STAGE 1A LITERATURE REVIEW AND SENSITIVITY ANALYSIS

BLOCK 2030

30-32 Carlton Avenue (Lot 40 & 41) Borough of Brooklyn. Kings County, New York

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INTRODUCTION

The proposed project is located in Block 2030, Ward Lots 40 and 41, which is located on the west side of Carlton Avenue between Park and Flushing Avenues. Within Block 2030 the project area is designated 30-32 Carlton Avenue. (Map 1 & 2 and Photo 1-6) It should be noted that the block number in current use has replaced those used in the 19th and early 20th century; at that time Block 2030 was identified as Block 3 and before that as Block 102. For the purposes of this report the project area will, irrespective of the time period, be identified as located in Block 2030.

The proposed project, which is currently vacant and fenced, is located in an area that today combines light manufacturing, commercial enterprises, off-street parking, and residential buildings. The project area is located east of the Brooklyn Navy Yard.

The applicant seeks authorization to construct two identical 4-story, 8-family dwellings, each containing a total floor area of 5362.5 square feet. Each lot, containing a total area of 2437.5 square feet, is to have a 40 foot rear yard.

Correspondence from the New York City Landmarks Preservation Commission (LPC), dated July 7, 2003, indicates that the proposed project area may be archaeologically sensitive, having the potential to yield historic archaeological resources associated with the 19th century. Based on its review, the New York City Landmarks Preservation Commission identified the potential for subsurface historic archaeological resources within the project area, and requested that a documentary study be undertaken to assess the likelihood of subsurface resources. In response to this request, CITY/SCAPE: Cultural Resource Consultants was retained to perform a Stage 1A Archaeological and Historic Sensitivity Evaluation for the project area.

NARRATIVE DISCUSSION

Prehistory of the Area

Among the tasks required in the Stage 1A study is an assessment of the potential of the project area to yield significant prehistoric cultural resources. In making the assessment there are a number of factors to be considered, the first of which is the presence on or in the immediate vicinity of the project area of streams or springs that could have served as a source of fresh water for Native American peoples, secondly, is the presence of nearby resources such as wetlands, salt marshes, tidal marshes, streams, and forested areas where deer and other species could have been hunted or open areas that

could have been used as cropland, and, finally, the presence on or in the vicinity of the project area of reported prehistoric sites.

An examination of the 1844 U. S. Coastal Survey map showed that the study area was situated on the eastern edge of Wallabout Bay, an area that has been filled for the construction of Flushing Avenue and portions of the Brooklyn Navy Yard. No stream flowed across Block 2030, but fresh water was available a short distance to the north on Wallabout Creek. Block 2030, crossed by the Wallabout Road, a historic highway in Kings County, was situated overlooking the tidal flats that bordered the open water of Wallabout Bay and the East River, and its location would have provided an area from which to take advantage of the wetland and coastal resources associated with Wallabout Bay. Based on these considerations, the presence of Native American sites could not be ruled out, except for the fact that Block 2030 was developed during the second half of the 19th century. The development, which included excavations for basements, would have impacted any prehistoric resources that might have been located within the area occupied by the buildings.

With the criteria outlined above in mind, information concerning known prehistoric sites in the vicinity of the project area was examined. It should be noted that no prehistoric sites are identified within the boundaries of the proposed project area. According to information obtained from surveys covering the general area and from published resources such as Parker's 1922 *Archeological History of New York*, there are several prehistoric sites located within the general vicinity of the project area. Several of them are associated with Wallabout Bay, which was gradually filled to create the land on which the Brooklyn Navy Yard is located. None of these sites, all of which were recorded early in the century, were professionally excavated (Greenhouse, 1991 & 1992).

One of these sites is the village of Mareyckawick, said by Bolton to have been located near Fulton Street between Galletin and Elm Place (Bolton, 1924 in Greenhouse, 1992). Another source indicated that this village, occupied by a group of Indians identified as Mareyckawick (a branch of the Canarsie), was located "just north of Old Fulton Street (now called Cadman Plaza West)" (Greenhouse, 1992). Still another possible location, suggested by Grumet, who quotes an earlier source, is the site of present day Brooklyn Borough Hall (Grumet, 1981:27 in Greenhouse, 1992). The Mantus *Map of the North River* includes the village, showing it as a long house constructed of bent wood and bark (Cohen & Augustyn 1997:29). (See Map 3) Based on this map it is not possible to pi9npoint the location of the village, but it is possible to say that it was not located on or immediately adjacent to the project area.

The second site, identified by Gabriel Furman in the mid-19th century, was located "... at Bridge Street, between Front and York and between Jay and Bridge Street.". According to Furman, cultural material was located on the top of a hill approximately 70 feet high that was shown on Bernard Ratzer's 1766-7 *Plan of the City of New York in North America*. (See Map 4) The hill has since been razed, but Furman states that "... the material was found in situ (down to a depth of 3 to 4 feet)." Evidence of Indian

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occupation included pottery, projectile points and clay tobacco pipes (Greenhouse, 1991:2).

The third site noted by Arthur C. Parker as "traces of occupation" along the south side of Newtown Creek is to the north of the project area (Parker, 1922: Plate 179). This site is identified as New York State Museum Site #3613. Parker also identified the location of a village on the Manhattan side of the East River southwest of Corlaer's Hook, a place that provided one of the narrowest crossing points along the East River south of present day Roosevelt Island (Parker, 1922: Plate 192). This is identified as New York State Museum Site #4060. In addition to the sites noted above, the New York State Museum identified a site (designated NYSM #3606) located on the route of Flatbush Avenue at the intersection of Sixth Avenue.

Based on the information presented above and an examination of the historic maps which include the project area, it appears that archaeological investigations indicate that habitation sites were situated in proximity to water sources such as tidal creeks, substantial streams, and wetland areas. Upland areas, away from water, would have been used for hunting. (Smith 1950: 101) Without question the land associated with the project area would have been an attractive place for Native American peoples; however, subsequent alterations to the land, including grading and the construction of dwellings in the mid-19th century, make it improbable that any significant intact prehistoric cultural material would be associated with the project area.

History of Area and Map Research

To our knowledge, the first European to visit Brooklyn was Giovanni da Verrazano in 1527 and 1529 when he is said to have landed on Coney Island. This was followed in 1609 by more extensive explorations undertaken by Henry Hudson. Hudson also landed at Coney Island, where the Canarsie Indians met him, the tribe inhabiting the western portion of Long Island. Hudson's first mate, Juet, described waters teeming with various species of fish and a land of abundant fruit trees and grape vines. Similar descriptions are available from the late 17th century, when Daniel Danton and Jasper Dankers visited Kings County. During the 17th century, the Canarsie Indians sold land to the Dutch inhabitants of Kings County, of which Brooklyn (Breuekelen) was a part. The process of land transfers continued under the English when they took over the colony from the Dutch in 1664. The area associated with the project site was located on the east side of Wallabout Bay, an area that was settled early. A road from the Village of Brooklyn, called the Wallabout Road, ran approximately along the present day route of Flushing Avenue. These early roads undoubtedly followed earlier Indian trails.

Early historical records indicate that the land containing the project area was purchased by the Dutch West Indies Company from Cacapoteyno, Menquen and Suwirau -- representatives of the Native American tribe in possession of the western end of Long Island -- on August 1, 1638. The Indian deed included:

... [a] certain parcel of land situate on Long Island . . . extending in length from Joris Rapalje's plantation, called Rinnegaconck, eastward one mile and a half to Mespaechtes, and in breadth from the East River about one mile into the Cripplebush of said Mespaechtes. (Stiles 1884: 80)

Rinnegaconck has been identified as an area at the mouth of a creek on the east and south shore of Wallabout Bay (the present location of the Brooklyn Navy Yard). Based on the description, the project area appears to lie within the boundaries of Rinnegaconck, where by 1654 Joris Jansen de Rapalje had established a plantation. However, the lands specifically associated with the project area became the property of Nicholas Cowenhoven, another early settler of Brooklyn.

Stiles described the Wallabout area as "... lowlands that were overflowed by the sea at every tide and covered with salt grass, coarse and hard to cut with a common scythe, but which cattle preferred to fresh hay or grass" (Stiles, 1884: 25). The road leading from Brooklyn Ferry to Bushwick and Flushing hugged the shoreline, running across Block 2030, immediately north of the project area. (See Map 9)

In the 17th and 18th century the Wallabout Road ran from Brooklyn Ferry along Wallabout Bay, providing access to the farms located along the shore. In the 18th century Wallabout Road did not cross Wallabout Creek, now subterranean, but then a substantial stream. Wallabout Road was regulated in 1805, when the Bedford and Wallabout Turnpike Company established it as the Wallabout-Newtown Road. This turnpike joined Cripplebush Road at the intersection of present-day Flushing Avenue and Throop Avenue, northeast of the project area. Until the mid-19th century this was one of the only roadways in the area. (Dikeman, 1870, cited in TAMS Consultants, Inc. 1989: Table 2). Although there were buildings on both sides of Wallabout Road, based on early maps, which will be discussed in more detail below, it does not appear that any structures stood within the boundaries of the project area during either the 17th or 18th centuries.

