



# CULTURAL RESOURCES ASSESSMENT REPORT

# DURST WEST 57TH STREET

# MANHATTAN, NEW YORK ø 57 th st Rezone 00DCP0041M

RECEIVED ENVIRONMENTAL REVIEW

JUI 11 2000

LANDMARKS PRESERVATION COMMISSION





19 FN 3: 36

bal harris in bi

## CULTURAL RESOURCES ASSESSMENT REPORT

## DURST WEST 57TH STREET

## MANHATTAN, NEW YORK

Prepared For:

Allee King Rosen and Fleming, Inc. 117 East 29th Street New York, New York 10016

Prepared By:

Historical Perspectives, Inc. P.O. Box 3037 Westport, CT 06880

Authors:

Sara F. Mascia, RPA Betsy Kearns, RPA Cece Saunders, RPA

January 2000

## TABLE OF CONTENTS

| I. INTRODUCTION AND METHODOLOGY                         | 1  |
|---------------------------------------------------------|----|
| II. ENVIRONMENTAL SETTING                               | 3  |
| III. PREHISTORIC OVERVIEW                               | 5  |
| A. Prehistoric Background<br>B. Known Prehistoric Sites | .5 |
| In the Project Area                                     | 9  |
| C. The Prehistoric Shoreline                            | 10 |
| D. Prehistoric Sensitivity                              | 11 |
| · · · · · · · · · · · · · · · · · · ·                   |    |
| IV. HISTORICAL OVERVIEW                                 | 12 |
| A Historical Cultural Chronology                        | 12 |
| B. Cartographic Review                                  | 14 |
| C. Historical Sensitivity                               | 16 |
|                                                         |    |
| V. CONCLUSIONS AND RECOMMENDATIONS                      | 17 |
| VI. BIBLIOGRAPHY                                        | 18 |
| FIGURES                                                 |    |
|                                                         |    |

PHOTOGRAPHS

.

•

## LIST OF FIGURES

- 1 Project Site Location. U.S.G.S. Topographic Map, Central Park Quadrangle.
- 2. Project Site Location. Sanborn Fire Insurance Map, 1999.
- 3. Grumet's Native American Trails and Place Names on Manhattan Island, 1981.
- 4. Predictive Model for Prehistoric Sensitivity. Source: New York City Landmarks Preservation Commission.
- 5. Detail of The Commissioners Map (Bridges), 1807-1811.
- 6. Colton's 1836 Topographical Map of the City and County of New York.
- 7. Ensign's 1845, Map of the City of New York.
- 8. Dripps' 1854 Map of the City of New York.
- 9. Harbour Commissioners Map of 1857, Sheet 7. Source: The Manhattan Borough President's Office.
- 10. Viele's 1874 Topographical Atlas of the City of New York.
- 11. 1926 Sanborn Fire Insurance Map.
- 12. 1951 Sanborn Fire Insurance Map.
- 13. 1976 Sanborn Fire Insurance Map.

#### I. INTRODUCTION AND METHODOLOGY

Historical Perspectives, Inc. was retained to complete a Phase IA archaeological assessment of Block 1105 on the west side of Manhattan (Figure 1). The project site is bounded to the north by West 58th Street, to the east by Eleventh Avenue, to the south by West 57th Street, and to the west by Twelfth Avenue (Figure 2). The purpose of this "Cultural Resources Assessment Report," is to provide a sensitivity rating for the project site based on the evaluation of historic documentary materials, comparative archaeological literature, site file search results, and a site inspection. As part of the assessment, the following sources of documentary data were consulted in order to determine the site's topography over time and to compile an overall site history.

#### Primary and Secondary Source Review

Many local and regional histories were examined for relevant data to help place the site within a historical context. Much of this information was gathered at the New York Public Library's Local History Room. These include works such as I. N. P. Stokes' *Iconography of Manhattan Island*, which yielded abundant information on the historic development of Manhattan. In addition, Ann L. Buttenwieser's *Manhattan Waterbound* furnished data on the growth of the Hudson River waterfront. Archaeological literature, such as *The Archaeology of New York State* by William Ritchie and Robert E. Funk's *Recent Contributions to Hudson Valley Prehistory* provided an overview of the prehistoric periods discussed in this report. Ruttenber's *Indian Tribes of Hudson's River to 1700* furnished valuable information on the lifeways of local Native inhabitants.

#### Cartographic Analysis

In order to determine the original topography and compile a disturbance record for Block 1105, numerous cartographic resources were examined. Information collected included data on the site's land-use over time and building history. Historical maps were examined at the Map Division of the New York Public Library.

#### Site Files Review

Inventoried prehistoric and historical sites listed with the New York State Museum (NYSM) and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) were reviewed for information regarding recorded sites in and around the project area. Finally, various available archaeological reports were consulted for descriptions of urban domestic sites, Native American lifeways in Manhattan and the Hudson River Valley, as well as specific information on identified prehistoric and historical sites near the present project area. The NYCLPC sensitivity model for Manhattan was also examined for the project area. Site Inspection

A site visit was conducted (12/5/99) and a photographic record of current conditions was made (See Photographs 1-5).

## **II. ENVIRONMENTAL SETTING**

Manhattan Island lies within the Hudson Valley region and is considered to be part of the New England Upland Physiographic Province (Schuberth 1968:10-11). The underlying geology, much like that of the Bronx and lower Westchester County, is made up of gneiss and mica schist with heavy, intercalated beds of coarse grained, dolomitic marble and thinner layer of serpentine (Scharf 1886:6-7). During the three known glacial periods, the land surface in the Northeast was carved, scraped, and eroded by advancing and retreating glaciers. At one point, during the Wisconsin period, the ice was 1,000 feet thick over Manhattan. With the final retreat of the ice sheets, during the Post-Pleistocene, glacial debris, a mix of sand, gravel, and clay, formed the many low hills or moraines that constitute the present topography of the New York City area. Along these low hills many rivers, streams, lakes, and ponds were formed. Following the glacial episodes Manhattan emerged as a low lying island marked by hills and surrounded by rivers and a large protected deep water bay. The constant flow of these rivers and streams as well as the corresponding rise in sea level has continued to mold the landscape.

