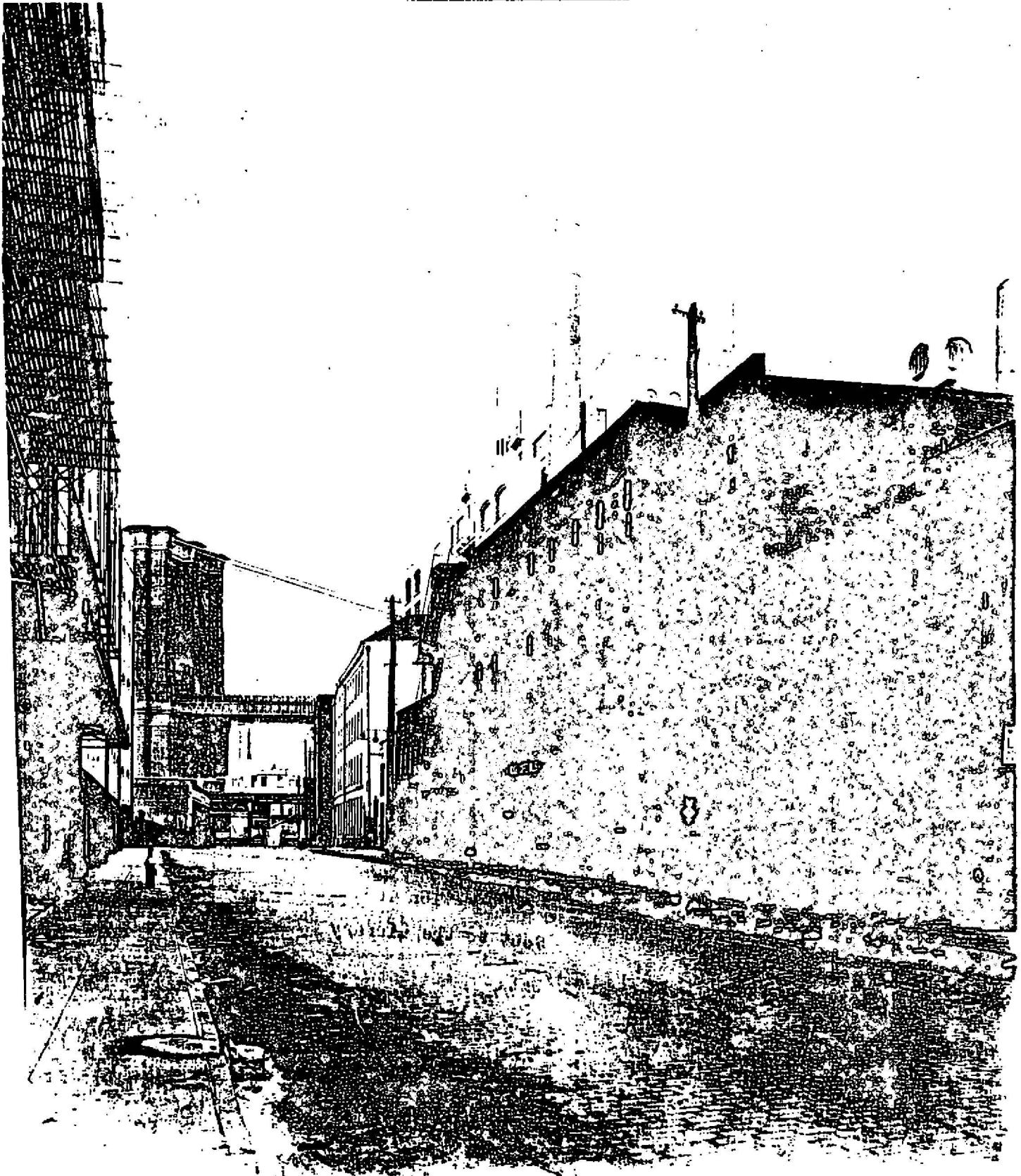
By A. & R. LEDLAM, INC.

Middagh St

A. Ledlam City Surveyors.
139 MONTAGUE STREET
BROOKLYN, N. Y.

BLOCK . . . MAP #94 PRINT

Furman Street, south to north.
Post 1903.