Descriptions of the appearance of Kings County and the area around the project area for this time period may be found in Daniel Denton's A Brief Description of New-York, Formerly Called New-Netherlands, published in 1670, in which he reports that

Long Island . . . is inhabited from one end to the other. On the West end is four or five Dutch Towns; the rest being English to the number of twelve, besides Villages and Farm houses. The Island is most of it of very good soil, and very natural for all sorts of English Grain; which they sow and have very good increase of, besides all other Fruits and Herbs common in England, as also Tobac, Hemp, Flax, Pumpkins, Melons, etc. . . . The greatest part of the Island is very full of Timber, as Oaks white and red, Walnut-trees, Chestnut-trees, which yield store of Mast for Swine . . . also Maples, Cedars, Saxifrage, Beech, Birch, Holly, Hazel, with many sorts more. . . . The Island is plentifully stored with all sorts of English Cattle, Horses, Hogs, Sheep, Goats, etc.; no place in the North of America better, which they can both raise and maintain, by reason of the large and spacious Meadows or Marches, wherewith it is furnished, the Island likewise producing excellent English grass, the seed of which was brought out from England, which they

sometime mow twice a year. For wilde Beast, there is Deer, Bear, Wolves, Foxes, Raccoons, Otters, Muskrats and Skunks, Wild Fowl, there is great store of, as Turkeys, Heath-Hens, Quails, Partridges, Pidgeons, Cranes, Geese, of several sorts, Brants, Ducks, Widgeons, Teal and divers others... (Denton 1966:3-6)

Denton also described the streams and rivers which entered the oceans off Long Island, all abounding in fish, and the salt water areas where shellfish were harvested by the Indians to be taken to Manhattan to market. Denton described in some detail the lives of the Indians whom he found living on Long Island, and identified the types of crops grown on Long Island during the last quarter of the 17th century, along with the types of animals raised by the farmers, as well as the game animals and birds hunted by both the Indians and the European inhabitants. He identified the importance of the meadows and marshes that were mown for fodder, and the woods that provided timber for building, wood for the kitchens and homes of the farmers, and mast (acorns, walnuts and chestnuts) for the swine that ran free in them.

Another description, this time specifically of Brooklyn, from the same time period is provided by a member of the Labadist sect by the name of Jasper Dankers, who, in the year 1679-80, traveled to North America with a companion to "scout" the American colonies for a place of settlement for their people. Sailing into New York harbor through the Narrows after many weeks and a stormy journey from Europe, they saw:

... not only woods, hills, dales, green fields and plantations, but also houses and dwellings of the inhabitants, which afford a cheerful and sweet prospect after having been so long upon the sea. (Dankers 1966:98)

Several days after their arrival in Manhattan, Dankers and Sluyter crossed to Long Island by the ferry to Brooklyn to spend several days exploring Kings County. The journal contains many particulars of their visit there, which can assist us in imagining the appearance of Brooklyn 300 years ago.

[From the ferry] We went on, up the hill, along open roads and a little woods, through the first village, called Breukelen, which has a small and ugly little church standing in the middle of the road. Having passed through here, we struck off to the right, in order to go to Gowanes. We went upon several plantations where . . . the people . . . made us very welcome, sharing with us bountifully whatever they had, whether it was milk, cider or tobacco, and especially . . . miserable rum or brandy. . . . It is impossible to tell how many peach trees we passed, all laden with fruit to breaking down, and many of them actually broken down. We came to a place surrounded with such trees from which so many had fallen off that the ground could not be discerned, and you could not put your foot down without trampling them; and, notwithstanding such large quantities had fallen off, the trees still were as full as they could bear. The hogs and other animals mostly feed on them.

They visited with the woman who owned the land on which the peach trees grew, who fed them their first smoked strip bass, which they compared with smoked salmon.

Continuing along the road, they reached the house of Simon Aartson DeHart, located in the vicinity of present day 27th Street overlooking Gowanus Bay, where they found

... a good fire, half-way up the chimney, of clear oak and hickory, of which they made not the least scruple of burning profusely. We let it penetrate us thoroughly. There had been already thrown upon it, to be roasted, a pail-full of Gowanus oysters, which are the best in the country. . . They are large and full, some of them not less than a foot long, and they grow sometimes ten, twelve and sixteen together, and are then like a piece of rock. Others are young and small. In consequence of the great quantities of them, everybody keeps the shells for the purpose of burning them into lime. They pickle the oysters in small casks, and send them to Barbados and the other islands. We had for supper a roasted haunch of venison, which he had bought of the Indians... and which weighed thirty pounds. The meat was exceedingly tender and good, and also quite fat. It had a slight spicy taste. We were also served with wild turkey, which was also fat and of a good flavor; and a wild goose, but that was rather dry. Everything we had was the natural production of the country. We saw here, lying in a heap, a whole hill of watermelons, which were as large as pumpkins. . .

The stone house and wooden wing where they spent the night was still standing in 1866. After breakfast the next morning, Dankers and Sluyter walked on to explore other areas of Kings County. They first traveled to present-day Fort Hamilton where they found Indian plantations planted with maize and between seven and eight families living in a long house.

Their house was low and long, about sixty feet long and fourteen or fifteen feet wide. The bottom was earth, the sides and roof were made of reed and the bark of chestnut trees; the post, or columns, were limbs of trees stuck in the ground, and all fastened together. The top, or ridge of the roof, was open about half a foot wide, from one end to the other, in order to let the smoke escape, in place of a chimney. On the sides, or walls, of the house, the roof was so low that you could hardly stand under it. The entrances, or doors, which were at both ends, were so small and low that they had to stoop down and squeeze themselves to get through them. The doors were made of reed or flat bark.... They built their fire in the middle of the floor, according to the number of families which live in it, so that from one end to the other each of them boils its own pot, and eats when it likes, not only the families themselves, but each Indian alone, according to his hunger, at all hours, morning, noon and night. By each fire are the cooking utensils, consisting of a pot, a bowl, or calabash, and a spoon also made of a calabash. These are all that relate to cooking. They lie upon mats with their feet toward the fire. . Their other household articles consists of a calabash of water, out of which they drink, a small basket in which to carry and keep their maize and small beans, and a knife. The implements are, for tillage, a small, sharp stone, and nothing more; for hunting, a gun and pouch for powder and lead; for fishing, a canoe without mast or sail, and without a nail in any part of it, though it is sometimes full forty feet in length, fish hooks and lines, and scoops to paddle with in place of oars. . . . All who live in one house are generally of one stock or descent, as father and mother with their offspring. Their bread is maize . . . mixed with water, and made into a cake, which they bake under the hot

ashes. . . . They had dogs, fowls and hogs. . . They had, also, peach trees, which were well laden.

The land on which these Indians lived was owned by Jacques Cortelyou, who was thought by Dankers to have purchased the land from them, although he permitted them to live on a corner of it. Cortelyou lived in the village of New Utrecht, which had been burned during the years of Indian warfare in the middle of the 17th century. By the time Dankers and Sluyter saw the village in 1679 it had been almost completely rebuilt, with "good stone houses." At Flatlands, they found the land not as good as at Gowanus and at the Narrows, but noted the salt marshes, which were covered each tide, producing "a species of hard salt grass or reed grass." This salt grass was mown for hay, which, Dankers states, "... the cattle would rather eat than fresh hay or grass." Behind Flatlands they noted a large meadow or heath on which sheep could be grazed, although they saw none. The meadow was crossed by streams, which were navigable and where fish could be taken. Along the roadways they noted several types of grapes, and at Gravesend they found small blue grapes. Dankers wrote that the inhabitants of Gravesend hoped to plant vineyards of these grapes, but so far had failed. At Gravesend the land was reported to be flat, but not as flat as at Flatlands and less barren, yielding good crops. After several days of exploring Kings County, they returned to Manhattan, passing on the way to the ferry through Flatbush:

... a village situated about an hour and a half's distance from there, upon the same plain, which is very large. This village seems to have better farms than the bay, and yields full as much revenue. Riding through it, we came to the woods and the hills, which are very stony and uncomfortable to ride over. We rode over them, and passed through the village of Breukelen to the ferry, and leaving the wagon there, we crossed over the river. . .

From the description, it appears that Dankers and Sluyter passed through the Flatbush Pass, located in present-day Prospect Park. Their journey to Brooklyn took them to each part of Kings County, except the northern portion where Bedford Corners, Bushwick and Wallabout were located. However, their descriptions of the other areas of Kings County would apply equally to these areas, which were also inhabited by the Dutch. The houses and domestic arrangements would have been similar, the crops and fruits grown would have been the same, and the same domesticated and wild foods would have been served to family and guests alike. Dankers also comments on the large meadows (part of the common lands) and the salt meadows. Although they do not specify the condition of the road, it is clear that the hamlets and villages of Kings County, as well as the farmsteads on the outskirts of the most settled areas, were interconnected by a series of roadways sufficiently established to permit the passage of wagons. (Dankers and Sluyter 1966: 117-134)

During these years, the pattern of occupation for communities in Kings County and for the rest of Long Island followed the pattern of individually owned farmsteads on which each man built his house, barns, and outbuilding, and on which he planted his orchards and crops. These were the plantations. In addition to their own farms, each

member of the community also was entitled to the use of the common land on which were pastured the cattle and from which the farmers cut hay for fodder. Woodlots were the third division of land, providing timber for building and firewood for the kitchen and fireplaces, as well as mast for the swine. As will be seen below, the woodlots were initially held in common, but in time were divided among the villages. Later these woodlots were further divided, with specific lots being allocated to each family. Finally, in communities in proximity to the ocean, salt meadows were purchased in common and subsequently divided into lots, which assigned to individuals in the community.