The project site is located near the Hudson River (or North River) on the west side of Manhattan (see Figure 1). The Hudson is defined as an estuary, which is a large body of water with a link to the open sea (Schuldenrein 1995: 39). While the lower Hudson River bordering Manhattan is influenced by tidal action, to the north the sea water is diluted by freshwater drainage. During the late Prehistoric and early Historical Periods the project site was partially submerged under the Hudson River with some of the exposed land surface a tidal marshland. A few small tidal streams were also present. Soils in this location, are mostly glacial till, clay, and assorted debris (Kieran 1982: 24). The closest tidal creek to the project site was a small unidentified body of water loosely following the path of present-day West 56th Street, just over one block to the south of the project site (See Figure 4).

During the historic period the western coastline of Manhattan has been altered by landfilling. At the end of the late prehistoric era the coastline was located just west of Eleventh Avenue, exposing only a small portion of Block 1105. Throughout the historical period, the desire for new commercial, waterfront real estate spurred many politicians and businessmen to enthusiastically support landfilling activity along the shores of Manhattan. During the middle of the nineteenth century filling episodes had created half of Block 1105 and by the early twentieth century the shoreline had been extended to it's present boundary.

Historic maps indicate that during the early historical period, portions of the coastal area were used as farmland or pastureland. The southern tip of Manhattan, on

both the east and west sides was the location of most waterfront activity (wharves, slips, and warehouses). To the north only a few small private docks and slips were present. As the city expanded and the population grew, the commercial waterfront extended up the Hudson River transforming the landscape from an agricultural to an urban setting. By the early twentieth century, large wharves or piers were extended out into the river along the path of the streets bordering Block 1105 (West 57th and 58th Streets).

The most recent U.S.G.S. topographical map shows the project area as a welldefined urban setting at an elevation of 10-20 feet above sea level (Figure 1). During the site visit, a slight incline from west to east was noted. Further east of the project site, across Eleventh Avenue, a steeper incline was observed. The actual site area is chiefly comprised of "made land". There are several standing structures present, no evidence of basements, and only a few buildings with below-grade crawl spaces (Figure 2, Photographs 1-5).

#### III. PREHISTORIC OVERVIEW

#### A. Prehistoric Background

In general, archaeologists and historians gain their knowledge and understanding of Native Americans in the lower Hudson Valley area from three sources: ethnographic reports, Native American artifact collections, and archaeological investigations. The information from these sources has enabled researchers to devise a prehistoric cultural chronology for the New York City area. Archaeologists have divided North American prehistory into three main periods, the PaleoIndian (c. 14,000-9,500 years ago), the Archaic (c. 9,500-3,000 years ago), and the Woodland (c. 3,000-500 years ago). The Archaic and Woodland periods are further divided into Early, Middle, and Late substages. Further, the period following the Woodland has been identified as the Contact Period (c. 500-300 years ago). Artifacts, settlement, subsistence, and cultural systems changed through time with each of these stages.

Changes in the prehistoric environment, the characteristics of prehistoric peoples, and the cultural artifacts that were left behind are used as the criteria for archaeologists to complete a chronological examination of the prehistoric era in North America. This type of examination was completed for this report in order to assess the potential that indigenous groups would have had for exploiting the project locale in general as well as the actual project site.

Scholars often characterize prehistoric sites by their close proximity to a water source, fresh game, and exploitable natural resources (i.e., plants, raw materials for stone tools, clay veins, etc.). These sites are often placed into three categories, primary (campsites or villages), secondary (tool manufacturing, food processing), and isolated finds (a single or very few artifacts either lost or discarded). Primary sites are often situated in locales that are easily defended against both nature (weather) and enemies. Secondary sites are often found in the location of exploitable resources (e.g., shell fish, lithic raw materials). What follows is a brief overview of the characteristics of these periods and a discussion of the archaeological evidence found in the New York City area.

PaleoIndian Period (c. 14,000 - 9,500 Years Before Present)

Although challenged by recent archaeological research, the current accepted chronology states that the PaleoIndian period began in the New World near the end of the Wisconsin glacial age when the first humans crossed into Alaska via a narrow land bridge in the vicinity of the Bering Strait. These early groups were nomadic hunters and are typically identified by their utilization of a distinctive artifact, the fluted point. Archaeological evidence suggests that although PaleoIndians were limited in number and traveled in small groups, they soon spread across the pristine and game-rich environment of North America. It is likely that they were following the migration patterns of the game animals they depended upon for their subsistence. As evidence, numerous PaleoIndian "kill sites" have been discovered in the western and southwestern United States. However, none have been recovered in the Northeast.

The landscape during the PaleoIndian period was shaped by the retreating glaciers and the change toward the deciduous woodland setting characteristic of the later prehistoric periods. A warmer climate and new open river valleys provided ample hunting grounds. As a result, the favored location for PaleoIndian sites, and all prehistoric sites, were well-elevated large fertile valleys close to a fresh water source. By 14,000 - 12,000 years ago the Northeast was generally characterized as open woodland, rich in spruce. Pollen analysis shows that the southeastern New York region was comprised of a mixed coniferous-hardwood forest following deglaciation (Salwen 1975:43).

Artifacts attributed to this period from sites throughout the Northeast include diagnostic Clovis-type fluted projectile points. Along with the fluted point, scrapers and borers were part of the nomadic hunter's "tool kit." These tools were used to hunt and butcher mastodon, elk, caribou, bison, and other smaller mammals. The remains of a variety of these animals, dated to this period, have been excavated in New York State, particularly in the vicinity of former glacial lakes and moraines (Ritchie 1965: 9-16). In addition, several PaleoIndian camp sites have been excavated in the Northeast leading scholars to suggest that seasonal patterning or perhaps territorialism commenced during the latter part of this period (Ritchie 1965: 3,9). These small bands of hunters are believed by many to have roamed large territories, relying predominantly on postpleistocene mega-fauna.

