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ENVIRONMENTAL REVIEW

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LANDMARKS PRESERVATION  
COMMISSION

# SITE A

MARGINAL STREET ADJACENT  
TO THE SOUTH RESIDENTIAL  
NEIGHBORHOOD,  
BATTERY PARK CITY

BATTERY PARK CITY AUTHORITY

PHASE 1A  
ARCHAEOLOGICAL  
ASSESSMENT  
REPORT *1989*

355

PHASE IA ARCHAEOLOGICAL REPORT

for

SITE A: MARGINAL STREET ADJACENT  
TO THE SOUTH RESIDENTIAL NEIGHBORHOOD,  
BATTERY PARK CITY, NEW YORK, NEW YORK

Prepared

For: Battery Park City Authority

By: Hartgen Archeological  
Associates, Inc.

In association with

Historical Perspectives, Inc.

Date: September 10, 1989

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## I. INTRODUCTION

As part of the proposed development of Marginal Street adjacent to the South Residential Area of Battery Park City ("Site A"), a Phase IA archaeological survey of the project area was carried out. The project area, located near the southern tip of Manhattan, is shown on Figures 1 and 2. Hartgen Archeological Associates, in association with Historical Perspectives, Inc., conducted the work for the Battery Park City Authority.

Battery Park City Authority, as a New York State agency, must adhere to the New York State Historic Preservation Act. This act requires the consideration of a project area's cultural resources within the planning process of any state project involving state money or permits. Following the federal regulations set up in Section 106 of the National Historic Preservation Act of 1966, as amended, Regulations 36 CFR 800 and 36 CFR 801 require that archaeological resources eligible for the National Register be identified and accounted.

The goal of this survey is to identify archaeological resources which are eligible for the National Register of Historic Places. Criteria for the evaluation of significance for determination of eligibility are the following:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. that are associated with the lives of persons significant in our past; or
- c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- d. that have yielded, or may be likely to yield, information in prehistory or history (36 CFR 60.4, United States Department of the Interior 1976: xv).

The archaeological survey of Marginal Street adjacent to the South Residential Area of Battery Park City ("Site A") was conducted in August, 1989 and included documentary research into the history of the site and its place in the development of lower

Manhattan. This report presents the assessment of the potential archaeological resources included in the project area.

## II. METHODOLOGY

The research for Site A adjacent to the South Residential Area of Battery Park City focused on developing a land use history of the project area. This research, discussed below, was designed to address the following concerns:

- 1) What is the potential that the Battery Park site hosted significant prehistoric and/or historical resources.

and,

- 2) What is the likelihood that these resources survived the subsurface disturbances associated with urbanization.

### Documentary Research

A review of both primary and secondary literature was conducted in order to reconstruct the prehistoric and historic land use patterns within the project area and its neighboring areas. The following repositories were consulted in the course of this research:

American Museum of Natural History  
 Engineering Society Library  
 General Society of Mechanics and Trademen Library  
 Holland Society Library  
 Municipal Art Society Library  
 Museum of the City of New York - Reference Collection  
 New York City Municipal Reference Library  
 New York City Municipal Archives  
 New York City Society of Mechanics and Tradesmen Library  
 New York Department of Ports and Trade  
 New York Historical Society Library  
 New York Society Library  
 New York State Museum  
 New York State Office of Parks, Recreation, and Historic Preservation (SHPO)  
 New York State Library - Manuscripts and Special Collections  
 Regional Plan Association Library  
 Society of Engineers Library  
 South Street Seaport Library

### Cartographic Research

Map research was conducted to determine the original topography of the project area and the surrounding neighborhood and to document the presence of standing structures and historic features within the project area throughout history. This

research aides in determining the nature of historic structures and the type and extent of disturbances.

#### Property Research

To document the development and subsurface disturbance of the project area parcels, several types of documentation were consulted. These included land transaction records located at the New York City Department of Finance, Index Division. Block and Lot files and microfiche, obtained at the New York City Buildings Department, provided information on individual lot development. Deed research on individual properties was beyond this level of research.

#### Informant Interviews

To supplement the documentary and cartographic research described above, local amateur and professional archaeologists and historians knowledgeable in Manhattan prehistory and history were consulted.

#### Site Files Review

Site file reviews were conducted at the New York State Office of Parks, Recreation, and Historic Preservation and the New York State Museum Education Department to determine if prehistoric or historic resources had been identified within or near the project area. In addition, the New York City Landmarks Preservation Commission was contacted for information on culturally significant areas previously identified in the project area and vicinity.

#### Field Visit

A walkover survey of the entire project area was conducted. No subsurface investigations were performed. Photographs of the site were taken in August 1989 as a record of current conditions (Photographs 1-6).



### III. ENVIRONMENTAL SETTING

Ice advanced over North America four times during the Pleistocene Period. Approximately 15,000 years ago, gravel and boulders deposited along the ice sheet's melting margin formed Long Island (Kieran 1982:26). Due to rising sea levels, fluvial deposits, associated with the Hudson River, have covered the glacial till and outwash during the past 10,000 years. With this rise in sea level, the velocity of the Hudson River decreased (Vollmer Associates 1989:6). Between 11,000 and 12,000 years ago estuary formation began, reaching its maximum extent between 7,000 and 8,000 years ago (Rutsch et al. 1983:25). By approximately 3000 years ago, the topography as discovered by Europeans had been formed.

The Battery Park project area is located in the embayed section of the Coastal Plain (Figure 3). New York City, located on the Manhattan prong, is a projection of the New England uplands, characterized by 360 million year old metamorphosed bedrock (Schuberth 1968:11). Bedrock, in the project area vicinity, is less than 100 feet below the current surface (Barlow 1969:18).

As a result of this glacial action, Manhattan Island was once characterized by hillocks, streams and marshes. Ridges of gneiss and hornblende slate created immense masses of rock and earth, often rising 80 feet above the surface (French 1860:418). Historic development and road construction have prompted grading and filling which obliterated most remnants of such topographic features. The land now comprising the project area was submerged through at least the mid-nineteenth century. Figure 4 indicates that the shoreline of the Hudson River ran roughly along the edge of Greenwich Street, approximately two blocks east of the project area.

In 1983, Historic Conservation and Interpretation, Inc. developed a subsurface soil and fill profile of West Street as part of the original survey for the proposed Westway construction (Rutsch et al. 1983). Prior to European settlement, the land now occupied by West Street was actually part of the Hudson Riverbed. Battery Place, however, was partially located on original land. The profile noted that "the area south of Lighthouse Street was considerably modified by artificial fill right down to nearly the level of the glacial gravels" (Rutsch et al. 1983:21). Several small islands, knolls and headland areas were also identified in the subsurface soil and fill profile (Rutsch et al. 1983:43). These included one knoll located within the project area (Figure 5) which will be more fully discussed in the next section of the report.

Project area photographs show the current area conditions along the shoreline between Battery Place and West Thames Street (Photographs 1-6). Currently the area is covered along the west side with parking areas and sidewalks. The eastern section extends approximately 50 feet out into the right-of-way of

Marginal Street. The project area neighborhood is generally non-residential, characterized by shipping-related facilities and tall office buildings.

The project area between Battery Place and West Thames Street is situated on landfill. Subsurface conditions undoubtedly "contain cribs, old bulkheads, sections of old piers, abandoned utility lines and other remnants of abandoned previous construction" (Vollmer Associates 1989:11). More recent utility lines are also present. Battery Park City is on the western side of Marginal Street between Battery Place and Chambers Street, thus the bulkhead can not be viewed between these streets.

#### IV. PREHISTORIC ERA

Occupation of Manhattan Island by Native American populations began during the PaleoIndian Period, approximately 9,500 - 12,000 years ago. This population primarily relied on the big-game resources available on the island. Edwards and Emory (1977:19) have suggested that the exposed continental shelf would have possessed the resources necessary to support the PaleoIndian population. Eisenberg (1978:138) has suggested that these groups tended to occupy the following locations: lowland waterside camps near coniferous swamps and near larger rivers; upland bluffs in areas where deciduous trees dominated; and ridge tops also dominated by deciduous trees.

Evidence of these first inhabitants has been difficult to locate archaeologically because many sites dating to this period are probably located on the continental shelf which was exposed during glaciation. Other sites dating to this period have probably been destroyed by later development.

The Archaic Period, 9,500 - 3000 years ago) followed the Paleo-Indian Period. Typical sites dating to this period are small, nearly always multi-component sites, situated on tidal inlets, coves, and bays, and on fresh-water ponds (Ritchie 1980:143). Populations, during this period, relied on a more diverse group of food resources procured by hunting, fishing, and gathering. High sandy river terraces were apparently the preferred site location for sites associated with the transition from the Archaic to the subsequent Woodland Periods (Ritchie and Funk 1973:342).

By approximately 3,000 years ago the sea level and, consequently the exposed coastal lands, were much as they are today. Occupation sites dating to the Woodland Period were usually located on knolls or well-drained terraces in close proximity to a water resource. Ritchie (1980:264-265) reports that Late Woodland Stage sites within the southern New York area were usually located on the "second rise of ground above streams or coves" and on "well-drained sites." Habitation of semi-permanent sites also developed during this period (Snow 1980:265).

Historic Conservation and Interpretation, Inc. conducted research for the proposed Westway project for the New York State Department of Transportation, reporting on this research in 1983 (Rutsch et al. 1983). As part of this project, prehistoric shoreline development was reconstructed to illustrate how the shoreline changed as water levels fluctuated due to glacial activity. It was suggested that historically submerged areas may have supported prehistoric Native American populations.

This paleoenvironmental study of the Westway project area was conducted by Richard R. Pardi, of Queens College, and Dennis Weiss, of City College. The prehistoric chronological development of the shoreline was established through radiocarbon

and chemical samples taken from cores. Areas were identified as potentially sensitive for prehistoric habitation based on topography and other criteria known to be attractive for prehistoric habitation. All of the identified areas are currently deeply buried beneath 30 to 40 feet of nineteenth century fill and river silts (Vollmer Associates 1987:3-1).

According to Figure 5 (Rutsch et al. 1983:48), Area 1, as identified by Rutsch, is located near the intersection of Morris and West Streets, within the Battery Park project area. This is defined as a small hill next to a depression, which was possibly a pond. The feature existed approximately 30 feet below the current sea level as an island about 6,500 years ago (Rutsch et al. 1983:64). Circa 7,000 years ago, it existed 40 feet below sea level as a hill. As either an island or a hill, this parcel would have been sensitive for prehistoric archaeological remains.

## V. HISTORICAL ERA

The earliest documented landing on the island of Manhattan occurred in 1609 when Henry Hudson led a group of explorers up the river that now bears his name. European settlers, following Hudson's arrival, concentrated their settlement on the southern tip of the island. In 1613 the New Netherlands Company, which sponsored many voyages to the new world in search of trade goods, set up a storage and trade house near the tip (Wilson 1902:395). Traders, moving onto the island, erected shacks in the same general area. As the fur trade became more profitable, the population of Manhattan grew and the small village expanded. By 1623, the Dutch States General granted all lands on Manhattan Island to the Dutch West India Company (Hoag 1905:32). Several years later, in 1626, Peter Minuit, the Director General, purchased Manhattan Island from the local Indians for what amounted to less than 25 dollars (Jones 1978:10). Dutch control of the Island was brief however, and by 1664 the English had obtained possession with King Charles II granting the land to the Duke of York.

Prior to 1628, a gristmill stood at the fort near Battery Place and Greenwich Street (Rutsch et al. 1983:334). The northern boundary of the city was marked by the Wall Street stockade, constructed in 1653 by the Dutch (WPA 1982:58). In 1699 the British removed the stockade and the city slowly began to expand northward.

Although occupation of the project area neighborhood began in the seventeenth century, as described above, the actual land comprising the project area remained submerged under the Hudson River (Figure 4). West Street did not exist since the shoreline along the Hudson River ran between what are now Greenwich and Washington Streets. Battery Place, then Marketfield Street, existed on original land east of Greenwich Street.

Throughout the seventeenth and eighteenth centuries, the East River underwent more development and heavier use than the Hudson (or North) River. The depth of the Hudson and high bluffs along the shore impeded its usage (Buttenwieser 1987:27). In addition, there were few coves to provide protection to ships from the strong northerly winds coming down the valley. Land ownership also affected the development patterns along the Hudson River shore. In general, a small number of wealthy landowners controlled the use of the waterfront and they had no interest in expanding their properties. In addition, early landfilling skipped the area between Battery Place and Rector Street, since the depth of the Hudson River hindered filling (Buttenwieser 1987:32).

The Montgomery Charter extended owner privileges two blocks beyond the Hudson River low water mark in 1730. At the same time, grants were issued including the provision for three streets to be built parallel to the river (Hoag 1905:32). Actual

construction of these streets, Greenwich, Washington and West, did not occur until much later (Buttenwieser 1987:34). Instead, eighteenth century expansion continued to the north of this area where land was cheap and could be developed more easily (Buttenwieser 1987:35). Figure 6, dating to 1729, illustrates the difference in development between the Hudson and East River shores. Elde's Slip, located at Battery Place near Broadway, was one of the earliest in the project area vicinity (Rutsch et al. 1983:240).

In 1795, the Common Council passed an ordinance creating a 70 feet wide street beyond which no future grants could be made and no buildings erected. Three years later this was named West Street (Buttenwieser 1987:28). The ordinance was intended to compel landowners to pursue landfilling where they were granted water rights. At this time, only Greenwich Street was complete with most of Washington Street and all of West Street yet to be built. Battery Place, called Marketfield Street, existed only to mid-block between Greenwich and Washington Streets. As can be seen in Figure 7, dating to 1797, the project area remained submerged with no docks or piers located within its boundaries.

The Common Council continued to press for the construction of an island-wide road system during the first quarter of the nineteenth century. The Commissioner's Plan, dating to 1811, laid a grid system over the city, disregarding natural topographic features which may have impeded road construction. Although planned on paper, many of the roads were not actually constructed until decades later. As can be seen on the 1808 Longworth, 1817 Poppleton, and 1817 Longworth Maps (Figures 8, 9, and 10), West Street remained one of the incomplete streets. Washington Street, near the project area had finally been completed between 1808 and 1817, and Battery Place was completed to Washington Street. Also apparent on the maps is the construction of numerous wharves extending from the west side of Washington Street out into the Hudson River. As Figures 9 and 10 clearly indicate, seven piers extended out from Washington Street into what would become West Street between Battery Place and Rector Street. Figure 9 is particularly interesting because the planned location of West Street is superimposed across the existing piers. It appears that all of these early piers ended east of the project area. The 1824 Hooker Plan (Figure 11) and 1827 Ewen waterfront maps (Figures 12 and 13) identify the owners of the project area wharves as Arden, White, Schermerhorn, Edgar, and Arden. Like Figure 9, the 1827 Ewen maps indicate the planned location of West Street, not its actual presence at that date. The Ewen maps also indicate that the two blocks adjoining the project area to the east, between Battery Place and Rector Street, had been lotted but were still not filled. The planned locations of new piers to replace the original ones are also indicated.