Although common meadows and woodlots had been the norm during much of the 17th century, by the early 1690's the residents of the various hamlets and villages had met to divide these lands among the various villages. One such agreement states that:

1. All the lands and woods after Bedford and Cripplebush, over the hills to the path of New lotts shall belong to the inhabitants and freeholders of Gowanus... 2. And all the lands and woods that lyes betwixt the above said path and the highway from the ferry towards Flattbush, shall belong to the freeholders and inhabitants of Bedford and Cripplebush... 3. And all the land that lyes in common after the Gowanus, betwixt the limits and bounds of Flattbush and New Utrecht shall belong to the freeholders and inhabitants of Brooklyn... (Stiles 1867; 206)

During the 18th century, Wallabout was one of the hamlets of Brooklyn. Although Wallabout was populated from the earliest time, the plantations were located at the water's edge, with the farm fields and woodlots in the interior. No roads extended into the project area, though farm lanes may have provided access. Early maps of Long Island show no structures within the project area. The 1670 Ryder *Map of Long Island* Wallabout Bay and Wallabout Creek are shown, as is the road from Brooklyn Ferry to Flat Bush [sic] and the road from Bedford that crossed Wallabout Creek to Newtown Creek, but the hamlet of Wallabout and the buildings that comprised it were not included.

In the late 19th century the discovery of a map referred to as the Manatus Map became "something of a Rosetta stone for the early history of Manhattan" (Cohen & Augustyn 1997:28). Cohen and Augustyn write that the map included ". . . a list of all the early settlers who had large landholdings or farms (called *boweries* by the Dutch) just fifteen years after initial settlement" (Cohen & Augustyn 1997:28). Wallabout Bay and Wallabout Creek are shown, though not identified. At that time, two plantations are shown on the north side of Wallabout Creek – one identified as "Plant[ation] van Gregeorysyn", the other, located further inland, belonging to two persons whose names are illegible. No owner's name is shown for the land where the project area is located, and it is assumed that in 1639 no settlement had been made there. (Map 3)

By the end of the 18th century, we have the Ratzer map, entitled *The Plan of the City of New York*, which shows Wallabout Bay as a horseshoe shaped cove with a substantial stream flowing into it. That stream, known as Wallabout Creek, was also called Runneconck (various spellings) by the Indians. It had extensive wetlands and

numerous tributaries. At the southern end of Wallabout Bay was Remsen's Mill and the dam that retained the tidewaters that powered the mill. Brookland [sic] Ferry was a significant hamlet, with buildings lining both sides of present-day Flatbush Avenue.

For our purposes, Ratzer's map shows the distribution of the farmsteads in the vicinity of the project area – these generally hugged the shoreline, with their farm fields, pastureland and woodlots extending southward. The hamlet of Wallabout is shown on the map as 6 small dark squares, with several buildings located to the north on the east side of Wallabout Road, but, based on later maps, these buildings was all south of the project area, which is shown as an area filled with lines of orderly trees. This could indicate an orchard, but it is more likely to represent managed open space. By this date it is possible that the land already belonged to the Cowenhoven family (Bromley 1880: Plate 6). Importantly, no structures appear in this area. Northwest of Wallabout Road, which at the time ran across Block 2030, the land dropped down to the tidal flats that ringed Wallabout Bay. (Map 4)

After the Battle of Brooklyn in the summer of 1776, Brooklyn and eastern Long Island were in the hands of the British for the remainder of the American Revolution. Maps from this period, including the British Headquarters Map (hung in the War Office in London and published as a facsimile in 1900), show Fort Greene and the series of earthen works extending westward that provided protection for Wallabout and the shore along the East River. (Map 5) These earthworks extended eastward toward the Cripplebush Road (the Road to New Towne), but did not impact the project area. There were also fortifications that ran south and east, crossing the road from Brooklyn Ferry to Flatbush. Other fortifications ran from south of Remsen's Mill to protect the heights of Brooklyn and the interior hamlets. With the exception of Brooklyn Ferry, no structures are shown on this map. The Remsen's Mill dam is included on the map, but the mill itself is not shown. The extent of the tidal flats that ringed Wallabout Bay are clearly indicated, but the prison ships that were moored there are not. Wallabout Bay was the location of a number of ships, including the notorious prison ships in which many hundreds of American soldiers died, following which their bodies were dumped along the shores of the bay. There they remained until they were gathered together in the 19th century and deposited in the crypt below the columnar monument erected in Fort Greene Park, on the site of Fort Greene. The project area is shown, as it was on the Ratzer map, as having been planted with trees. The road along Wallabout Bay and several farm lanes that provided access to the interior are included. As noted above, that the Wallabout Road crossed Block 2030 a short distance west of the project area.

During this period of occupation, despite being protected from the ravages of further battles, the inhabitants of Brooklyn suffered great depravations. The description provided by Stiles matches in many details descriptions of Manhattan and the Bronx, which were also held by the British, and southern Westchester, called in those days, the Neutral Ground. According to Stiles, Brooklyn, which, during the war, had been wholly military ground, presented a sadder scene of desolation than any other town in Kings

County. In 1786, after the occupation of the British, free range had been given to the pillaging propensities of the soldiery. Farms were laid waste

... woodlands were ruthlessly cut down for fuel, buildings were injured, fences removed, and boundaries effaced. Farmers were despoiled of their cattle, horses, swine, poultry, vegetables, and of almost every necessary article of subsistence, except their grain, which fortunately had been housed before the invasion. Their houses were also plundered... and much furniture was wantonly destroyed... stock became very scarce and dear, and the farmer of Brooklyn who owned a pair of horses and two or three cows was 'well off.' The scarcity prevailing in the markets, however, soon rendered it necessary for the British commanders to restrain this system of indiscriminate marauding, and to encourage agriculture... (Stiles 1884:100)

With the end of the war, Kings County began to recover. Homes were rebuilt, boundaries were redrawn, and fences re-established. On March 7, 1788 Brooklyn became a town under the laws of the New York Stage Legislature. At that time the Town of Brooklyn contained seven hamlets: The Ferry, Red Hook, Brooklyn, Bedford, Gowanus, Cripplebush, and Wallabout. Despite its designation as a hamlet, Wallabout remained relatively unpopulated.

This changed after 1801, when the United States Government purchased several private ship yards located on the southern side of Wallabout Bay, and began to use the area for the repair and resupplying of ships during the War of 1812 (Palisi: 32 in Historical Perspectives, Inc., 1991). It is in direct response to development at the U. S. Navy Yard that the area around Wallabout Bay began to be developed. Wallabout Road was regulated in the early years of the 19th century and opened as Nassau Street in 1819 (Dikeman, 1870: 90). Today it is Flushing Avenue; present-day Flushing Avenue is located west of the 18th century roadway on land created when the tidal flats that bordered Wallabout Bay were filled. At that time this area was decided rural, with only a few houses along the main road. Armbruster describes Wallabout in 1825 as containing 10 farmhouses and a few dwellings in the hamlet, with the remaining district consisting of fields and trees. In 1884, Stiles writing of the area in 1830 described "... a few dwellings along Flushing [Avenue]" (Stiles 1884: 145), and Samuel Barnes, writing in 1888, still described "... a rural community relatively unchanged since the beginning of the century" (Cited in Pickman & Dublin 1989: 21).

In 1834 Alexander Martin produced the *Map of Brooklyn, Kings County, Long Island*, which includes a detailed map of the U. S. Navy Yard. At the time Wallabout Bay was still ringed with tidal marshes, having not yet been filled to create additional space for the Brooklyn Navy Yard. (Map 6) On the north side of Wallabout Road there were a series of buildings, including the Toll Gate of the Williamburgh-Newtown Turnpike (the old Wallabout Road). On the south side of Wallabout Road there were also a number of buildings, including several located on a farm lane that corresponds with present-day Oxford Street. That property was owned y William and G. Post. West of the

Post Farm was a long narrow lot, the owner not being identified, and beyond it was a lot, owned by William Hunter, that began at Wallabout Road and ran south of the Bedford Road. The present project area falls within the Hunter property. In 1834 no structures were located within the project area.

A map of the City of Brooklyn and the Village of Williamsburgh was produced by John S. Stoddard in 1839. (Map 7) The map indicates that the borders of Wallabout Bay were dry at low tide and that a channel varying in depth from 17 to 30 feet had been dredged to allow access to the Navy Yard, which was still limited to the south side of Wallabout Bay. Just beyond the channel were two mooring blocks that permitted ships to lie in the bay, and a lighthouse built on a stone block at the entrance to the bay. The entrance to the Navy Yard was from the south (York Street) through a gate beside which there was an ornamental garden. There were several buildings, including a "Lyceum," as well as two dry docks. A remnant of the Remsen Mill Pond remained as a sheet of open water accessed by a narrow canal. East of the pond was the City Park, while east of Park Avenue was a cemetery. The streets in the area are named, including Portland, Oxford, Cumberland and Carlton. The Orphan Asylum was located between Carlton and Cumberland east of Park Avenue. Block 2030 is located west of Park Avenue between Cumberland and Carlton. Flushing Avenue is shown on this map as an extension of Nassau Street (which ended at the Brooklyn City line). It is likely that Flushing Avenue had been laid out on paper, but that it had not yet been opened, since portions of Wallabout Bay infringe on it. The old route of Wallabout Road is included on this map as a dashed line, indicating that it had been or was being closed.