Alternative hypotheses based on research in eastern New York suggest that PaleoIndians inhabiting the area utilized a wide array of resources and had a restricted territory in which they operated (Eisenberg 1978:139). Additional research continues to assist in developing and refining models of subsistence and settlement. Sites that have been identified tend to be located in three specific geographic locales: on lowland waterside camps near coniferous swamps and near larger rivers; on upland bluffs and on ridge tops in areas dominated by deciduous trees (Ibid.:138). The closest recorded PaleoIndian site to the project area is Port Mobil, a small camp site, recovered in Staten Island (Ritchie 1980: 1,3,7).

Archaic Period (c. 9,500 - c. 3,000 Years Before Present)

57

The Archaic period, spanning approximately 6,500 years, has been subdivided into the Early, Middle, Late, and Transitional - or Terminal - subperiods. During this Archaic Period, fluctuations in the environment occurred, eventually giving way to a gradual warming trend allowing newly available resources to establish themselves. The transition from the PaleoIndian period to the Archaic was marked by the availability of a larger variety of plants and small-game as the post-glacial Archaic peoples exploited the now dominant deciduous woodland environment. Environmental changes promoted resource diversity which resulted in a hunting, fishing, and gathering economy. Tool kits expanded in response to this diverse resource utilization. The decreased population of big-game animals led to the hunting of smaller game including the white-tailed deer, moose, wild turkey, and rabbit. In addition, Archaic peoples began to exploit the marine environment. Although not as mobile as the PaleoIndians, archaeological evidence indicates that early Archaic peoples continued to travel seasonally. Their group movements, however, were within well-defined territorial boundaries and the camp sites that have been recovered indicate that they were repeatedly occupied over time.

River valleys and areas surrounding other sources of fresh water were locales that supported the game animals exploited by Archaic hunters. The tool kit of the Archaic Period was expanded to include the grooved axe, beveled adz, and narrow bladed projectile point. In addition, the mortar and pestle, grinders, and various implements used for fishing, are evidence of the Archaic peoples' expanded diet (fishing and increased gathering).

An increase in the number and size of archaeological sites recovered from the Archaic period suggests that the human population had expanded and that Archaic peoples were becoming more settled and therefore having a greater impact on the landscape. A result of becoming more settled, and the establishment of specific territories, was the emergence of different cultural phases. A phase has been defined "as a recurring complex of distinctive archaeological traits" representing an individual cultural group (Ritchie 1965: xvi). The Lamoka, Vosburg, and Brewerton phases are among those identified in New York State by Ritchie (1980).

A number of small multicomponent sites have been recovered in coastal New York. Like the inland sites, they are usually located near fresh water ponds, tidal inlets, coves, and bays. These locales provided abundant resources including small game, fish, shellfish, and a large variety of plants and tuberous grasses. Sites discovered in coastal areas around New York City indicate that by the Late Archaic there was a distinct reliance upon shellfish, particularly oysters and clams. While few camp sites or

settlements have been recorded within the boundaries of the five boroughs, a larger number of secondary sites and isolated finds have been recovered.

## Woodland Period (c.3,000 - c.500 Years Before Present)

The Woodland period, which spanned from approximately 3,000 to 500 years ago, is also divided into the Early, Middle and Late subperiods. It is often characterized by the first use of ceramics, the introduction of horticulture, the appearance of large semi-permanent or permanent villages, and the establishment of clearly defined trade networks. Archaeological evidence suggests a marked preference for large-scale habitation sites within the vicinity of a fresh water source (e.g., rivers, lakes, streams, and ponds). In most cases, secondary sites where specific activities occurred (e.g., shellfish collecting and/or processing, butchering locations, and stone tool-making) were situated near the site of the exploited resource.

The first significant and identifiable use of pottery in New York State (Vinette 1) can be traced to approximately 1,000 B.C. or the Early Woodland Period. By the Middle Woodland a wide variety of stamped, impressed and cord-decorated pottery types were developed. Smoking pipes, another innovation, reflected different cultural styles which archaeologists have been able to link to specific groups.

During the Woodland Period the native tool kit expanded to include a larger variety of knives, drills, hammerstones, etc. More exotic lithics, indicating more sophisticated trade networks, were also being utilized. By the Late Woodland, the Levanna triangular projectile point had become a popular style in the New York coastal region (Ritchie and Funk 1973: 356). The recovery of numerous shell middens dating to the Woodland also indicate an increased reliance on aquatic resources. Fish runs in the rivers and fish weirs in tributaries were utilized to catch large quantities of anadramous fish to feed the growing population (Brumbach 1986: 35).

Although the use of cultigens was evident in many areas of North America during the Early Woodland, it was not until the transition from the Middle Woodland to the Late Woodland stages that agriculture may have played a part in the economy of New York State culture groups. By the Late Woodland, cultigens had become an essential element in daily life. The introduction of agriculture brought about a major change in settlement patterns as larger villages, some fortified or palisaded, were established. One such site was noted by the early Dutch explorer Adriaen Block, who described seeing "large wigwams of the tribe on Castle Hill" in the Bronx (Skinner 1919: 76). With the creation of more permanent sites came the development of extensive trade networks for the exchange of goods between the coastal and inland areas. Contact Period (500-300 Years Before Present)

8 - S

What is known about the early Contact Period has been acquired from the documentary record. Using legal documents and early ethnohistoric accounts, archaeologists have been able to learn much about the Native groups that were present when Europeans initially explored the Hudson River Valley. One example is the journal of Robert Juet who traveled with Henry Hudson on his 1609 voyage. Juet provided a description of the native population encountered and the exchange of "Indian Wheate" (maize) and tobacco for beads and knives (Van Zandt 1981: 10-11). In *Native American Place Names in New York City* (1981), Robert Steven Grumet categorized data from historical documents and the work of previous scholars in an attempt to synthesize and verify known information on Native American sites, pathways and culture groups.