Construction of West Street in the project area remained incomplete into the 1830s. In 1835 the landowners west of

Bowling Green, and east and south of the project area, petitioned for the extension of West Street south from Cedar Street to the Battery and refuse from a recent downtown fire was used for fill beneath the street (Buttenwieser 1987:41). Figures 14 and 15, both dating to 1839, indicate that West Street still remained incomplete at that date. The same piers, owned by the same individuals, continued to extend from Washington Street out into the area that would become West Street. Finally, by 1846 (Figure 16), West Street appeared to be completed throughout the project area and Battery Place existed as far west as the western boundary of West Street. The early piers seem to have been subsumed into the block fill east of the project area and new ones constructed west of West Street, out into the Hudson. These new piers lay in the area that would become Marginal Way, thus extending across the project area. The first pier shown on Figure 16, unnumbered, was located off the end of Battery Place and is labeled S. Boats Providence. Pier 1 is labeled Steam Boats to Philadelphia, Pier 2 is labeled Steam Boats to Charleston, SC, and Pier 4 is labeled Steam Boats to Providence.

Prior to 1844 private companies or individual owners built the piers, wharves, and slips located along the shores of Manhattan (Hoag 1905:36). In 1847 the city required the owners of piers between Battery Place and Carlisle Street to construct a bulkhead, 100 feet from West Street, and to extend the piers up to 600 feet from the bulkhead line (Rutsch et al. 1983:98). Figure 17 shows the extended piers in the project area in 1852. Extending off of Battery Place was a slip for the New Brighton/Staten Island ferry. The unnumbered southernmost pier in 1846 is labeled Pier 1 Camden and Amboy Railroad Pier. Pier 2, replacing the 1846 Pier 1, is labeled U. S. Mail Line/Boston. Piers 3 and 4 appear to have been new piers and are labeled Steam Ships Washington and Hermann for Bremen and Southampton and Steam Ships for Charleston respectively. Pier 2, in 1846, had been demolished. Piers 5 and 6 appear to have replaced Piers 4 and 5 while Pier 7 appears to have been slightly north of the previous location of Pier 6. All seven piers and the slip extended west from West Street through the project area. The 1854 Dripps Map indicates that the ferry slip had been partially filled to the western edge of West Street. Figure 18, dating to 1860, illustrates the planned placement of these seven piers in relation to the bulkhead and pier lines established by the city in 1847. The ferry slip does not appear on this map and Pier 7 was located north of the project area.

In 1870 the Department of Docks was created. In the following year, the Commissioner of the Land Office granted rights and land to New York City for the construction of wharves, bulkheads, docks, piers, basins and slips. The McClellan Plan resulted in the construction of a solid block and granite bulkhead wall around the southern half of Manhattan from West 61st and East 51st Streets. The wall, placed outside of the previously existing bulkhead, allowed for the expansion of streets and the construction of Marginal Way. To create the land needed for

Marginal Street, fill from many locations and sources was dumped into the open areas located between the earlier landfill and the new bulkhead. Placed directly along the shoreline adjacent to the bulkhead, Marginal Street was designed to handle shorefront traffic, relieving congestion (Buttenwieser 1987:73).

With the adoption of the McClellan Plan, several stone and concrete docks were built, including Pier 1 at the Battery. Built on cement blocks, Pier 1 was faced in granite and decked with concrete (Buttenwieser 1987:74). The plan enabled the available pier area to double. The 1879 Bromley Atlas (Figure 19) indicates that Battery Place had been widened to its current route, extending as far west as the western border of West Street. Parts of Marginal Street had also been filled in the project area, allowing the construction of pier buildings located at the foot of a number of piers. A new pier, labeled Pier 1, was located to the south of the 1852 Pier 1, which remained numbered Pier 1. Beginning at the Battery, the project area piers were used by the Pennsylvania Railroad, the Lehigh Valley Railroad, and the New York, Havana and Mexico Steamship Line (Figure 19).

According to the McClellan Plan, West Street with Marginal Way was intended to be 250 feet wide. Figure 20, dating to 1885, indicates that Marginal Street was still not complete in the project area. An unnumbered pier was located off the foot of Battery Place at this date and it was occupied by the Iron Steamboat Company. The Pennsylvania Railroad occupied Piers 1, 4 and 5. The Lehigh Valley Railroad Company owned or leased Pier 2 while the Alexandre Steamship Line to Havana and Mexico had Pier 3. It appears that open water remained between Piers 1, 2, 3, and 4 at this date. Only the very southern end of the project area and the areas under the pier structures seem to be fast land.

Figure 21, dating to 1893, indicates that the project area remained nearly unchanged from 1885. Open water remained between some of the piers. Occupants and numbers of the piers changed slightly, however. Pier 1, previously the unnumbered southernmost pier, is labeled Baltimore and Ohio Continental Line. This firm also occupied the northern section of Pier 5. The next pier, previously Pier 1, is unnumbered. This pier, along with all of Pier 4 and part of Pier 5, was occupied by the Pennsylvania Railroad Company. Piers 2 and 3 were both occupied by the Lehigh Valley Railroad Company at that date.

The 1897 atlas, Figure 22, also indicates that the project area remained open water at many locations. Essentially the same piers and pier structures remained with many of the same occupants. Figure 23, dating to 1902, indicates that a small section of fill had been added between West Street and the eastern edge of Pier 3; otherwise the project area remained essentially unchanged from the earlier maps. Figure 24, from 1913, also duplicates the earlier maps.



By 1925 fast land had been created across the entire project area (Figure 25). The northern section remained covered by pier structures that encroached into Marginal Street and West Street. This continued to be the case according to Figure 26, dating to 1932. In the 1930s, the Hudson River shore was walled by an "almost unbroken line of bulkhead sheds and dock structures" (WPA 1982:69). The 1950 atlas, Figure 27, indicates that much of the project area remained covered with a number of dock structures. Portions of these structures had been removed to make way for Marginal Street. The project area remained nearly unchanged on the 1959 atlas (Figure 28).

In the 1960s changes to earlier laws allowed the development of land located west of the bulkhead line when landfilling was extended westward out to the pierhead line. The Battery City Park landfilling project, reaching from Battery Place north to Jay Street, was initiated in 1966 and finally completed in 1974. The land remained unused for some time thereafter. Battery Park City currently encompasses 92 acres of created land, west of West Street and Marginal Street (Battery Park City Authority 1979:1).

## VI. CONCLUSIONS AND RECOMMENDATIONS

As discussed in the prehistoric section of this report, there is the potential for intact prehistoric remains to exist near the intersection of Morris and West Streets within the project area. These possibly surviving remains would be located approximately 30 to 40 feet below the current sea level. Recovery of such resources, however, is considered impractical due to their location. The excavation of such deeply buried, waterlogged sites is a monumental task involving the use of many expensive procedures and supplies, including sheeting and continual water pumping (which could create serious problems as the five foot water table is changed in the neighboring area). Strict OSHA regulations would apply in such an excavation and prohibitive insurance expenses would be incurred. Safety of crew members would also need to receive great attention when considering this type of work. In addition to these logistical and financial factors, the integrity of the resources must be considered. It is quite possible, if not likely, that they may have been disturbed by the construction of docks, piers, and wharves, constant river dredging, and natural current and tidal action. It is therefore not considered feasible and prudent to attempt the excavation of resources.

Historical documentation revealed that the project area lies on landfill created in sections dating from the mid-nineteenth through the twentieth century. Cartographic analysis suggests that eighteenth and early nineteenth century wharves and piers actually lay to the east of the project area (Figures 12 and 13). This interpretation is substantiated by correlating information from Subsurface Condition Maps, City of New York Sewer Maps, and soil boring information. These sources suggest that these potentially significant resources are located outside of the project area.

Later wharves, piers and pier structures, dating to the mid-nineteenth century (Figure 16), were constructed after West Street was completely filled in the project area neighborhood. Filling out from the west edge of West Street into the current project area occurred slowly through the next hundred years. This fill originated from a variety of sources, including building excavations, garbage, and occasionally a ship (Solecki 1974:109). Again wharves, piers, docks and other such features were frequently incorporated into the fill. Soil boring reports, however, indicate the presence of very little timber in project area fill, suggesting that there is little likelihood that these features exist in the project area. The boring reports do indicate a great deal of timber located just to the east of the project area, probably resulting from the earlier landfilling which may have involved construction of wood cribbing and the incorporation of wharves and piers into the fill.

The apparent lack of wharves and piers in the project area landfill may be due to the removal of these structures prior to

the placement of fill out to the 1890 bulkhead. Hoag, discussing the New York Dock Department in 1905, wrote that

the first step is the preparation of the bottom for the foundation of the wall by the removal of all structures from within the area of the marginal street or by demolition, stripping, excavation and dredging the bulkhead wall area as well as the areas of future slips (Hoag 1905:108).

The landfill in the project area is not considered significant since artifacts found in this secondary context usually render little information. Numerous projects within Manhattan have documented land reclamation along both the shore of the East and Hudson Rivers. Records of the Common Council also documented landfilling as it occurred. In order for landfill itself to be considered worthy of subsurface archaeological investigation, the deposition must be tied to a specific episode by a group or individual, such as a manufacturer discarding waste materials from the projection process. Thus, if the resources are in situ, specific information can be gathered regarding manufacturing process or individual's lifeways. If deposition is simply the collection of trash from an undesignated area, together with materials excavated elsewhere and debris from disasters, the information that can be acquired in such a context is minimal.

The only other potentially significant historical resource identified in the project area are the pier buildings dating from the late nineteenth and early twentieth centuries. These buildings, which survived until the 1970s, functioned primarily as offices and storage sheds. The potential for these archaeological remains to address significant research issues in archaeology is extremely limited. Artifact collections from this type of site occupation are likely to tell us little about nineteenth and twentieth century Manhattan that can not be better researched in other sources. In addition, the architectural information that might be revealed through excavation is already known to a great extent for the project area structures. These buildings were drawn in detail on insurance atlases and other city maps. In fact many of these buildings remained standing until very recently.

It is the opinion of Hartgen Archaeological Associates and Historical Perspectives, Inc. that there are no recoverable cultural resources present in the Site A adjacent to the South Residential Neighborhood of Battery Park City that will be adversely affected by the planned development of the site.

## VII. BIBLIOGRAPHY

- Barlow, Elizabeth  
1971 The Forest and Wetlands of New York City. Boston: Little Brown and Company.
- Battery Park City Authority  
1979 Battery Park City Annual Report. New York: Battery Park.
- Buttenwieser, Ann L.  
1987 Manhattan Water Bound. New York: New York University Press.
- Edwards, Robert L. and K. O. Emery  
1977 "Man on the Continental Shelf." (As reprinted in The Coastal Archaeology Reader, Vol. V, of Readings in Long Island Archaeology and Ethnohistory. Suffolk County Archaeological Association, 1982.)
- Eisenberg, Leonard  
1978 "Paleo-Indian Settlement Patterns in the Hudson-Delaware River Drainages," Occasional Publications in Northeastern Anthropology, No. 4.
- French, J. H.  
1860 The Historical and Statistical Gazeteer of New York State. Syracuse, New York: Pearsall Smith.
- Hoag, S. W., Jr.  
1905 Dock Department and New York Docks. New York: The Municipal Engineers of the City of New York.
- Jones, Pamela  
1978 Under the City Streets. New York: Holt, Rinehart and Winston.
- Kieran, John  
1982 A Natural History of New York City. Second edition. New York: Fordham University Press.
- Ritchie, William A.  
1980 The Archaeology of New York State. Harrison, New York: Harbor Hill Books.
- Ritchie, William A. and Robert E. Funk  
1973 Aboriginal Settlement Patterns in the Northeast. Memoir 20 of the New York State Museum and Science Service. Albany: The State Education Department.

Rutsch, Edward, Nan Rothschild, et al.

1983 Westside Highway Cultural Resource Survey, Archaeological Work Program: Cultural Resources Research. Historic Conservation and Interpretation, Inc., New Jersey.

Schuberth, Christopher J.

1968 The Geology of New York City and Its Environs. New York: The Natural History Press.

Snow, Dean

1980 The Archaeology of New England. New York: Academic Press.

Solecki, Ralph S.

1974 "The 'Tiger,' An Early Dutch Seventeenth Century Ship, And An Abortive Salvage Attempt." Journal of Field Archaeology. Vol. 1, 1974.

United States Department of the Interior

1976 National Register of Historic Places. Washington, D.C.: National Park Service.

Vollmer Associates

1987 "West Side Highway Replacement Study. Technical Appendix 3, Archaeology/Landmarks/Historic Sites." Prepared for New York State Department of Transportation, New York City Department of Transportation, and New York City Department of City Planning.

1989 Route 9A Reconstructin, Preliminary Review of Existing Data and Proposed Subsurface Investigation. Prepared for NYS Department of Transportation, March 1989.