Street openings did not mean that an area underwent immediately development, and, indeed, in 1839 no hatched lines (indicating areas of development) appear within Block 2030. In 1840, several years after the streets in the neighborhood had been opened and the block and lots plated, Wallabout was reported to contain 30 houses between Fort Greene and Broadway (the boundary between Brooklyn and Williamsburgh). The 1844 U.S. Coastal Survey map still shows the "few dwellings" described by Stiles on the south side of Wallabout Road (present day Flushing Avenue). By this date houses had been built one after another on both the north and south side of the road. One of these houses was located on land that was then immediately west of Wallabout Road on Block 2030. That building, located at the rear of several lots facing Cumberland Avenue, is canted at an angle that reflects the route of Wallabout Road, rather than the gridded street pattern of today. The distinctive bend in Wallabout Road between Oxford and Cumberland Avenue may be used to locate the boundaries of the project area. The 1839 map and the U.S. Coastal Survey both provide a picture of an area that, in contrast to both the Village of Williamsburgh and the City of Brooklyn, was not yet succumbing to urbanization.

In 1850 M. Dripps published a Map of the City of Brooklyn, L.I. Shewing [sic] the Streets as at present existing, with the Buildings and the intended Canal and other Works, Also the Village of Williamsburgh. (Map 8) The streets are named, making it possible to precisely located the project area. The earlier alignment of Wallabout Road is included,

as are the buildings located on the east side of the highway. These buildings are identifiable by their orientation, which, as noted above, was to the historic highway, rather than the present street grid. Some buildings were now located in the middle of streets, others straddled lots. There was a building located in the center of Block 2030 that was canted slightly from the street grid, indicating that it had been constructed before Wallabout Road was closed. The building had a main block and an extension that abutted the rear of the lots identified as 22-28 Carlton Avenue. Although several houses had been built on Cumberland Avenue at Park, no buildings are shown on the west side of Carlton Avenue between Flushing Avenue and Park Avenue.

By 1850 portions of Wallabout Bay had been filled to create additional land for the Navy Yard, but the buildings were still grouped on the south side of the yard. Clinton Avenue, which is four blocks north of Carlton Avenue, is shown as extending into the land owned by the United States Government. The fact that a pier is shown a short distance to the north suggests that this land was slated to be filled, but that the filling had not yet taken place.

In 1855 M. Dripps published another map of Brooklyn. (Map 9) The hamlet of Wallabout had seen some development by the 1850's. The 7th Ward Hotel stood on the north side of Flushing Avenue at Taaffe Place, and Keenan's stage company was located at Flushing and Taaffe Place. By this date, other facilities in the area included distilleries, iron foundaries, sailmakers, and public institutions, including the U. S. Marine Hospital, churches, schools, the orphan asylum and the city park. The Navy Yard had expanded, and by this date it appears that the tidal marsh along the edge of Wallabout Bay had been filled. The U.S. Cobb Dock, incorporating the lighthouse, had been constructed as had additional dry docks and dock yards. The 1855 map indicates Block 2030 was owned by Nicholas Cowenhoven, whose family was, as noted above, early settlers of Brooklyn. Portions of the block had been developed by 1855, but the assessment records examined at the Municipal Archives (discussed below) indicate that no buildings had yet been constructed within the project area.

It is not until 1887 that individual structures are shown on the lots in Block 2030. By that date 30 and 32 Carlton Avenue had been developed. (Map 10) The buildings are described on the Sanborn Insurance Map as 4-story buildings; 30 Carlton Avenue was a dwelling, 32 Carlton Avenue had a shop on the ground floor. The houses from 30 Carlton Avenue to 44 Carlton Avenue, which were all built at the same time, appear to have been identical. (See Photo 3) Those to the west (closer to Flushing Avenue) were smaller, being 3-story rather than 4-story buildings; along Flushing Avenue there were several business establishments, including the Brooklyn Oil Company and Shadbolt & Sons, wagon and truck body makers. Several lots had rear yard structures, including dwelling units, but no structures are shown in the rear yards on either 30 or 32 Carlton Avenue. The house seen on the 1850 Dripp's map, which was aligned to historic Wallabout Road, is shown as a 1½-story dwelling with a 1-story extension. The extension touched the rear lot line of 26 Carlton Avenue. The Sanborn Insurance maps

indicate that water had been installed in Carlton Avenue by 1860. (See Map 11) By the time that the houses on the west side of Carlton Avenue were built, water was certainly available, and the fact that the houses were all built at approximately the same time (1873) suggests that development on these lots did not take place until the sewer had been installed. Examining the Brooklyn Sewer Department records it was learned that 32 Carlton Avenue was connected to the sewer on April 9, 1872, while 30 Carlton Avenue had two sewer connections, one on April 11, 1872 and another on April 18, 1872. Clearly the sewer had been installed in Carlton Avenue prior to that date. At the time of the sewer connection both buildings were owned by William A. Brush, Jr. (Brooklyn Sewer Permits, Book 5) The fact that the buildings were connected to the sewer as construction began strongly suggests that neither 30 or 32 Carlton Avenue would have either a privy or cistern.

The 1904 map shows that 30 and 32 Carlton Avenue were unchanged (Map 11), but on the 1915 map a small structure had been built along the western boundary in the middle of the lot at 32 Carlton Avenue. (Map 12) The size and location of the structure would be consistent with a school sink, an communal outdoor toilet. In our experience, such facilities have been encountered in association with multi-family buildings that had a connection to the municipal sewer, but did not have indoor toilet facilities. This type of arrangement would be consistent with the use of the buildings by a number of families who lacked the affluence to install a communal indoor toilet or private bathrooms in their apartments. In 1915 the building on Cumberland Avenue that was aligned with old Wallabout Road was vacant. It appears on this map that the extension had been removed.

The E. Belcher Hyde 1929 Desk Atlas/Borough of Brooklyn, City of New York shows that 30 and 32 Carlton Avenue remained unchanged from 1915. (Map 13) The small structure at mid lot on 32 Carlton Avenue was still shown, but the house on Cumberland Avenue had been removed. The Shadbolt Manufacturing Company was still located on the west end of the block, but with that exception, and the fact that many buildings had shops on the ground floor, Block 2030, despite its proximity to the Brooklyn Navy Yard, was primarily residential.

The 1938 Sanborn Insurance Map indicates that the configuration of 30 and 32 Carlton Avenue remained the same as it had been since 1915. (Map 14) Between 1915 and 1938 the historic house located behind 22-28 Cumberland Avenue had been removed, being replaced by a "Contractors Staging Yard." There was a 1-story building located in the northwestern corner of the lot.

The house at 30 Carlton Avenue was still occupied in 1981, when it was identified as an 8-family dwelling (Map 15), but by 1987 it was vacant. The house was subsequently removed, both lots being fenced and used as parking areas.

ANALYSIS OF ASSESSMENT RECORDS

The Brooklyn Assessment Records for Block 2030 were consulted at the Municipal Archives. These records indicate that between 1867 and 1870 the project area was owned by John Angus, who owned other lots on the west side of Carlton Avenue. In 1867 and 1868 each of the lots was valued at \$500.00. The valuation was raised to \$630 in 1869, which may represent the increase in value from the installation of the sewer line in the street. John Angus continued to hold the property between 1870 and 1872, during which time the lots were valued at \$600.00. In 1873 the valuation was \$3,000.00, and in 1874 it was \$4,000.00. In 1873 there is a note in the margin of the assessment records for what was then Block 3 (Old Block 102) that there were eight new houses being built, the four northerly ones being unfinished, while those nearest Park Avenue were finished. The four northerly houses include 30 and 32 Carlton Avenue. At the time the finished houses were valued at \$4,000.00 each, the unfinished at \$2,000.00. The eight houses were described as 24.4 wide, 50 feet deep and 4-story high. John Angus remained the owner of the eight houses through 1877, when they were purchased by Daniel G. Littlefield, who on May 29 of the same year sold them to Thomas H. Brush. Some time between 1877 and 1879 the house at 30 Carlton Avenue was sold to David G. Leith. The value of the house was reported as \$3,500.00. Caroline A. Hull purchased 32 Carlton Avenue on October 14, 1881 for \$5,500.00. At the time the house, like that at 30 Carlton Avenue, was valued at \$3,500.00. On January 7, 1884 Hannah A. Stoops either purchased or inherited 32 Carlton Avenue, which she sold to David Riss sometime between 1884 and 1887. Hannah A. Stoops was also the owner of 28, 24, and 39 Carlton Avenue. David Riss remained the owner of 20 Carlton Avenue through at least 1899, when the house was valued at \$4,000.00. Hannah A. Stoops was the owner of 32 Carlton Avenue in 1891, but between then and 1895 she sold it to Edward Finn. Edward Finn was the owner of record in 1899, when the value of the house was \$4,000.00.

Based on the Assessment Records it appears that the block of houses owned by John Angus had been built on speculation after the sewer line was installed in Carlton Avenue. The houses were sold in the following years and held for periods of time by the new owners, but it seems that they were probably always multi-family dwellings held as rental properties, rather than private residences. By the mid-20th century both had been converted to 8-family dwelling units, reflecting, no doubt, the increasing economic difficulties of the residents of the neighborhoods surrounding the Brooklyn Navy Yard.