~ ~

Grumet notes that the 1610 Velasco map used the name *Manahata* as the designation for the native inhabitants of both banks of the lower Hudson River (1981: 24). The Manhattan Indians were identified on Dutch seventeenth-century maps but not on many other documents. In addition, no native individual was referred to by name in the documentary record. The Manhattan Indians were probably only about 300-500 in number and were last identified in the historical record in 1680 when they were described as the former inhabitants of Manhattan Island. These native peoples spoke a Munsee dialect of the Eastern Algonquin language (Goddard 1978: 73). Most likely, following 1626, when the infamous sale of Manhattan Island occurred, they moved to join the Wiechquaesgeck (who were in northern Manhattan, the Bronx, and Westchester). Following the arrival of Governor William Kieft in 1638, most of the local native inhabitants were forced out of Manhattan by his hard-line anti-Indian policies (Washburn 1978: 98).

Using all of the data he gathered, Grumet created a series of maps showing identified Native place names and trails within New York City (Figure 3). His research for Manhattan concluded that there was only one significant Native path or trade route on the western side of the island, roughly along the route of Broadway. To the north of the site, the path turned westward and did not extend through the project area. No evidence of other paths in the vicinity of the western shore was uncovered. Instead, Grumet has identified lower Manhattan and the eastern side, along the East River, as more favorable locations for trails and villages.

B. Known Prehistoric Sites In the Project Area

Research conducted at the New York State Museum found no inventoried prehistoric sites in the immediate project area. The closest recorded sites are (New York

State Museum) #4062, located approximately 2.7 miles northeast of the project site near what is now the reservoir in Central Park, and #4061, located approximately 2.3 miles to the east, near the East River in the vicinity of East 59th Street.

## C. The Prehistoric Shoreline

The proximity of the Hudson River has always been a significant factor in the natural environment of the project site. In some locations, the tidal riverside locale, with its mix of fresh and salt waters, could have provided a valuable source of shellfish and transportation for the Native Americans. At the time of European contact almost all of Block 1105 was submerged beneath the Hudson River. However, prehistorically there may have been times when the Hudson River's level was lowered far enough so that the entire project block was exposed. Because the Hudson River may have provided prehistoric people with a variety of resources, the position of the shoreline during the prehistoric era will be addressed in this report.

Initial examination of historical maps has provided data as to the topography of the Hudson River shoreline in the location of the project block (Commissioners Map, 1807-1811; Colton 1836; Dripps 1854; Ensign 1845 and Viele 1874). The exact locations of fast land (with no landfill), streams, and bedrock outcrops was difficult to determine. While these maps indicate that much of the area was eventually filled, very small sections may have been exposed during the late prehistoric period.

As part of previous analysis, Dr. Dennis Weiss, analyzed 360 borehole test results in order to reconstruct the prehistoric shoreline between West 44th and West 59th Streets (Weiss 1988, 1989). Samples were taken both from the inboard area Twelfth Avenue to Marginal Street, and outboard to the U.S. Pierhead line. The samples were then used to interpret the paleo-environmental conditions.

Dr. Weiss' Paleo-shoreline data indicates that the general stratigraphy of the project area consisted of organic silt and clay overlying sands of varying size color and thickness, which in turn was found above a layer of gravel and sand, under which bedrock was discovered. In some locations the organic silt and clay layer was found directly atop bedrock (Weiss 1989: 2). Weiss determined that the optimal evidence for the determination of shoreline positions, in the New York City coastal zone is the presence of tidal marsh peats lying immediately above bedrock or till. The contact between the bedrock or till and the initial peat layer, indicates the period of time when the estuarine conditions were established. By examining the bore logs, Weiss was then able to separate estuarine from non-estuarine locations as well as determine the horizonial levels of sediment over time. His results produced a map that indicates much of the project area would have been inundated during the prehistoric era. Weiss

determined that the area north of the project site, hear west 59th Sueer, had the characteristics of an estuary during the prehistoric era and therefore would be the most likely location for prehistoric occupation.

D. Prehistoric Sensitivity

.

An understanding of the natural environment of the area before European settlement is necessary to assess the probability of the existence of prehistoric archaeological resources on the project block; where a camp or settlement was located depended on a number of variables including the topographic conditions and accessibility of resources. The New York City Landmarks Preservation Commission developed a predictive model for likely locations of prehistoric sites based on an early topographic map (Figure 4). This model is based on a map locating streams at West 60th and West 56th streets and because of the project block's proximity, it is identified as a locus of possible prehistoric sensitivity based on the proximity to fresh water.

Although Grumet's research indicates that most of the recorded Native American settlement was far east of the project block, there is the possibility that a site could be recovered on a knoll with access to fresh water near the Hudson. The examination of historic maps combined with the results of Dr. Weiss' research indicates that almost the entire project block was inundated during the prehistoric era. At the eastern edge of the block a bedrock outcrop was present. Further east, the surface level rises significantly creating a well-drained "high ground" which can still be observed today (see Figure 1). In 1988 an archaeological documentary report for the Trump City (later Riverside South) site recommended testing to ascertain the presence or absence of prehistoric remains in the vicinity of the stream and cove, identified by Weiss, at West 59th and West 60th Streets west of Eleventh Avenue (Greenhouse Consultants 1988: 20). The resulting excavation at West 59th Street found that the deposits which predate the historic occupation of the site did not contain any prehistoric cultural material.