Wilson, Rufus Rockwell

1902 New York: Old and New. 2 Volumes. Philadelphia: J.B. Lippincott Co.

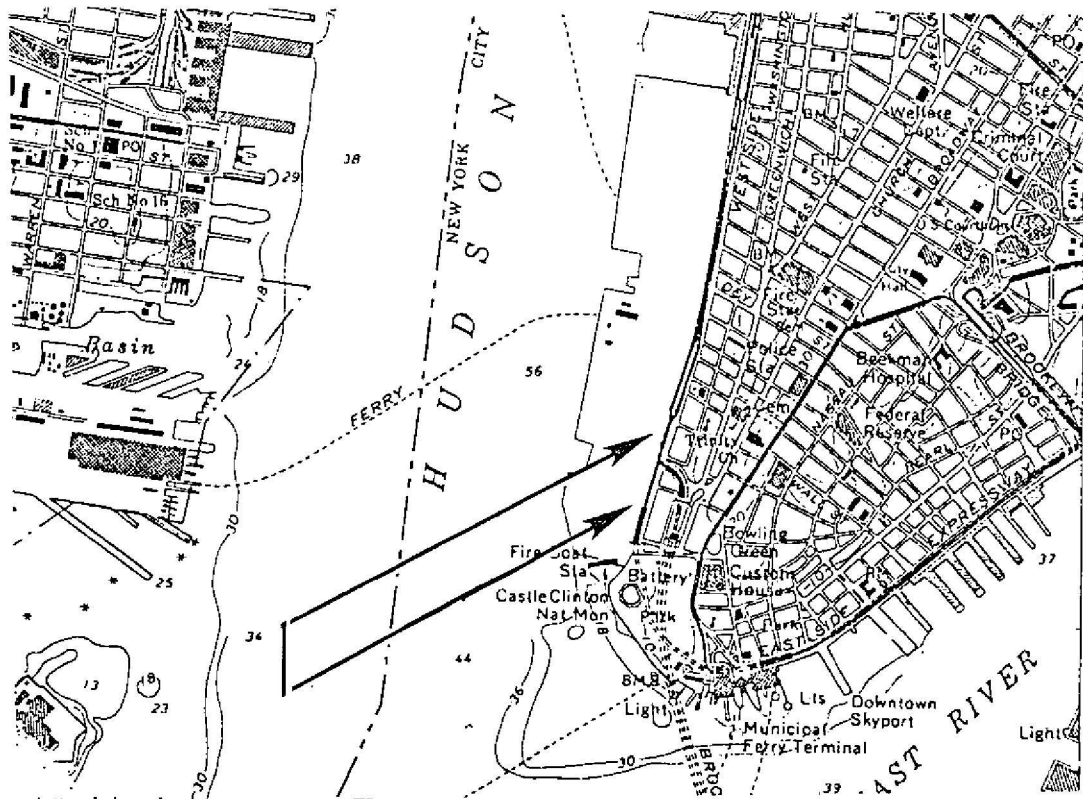
Works Progress Administration

1982 The WPA Guide to New York City. Revised edition. New York: Random House.

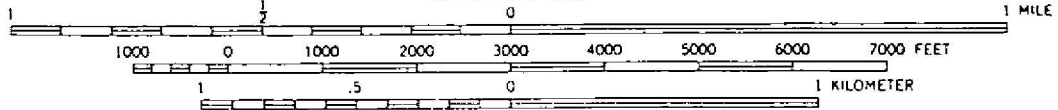
## Maps and Atlases

- Bromley, G. W. and Company  
 1959 Atlas of the City of New York. New York:  
 G. W. Bromley and Co.
- Bromley, George W. and William S. Bromley  
 1879 Atlas of the City of New York. Philadelphia:  
 G. W. and W. S. Bromley.
- 1897 Atlas of the City of New York. Philadelphia:  
 G. W. and W. S. Bromley.
- 1902 Atlas of the City of New York. 1899 updated to 1902.  
 Philadelphia: G. W. and W. S. Bromley.
- 1925 Atlas of the City of New York. 1922 updated to 1925.  
 Philadelphia: G. W. and W. S. Bromley.
- Burr, David H.  
 1839 Map of the City and County of New York With the  
 Adjacent Country. New York: Simeon DeWitt, Surveyor  
 General.
- 1846 Map of the City of New York. New York: David H. Burr.
- City of New York Department of Public Works Bureau of Sewage  
 Disposal Design  
 1964 Sheets 9 and 10. New York.
- Commissioners of New York State  
 1811 Map of the City of New York and Island of Manhattan.  
 New York: William Bridges.
- Dripps, Matthew  
 1852 Map of the City and County of New York. New York:  
 Matthew Dripps.
- 1854 Topographical Map of the City of New York. New York:  
 Matthew Dripps.
- Ewen, Daniel  
 1827- Maps and Surveys of the City of New York. Volume 6.  
 1830 New York: Daniel Ewen.
- Hooker, W.  
 1824 Plan of the City of New York. New York: W. Hooker.
- 1838- Pocket Plan of the City of New York. New York:  
 1839 W. Hooker.
- Hyde, E. Belcher  
 1913 Atlas of the City of New York. 1906 updated to 1913.  
 New York: E. Belcher Hyde.

- 1950 Atlas of the City of New York. 1906 updated to 1950.  
New York: E. Belcher Hyde.
- Longworth, David H.  
1808 Plan of the City of New York. New York: David Longworth.
- 1817 Actual Map and Comparative Plan of New York. New York: David Longworth.
- Lyne, James  
1729 Plan of New York in 1729. New York: James Lyne.
- MacCoun, Townsend  
1909 The Hudson River (Cahohatatea) at the Time of Its Discovery by Henry Hudson, 1609. New York: Townsend MacCoun.
- Poppleton, T.  
1817 North River Shore, Battery to 75th Street: A Map of Property on the North Side of Marketfield Street Between Broadway and Fifty-Third to Fifty-Ninth. New York: R. Graves Co.
- Robinson, E. and R. H. Pidgeon  
1885 Robinson's Atlas of the City of New York. New York: E. Robinson and R. H. Pidgeon.
- 1893 Atlas of the City of New York. New York: E. Robinson and R. H. Pidgeon.
- Street Commissioner's Office  
1860 Maps of the Wharves and Piers. New York City.
- Subsurface Conditions Map  
1971 Sheets 6 and 11. Original date 1937, updated to 1971.  
New York City: Department of General Services.
- Taylor, B. and J. Roberts  
1797 A New and Accurate Plan of the City of New York in the State of New York in North America. New York: S. Haywood.



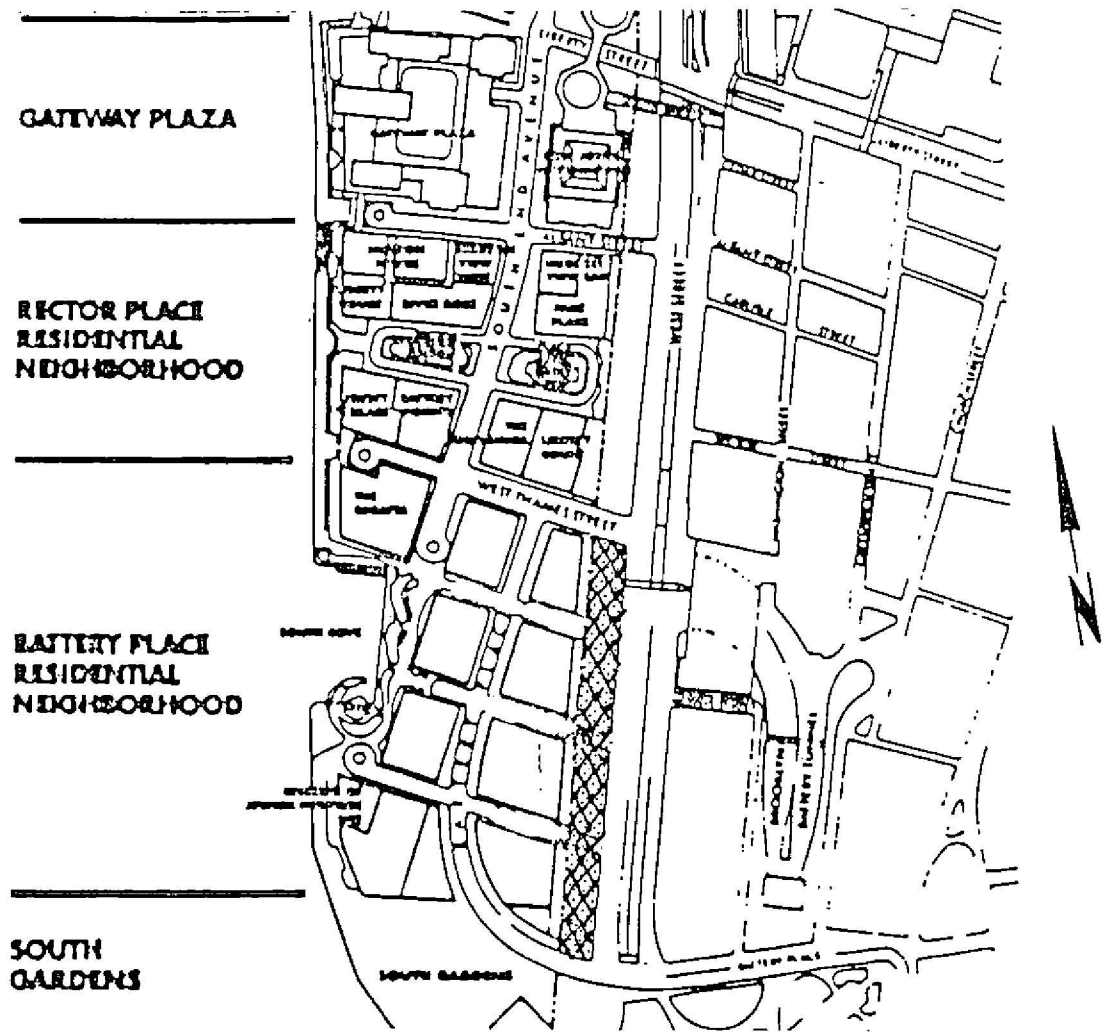
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Project Area  
Jersey City Quadrangle

1967 Topographic Quad  
1981 Photorevised

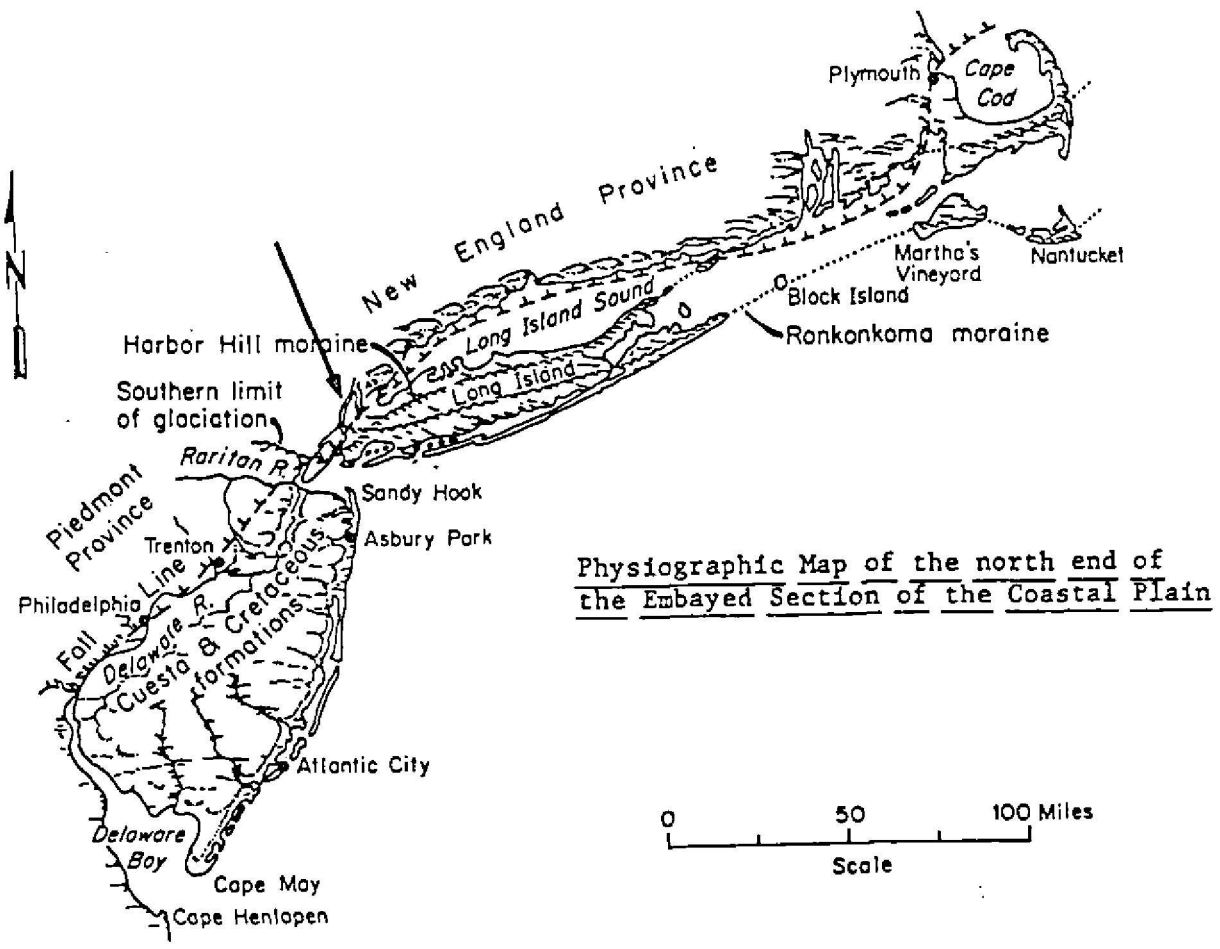




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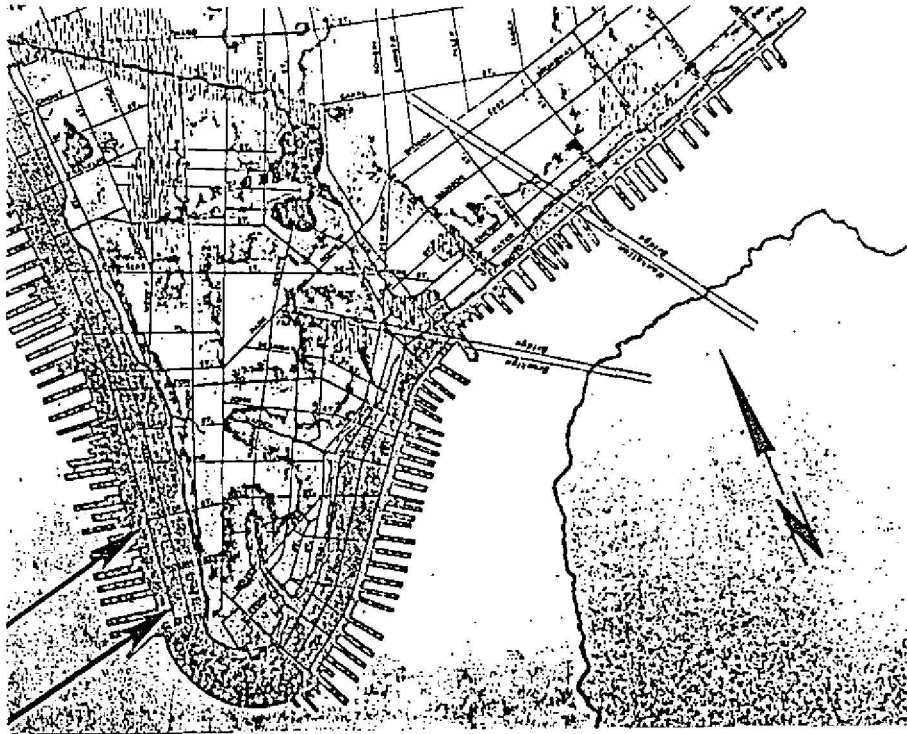
 Project Area