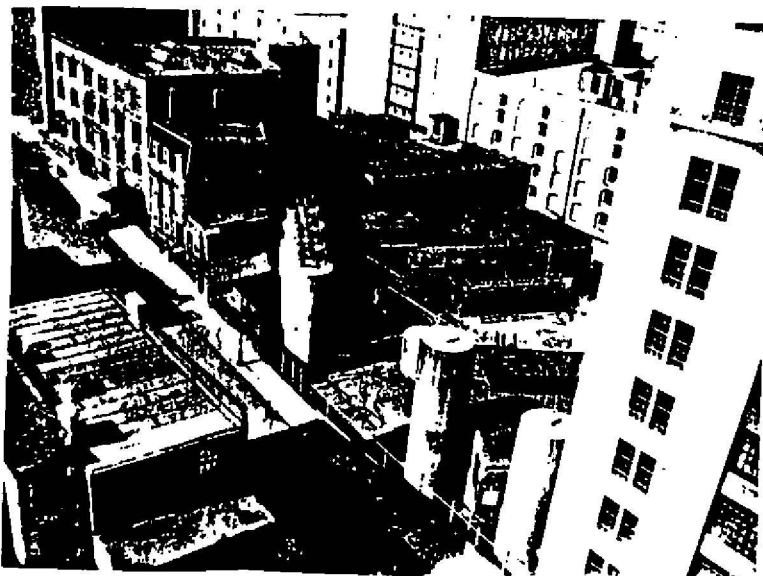
Photocopy of photograph provided by Dr. W. B. McDowell, Director, Squibb, Inc., Archives, Princeton, NJ (no date provided)

"Looking up Columbia Heights from Poplar St., showing the 2 DeHaven buildings facing C.H. The wooden dwelling house in the center of the picture is not Squibb property, but the tanks shown behind it stands on Squibb property."



← "general view of the site
looking from Furman St.
toward Columbia Heights"
1940

"view from roof of "Furman St.
office bldg." toward the
intersection of Poplar St.
and Col. Hts. showing cod liver
oil refinery bldgs and tanks
in yard" →
April 1940



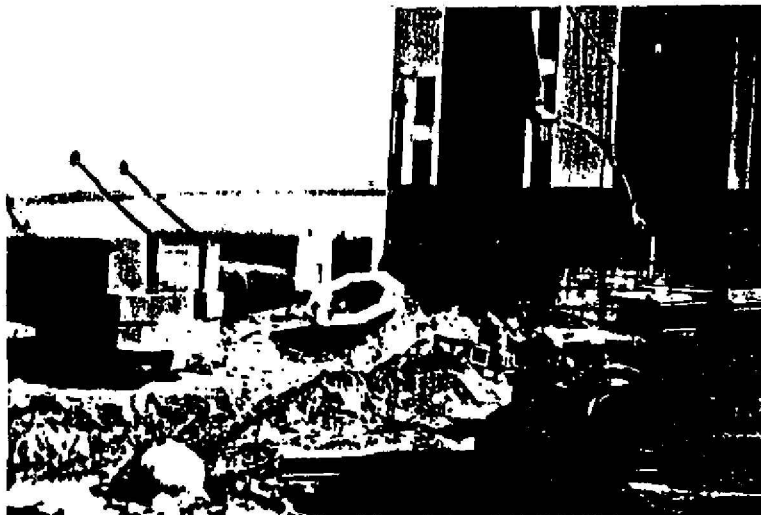
← "another view from the roof
of the East Bldg."
April 1940



"another view from West
Bldg. into c.l.o.
yard"
April 1940



"view of cod liver oil
yard looking northeast"
April 1940



"another view of the site
looking north. The con-
crete octagon is a tank
foundation that has been
tipped up by the steam
shovel"
1940