The inundated prehistoric environment in this location would likely have precluded any large scale settlement. Because the only portion of the project block exposed during the prehistoric era was a small inhospitable bedrock outcrop, it is also unlikely that secondary prehistoric sites were present in this location. Instead of establishing a village in this area, more attractive locations would have been preferred on the well-drained higher ground to the east near fresh water. Secondary sites would have more likely located closer to fresh water or resource extraction sites. Further, during the historic period the project site was filled and the surface regulated, likely impacting the exposed bedrock. The possible recovery of prehistoric material is thus limited to isolated finds. Therefore Block 1105 has little to no potential for the recovery of significant prehistoric material.

## IV. HISTORICAL OVERVIEW

## A. Historical Cultural Chronology

In the early seventeenth century, several European nations were attempting to establish world-wide trade connections. The Dutch West India Company, which was formed by a group of merchants, became one of the most powerful and profitable commercial enterprises. The Company, seeing enormous potential in the New World, focused much of their efforts on the Americas. In 1623 the Company received a grant for all of the land rights on Manhattan Island (Buttenwieser 1987: 25). After setting aside parcels of land for Company use and the colony's fortifications, land was granted to individual settlers for private homes and gardens. The majority of these settlers were merchants and fur traders requiring access to the commercial shipping routes. As a result, many of the early land grants were located along the east and west shores of lower Manhattan.

It was during the late seventeenth century that the lands in the project area were settled. Part of the reason for the lag between the settlement of lower and upper Manhattan was due to land disputes, Indian Wars, and the subsequent fight for possession of Manhattan Island with the British. By 1664, the British had gained control of the Island and just over twenty years later, the Dongon Charter was decreed, establishing the City of New York (Hoag 1905: 32). The section of Manhattan to the north of the original city, that encompasses the project area, was called Bloomingdale (vale of flowers) by the Dutch. It was first settled in the late seventeenth century by Dutch farmers.

The project block was once part of granted land called the "Ten Lots" (Stokes v. 6, 1998: 106). No record of the original Dutch land grant remains. All that is known is that a deed was registered transferring ownership of Lots 1 and 2 from Jacob Leendersen Vandegrift to Isaac Below on April 9, 1668. This deed indicates that on October 3, 1667 Vandegrift conveyed "the just full & equall half of all my Right Title Interest & property" (Stokes v. 6 1998: 107). A second deed was filed conveying the remainder of Vandegrift's property to Bedlow in August 1668 (Ibid.). In 1698 the property was sold by Bedlow's heirs to Jacobus van Cortlandt who divided the lots and resold them sometime prior to 1713 (Ibid.). Although no deed has been recovered, other records indicate that Lot 2, which includes the project block, was sold to Cornelis Cosine (Ibid.: 86).

Cosine established a farm on his property and Stokes has determined that the original farmhouse was located in the bed of West 54th Street on the west side of Broadway (Ibid.). In 1725 Cosine was elected constable and in 1741 collector for the

Bowery Division of the Out Ward. Following his death in 1765, the Cosine farm was divided up and the lands dispersed.

In the few years before the Revolutionary War, waterfront expansion was reduced by the lack of freedom in colonial trading. Manhattan merchants had the ongoing problem of having their shipping curtailed by British taxation. During the War the population of Manhattan dropped from approximately 20,000 to 10,000. At that time, the City of New York, was intensely fortified by both the Americans and the British. Late eighteenth century maps depict numerous forts, redoubts, and batteries along the shoreline. No military sites were established in the project area.

Following the Revolutionary War the recovery of the city was swift. Central to this revitalization was the establishment of new trade routes to China which gave "fresh impulse and energy to American industry" (McKay 1969: 5). At the start of the nineteenth century, the continued growth of maritime trade made New York the most important port in the United States.

Many of the early nineteenth century maps depict the slow westward expansion of the Hudson River shoreline. The Randall Plan, or Commissioner's Map of 1811, clearly depicts the new blocks and roads for central and northern Manhattan. As nineteenth century New York continued to expand in both size and population, sources for landfill were abundant. Many of the low hills on the island, including those along the western shore, were cut down and the material deposited along the shoreline. In addition, the construction of streets and new buildings, especially those with cellars, provided soil, sand, rocks, and other debris for fill. Another source of fill was the immense amount of garbage generated by the inhabitants of the island.

The technological changes to ships as they shifted from sail to steam power changed the size and shape of the large cargo ships. Longer, faster boats were now being used to ship goods in and out of New York. Because of the difficulty of docking at the narrow piers along the East River, the new longer, and, in many cases wider, ships began to use the western side of Manhattan, on the much wider Hudson River, for berth space. While some ships continued to dock along the East River, it was clear by the middle of the century that the shoreline along the Hudson River was now the focus of the majority of mercantile traffic and associated construction. Numerous streets were extended westward to create docks for the expanding city.

Maps from the late nineteenth-early twentieth centuries indicate that much of the west side was changing as the construction of warehouses, parking structures, and commercial storage facilities continued to occur. Many of the early domestic and commercial sites along the western shore were being replaced by these larger structures. One of the agencies that was created to oversee the problems and changes to the waterfront was the Department of Docks, which was established in 1870. This department was granted the rights and land for the purpose of constructing wharves, bulkheads, docks, and piers for the growing commercial community. The department instituted the McClellan Plan which allowed for the construction of a solid block and granite bulkhead wall around the southern half of Manhattan (from West 61st to East 51st Streets). During the 1890s, this new bulkhead allowed for the construction of Marginal Street and Twelfth Avenue, which became the western boundary of Block 1105.

During the early twentieth century as shipping and traffic congestion peaked, the area to the south of the project site, often called Hell's Kitchen, became dangerous, especially for the railroad. In 1906, the Saxe Law was passed preventing railroads from running at grade level. This helped to implement the new West Side Improvement Plan. The Plan encouraged New York Central, which now owned the surface rail, to construct an elevated track system by 1920. As transportation networks changed during the twentieth century, so did the West Side commercial district. During the 1930s and 40s, the continued increase in traffic resulted in the creation of the West Side Highway. A portion of the West Side Highway was later removed and an at-grade roadway reestablished. Today, the area still serves the river transport lines and a considerable amount of pedestrian and automobile traffic.