Project Area: Map Supplied by Client

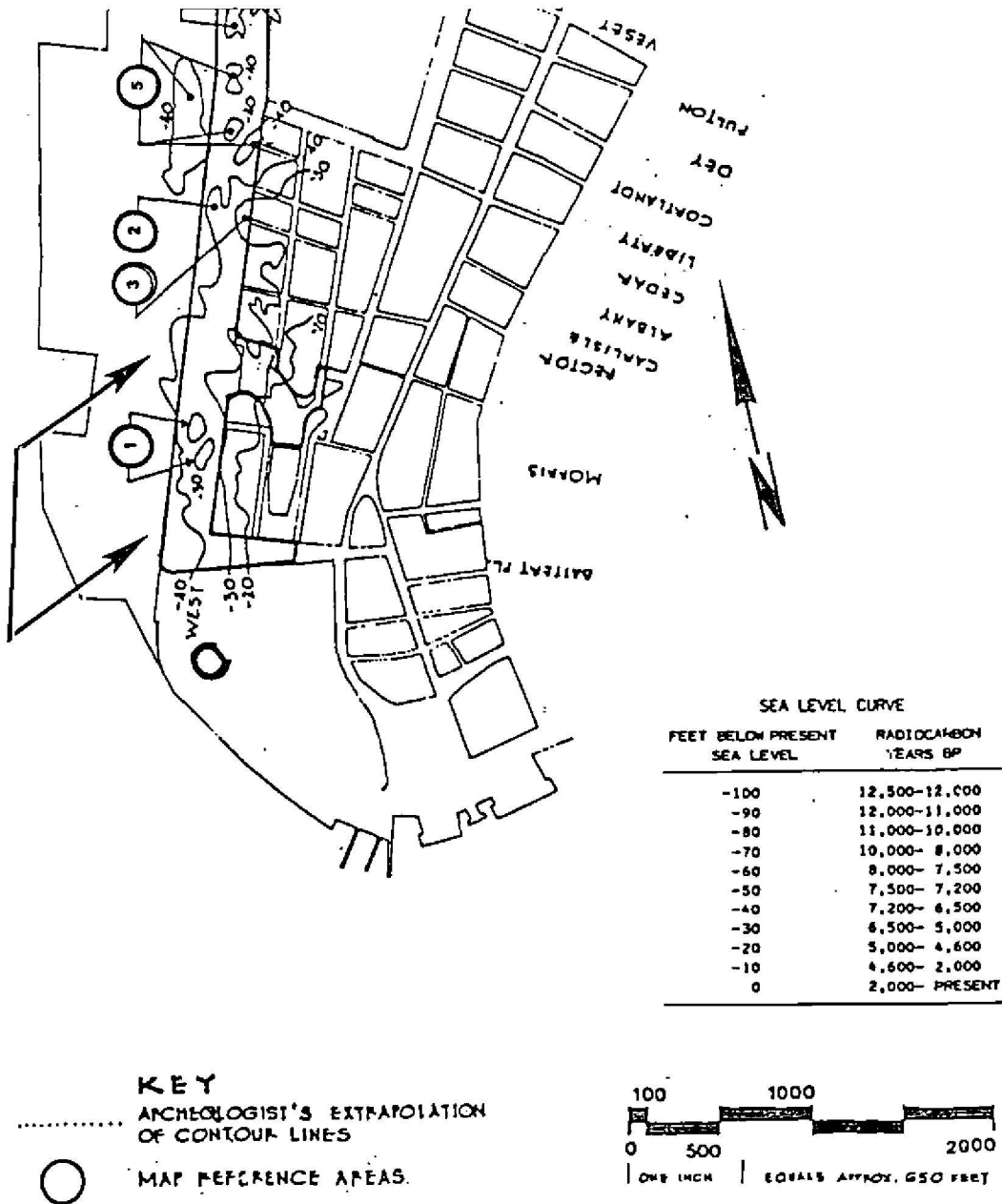


Physiographic Map of the north end of the Embayed Section of the Coastal Plain

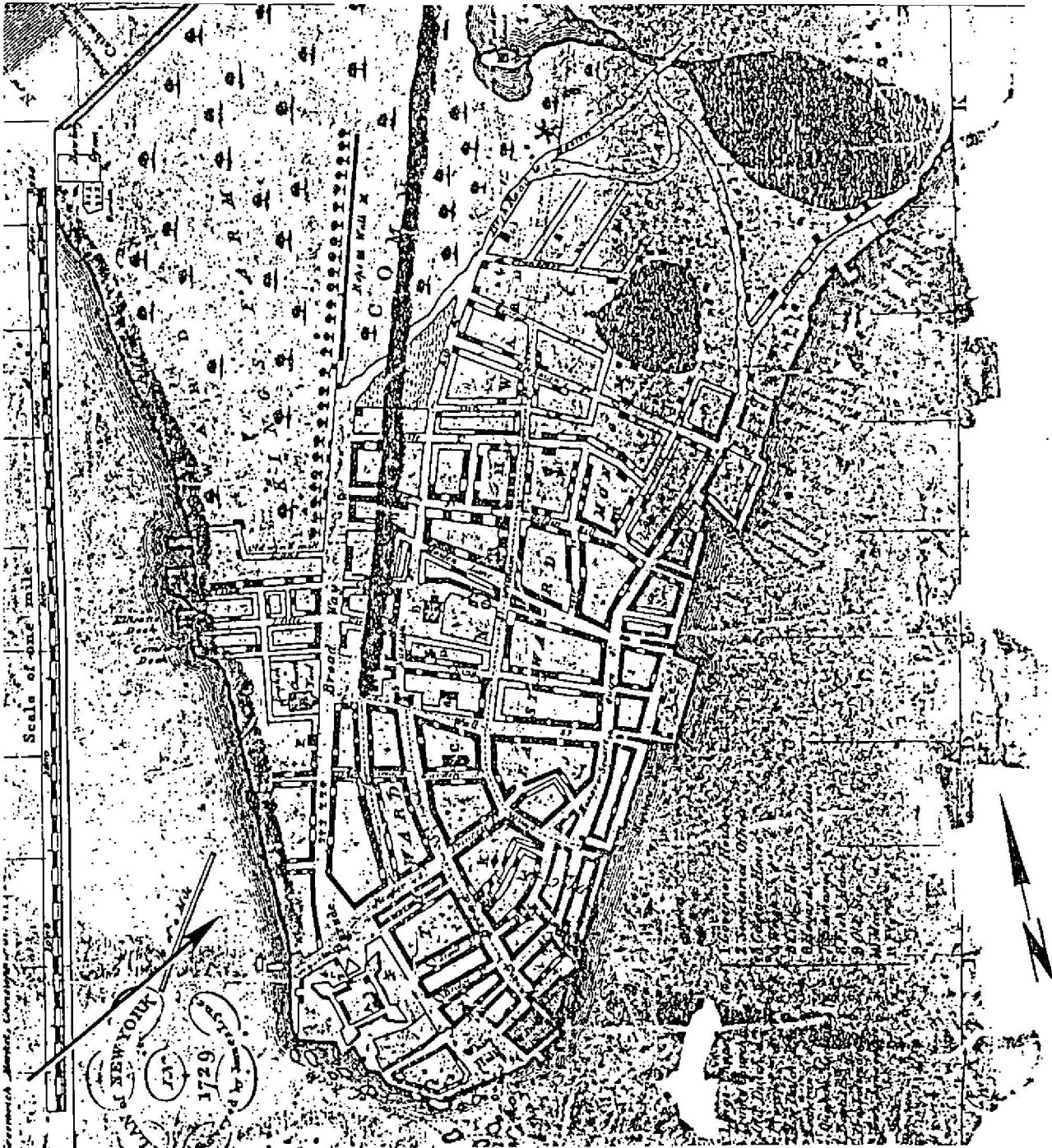
Physiographic Map  
(Eisenberg 1976:10)



The Hudson River (Cahohatatea) At The Time  
of Its Discovery by Henry Hudson - 1609  
(MacCoun 1909)



Prehistoric Sites Identified During the Westway Project Investigation (Rutsch et al. 1983:48)



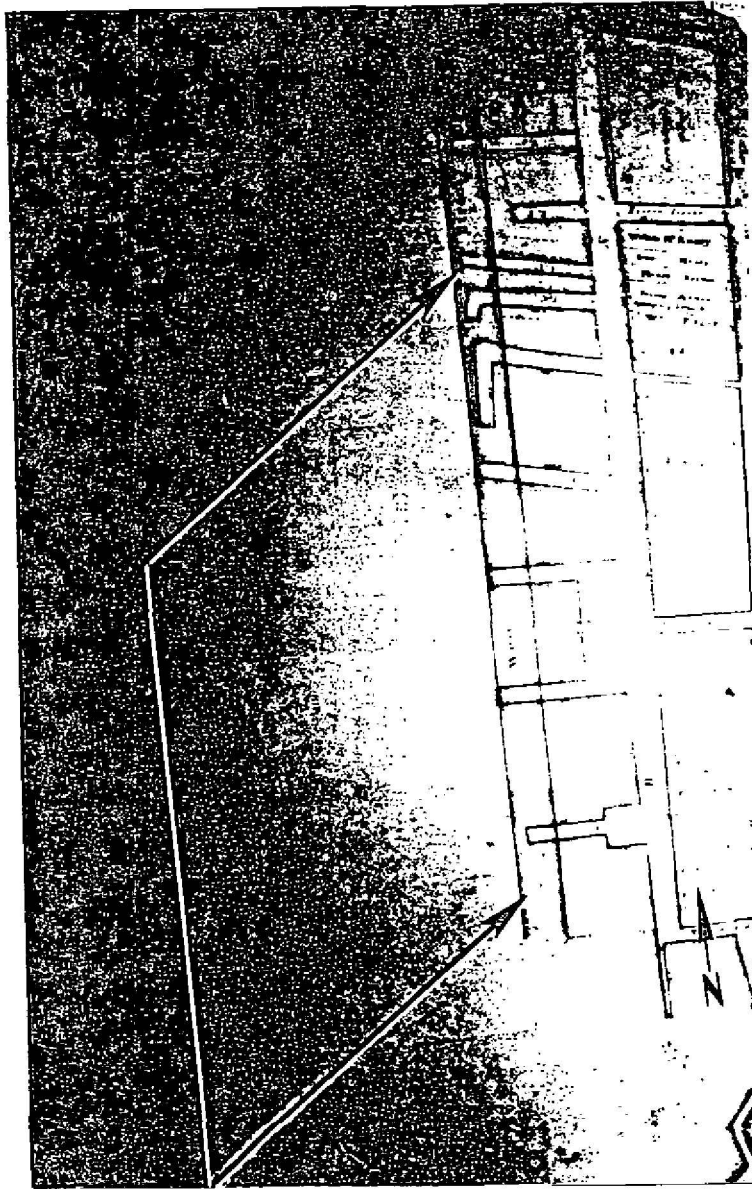
Plan of New York in 1729 (Lyne 1729)



A New and Accurate Plan of the City of New York in the State of New York in North America (Taylor-Roberts 1797)

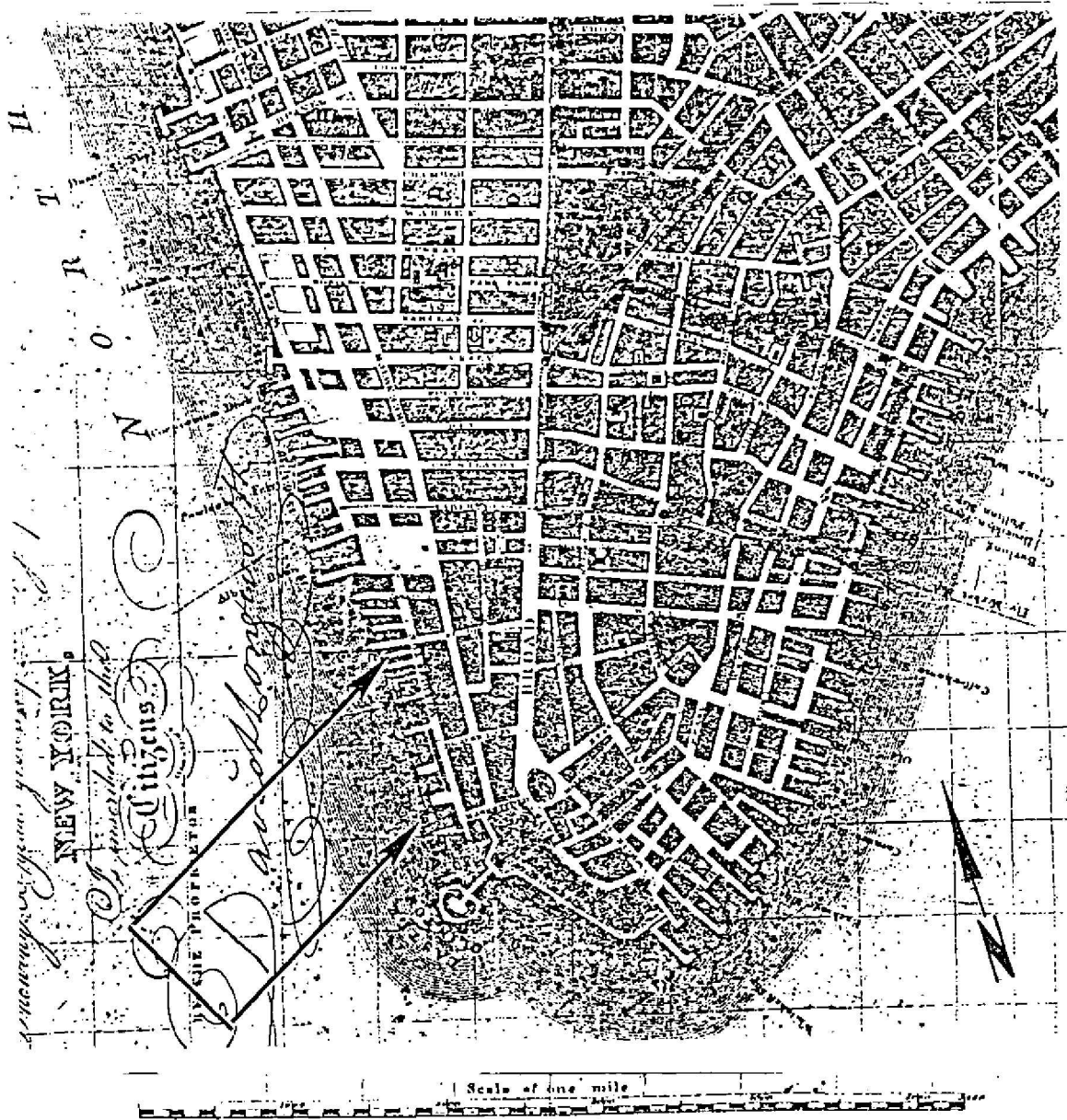


Plan of the City of New York (Longworth 1808)



North River Shore, Battery to 75th Street  
(Poppleton 1817)





Actual Map and Comparative Plan of New York  
(Longworth 1817)