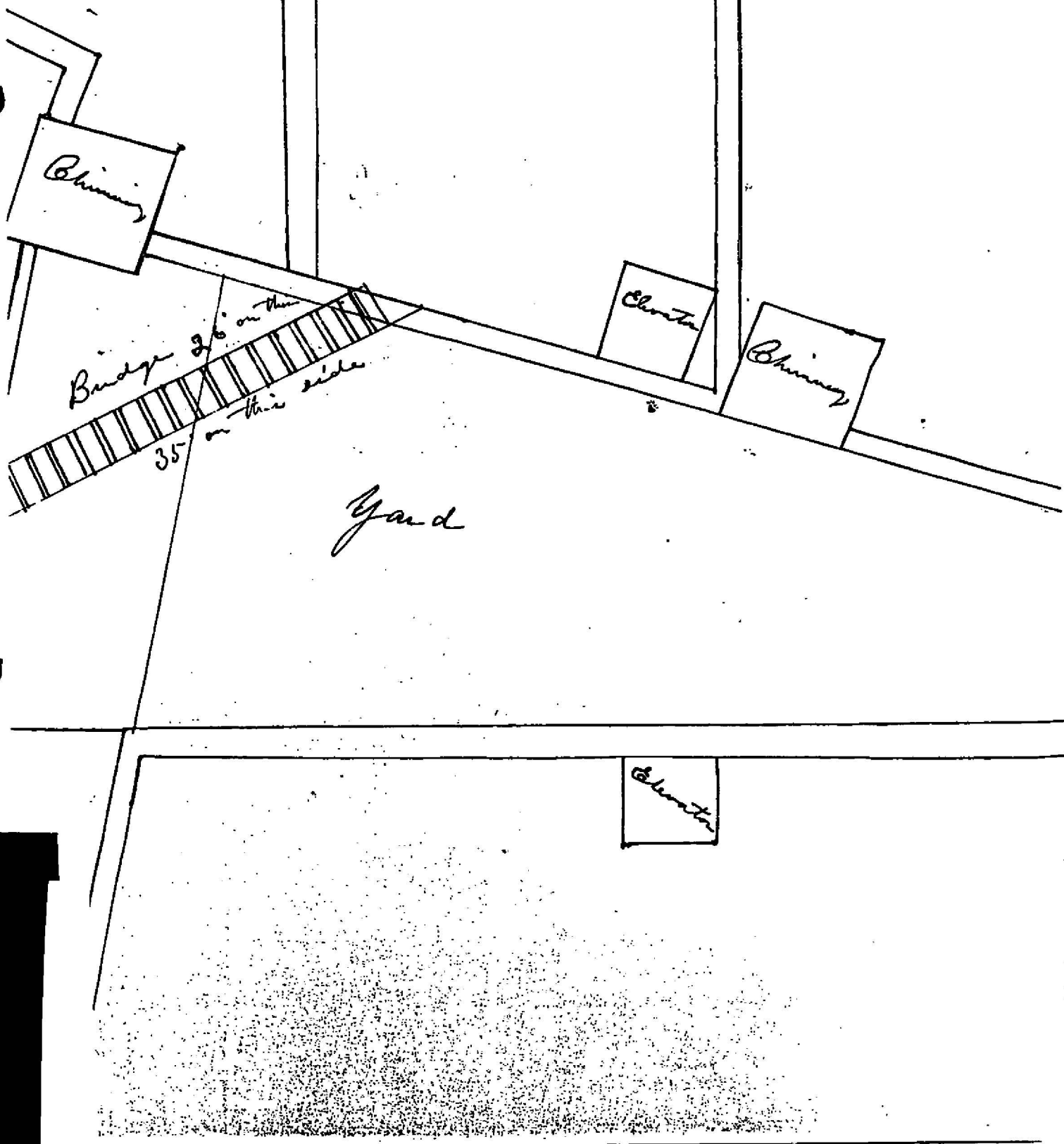
NO 50

#52

#54

Fig. 33

COLUMBIA HEIGHTS



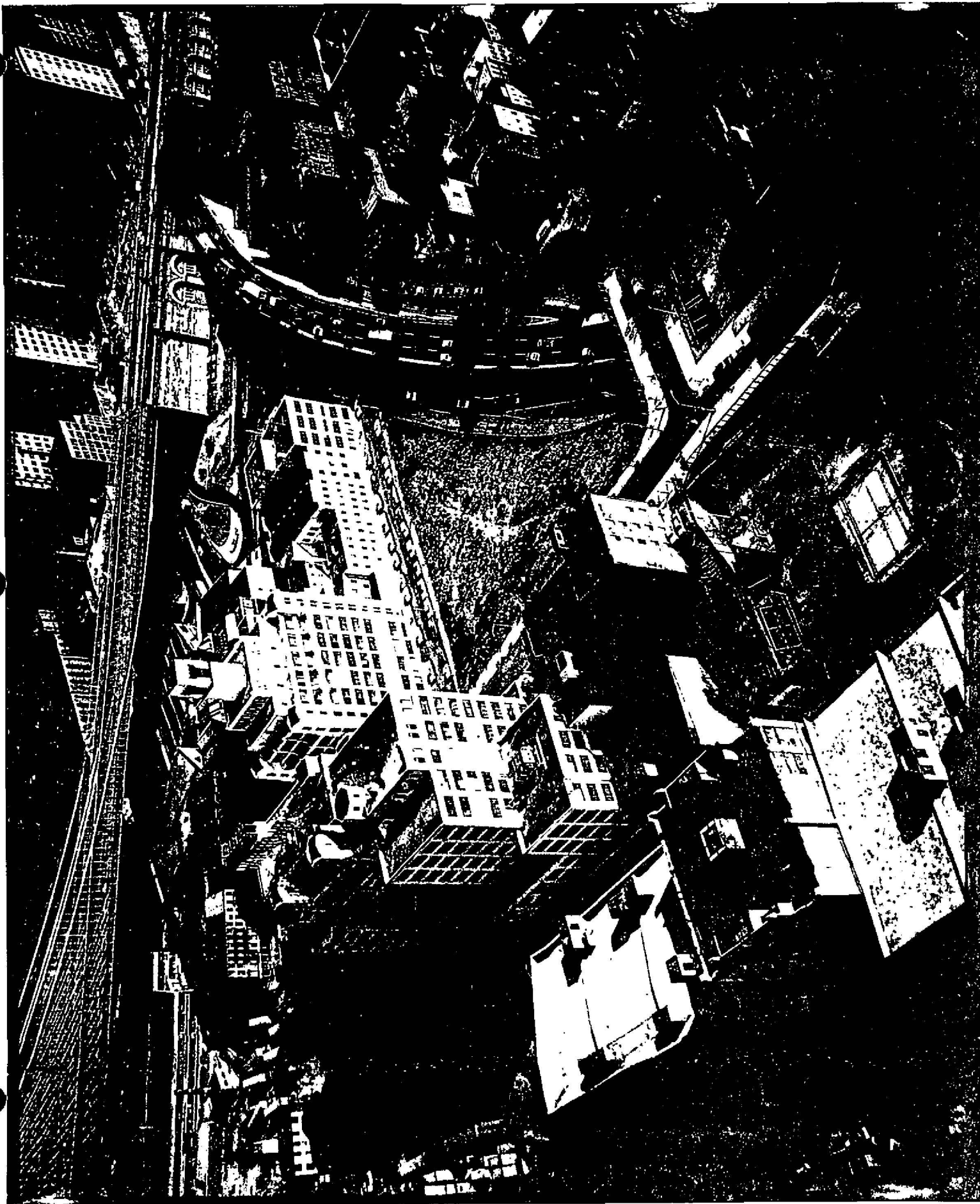
$\frac{1}{8}'' = 1 FT$

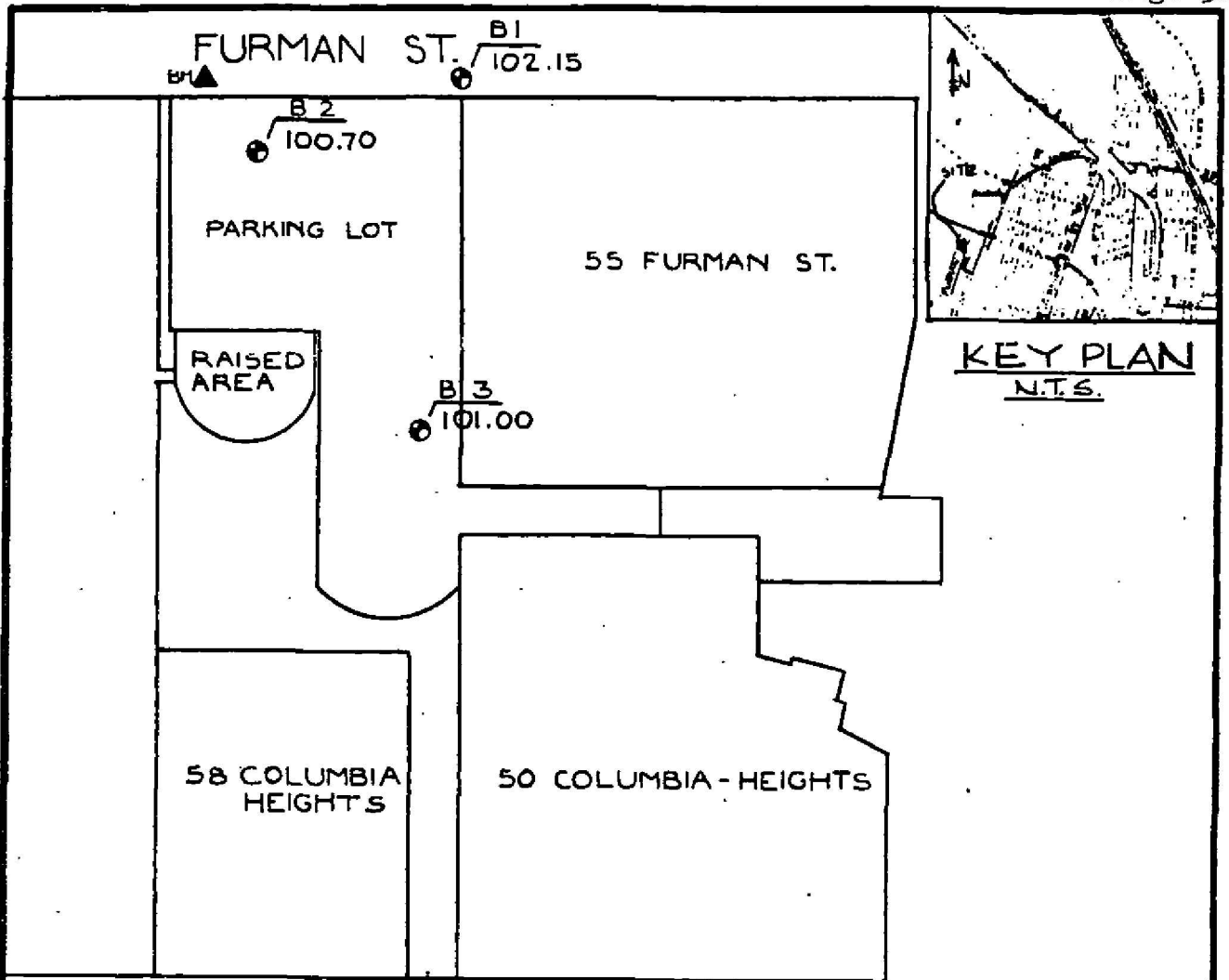
1898