## **B.** Cartographic Review

Early maps do not agree on the topography or the exact location of streams in the project area. In addition, each of the nineteenth century maps studied gives a slightly different contour to the land. Most of the early maps of Manhattan concentrate solely on the lower portion of the island. The earliest map that gives sufficient detail to the project area is the 1807-11 Commissioners Map (Figure 5).

The Commissioners Map of 1807-11, shows the newly designed street system. Over half of Block 1105 is under the Hudson River. On the eastern side of the block, a rise, or bedrock outcrop is depicted. Streams are shown between West 60th and 61st Streets, and another at West 56th Street, but none on the project block.

The 1836 Colton Topographical Map (Figure 6) depicts most of the project block as still under the Hudson River. Only one outcrop along the eastern edge of the block is observed with a larger and more significant bluff to the east of Tenth Avenue. Again, separate streams are shown at West 60th/61st Streets and West 56th Street. Ensign's 1845 Map of the City of New York (Figure 7), in contrast, shows the two streams converging to the southeast of the project block. Over half of the project block is still depicted as inundated. No other topographical features are depicted on the block.

1.00

Dripps' 1851 Map of the City of New York depicts the route of the Hudson River Railroad (1848) along the path of Eleventh Avenue. No buildings or topographical features are shown within the partially inundated project block. Dripps' 1854 Map of the City of New York (Figure 8) is similar and also shows no development or topographical features within the project block. In addition, the two streams are not shown.

The Harbour Commissioners Map of 1857 (Figure 9) more clearly depicts the shape of the bedrock outcrop and the mid-nineteenth century tidal line within Block 1105.

Egbert Viele's 1874 Topographical Atlas (Figure 10) agrees with the 1836 Colton in some of the topographic characteristics of the project area. That is, there is a large outcrop in the eastern third of the block. A dock extending off of the western end of West 57th Street has also been constructed. The two streams are present, however, they are unconnected. The accuracy of Viele's 1874 map has been called into question in terms of placement of the railroad and waterfront and it is possible that other landscape features may be incorrectly depicted (Greenhouse Consultants 1988: 18).

The 1879 Bromley Atlas of the City of New York is the earliest map that shows Block 1105 divided into lots. While the western third of the block is still under water, the eastern section now contains the "Kilpatrick & Co. Lumber Yard." The project block was used for storage into the twentieth century.

The 1913 Hyde Atlas of the City of New York indicates that by that date, portions of the block were being used for storage and automobile parking beginning its long association with auto-related businesses. The Lumber Yard is no longer present. The area to the west of the block was now filled to its present grade.

The Sanborn Fire Insurance Map from 1926 (Figure 11) depicts the project block as fully developed. At the western end of the block a garage and auto repair shop are shown. In the center of the block, the "Leiberman & Sanford Company Iron Works" is present. At the eastern end of the block, are several small garages and auto repair stations as well as a warehouse for the Goodyear Tire and Rubber Company on the northeast corner. The 1930 Bromley Atlas of the City of New York is very similar to the 1926 Sanborn. The main difference is that the Iron Works is no longer present.

By 1951, a Sanborn Map (Figure 12) indicates that little had changed on the project block. General Motors occupied the structure on the corner of West 57th Street and Eleventh Avenue and Bell Transportation System Inc., was now in the location of the former Iron Works.

The 1976 (Figure 13) and 1986 Sanborn Maps are almost identical to the Current 1999 version (see Figure 2). The only buildings identified are depicted as a "Garage." The site visit concurred that most of Block 1105, with a few exceptions (e.g., the Copacabana), is still used for automobile purchasing, parking, and repairs (see Photographs 1-5).

## C. Historical Sensitivity

Unlike Lower Manhattan, the West Side was less densely settled during the early colonial period. Because the project site was almost completely inundated until the late nineteenth century, it is unlikely that any significant colonial features were present in this location. During the nineteenth century, the earliest identified land- use was the Kilpatrick Lumber Yard. During the investigations for the 9A Reconstruction Project, the lumber and building industry along the West Side was investigated (Hartgen Archaeological Associates 1995). Researchers found that "the archaeological visibility of this type of manufacture is low" (Ibid.: 116). The Kilpatrick yard appears to have occupied the site for only a short time-span. Materials were probably brought from the nearby piers to the yard which was conceivably used for the storage and resale of lumber. Although the yard may have had a central location for cutting the wood with saws and other machinery, the evidence of these surface activities would have been severely disturbed by subsequent construction on the site. Therefore, this site-type, would not have left behind a significant archaeological footprint.

Most of the historical development of Block 1105 occurred after Twelfth Avenue was finally completed in the late 1890s. The proximity to the transportation line (Hudson River Railroad) and the Hudson River docks, encouraged the establishment of parking garages and warehouses in this location. With the increasing use of automobiles, construction and commercial businesses within the project block focused on serving this industry. None of the twentieth century buildings or parking facilities within Block 1105 is considered sensitive for historical archaeological resources. Furthermore, landfill beneath this block dates to the late nineteenth century and is not apparently associated with any specific individual or dumping event. Therefore, it probably lacks any association which is necessary to make it sensitive.

## V. CONCLUSIONS AND RECOMMENDATIONS

## Prehistoric Period

Research indicates that the project site was almost completely inundated during most of the prehistoric era. In addition, two factors support the conclusion that there is currently little or no potential for significant prehistoric archaeological resources to exist on the project site:

1.1 1

1) there is no firm evidence of landforms conducive to Native American exploitation on the project block, whereas there are several very attractive loci quite close by, and

2) disturbance to what are usually shallowly deposited resources has more than likely occurred. The disturbance factors include natural erosion on a pronounced bedrock outcrop, grading prior to development, and construction activity associated with the structures built on-site over time.

The above research concludes that further consideration for prehistoric resources within Block 1105 is not warranted.