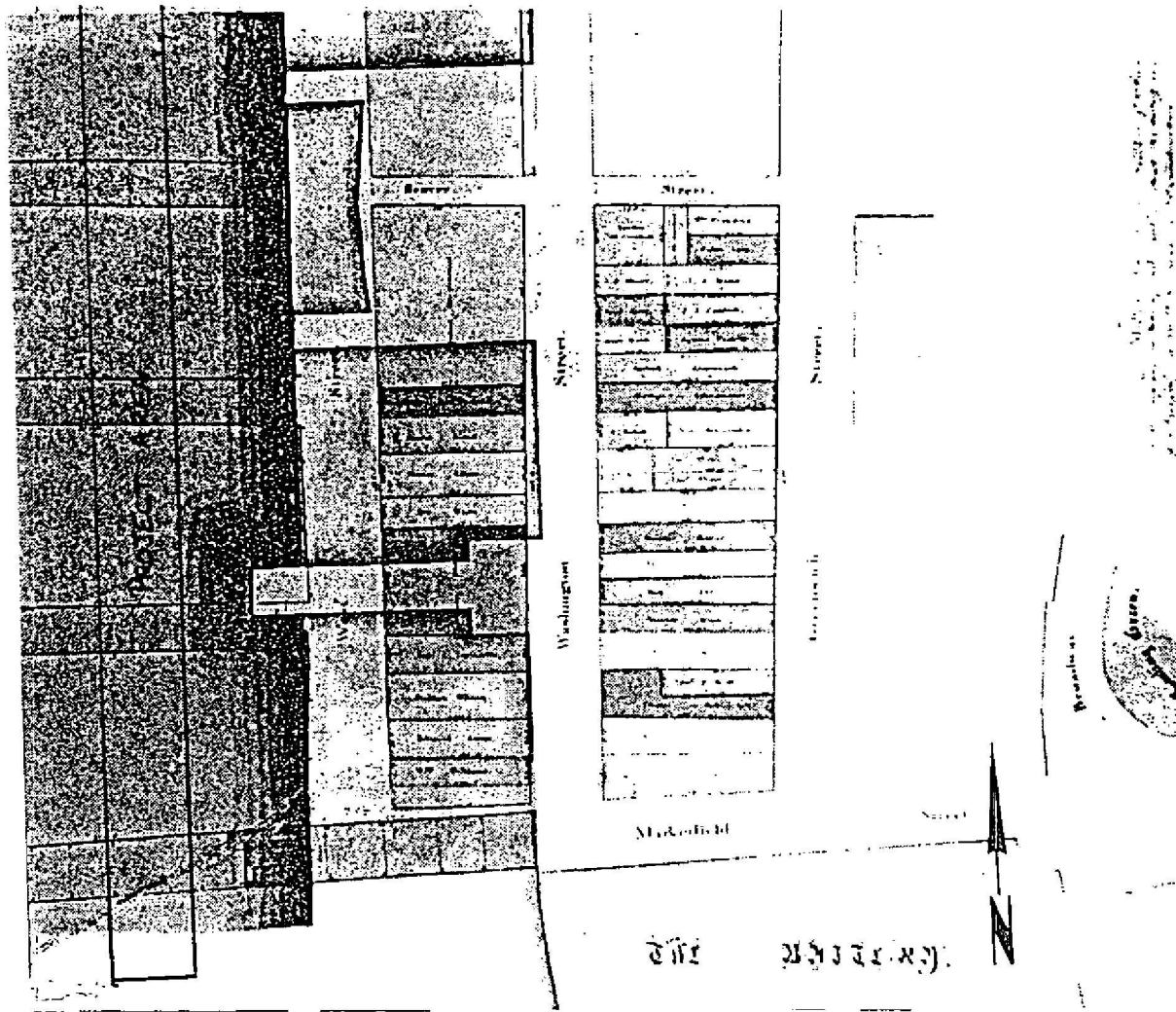


Plate 2 of the 1827-30 Ewen Waterfront Map Series  
(Rutsch et al. 1983:80)

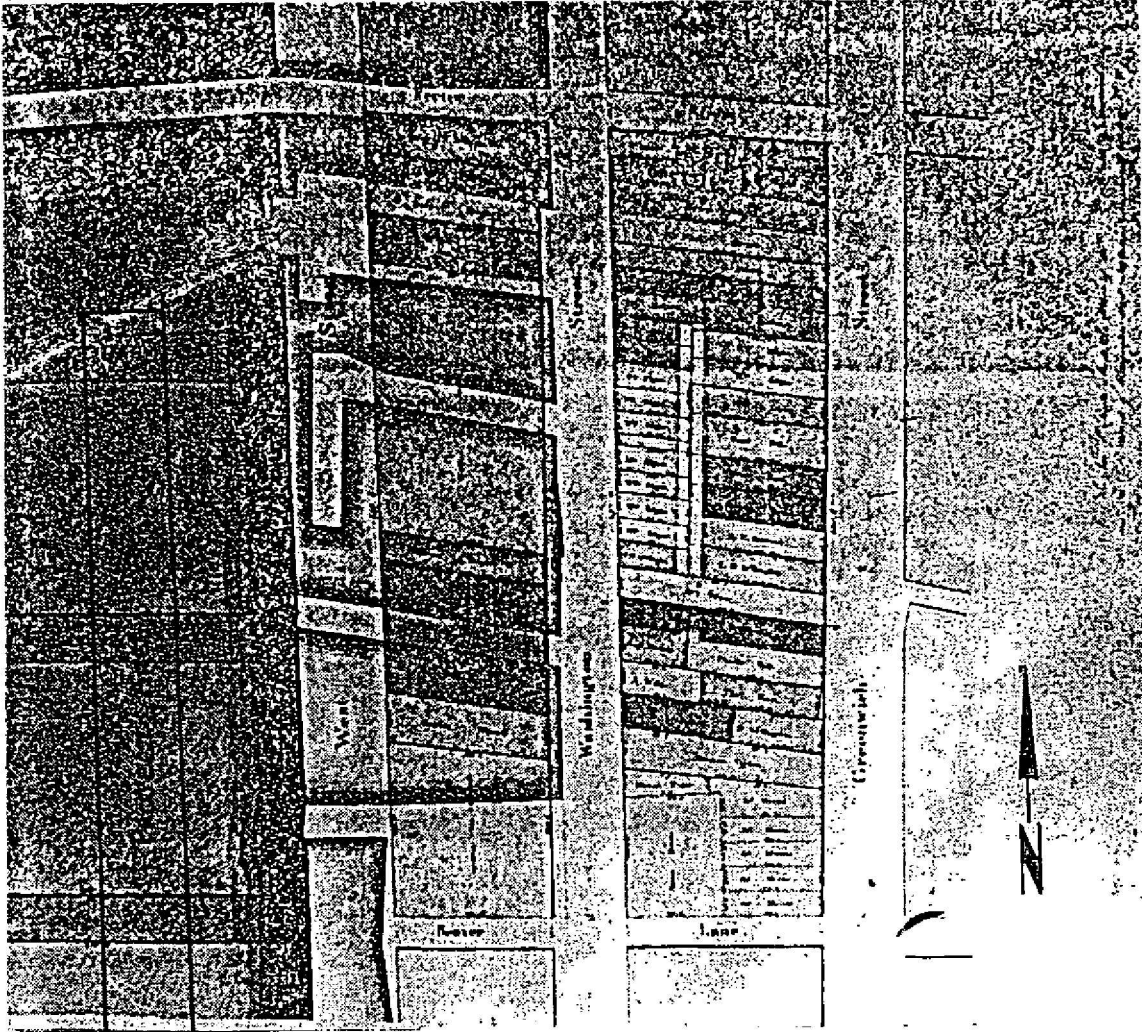
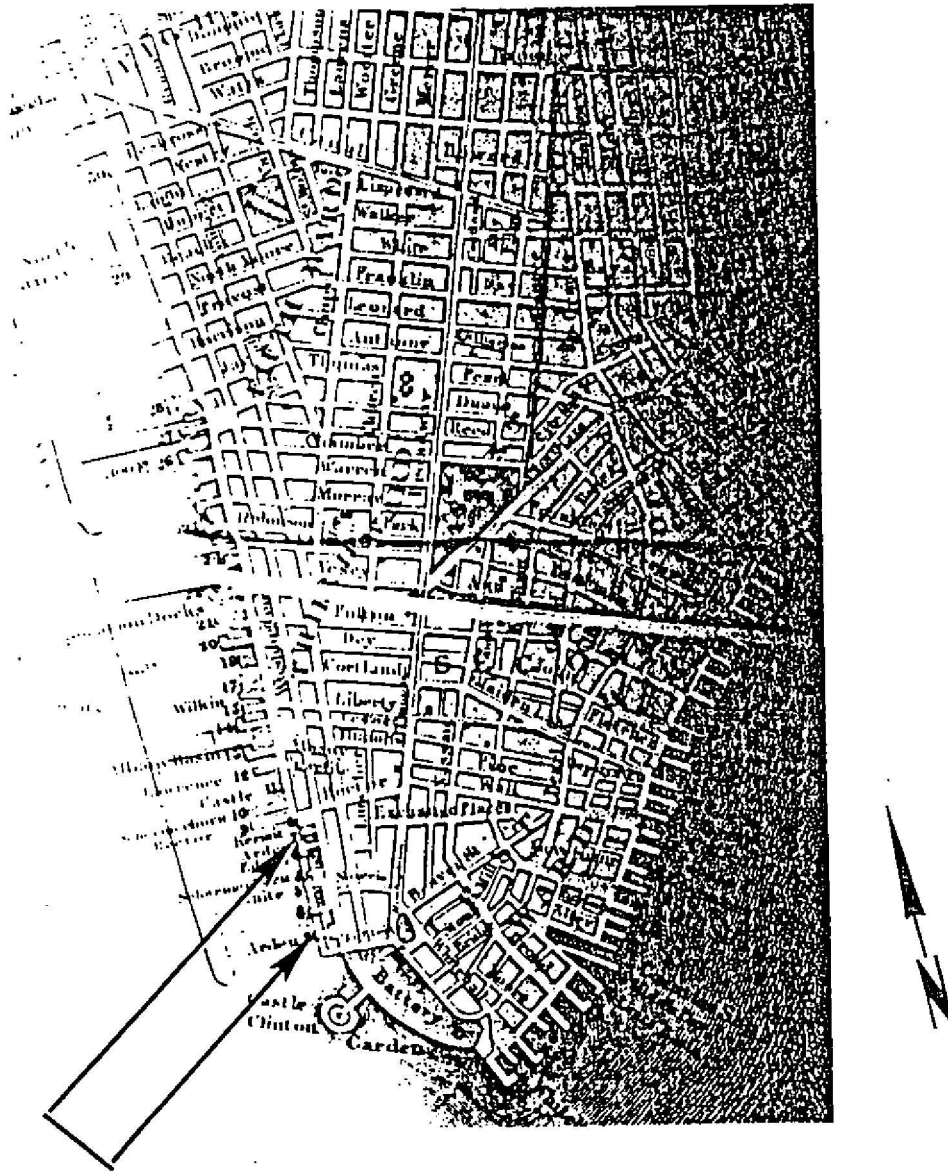


Plate 3 of the 1827-30 Ewen Waterfront Map Series  
(Rutsch et al. 1983:81)

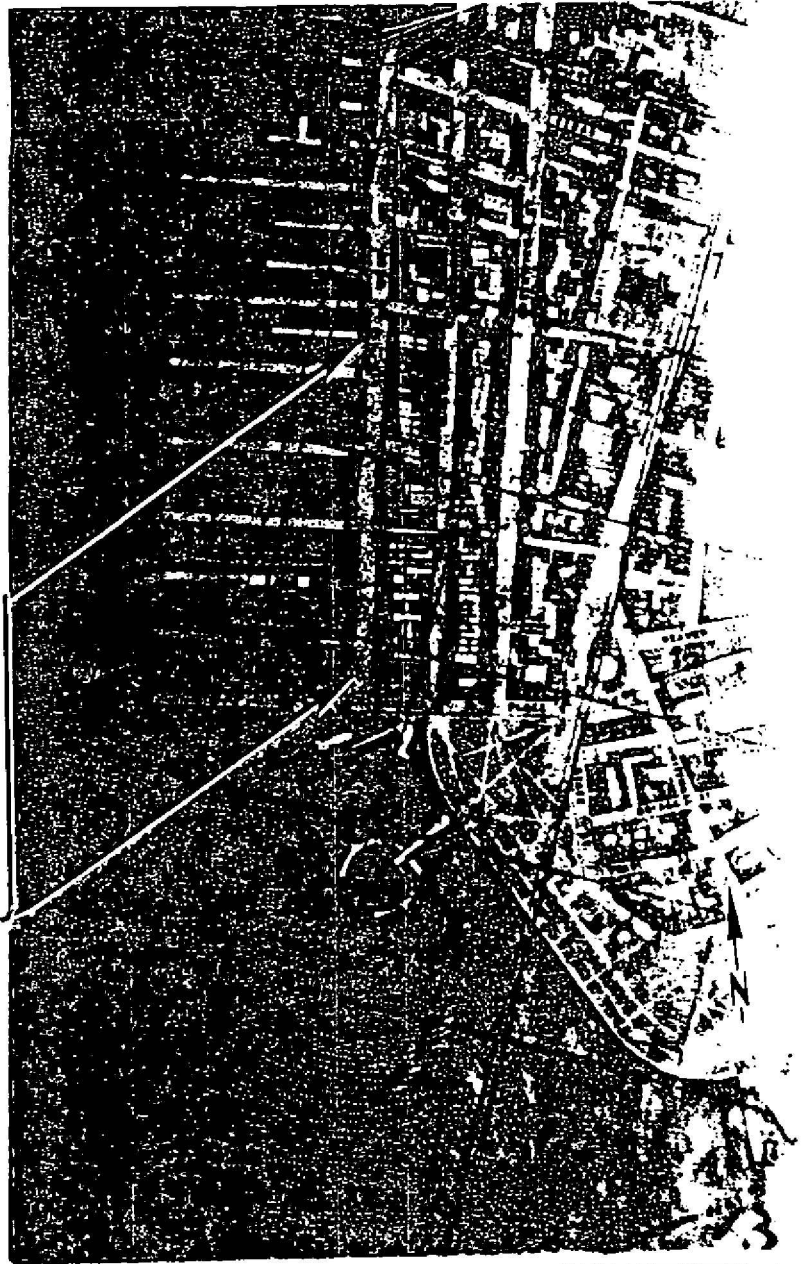




Map of the City and County of New York With  
the Adjacent Country (Burr 1839)