Photocopy of photograph provided by Dr. W. B. McDowell,
Director, Squibb, Inc., Archives, Princeton, NJ

"Another view looking down Columbia Heights which is similar in general to view in Photo. 16 except that it was taken from farther up the hill and includes the two brick buildings facing Columbia Heights shown to the left of the picture which are now Squibb property. The building which appears to be 5 stories high is rented to other concerns. The building which appears to be three stories high is largely occupied by Lentheric, a perfume house owned by owners of Squibb.








COLUMBIA - HEIGHTS

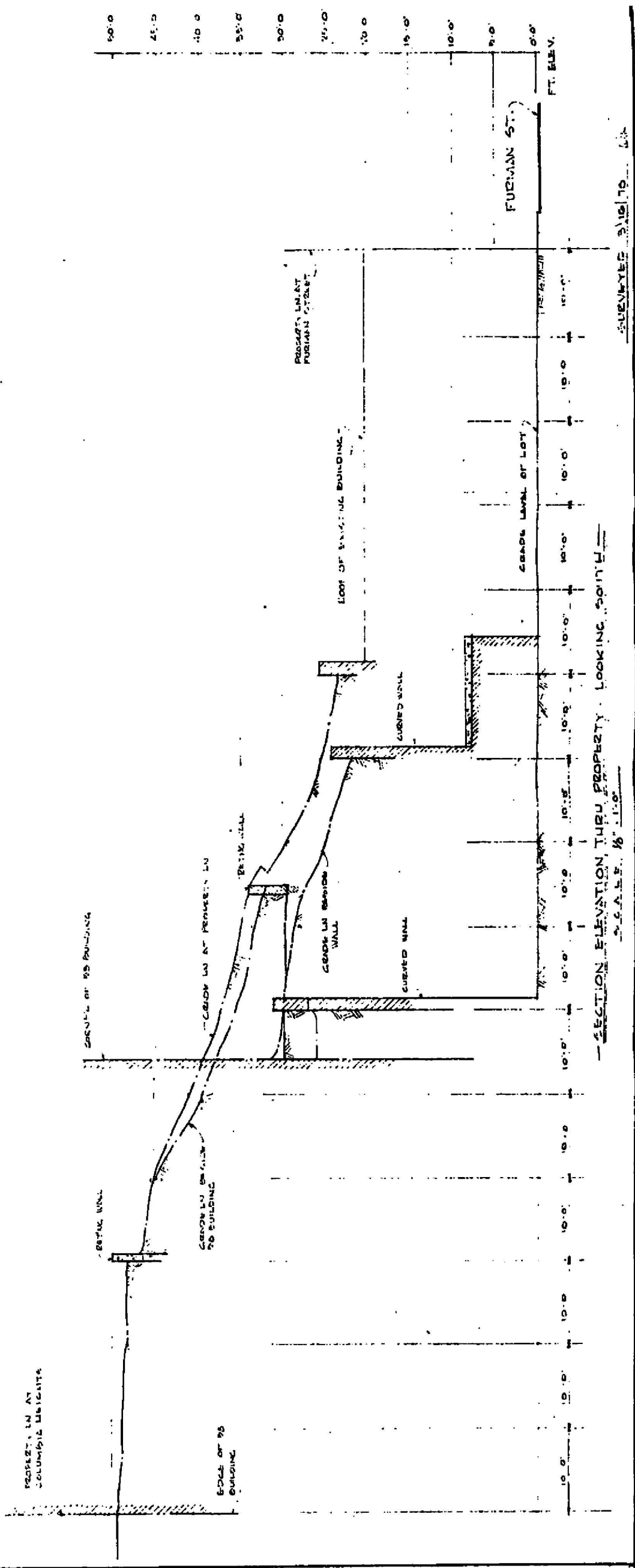
NOTES:

BORING ELEVATION & LOCATION DETERMINED IN THE FIELD BY THOR ENGINEERS . P.A.

LEGEND :

- $\frac{B1}{102.15}$ INDICATES BORING LOC. & ELEV.
- BM▲ INDICATES BENCHMARK TOP OF MANHOLE ON FURMAN ST. ASSUME EL.=1000

WATCHTOWER		
BROOKLYN,		NEW YORK
BORING LOCATION PLAN		
		DRAWING 1
513 W. MT. PLEASANT AVE. LIVINGSTON, N. J. 07039		
SCALE: N.T.S.	DATE: 12-29-82	PROJECT
DRAWN: C.S.	CHECKED: <i>PTW</i>	07982

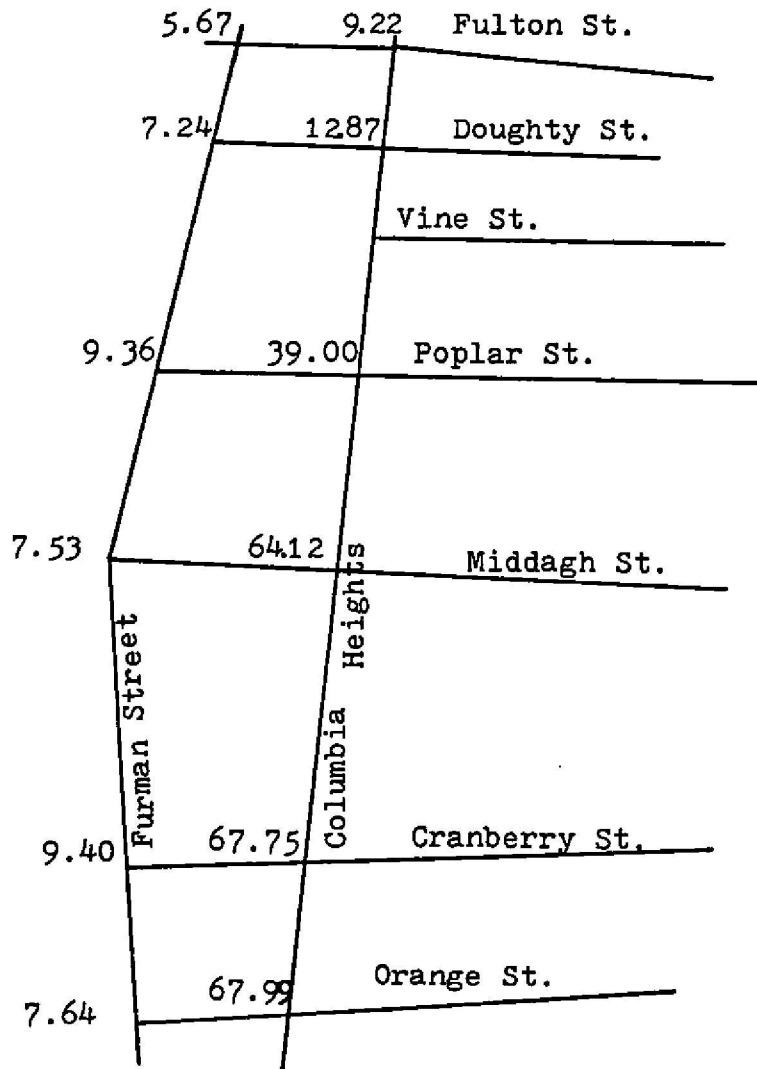


SECTION ELEVATION THRU PROPERTY LOOKING SOUTH

scale of copy reduced to 65% of original

Elevations at street intersections as recorded in an 1898 Atlas.

(in feet)



Photocopied from Long Island Historical Society's
micro-fiche files--Clippings Scrapbook.

Brooklyn Eagle April 20, 1947



The rear of the century-old warehouses which have been demolished, showing the arched roof and eight-foot-thick walls. The rear wall was slanted and served as the retaining wall for the houses above. These houses, facing Columbia Heights, will not be demolished.

CALIF. A. 4-20-47

caption:

The rear of the century-old warehouses which have been demolished, showing the arched roof and eight-foot-thick walls. The rear wall was slanted and served as the retaining wall for the houses above. These houses, facing Columbia Heights, will not be demolished.

Photocopied from Long Island Historical Society's micro-fiche files---Clippings Scrapbook.

Herald Tribune May 6, 1947

Brooklyn Heights Gets Ready for Triple-Tiered Highway



Historic Homes Are Demolished For 3-Level Brooklyn Highway

The five-foot bluff of stand Brooklyn Heights, overlooking the East River, is undergoing alterations as bulldozers and steam shovels scrape away century-old structures to make way for the modern features of the triple-tiered Brooklyn-Queens connecting highway.

Historic homes edging the bluff top with a panoramic view of New York skyline and the harbor have been demolished and others are slated to go. Already demolished are the houses, quaint restaurants, planted on the red-tiled roofs of old warehouses.

Until the attack of the streets sliders, some of these thick-walled vaults built at the foot of the bluff were redolent with the perfume of a hundred years of the city's past.

In place of these red-brick and dark-wood structures, remnants of a era of sailing ships, rising steel and concrete supports of the highway, which will climb the face of the bluff in three ascending levels, the topmost of which will be a promenade.

If the most elaborate construction job ever conceived in the city, Frank J. Buckley, chief engineer

and watch their men ships unload the merchandise of the world into their warehouses. Every bit built by hand and it hasn't been easy to knock these warehouses down, he added.

At places where no vaults were built against the bluff, an eight-foot-thick wall retained the soil. Laborers digging near the wall a few days ago uncovered a human skeleton. The decomposed bone fragments contained no suggestion of whether they might have been the remains of a member of the Catholic Indian tribe which had a settlement on the heights called Hipetonga, or of a Briton or He-man soldier, some of whom were buried on the heights after the Battle of Long Island in 1776. The skeleton was returned to its burial place.

The job was slated for demolition, Mr. Buckley said, are on the two blocks from Middle Street to Clark Street on the east side of Columbia Heights. This includes 110 Columbia Heights, the home from which Washington A. Hobbins dropped in hand grenades at the beginning of the Battle of Long Island after he was injured. The old Perrepoint house at Perrepoint Street, the site of a battle which was the site of the Battle of Long Island, was also slated for demolition. The demolition of the promenade at the highway.

