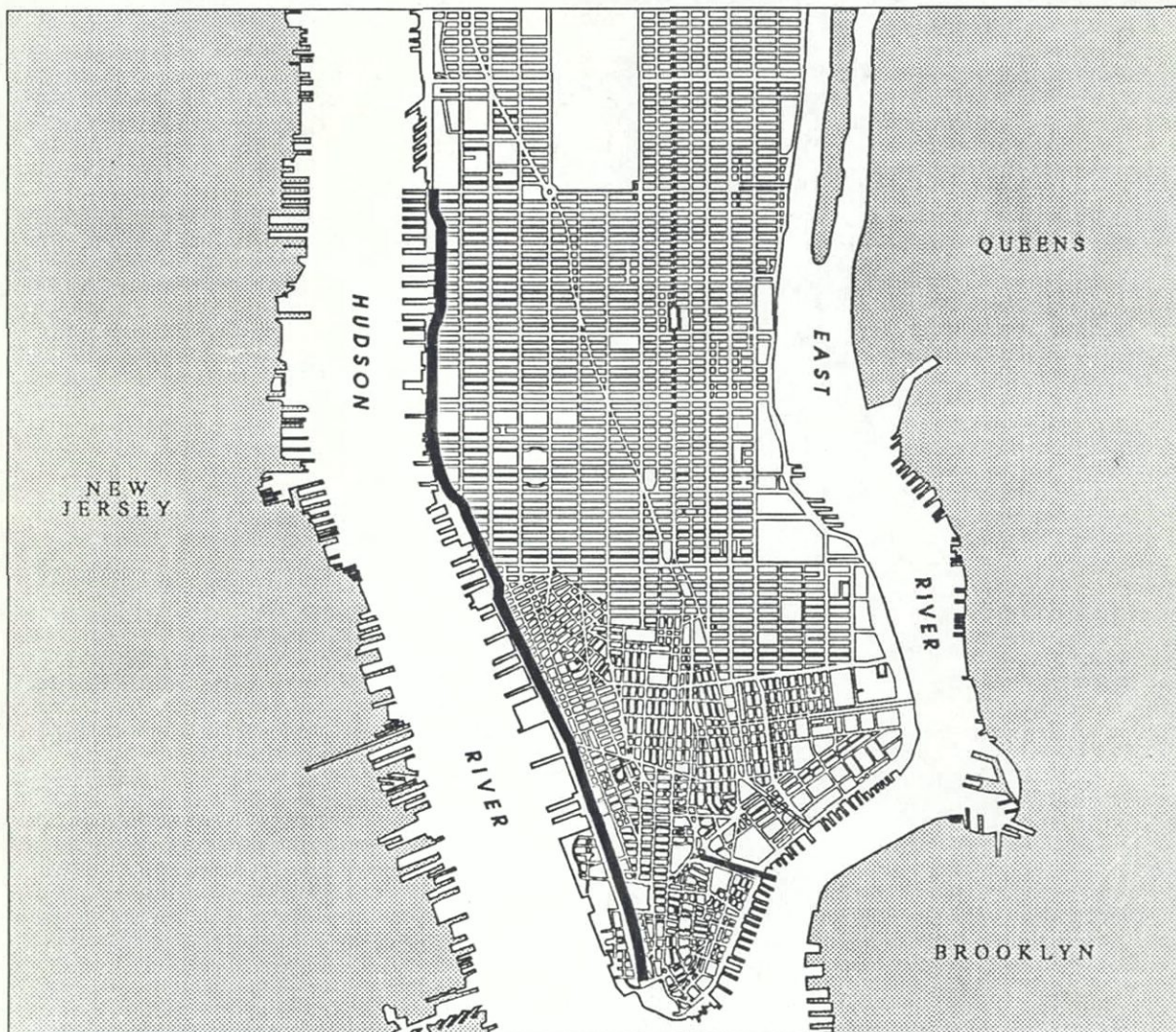


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R O U T E 9 A

RECONSTRUCTION PROJECT



DRAFT ARCHEOLOGICAL ASSESSMENT REPORT HARRISON STREET TO WEST 18TH STREET

March 1990

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R O U T E 9 A
RECONSTRUCTION PROJECT

DRAFT
ARCHEOLOGICAL ASSESSMENT REPORT
HARRISON STREET TO WEST 18TH STREET

March 1990

Prepared By:

Hartgen Archeological Associates, Inc.
in association with
Historical Perspectives, Inc.

Prepared For:

New York State Department of Transportation
in cooperation with
Federal Highway Administration & The City of New York

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EXECUTIVE SUMMARY

INTRODUCTION

The Route 9A Reconstruction Project from Battery Place to West 59th Street has been undertaken in a collaborative effort between the New York State Department of Transportation (NYSDOT), the City of New York and the Federal Highway Administration (FHWA). The planning and engineering process of the proposed reconstruction entails preparing an Environmental Impact Statement (EIS). As part of this EIS, potentially sensitive archeological resources within the project area are being identified, and the effects of prior disturbance (demolition, excavation, or a change in historic context) on these cultural resources are being determined. The object of this study is a list of sites which may meet the criteria for nomination to the National Register of Historic Places and an assessment of the impacts of the various alternatives on each of these resources. Hartgen Archeological Associates, Inc. (HAA), in affiliation with Historical Perspectives, Inc. (HPI), has undertaken preparation of an inventory of potential archeological resources in the archeological study area, an investigation of prior disturbance and the final assessment of the impact of the proposed project alternatives.