## **Historical Period**

Historical research indicates that most of Block 1105 was also inundated for much of the historical period. The majority of the buildings and historical land-use has centered on providing storage areas for the docks and servicing automobile consumers. Because Block 1105 lacks historical sensitivity, further consideration for historical resources is not warranted.

#### VI. BIBLIOGRAPHY

## Baugher-Perlin, Sherene, Meta Janowitz, Marc Kodack, Kate Morgan

1982 "Towards an Archaeological Predictive Model for Manhattan: A Pilot Study." Ms on file with the New York City Landmarks Preservation Commission.

#### Bolton, Reginald P.

- 1922 Indian Paths in the Great Metropolis. Indian Notes and Monographs, Museum of the American Indian-Heye Foundation, 2(7).
- 1972 Indian Life of Long Ago in the City of New York. Enlarged edition. Harmony Books, New York.

## Brodhead, John R.

1853 History of the State of New York. Harper and Brothers, New York.

## Bromley, G. W.

1879 Atlas of the City of New York, G. W. Bromley & Co., Philadelphia. Also 1902, 1921, and 1930.

#### Brumbach, Hetty Jo

1986 "Anadramous Fish and Fishing: A Synthesis of Data From the Hudson River Drainage." *Man in the Northeast* 32:35-66.

#### Buttenwieser, Ann

1987 Manhattan Waterbound. New York University Press, New York.

## City of New York

1917 Common Council Minutes 1784-1831.

## Cohen, Paul and Robert Augustyn

1997 Manhattan in Maps 1527-1995. Rizzoli International Publications, New York.

#### Colton, J.H.

1836 Topographical Map of the City and County of New York and the Adjacent Country. J.H. Colton & Co., New York.

## **Croton Aqueduct Department**

1856 "Annual Report of the Croton Aqueduct Department Made to the Common Council of the City of New York" Board of Alderman, New York. (Also 1857-1866).

#### Dripps, Matthew

1851 Map of the City of New York, North of 50th Street.

1854 Map of the City of New York.

#### Eisenberg, Leonard

1978 "PaleoIndian Settlement Patterns in the Hudson-Delaware River Drainages." Occasional Publications in Northeast Anthropology.

#### Ensign

#### Funk, Robert E.

1976 Recent Contributions to Hudson Valley Prehistory. New York State Museum Memoir 22. The State Education Department, Albany, New York.

#### Galt and Hoy

1879 View of New York City. Sheet Number 10. On file at the New York Public Library.

#### . Goddard, Ives

1978 "Eastern Algonquian Languages." *Northeast*, edited by Bruce Trigger, Smithsonian Institution. 15: 70-77.

#### Gold, Joyce

1988 From Windmills to the World Trade Center. New York: Old Warren Road Press.

#### Greenhouse Consultants, Inc.

- 1987 Phase IB Archaeological Survey of the 641 West 59th Street Site, TV City Project, Manhattan, New York. Prepared for McKeown & Franz, Inc.
- 1988 Supplemental Documentary Research Report, Trump City Project, Manhattan, New York. Prepared for McKeown & Franz, Inc.

#### Grim, David

n.d. A Plan of the City and Environs of New York as they were in the Years 1742, 1743, and 1744.

#### Grumet, Robert Steven

1981 Native American Place Names in New York City. Museum of the City of New York, New York.

<sup>1845</sup> Map of the City of New York.

Hartgen Archaeological Associates, Inc.

- 1990 Route 9A Reconstruction Project: Archaeological Assessment Report, Paleo-Environmental Study. Prepared for New York Department of Transportation.
- 1992 Route 9A Reconstruction Project: Contextual Study, Service Industries. Prepared for New York Department of Transportation.
- 1995 Route 9A Reconstruction Project. Step 5 Evaluation of Disturbance: Lumber and Building Industry, Meat Industry and Manufacturing. Prepared for New York Department of Transportation.

#### Haskell, Daniel C., ed.

1931 Manhattan Maps: A Cooperative List. New York Public Library.

#### Historical Perspectives, Inc.

1997 "Existing Conditions Report, Hudson River Park Project, West 46th Street to West 59 Street, Manhattan, New York." Prepared for Allee, King Rosen & Fleming, Inc., New York, N.Y.

> "Phase 1A Archaeological Assessment for the River Center, New York, New York." Prepared for Allee, King Rosen & Fleming, Inc., New York, N.Y.

"Phase 1A Archaeological Assessment, Hudson Street Conversion Project, New York, New York."

- 1995 Draft Report "Step 5 Evaluation of Disturbance Lumber and Building Industry, Meat Industry, and Manufacturing." Route 9A Reconstruction Project.
- 1987 "Phase 1A Archaeological Assessment Report for the East River Landing Project, Manhattan." Report prepared for Allee King Rosen and Fleming, Inc.

#### Hoag, S.W., Jr.

1905 Dock Department and New York Docks. The Municipal Engineers of the City of New York.

## Hooker, William

1824 Plan of the City of New York.

#### Hyde, E. Belcher

1913 Atlas of the Borough of Manhattan. Volume 2. E. Belcher Hyde, Brooklyn, New York.

#### Innes, John

1902 New Amsterdam and its People. Charles Scribner's Sons, New York.

#### Kieran, John

1959 Natural History of New York City. Fordham University Press, New York.

#### Lyne, James

1728 A Plan of the City of New York. On file at the New York Public Library.

#### McKay, Richard C.

1969 South Street, A Maritime History of New York. Revised edition. 7 C's Press, Riverside, Connecticut.

#### O'Donnell, Thomas F. ed.

1968 A Description of the New Netherlands. Translation of the 2nd edition of 1656. Syracuse University Press, Syracuse, New York.

#### Office of the Harbour Commissioner

1857 The Harbor Commissioner's Map of 1857.

#### Office of the President of the Borough of Manhattan

1940 Rock Data Map of Manhattan: Details of Borings and Excavations. Office of the President of the Borough of Manhattan, New York.