CONCLUSIONS AND RECOMMENDATIONS

Prehistoric Sensitivity

Based on the environmental models promulgated by the New York City

Landmarks Preservation Commission and the New York State Museum Archaeological

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CITY/SCAPE: Cultural Resource Consultants

Site Files, the project area would be considered to have a high potential to yield prehistoric cultural material. As noted, Wallabout Bay and its associated salt marshes were located immediately west of the project area – both of which substantially increase the prehistoric potential of the project area. The presence of an Indian village a short distance to the south must also be taken into consideration; there is no indication that the settlement encroached on the project area, but its presence could increase the likelihood that the tidal marsh was frequently visited by prehistoric peoples. Based on a comparison on historic and current elevations in the immediate area, it does not appear that substantial grading has taken place on the site, however the regrading that would have been associated with the closing of Wallabout Road might have had an impact on any resources within the project area. While regrading could have protected resources had they been present on the project area, subsequent episodes of building in the 19th century, and the disturbance associated with the demolition of the structures in the 20th century would have effectively removed the potential of the site to yield significant, intact prehistoric cultural resources.

Historic Sensitivity

Based on documentary research, including an examination of historic maps and atlases of the area, it is concluded that the project area does not contain the potential to yield significant historic archaeological resources dating from the 17th or 18th centuries. The 1636 Manutus map indicates that the project area was farmland and contained no structures. Ratzer's 1766-7 Plan of the City of New York in North America (See Map 4) confirms that no structures were located within the project area, which continued to be shown as farmland, here planted with trees. The Cowenhoven family, early settlers of Brooklyn, owned Block 2030; however, by the early 19th century William Hunter owned the project area. Before it was closed, an historic roadway, Wallabout Road, crossed Block 2030, but it did so west of the project area in the area now occupied by a 1-story garage. (See Photo 1) According to the Dripp's map, it appears that residential development had begun on Carlton Avenue by 1855, but the Assessment Records indicate that development within the project area did not take place before 1873. The Brooklyn Sewer Department Records suggest that construction of the buildings within the project area took place in the spring of 1872. Water was available in Carlton Avenue by 1860 (See Map 12). Sewer was available by 1872, when the connections from 30 and 32 Carlton Avenue were made. The houses on the west side of Carlton Avenue were all built within a short time, with 30 and 32 Carlton Avenue being built, according to the Assessment Records, in 1873-4. The Assessment Records indicate that John Angus owned the eight lots, including 30 and 32 Carlton Avenue, from 1867 until 1873, but the Brooklyn Sewer Department Records show William A. Brush as the owner in 1872. There is a note in the Assessment Records margin indicating that John Angus was building the eight houses, but it seems more likely that Thomas Brush and William Brush were both the owners and the builders. For our purposes the details of ownership are not as important as the fact that none of the eight houses, including 30 and 32 Carlton Avenue, were built before sewer was available in Carlton Avenue. This would suggest

that neither privies nor cisterns would be present on 30 or 32 Carlton Avenue. The possibility of a school sink dating to c. 1915 has been noted above, but this is not considered an important historic cultural resource.

The presence of a historic house aligned with Wallabout Road, a historic highway that ran along the edge of Wallabout Bay, on Block 2030 has been noted. The building was set at an angle mid-block abutting the rear lot lines of 22-28 Carlton Avenue. While this building would not have directly impacted the project area, it is possible that some evidence of features associated with it could have impinged upon the rear of either or both lots. Mitigation this possibility is the fact that the lot on which the house was located was clearly defined and separated from the lots on which the project area is located. Assuming that the historic inhabitants of this house did not deposit trash outside their property boundaries, there is little likelihood that any cultural material associated with this house would exist in the rear yard area of either 30 or 32 Carlton Avenue.

Given the information presented above, it is considered unlikely that any subsurface prehistoric or historic cultural resources exist within the project area, and no further investigation of either the prehistoric or historic potential of the site is recommended.