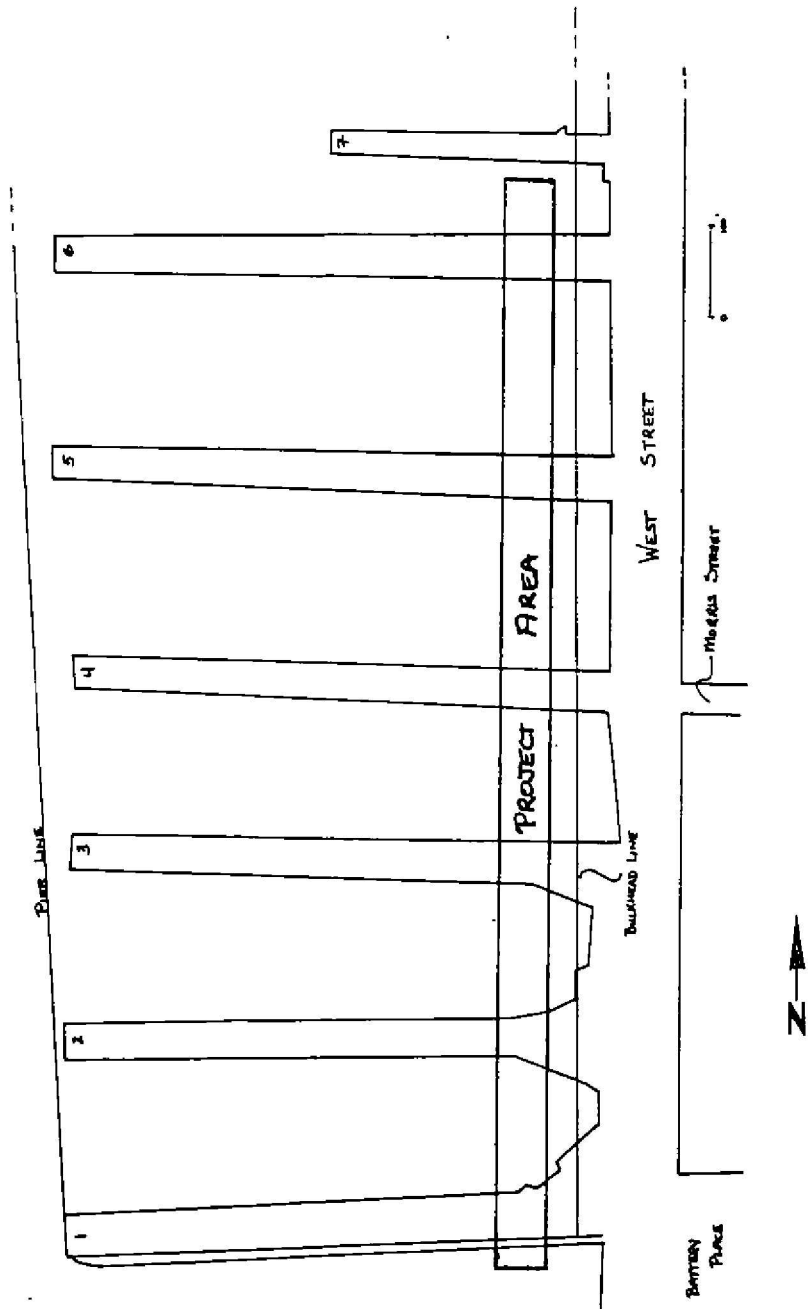


Map of the City of New York (Burr 1846)

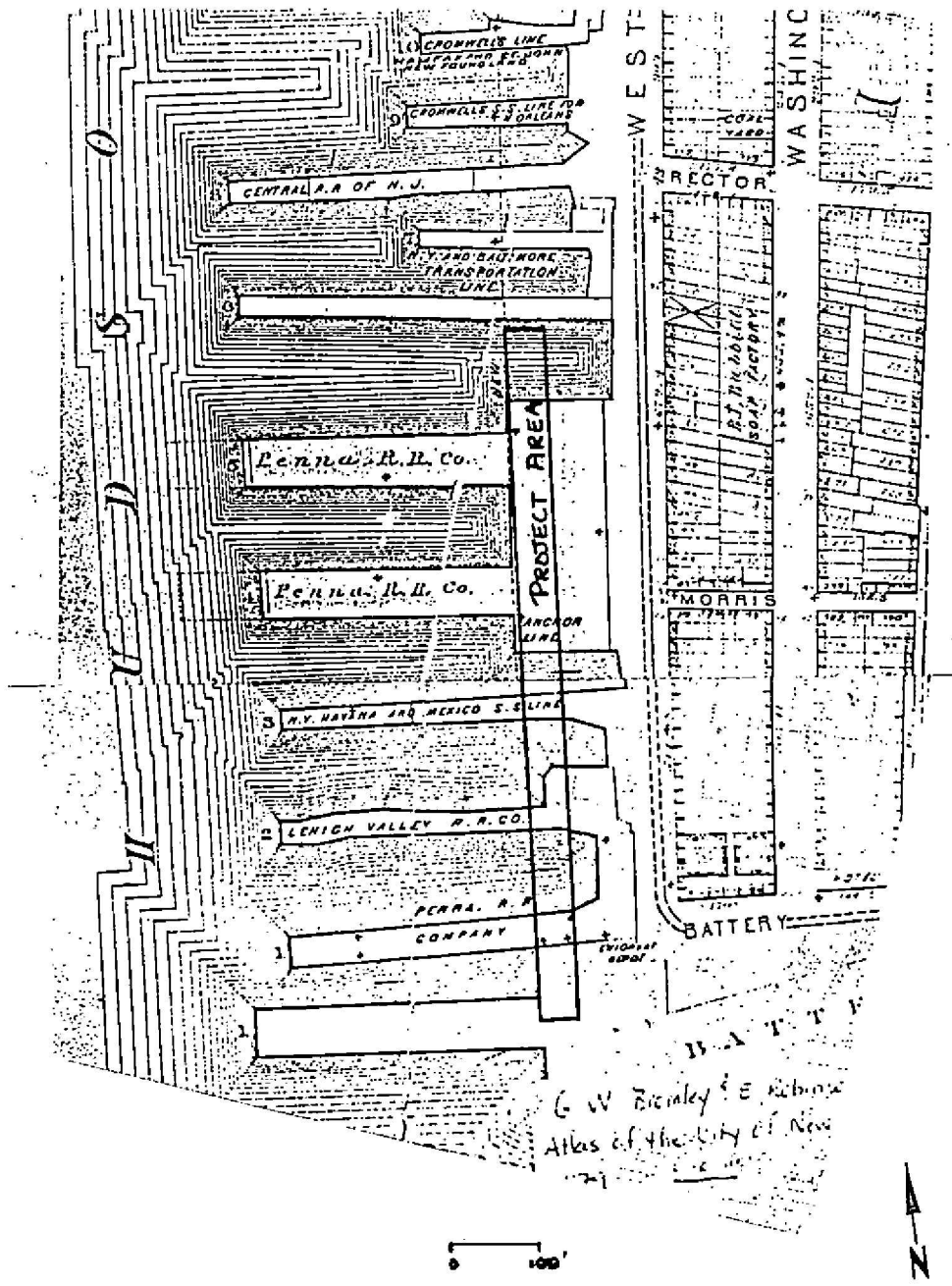


Map of the City of New York Extending Northward  
to 50th Street (Dripps 1852)

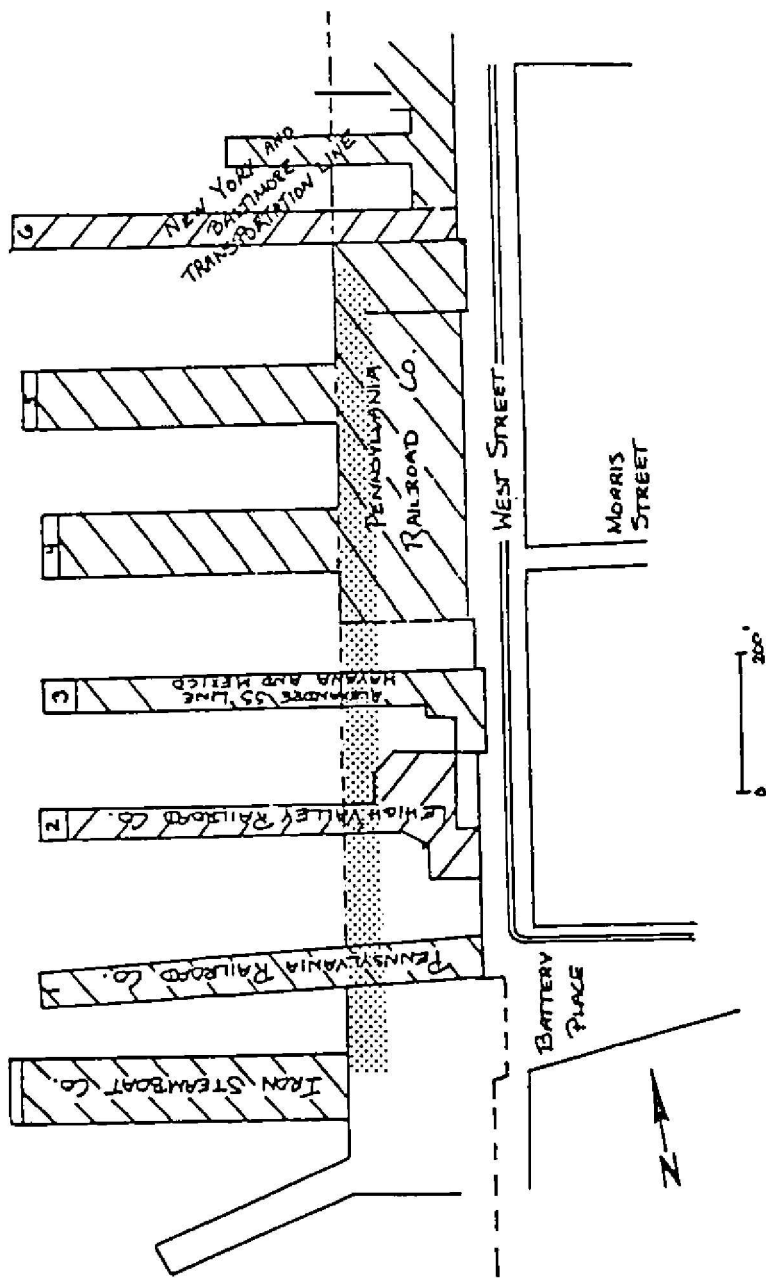




Maps of the Wharves and Piers  
(Street Commissioners Office 1860)



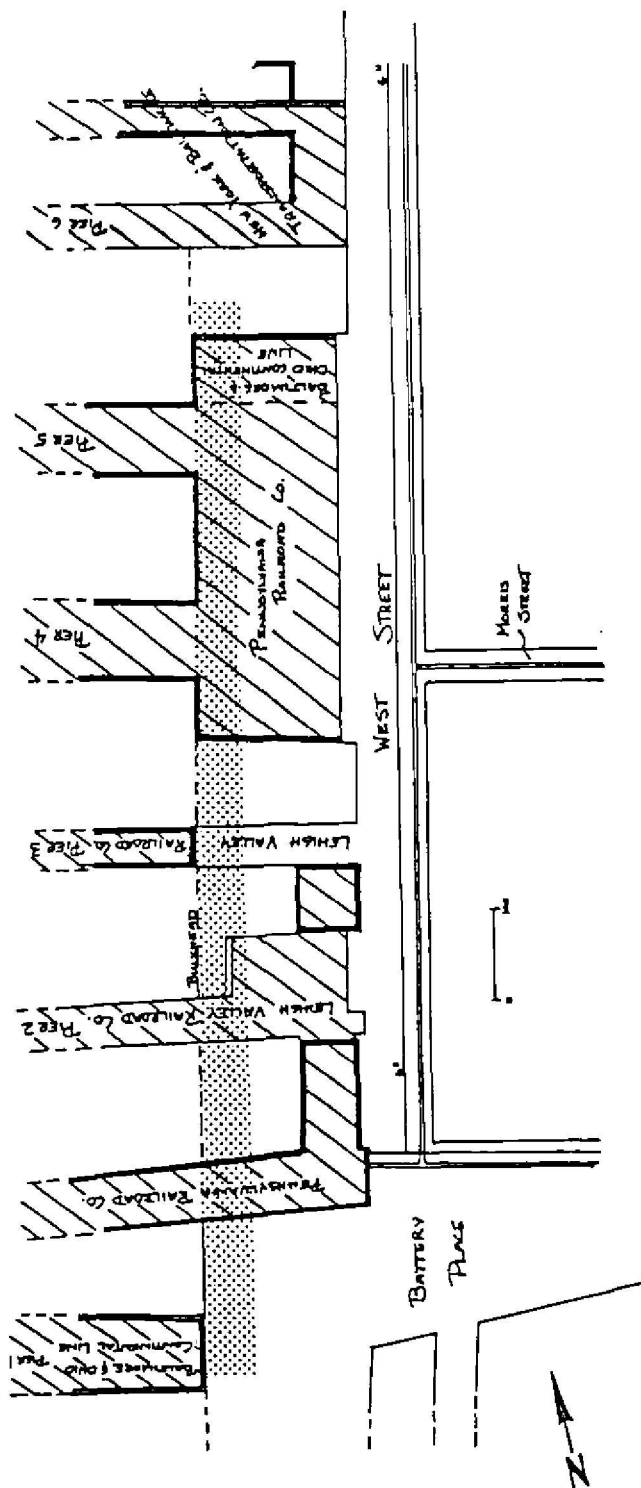
Atlas of the City of New York, Plate 1  
(G.W. and W.S. Bromley 1879)



LEGEND:

-  PROJECT AREA
-  Iron
-  Wood

Robinson's Atlas of the City of New York, Plate 2  
(E. Robinson and R. H. Pidgeon 1885)