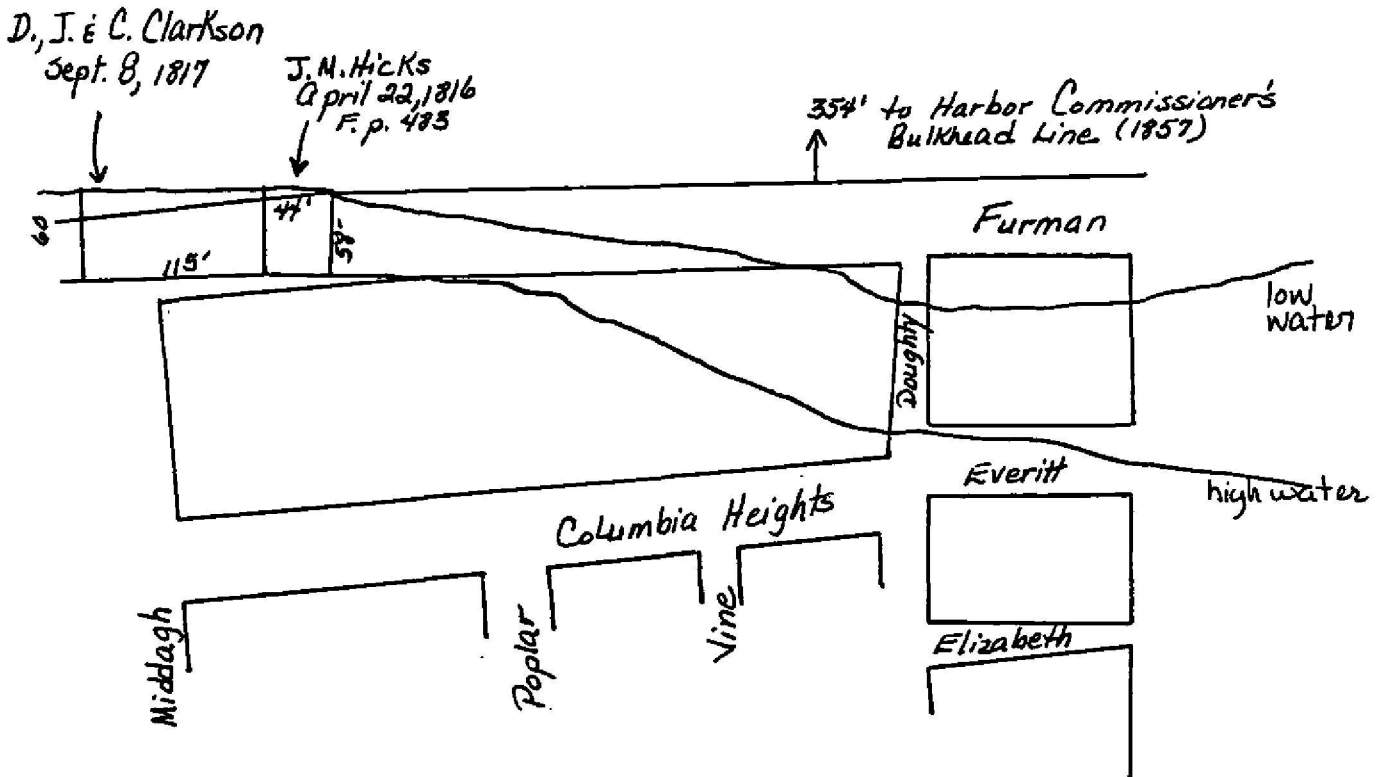
Looking north from Washington Street along Furman Street, where work already has started for the Brooklyn-Queens connecting highway. On the left are warehouses and on right the site of the triple-tiered highway, the top floor of which will be level with the bluff on which some of Brooklyn's historic homes stand.

This promenade will be built high enough to permit the construction of rather open, light-colored buildings and parks. The structures will be flanked by gardens, Mr. Buckley said. It is located in the promenade between the bluff and the end of the Furman Street. A large open space for housing is also planned. The Manhattan section of the highway was completed in 1937 and appeared Wall Street for several years.

An unusual feature of the bluff is a large area of excavated earth, covering the area at the southern end of the promenade, which will be planted with the alfalfa and wheat. The earth is being stored for re-use later. And the crop planted on it will eventually be shipped to the farm housing all over Brooklyn.

Tracing of MAP SHOWING BROOKLYN WATER GRANTS,
HIGH AND LOW WATER LINES AND PIER AND BULKHEAD
LINES BETWEEN RED-HOOK AND WALLABOUT BAY.

Map File #B-24
Docket Room
Superior Court Building
Brooklyn



FURMAN STREET

OVERALL DIMENSION 210'-4"

OVERALL DIMENSION 95'-9"

67 FURMAN ST. TO BE REMOVED

55 FURMAN ST. TO BE REMOVED

PROPERTY LINE

6 STORY BUILDING TO REMAIN

CONNECTOR AND RAMPS TO BE REMOVED

AREAS OF POTENTIAL ARCHAEOLOGICAL SENSITIVITY:



58 COLUMBIA HEIGHTS TO BE REMOVED

50 COLUMBIA HEIGHTS TO BE REMOVED

48 COLUMBIA HEIGHTS TO BE REMOVED

COLUMBIA

HEIGHTS

MIDDAGH STREET

PARK

Scale: 1" = 32'

Fig. 41