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APPENDICES

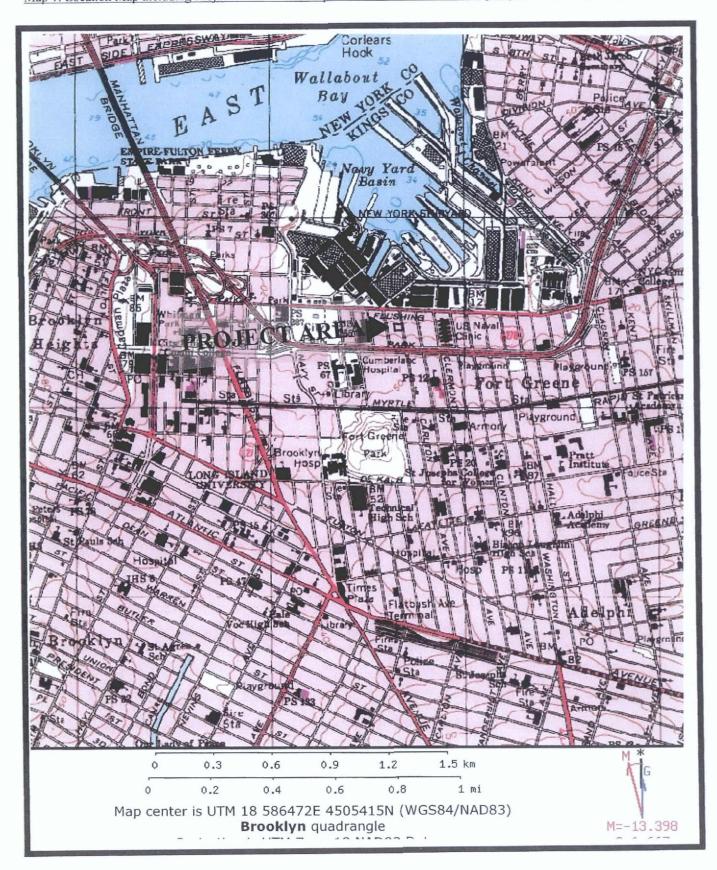
LIST OF APPENDICES

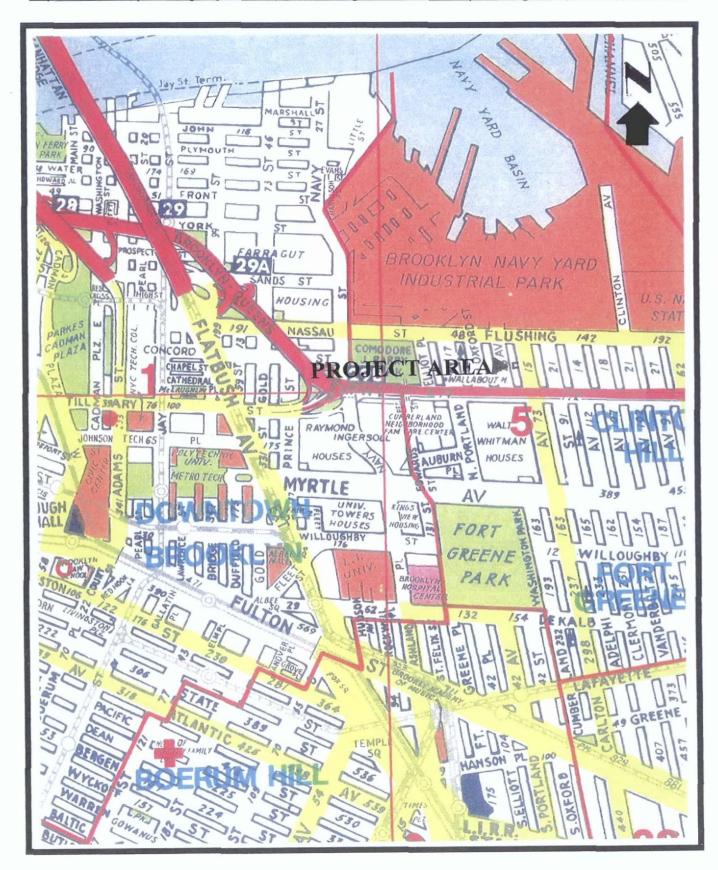
Appendix A: Maps

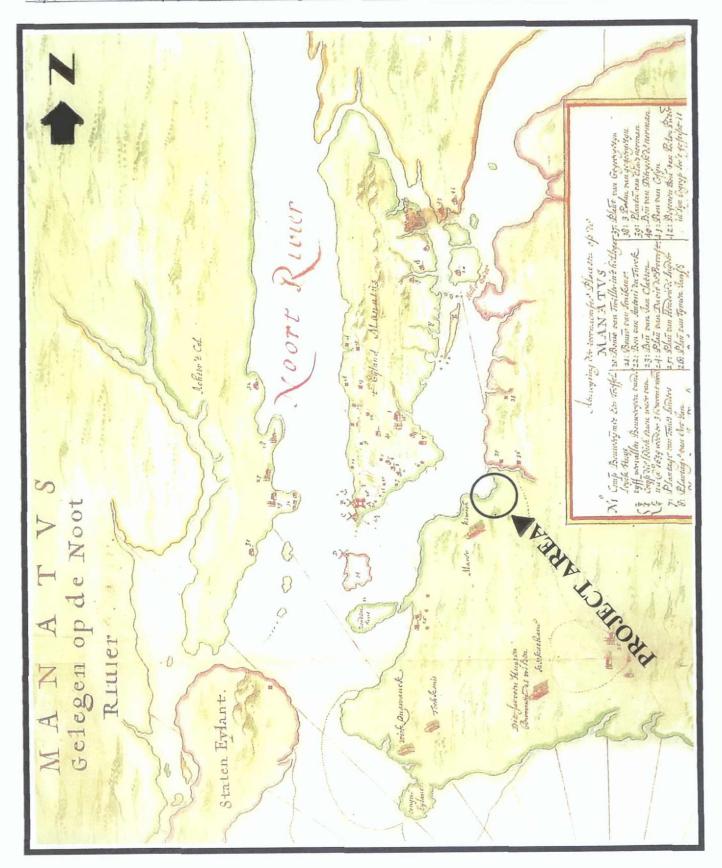
Appendix B: Photographs

APPENDIX A

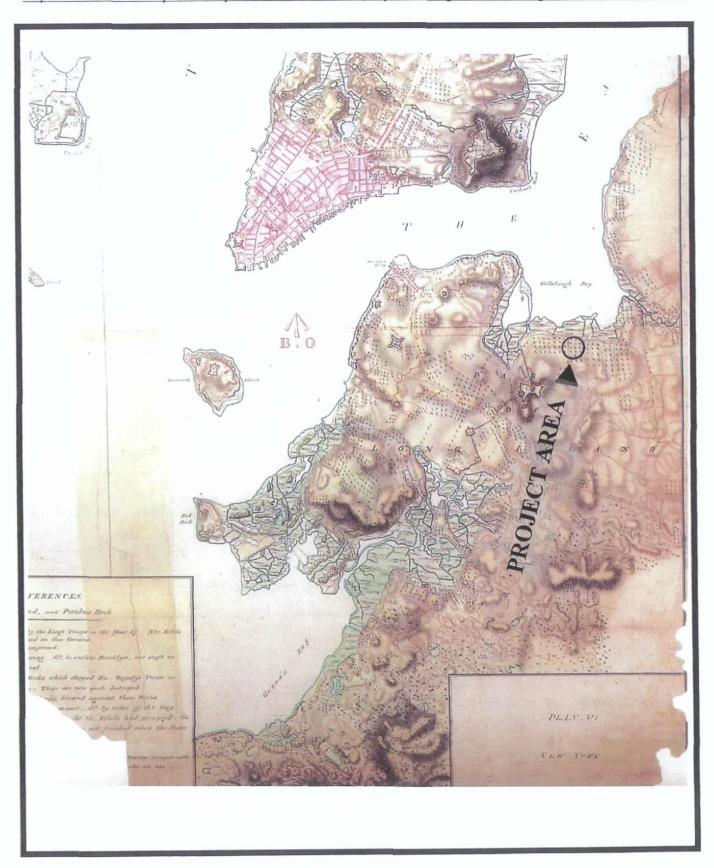
MAPS

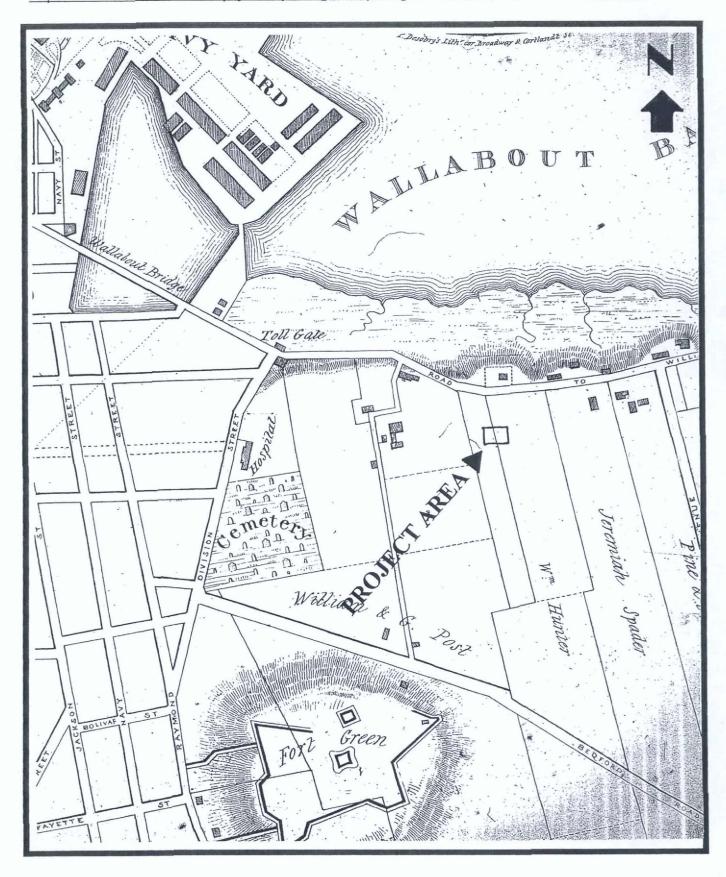


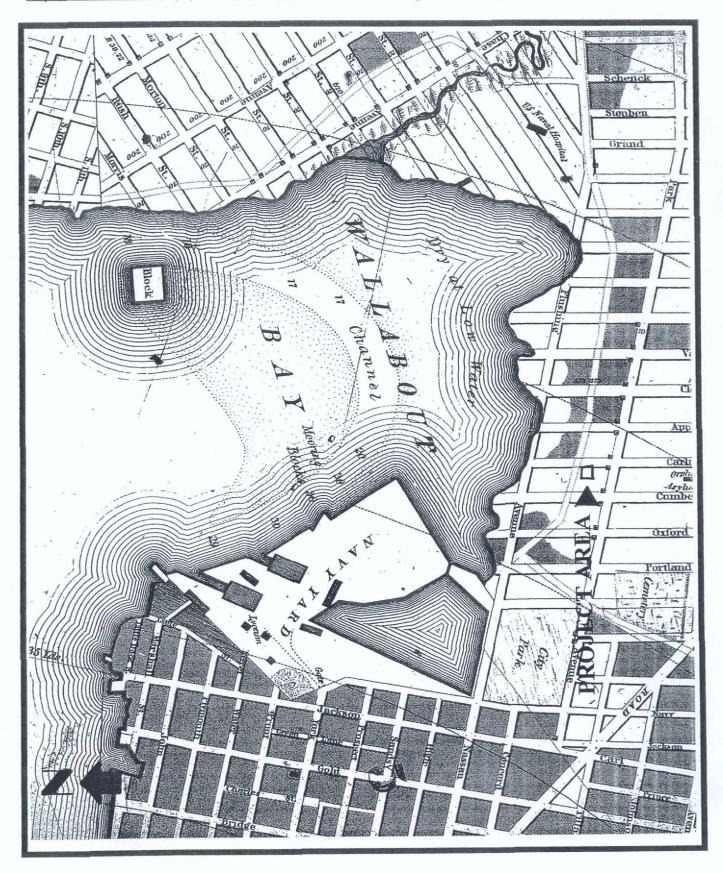


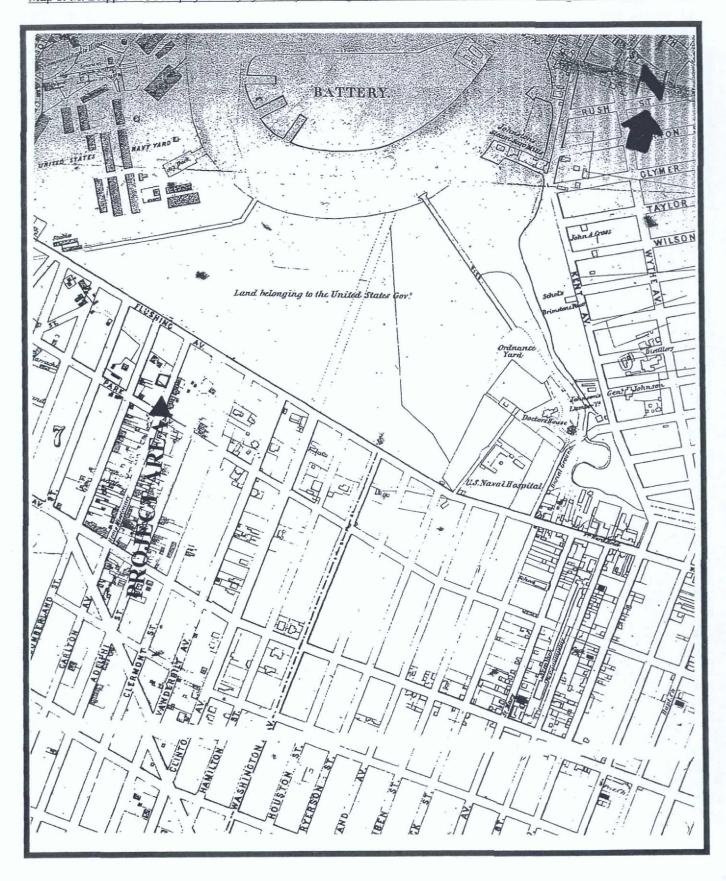


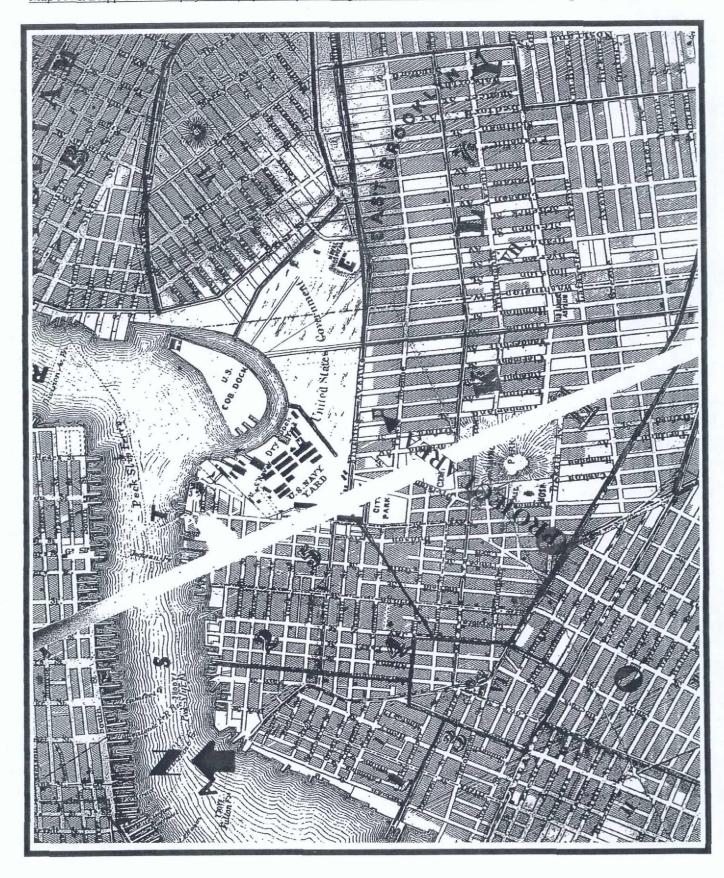


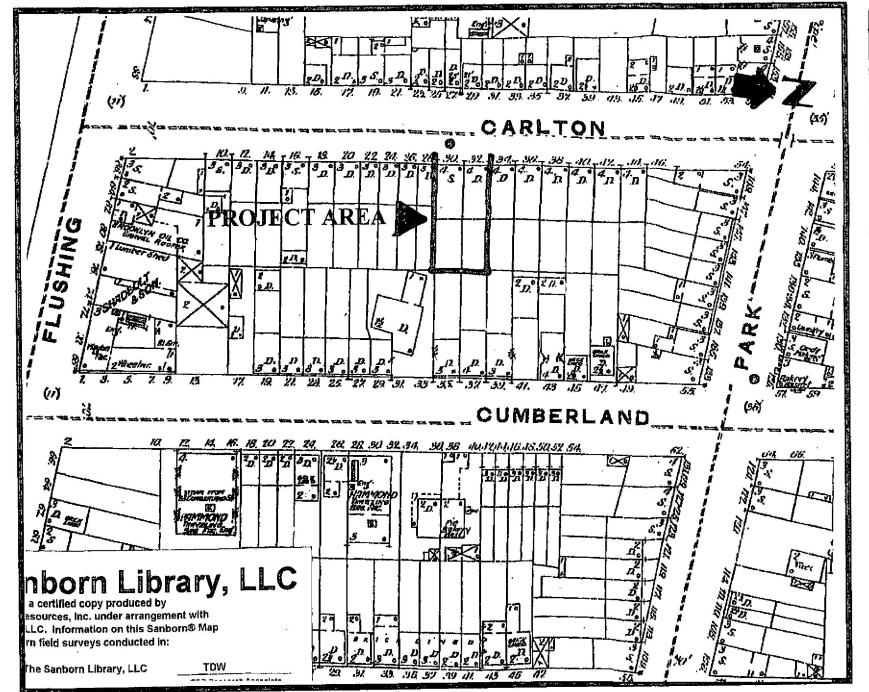


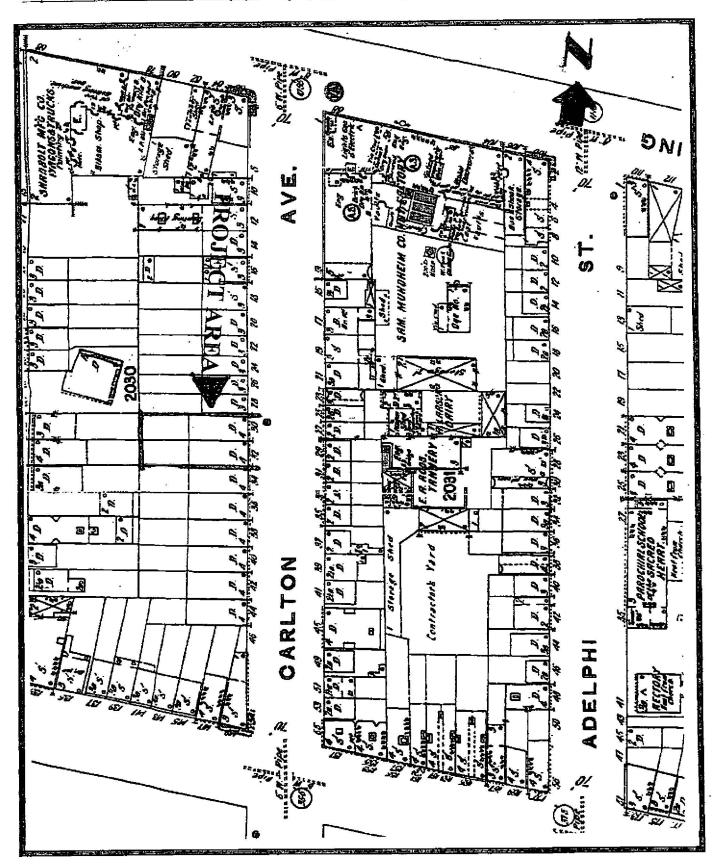


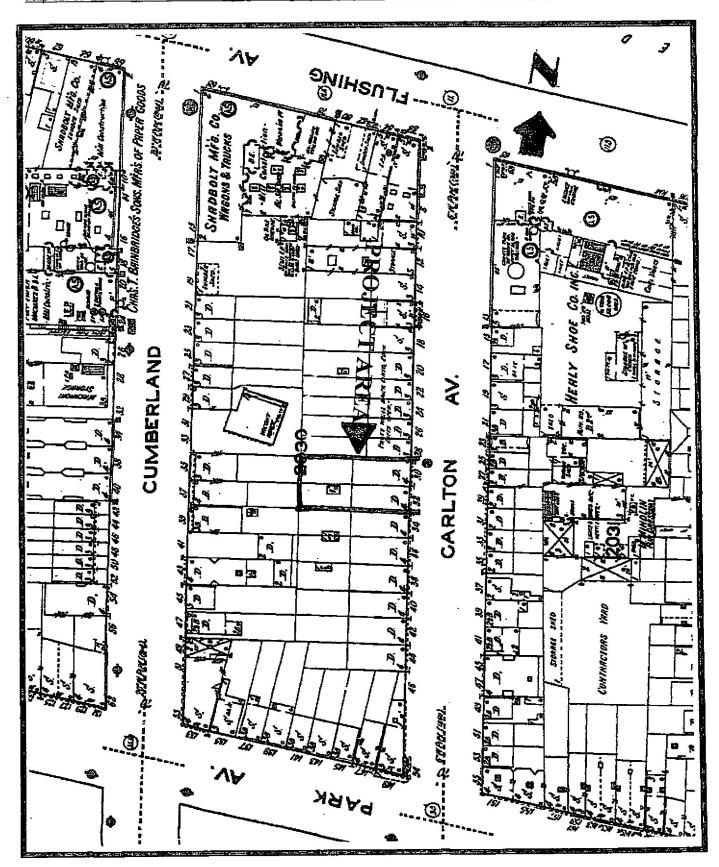


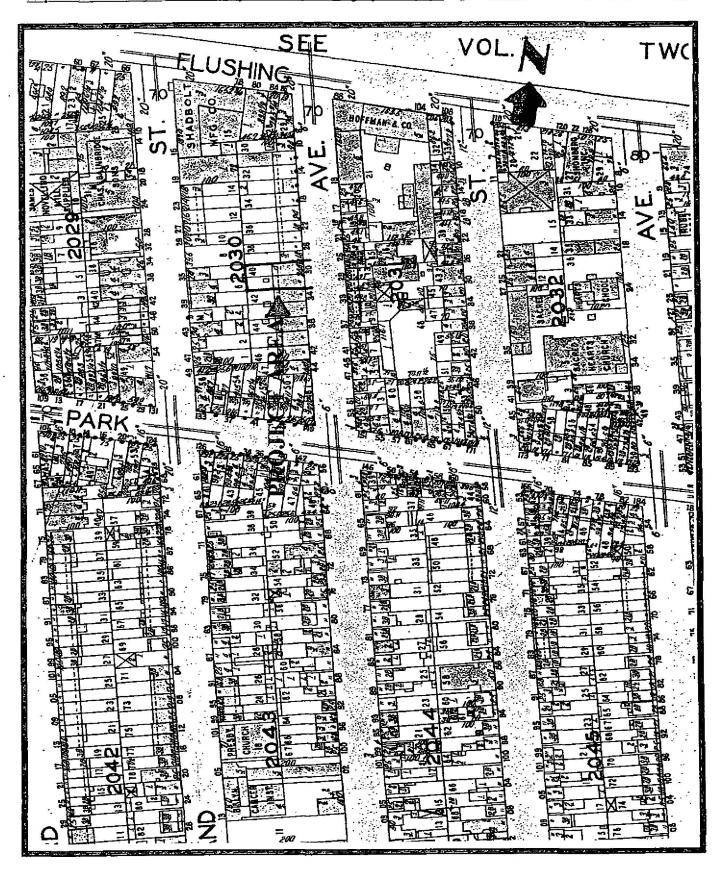


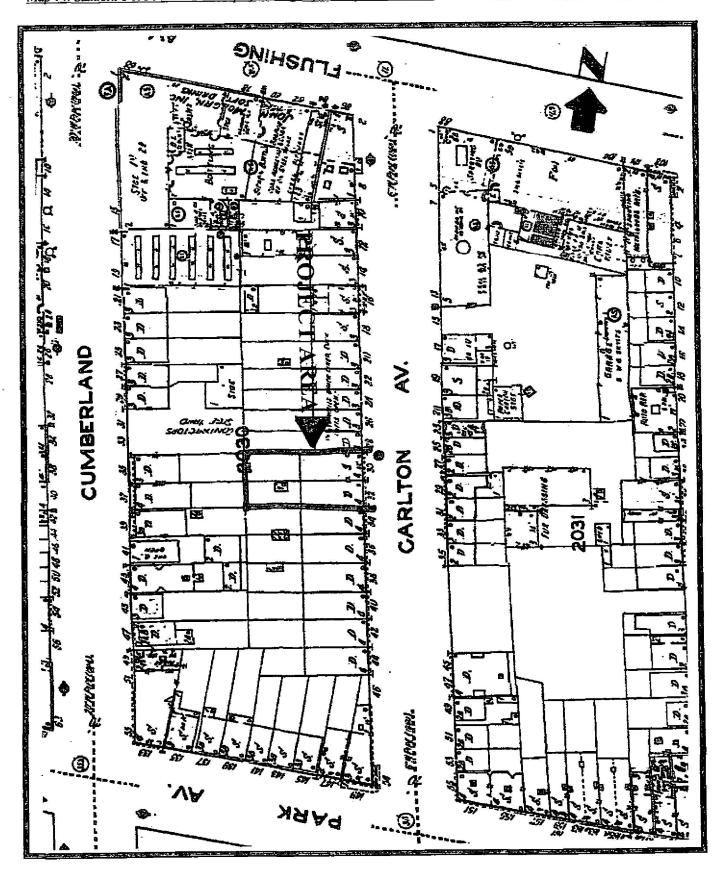












MAP LIST

<u>MAPS</u>	
Map 1	Location Map. USGS Brooklyn Quadrangle. 7.5 Minute Series. Taken 1967. Revised 1979. Scale: 1:50,000.
Map 2	Area Map (derived from Hagstrom's New York City 5 Borough Atlas) Map 41 & 44) Scale: 1" = 2100'.
Map 3	1639 Manatus Map of the North River. Diagrammatic, no scale.
Map 4:	Detail from Bernard Ratzer's <i>Plan of the City of New York in North American</i> . Portion of Town of Brooklyn and part of Long Island. 1766-67. Scale on map.