LEGEND



PROJECT AREA

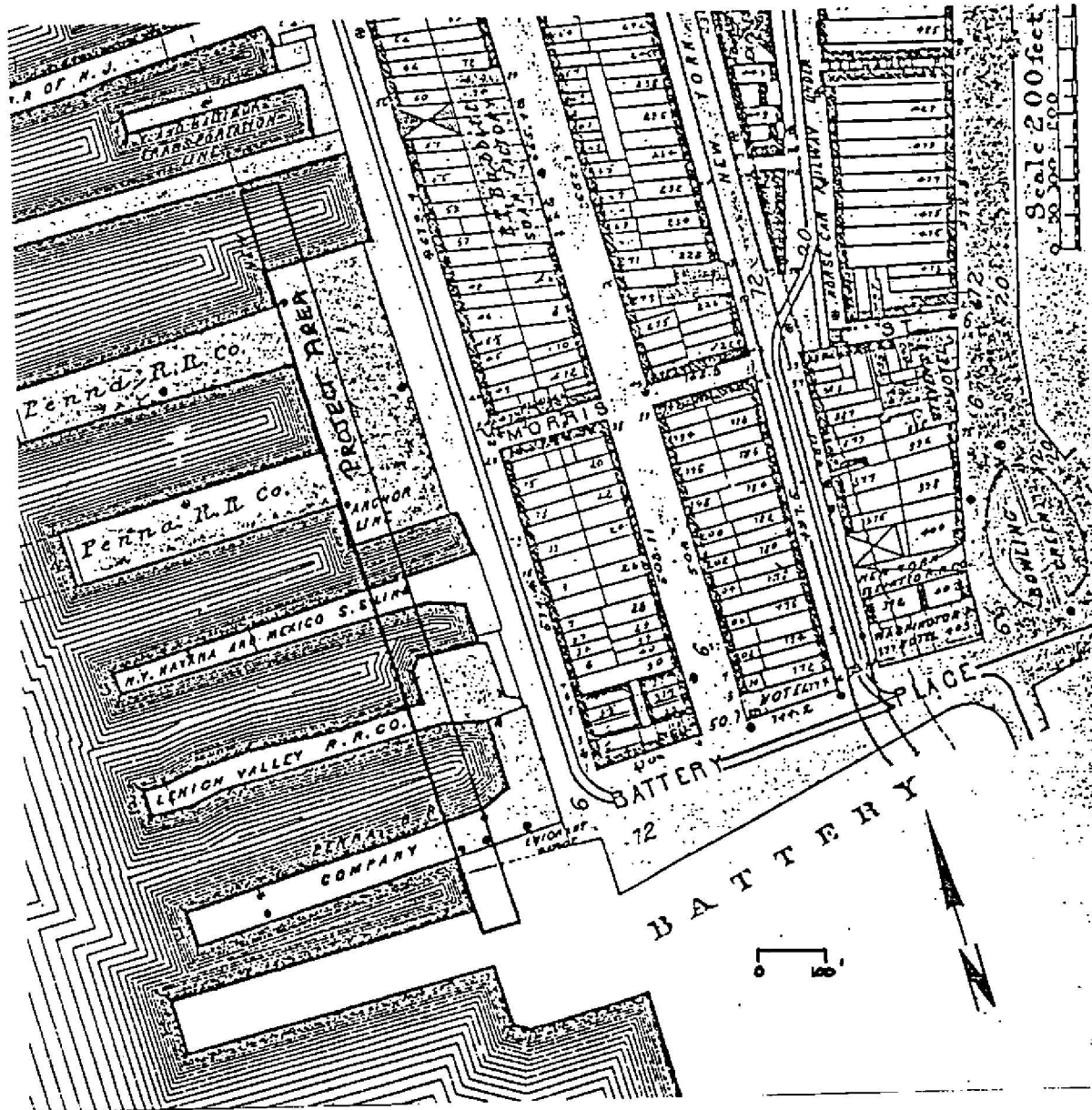


WOOD

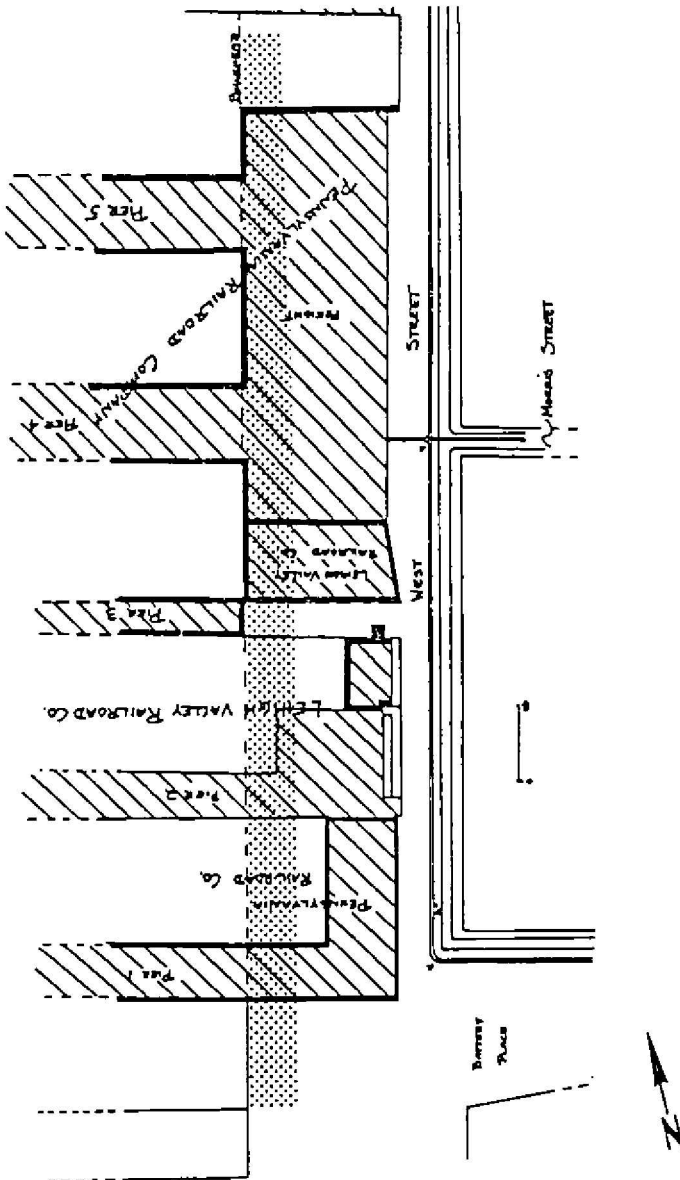


WOOD WITH IRON FACADE

Atlas of the City of New York, Volume 4, Plate 1  
 (E. Robinson and R. H. Pidgeon 1893)



Atlas of the City of New York, Volume 1, Plate 1  
(G.W. and W.S. Bromley 1897)



LEGEND:



PROJECT AREA

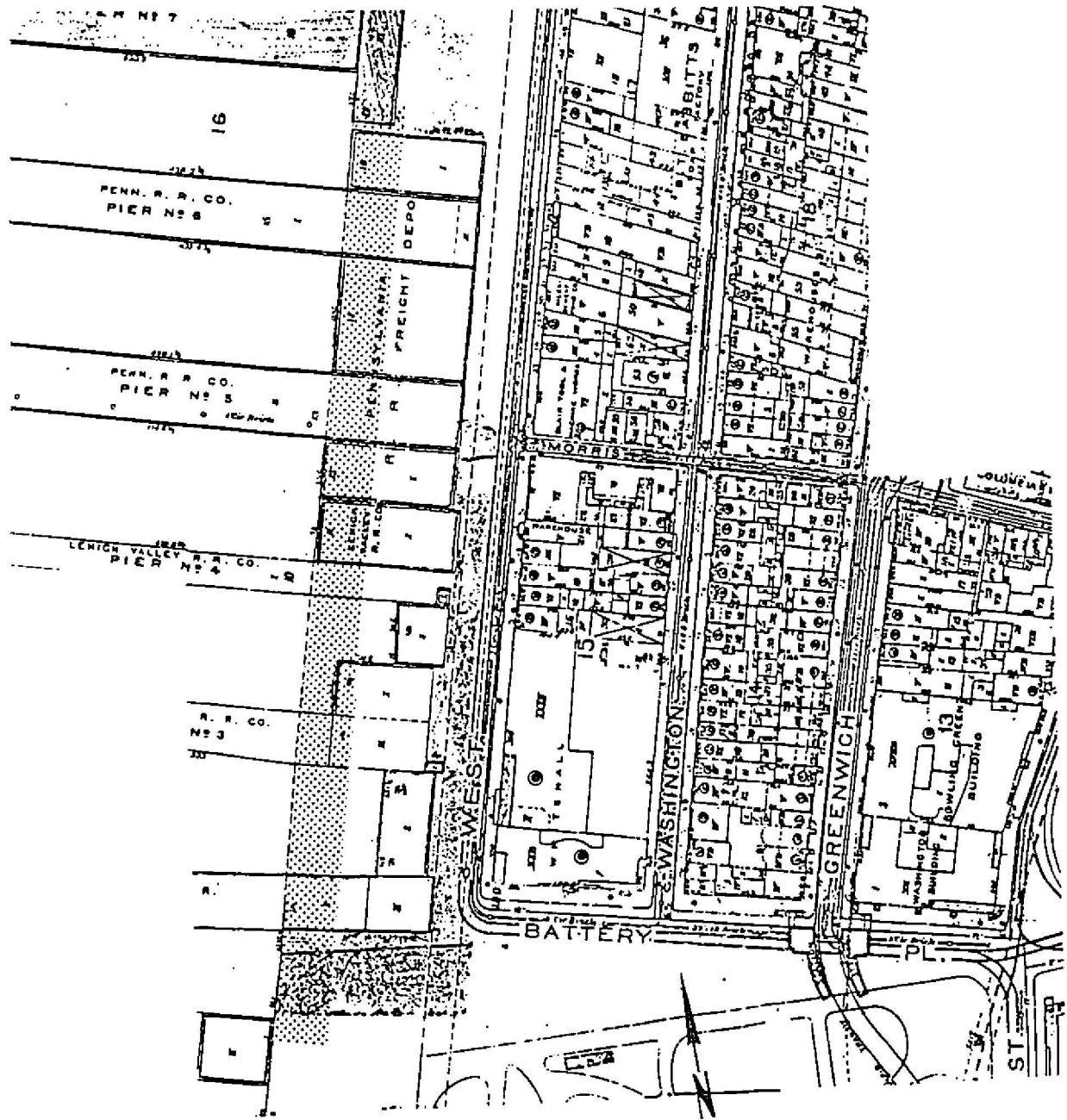


WOOD



WOOD WITH IRON FACADE

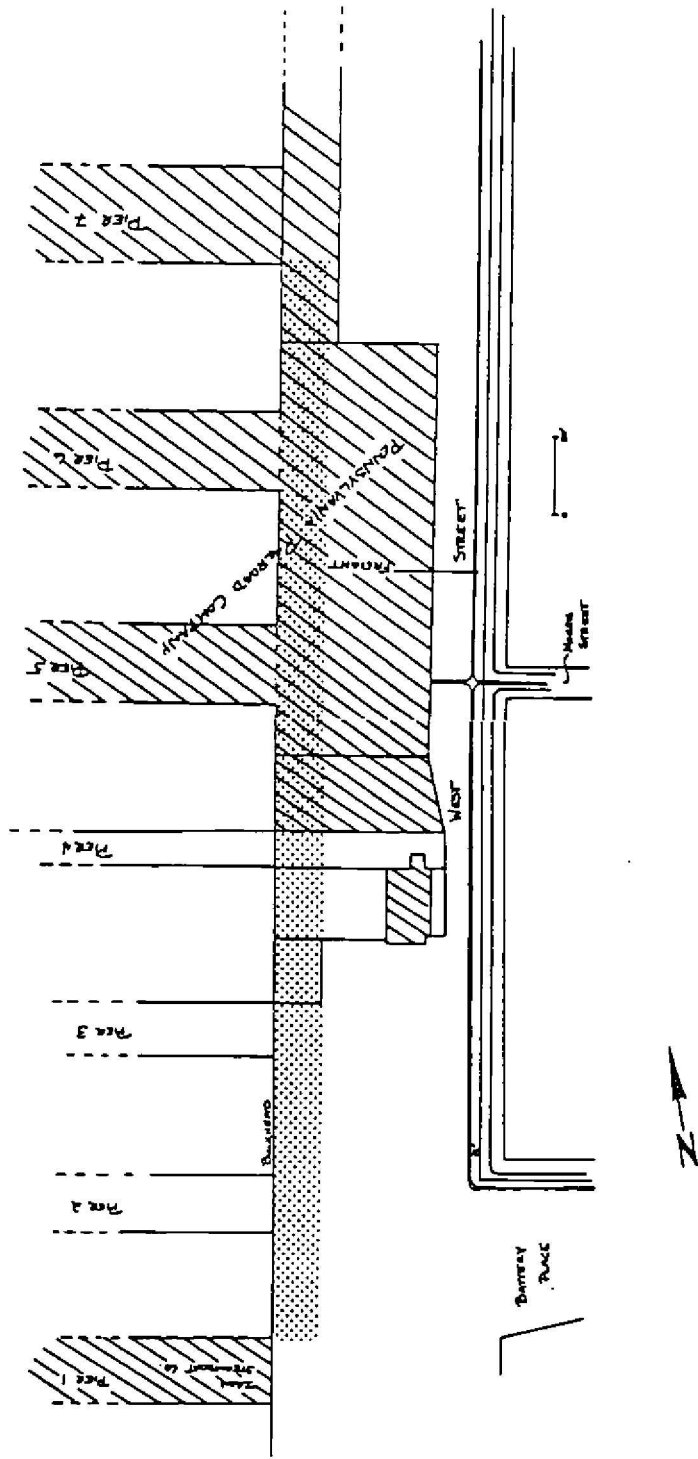
Atlas of the City of New York, Volume 1, Plate 2  
(G.W. and W.S. Bromley 1899 updated to 1902)



LEGEND:

 PROJECT AREA

Atlas of the City of New York, Volume 2, Plate 2  
(E. Belcher Hyde 1906 updated to 1913)



LEGEND:



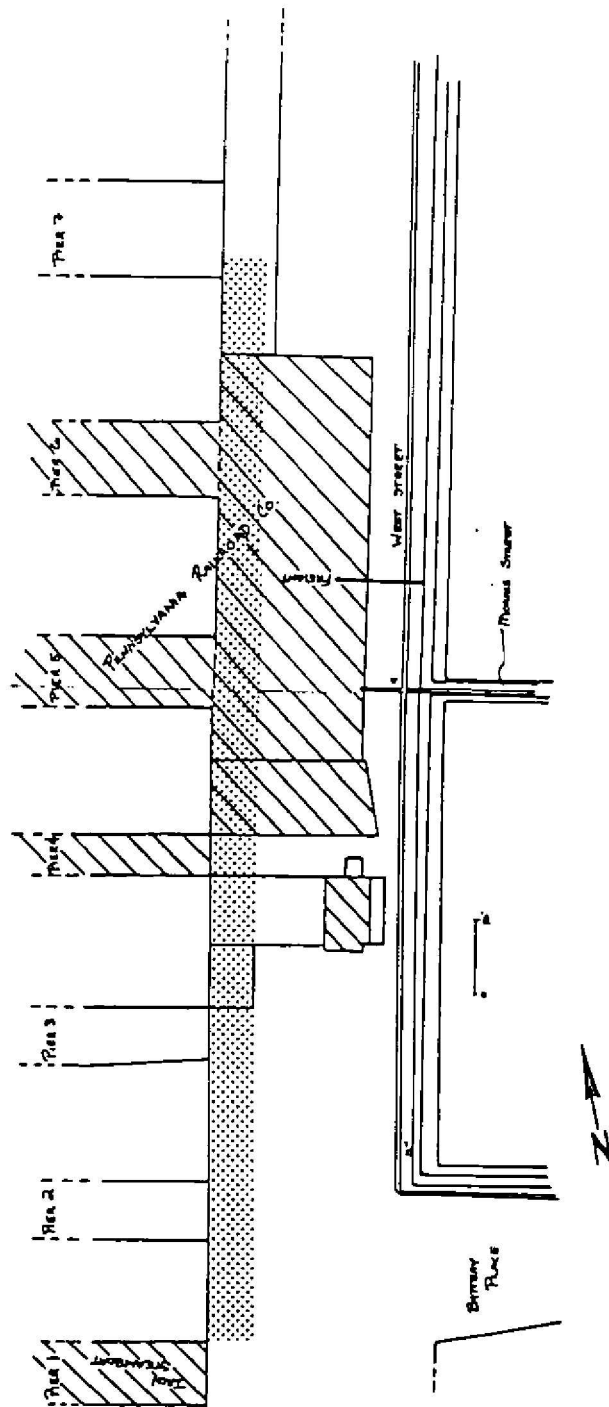
PROJECT AREA



WOOD

Atlas of the City of New York, Volume 1, Plate 2  
(G.W. and W.S. Bromley 1922 updated to 1925)