#### Parker, Arthur C.

1920 "The Archeological History of New York - Part II, "*New York State Museum Bulletin*, 237/238, September/October, 471-743.

#### Pomerantz, Sidney

1938 New York: An American City 1783-1803. New York: Columbia University Press.

#### Randel, John

- 1807- A Map of the City of New York by the Commissioners'. On file at
- 1811 the New York Public Library.

#### Ritchie, William

1980 The Archaeology of New York State. Harrison, NY: Harbor Hill Books, revised 1965 edition.

## Ritchie, William A. and Robert E. Funk

1973 Aboriginal Settlement Patterns in the Northeast. Memoir 20, New York State Museum and Science Service, The State Education Department, Albany, New York.

#### Rothschild, Nan A.

1990 New York City Neighborhoods: The 18th Century. New York: Academic Press, Inc.

## Ruttenber, E. M.

1992 Indian Tribes of Hudson's River to 1700. Reprint of 1872. Hope Farm Press, Saugerties, New York.

#### Salwen, Bert

1975 "Post-Glacial Environments and Culture Change in the Hudson River Basin." *Man in the Northeast*. 10:43-70.

#### Sanborn Map Co.,

1926 Insurance Maps, Bourough of Manhattan. Also 1951, 1976, 1986, and 1999.

#### Scharf, J. Thomas

1886 History of Westchester County, New York, Including Morrisania, Kings Bridge, and West Farms, Which Have Been Annexed to New York City. 2 vol. L. E. Preston and Co., Philadelphia.

## Schuberth, Christopher J.

1968 The Geology of New York City and Environs. Natural History Press, Garden City, New York.

#### Schuldenrein, John

 1995 "Prehistory and the Changing Holocene Geography of Dogan Point."
In Claassen C., ed., Dogan Point: A Shell Matrix Site in the Lower Hudson Valley, Occassional Publications inNortheastern Anthropology, 14: 39-63.

#### Skinner, Alanson

- 1919 Exploration of Aboriginal Sites at Throg's Neck and Clason's Point, New York City. Contributions from the Museum of Natural History 43(2).
- 1961 The Indians of Manhattan Island and Vicinity. Port Washington, N.Y.

## Smith, Carlyle Shreeve

1950 The Archaeology of Coastal New York, Anthropological Papers of the American Museum of Natural History. 43(2), New York.

## Stokes, I.N.P.

1998 The Iconography of Manhattan Island 1408-1909. Vols. 1-6. Reprint. Arno Press, New York.

## USGS

1994 Topographic Map, Central Park Quadrangle. United States Geological Service.

#### Van Zandt, Roland

1981 Chronicles of the Hudson: Three Centuries of Traveler's Accounts. Rutgers University Press, New Brunswick, New Jersey.

#### Viele, Egbert

1874 Topographical Atlas of the City of New York including the annexed Territory. Egbert E. Viele, New York.

## Washburn, Wilcomb

1978 "Seventeenth-Century Indian Wars." Northeast, edited by Bruce Trigger, Smithsonian Institution. 15: 70-77.

#### Weiss, Dennis

1988 Paleo-Shorelines, Trump Project Site, Borough of Manhattan. Report submitted to Greenhouse Consultants Inc.

## Willensky, Elliot and Norval White

1988 *The AIA Guide to New York City.* Third edition. Harcourt Brace Jovanovich, New York.

#### WPA

1982 The WPA Guide to New York City. Pantheon Books, New York.

FIGURES

. . .

-



Figure 1. Project Site Location. U.S.G.S. Topographic Map, Central Park Quadrangle



Figure 2. Project Site Location. Sanborn Fire Insurance Map, 1999.



Figure 3. Grumet's Native American Trails and Place Names on Manhattan Island, 1981.



Figure 4. Predictive Model for Prehistoric Sensitivity. Source: New York City Landmarks Preservation Commission.



Figure 5. Detail of Commissioners Map (Bridges), 1807-1811.



Figure 6. Colton's 1836 Topographical Map of the City and County of New York.



Figure 7. Ensign's 1845, Map of the City of New York.



Figure 8. Dripps' 1854 Map of the City of New York.



Figure 9. Harbour Commissioners Map of 1857, Sheet 7. Source: The Manhattan Borough President's Office.

|                                   | in the second se | TTTEA MENTING MANY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Le                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | Mar Manually                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | A STATE OF STATE OF STATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | 「言い」で、「言」                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A Q                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | THE BS ALE ALE ALE ALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m. PS MJUS (3) R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | a tem the call of the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| A STAN                            | I WALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | E- SAIM AND ALL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S'ISIMI L'N STATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | and a start of the start                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| and a filler that a second second |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 「「「「「「「「」」」                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| THE REAL STREET                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pas 21 21 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAR HAMELINE STEELEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | and an analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | 12:00/2 · · · · · · · · · · · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A h. 6 current in the second of the second o |
|                                   | The sea and a sea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | BE MI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                   | ter the second second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I SHE AL IST TO BEAU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | I A SE MILL AND I I I I I I I I I I I I I I I I I I I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | 1. 1. M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                   | and the second of the second s |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

.

Figure 10. Viele's 1874 Topographical Atlas of the City of New York.



Figure 11. 1926 Sanborn Fire Insurance Map.



Figure 12. 1951 Sanborn Fire Insurance Map.



Figure 13. 1976 Sanborn Fire Insurance Map.

## PHOTOGRAPHS

.

-

×

.

-



Photograph 1 Southwest Corner of Project Block, Looking Northwest



Photograph 2. One of the Automobile Service Buildings (Lot 14) on Block 1105.



Photograph 3 The Copacabana Club on 57th Street, Looking North.



Photograph 4. Goodyear Automobile Service Center and Car Dealership on the East End of Block 1105.



a salite.

Photograph 5. Buildings and Parking Lot on the From 58th Street, Looking Southeast.