Map 5	The 1776 British Headquarters Map. Portion of Town of Brooklyn, including Red Hook. Original scale: 6½" = 1 Mile. Reduced for publication, no scale shown on map.
Map 6	Alexander Martin's 1834 Map of the Brooklyn, Kings County, Long Island. Current scale: 11/4" = 500 Feet.
Map 7	Stoddard's 1839 Map of the City of Brooklyn and the Village of Williamsburgh. Current scale: $1\frac{1}{3}$ " = $\frac{1}{4}$ Mile.
Map 8	M. Dripps' 1850 Map of the City of Brooklyn Current scale: $1^{3}/8^{\circ}$ = 1000 Feet.
Map 9	M. Dripps' 1855 Map of the City of Brooklyn as Consolidated January 1, 1855. Original scale: $1800^{\circ} = 1^{\circ}$. Current scale: $1\frac{1}{8}^{\circ} \approx 1800$ Feet.
Map 10	Sanborn Map Company's 1887 <i>Insurance Map of Borough of Brooklyn.</i> New York. Plate 47. Scale: 400' = 1".
Map 11:	Sanborn Map Company's 1904 Insurance Map of Borough of Brooklyn. New York. Plate 47. Scale: 60' = 1".
Map 12:	Sanborn Map Company's 1915 <i>Insurance Map of Borough of Brooklyn.</i> New York. Plate 47. Scale: 60' = 1".
Map 13:	E. Belcher Hyde's 1929 Atlas of the Brooklyn Borough of the City f New York, Originally Kings County. Scale: 160' = 1".
Map 14:	Sanborn Map Company's 1938 Insurance Map of Borough of Brooklyn. New York. Plate 47. Scale: 60' = 1".