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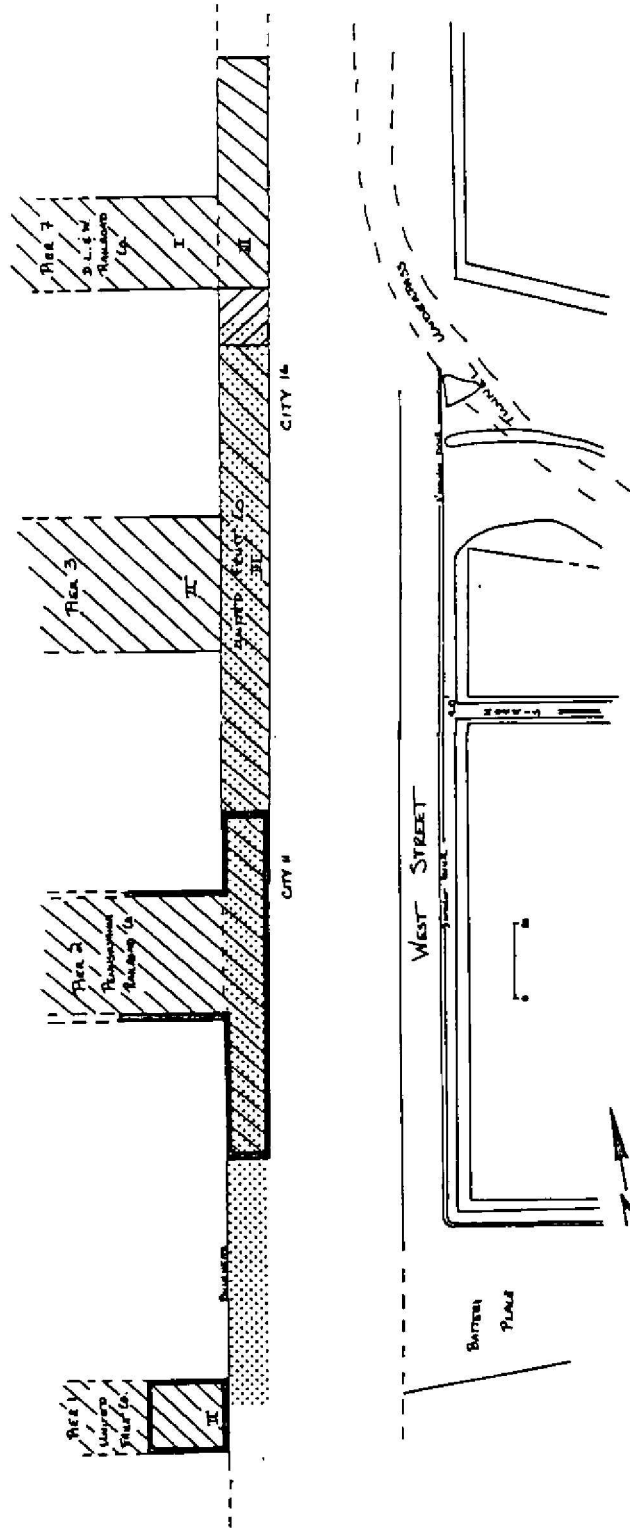


PROJECT AREA



WOOD

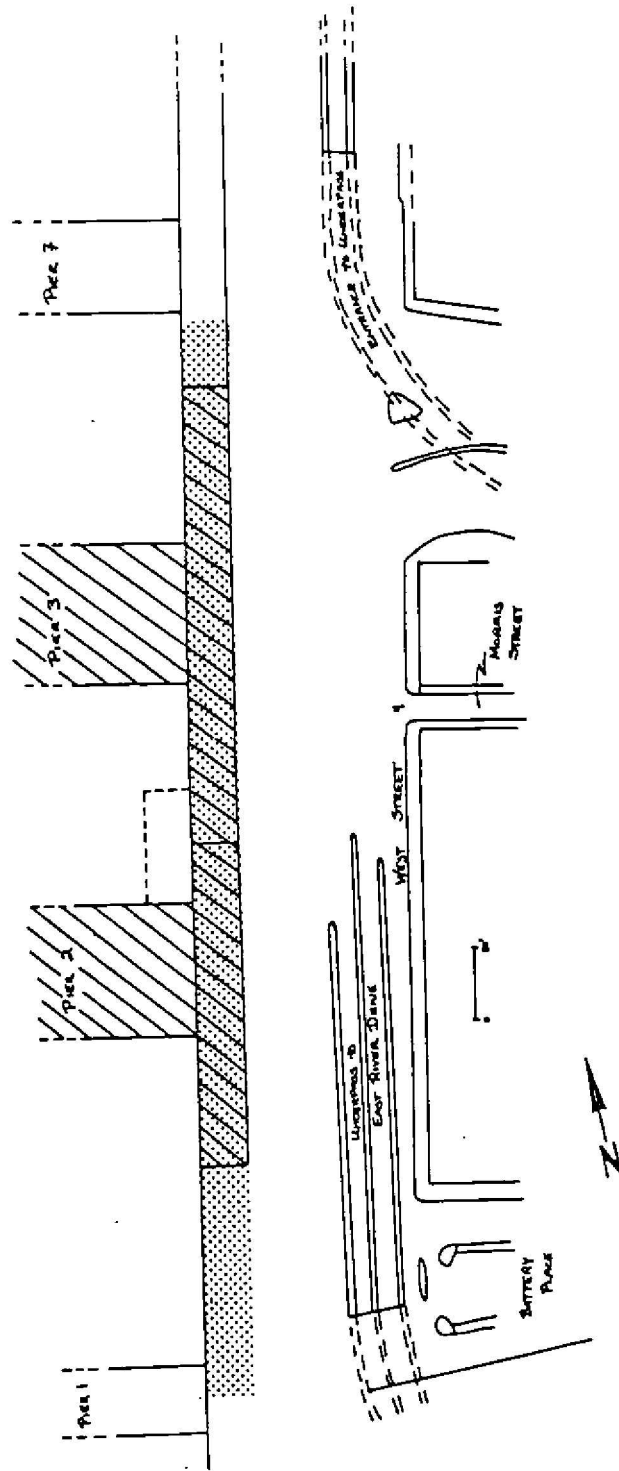
Atlas of the City of New York, Volume 1, Plate 2  
(G.W. and W.S. Bromley 1922 updated to 1932)



Legend:

- 
 PROJECT AREA
- 
 WOOD
- 
 WOOD WITH IRON FACADE

Atlas of the City of New York, Volume 2, Plate 2  
 (E. Belcher Hyde 1906 updated to 1950)



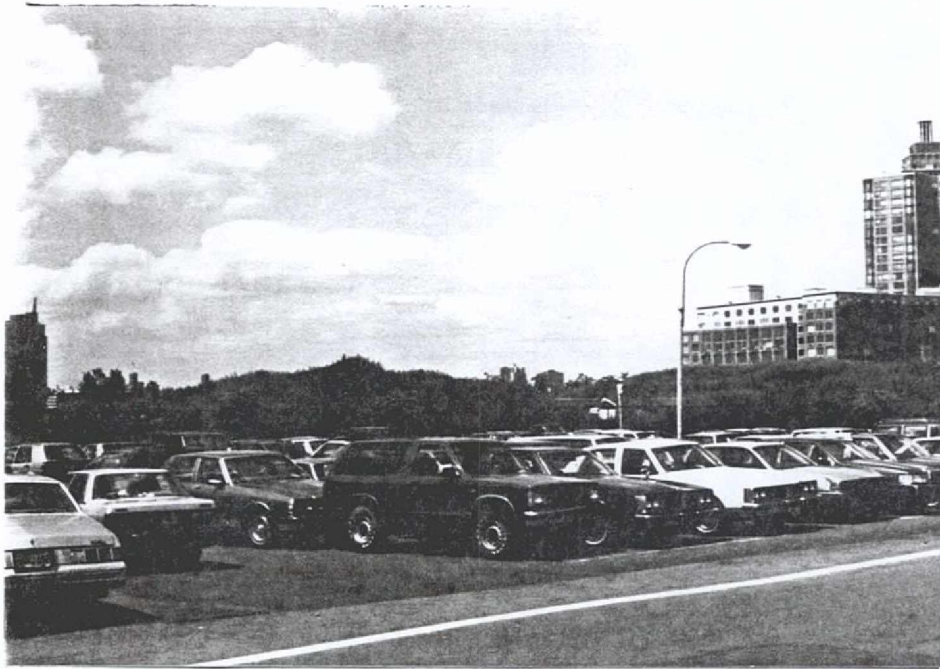
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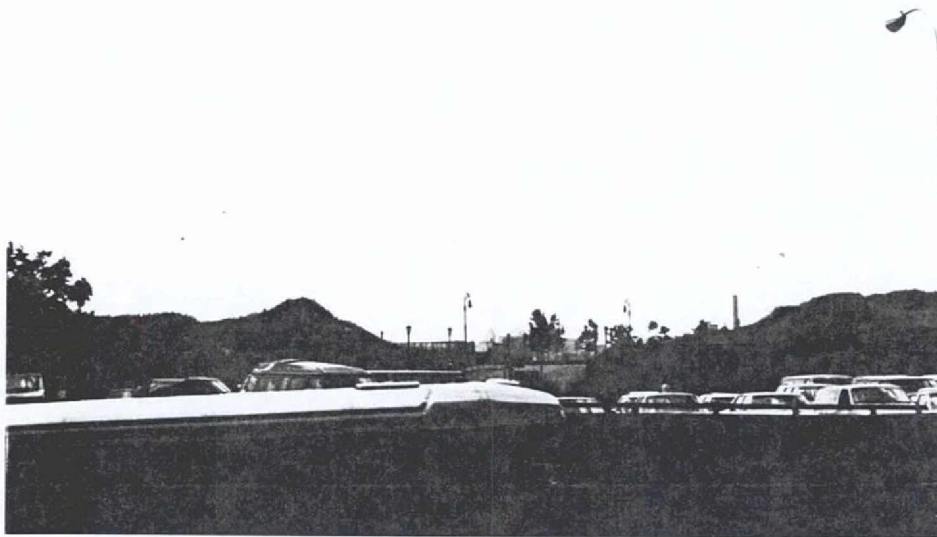
PROJECT AREA



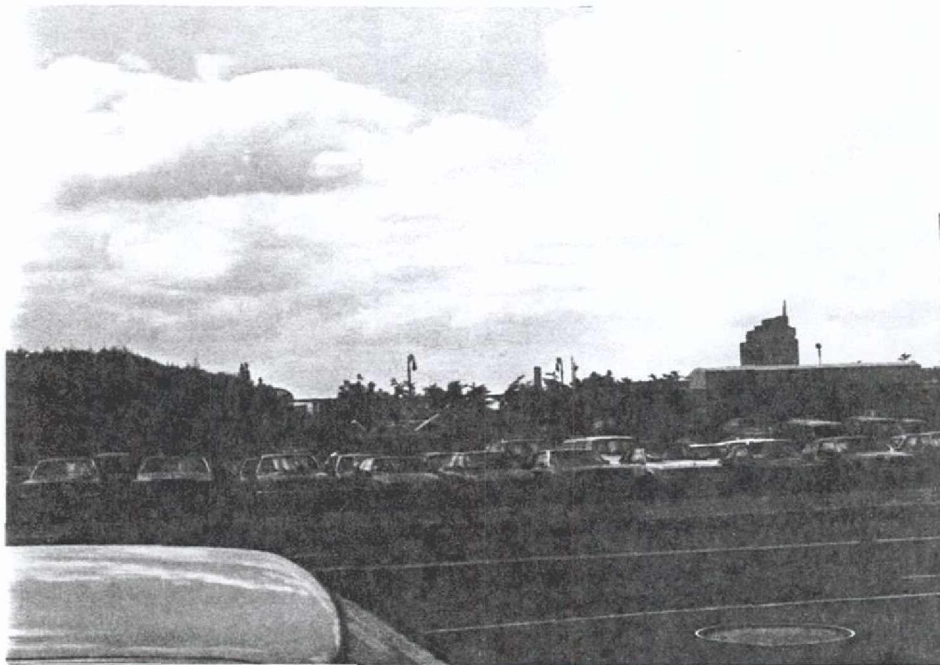
WOOD



1. Project Area looking northwest from Battery Place



2. Project Area looking west toward First Place



3. Project Area looking west toward Second Place



4. Project Area looking southwest from Brooklyn-Battery Tunnel Entrance



5. Northern boundary of Project Area looking west toward West Thames Street



6. Project Area looking south from intersection of Rector and West Streets



**New York State Office of Parks, Recreation and Historic Preservation**

The Governor Nelson A. Rockefeller Empire State Plaza  
Agency Building 1, Albany, New York 12238-0001

July 31, 1989

Mr. David Emil  
President & Chief Executive Officer  
Battery Park City Authority  
One World Financial Center  
New York, NY 10281-1097

Dear Mr. Emil:

Re: Battery Park City  
Manhattan, New York County

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation. We have reviewed your project in accordance with the New York State Office of Parks, Recreation and Historic Preservation Law, Section 14.09.

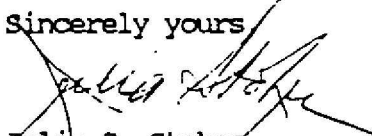
The project area includes three properties that are listed on the National Register of Historic Places: Castle Clinton, Battery Park Control House and Pier A. The project area is also adjacent to several other National Register-listed or eligible properties.

However, it is the OPRHP's opinion that the construction proposed will not significantly alter the existing context and setting for significant historic structures that remain in the area.

In addition, according to the document, an archeological sensitivity study is being prepared for the project area. Upon receipt of this, or other documentation, the OPRHP will provide comments on archaeological concerns. If plans are prepared which avoid subsurface impacts, the need for archeological review will be removed.

If you have any questions, please contact our Project Review Unit at (518) 474-0479.

Sincerely yours

  
Julia S. Stokes  
Deputy Commissioner for  
Historic Preservation

JSS/VJD:gc



New York State Office of Parks, Recreation and Historic Preservation  
The Governor Nelson A. Rockefeller Empire State Plaza  
Agency Building 1, Albany, New York 12233-0001

September 29, 1989

Mr. David Enil  
President & Chief Executive Officer  
Battery Park City Authority  
One World Financial Center  
New York, NY 10281-1097

Dear Mr. Enil:

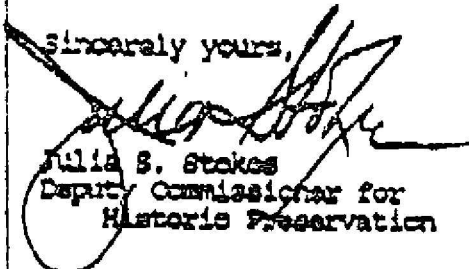
RE: Battery Park City  
Manhattan, New York County

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) has reviewed the above project in accordance with the New York State Preservation Law, Section 14.09.

The OPRHP has previously commented that the construction proposed would not significantly alter the context and setting for significant historic structures in the area. We have recently received the Cultural Resource Survey for the project which was requested. Based on this review, it is the opinion of the OPRHP that the project will have no impact upon districts, sites, buildings, structures, objects, or archeological resources in or eligible for inclusion in the National Register of Historic Places. If the project plans change, further consultation will be necessary.

If you have any questions, please contact the Project Review Staff at (518) 474-0479.

Sincerely yours,

  
Julia S. Stokes  
Deputy Commissioner for  
Historic Preservation

JSS/cmb