Map 15:	Sanborn Map Company's 1981 <i>Insurance Map of Borough of Brooklyn.</i> New York. Plate 47. Scale: 60' = 1".

APPENDIX B

PHOTOGRAPHS

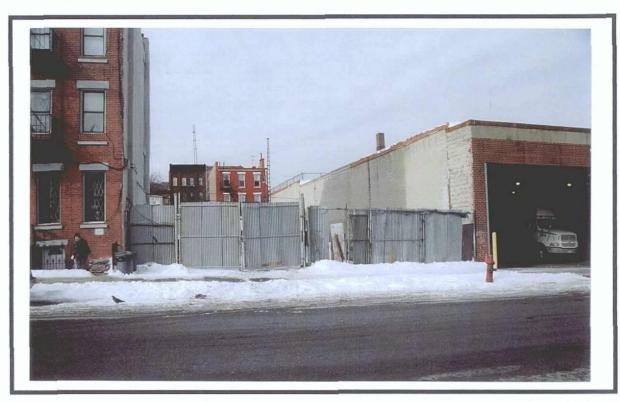


Photo 1: Looking south to 30 & 32 Carlton Avenue. Lots are currently vacant, undeveloped land.



Photo 2:. View of project area through fencing indicates lots are being used for parking and storage of vehicles and equipment. View to south.



Photo 3: Building at 34 Carlton Avenue is one of several, including 30 & 32 Carlton Avenue, built in 1873-4. All were 4-story brick multi-family buildings. View to southeast.

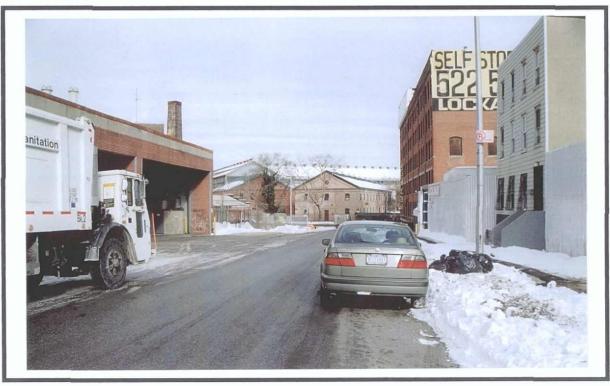


Photo 4: View along Carlton Avenue to Brooklyn Navy Yard. One-story building on west side of Carlton Avenue replaced several houses. View to northwest.

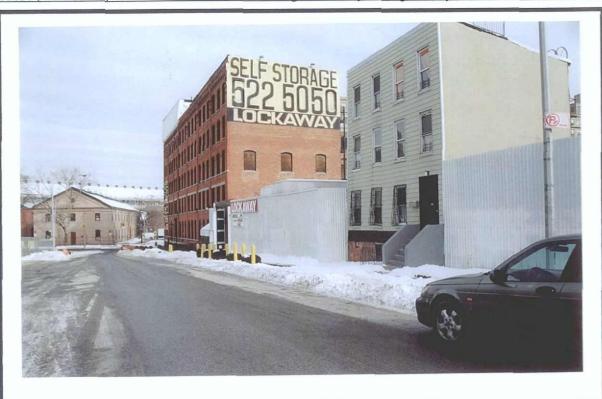


Photo 5: View to west of 19th century industrial building fronting Flushing Avenue.

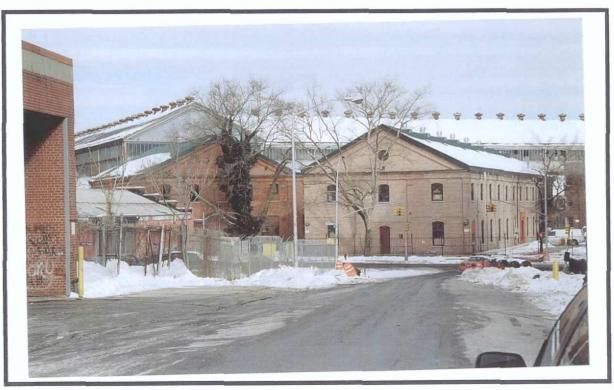


Photo 6: Nineteenth century buildings in Brooklyn Navy Yard and Flushing Avenue are built on filled tidal marsh that formerly edged Wallabout Bay. Wallabout Road crossed Block 2030 through 1-story brick building at left edge of photo. View to northwest.