The sites preliminarily identified as potentially sensitive archeological resources for this section of the Route 9A project area will be re-evaluated after completion of research on the entire project area.

ARCHEOLOGICAL STUDY AREA

The proposed Route 9A Reconstruction spans from Battery Place to West 59th Street. This section of the report is concerned with the section between Harrison Street and West 18th Street. The project area bounds are generally as follows: The southern boundary is Harrison Street and the northern boundary is West 18th Street. On the west the area is bounded by the U.S. Bulkhead Line. On the east it is bounded by the west ends of numbered city blocks, and includes sidewalks along the block ends. At cross roads the project area extends an additional 50 feet east to include the first of the crossroad and sidewalks on the north and south borders of the road. There are several exceptions to this:

- o At Canal Street the project area extends east to include the two blocks bounded by Canal, Spring, West, and Washington Streets. An additional approximate 100 feet along Canal Street is included.
- o At Gansevoort Street, the project area bounds again extend eastward to include most of the block bounded by Gansevoort, Little West 12th, West, and Washington Streets, and half of the block north of this bounded by Little West 12th, West 13th, Washington, and West Streets.

Route 9A Reconstruction Project

- o The project area extends to the west to include the MABSTOA Bus Garage, on the shoreline between West 15th and West 16th Streets.

METHODOLOGY

Background research was conducted to establish a prehistoric and historic framework for the interpretation of potential resources. As part of this context, general categories were defined for these resources. The following categories were utilized for classifying potentially sensitive archeological remains:

- A) prehistoric remains
- B) historic remains
 - 1) dwellings and associated outbuildings
 - 2) industrial buildings/complexes
 - 3) piers and wharves
 - 4) landfill
 - 5) other

Archeologically sensitive areas were identified through archival and cartographic research. Several phases of research have been performed including documentary research, cartographic analysis, and site files review at numerous repositories in Manhattan and Albany, New York. Reports from previous archeological projects and the New York City Landmarks Preservation Commission's predictive model from archeological site formation for New York City were consulted for data pertinent to the Route 9A project area.

A block by block summary of development in the project area was compiled based on this research. The disturbance record, which includes road construction and reconstruction, utility line installation, and general demolition activities, has been established based on utility maps and the documented historical development of the area.

Cartographic reconstruction of the prehistoric shoreline is necessary in order to assess the potential for deeply buried prehistoric archeological sites to exist beneath landfill. Data from the cultural resource report prepared for the Westway project in 1983 by Historic Conservation and Interpretation, Inc. (HCI) was applicable to this section of the project area since it addressed the area south of West 44th Street. Specific areas categorized as potentially sensitive for prehistoric habitation were identified based on topography and characteristics known to be conducive to prehistoric habitation, now deeply buried beneath nineteenth century fill and river silts.

PREHISTORIC SENSITIVITY

Professional and amateur archeologists have been excavating prehistoric sites on Manhattan since the late nineteenth century. However, until after the 1930s, their field techniques and recording procedures were not comparable to the more scientific

procedures that are used today. The data from the earlier excavations are generally ambiguous so that findings cannot be assigned to a particular period and properly assessed. Thus it is necessary to continue trying to gather additional information on prehistoric lifeways in the metropolitan New York area.

HCI identified four areas between Harrison and West 18th Street as having the potential to possess prehistoric archeological remains. These areas are now 30 to 50 feet below the current sea level. We consider it impractical to attempt the recovery of such resources, since the construction of docks, piers and wharves, and constant dredging of the river bottom may have disturbed these potential resources. The depth also hinders the ability to excavate resources. Therefore, it is considered untenable to consider the recovery of deeply buried prehistoric resources.

HISTORIC SENSITIVITY

Archeologists have become increasingly concerned with research issues focusing on the development of the urban landscape and the development and change in waterfront construction, two issues important for understanding the process of urbanization. Resources that can potentially address these issues include: 1) early dwellings or 2) industrial buildings and complexes located along the shorefront, 3) piers and wharves, 4) possible sunken ships, and 5) landfill, including architectural features such as retaining devices. The significance of potential cultural resources located within the project area must be examined in this light.

Historical development has altered many of the natural topographic features that once characterized Manhattan. Between Harrison and West 18th Streets, the land now supporting West Street or Tenth Avenue and Marginal Street was submerged through at least the early nineteenth century. Prior to that time the Hudson River shoreline meandered between what are now Greenwich and Washington Streets, and Tenth and Eleventh Avenues. The shoreline was characterized by bluffs with beaches below. A lateral, kame-like, ridge extended from Warren Street to near Canal Street. A deep valley with a large stream ran from a fresh water pond east of the project area through a swamp along the current route of Canal Street and drained into the Hudson River. Eventually a sewer line replaced the route of the stream; one example of how development has disturbed and hidden these natural topographic features.

The extensive documentary and cartographic research to date for the project area between Harrison and West 18th Streets has revealed the location of several areas potentially sensitive for historic cultural remains. Prior impacts were assessed and a final list of areas deemed to be potentially sensitive was created. A preliminary evaluation of the resources in each of five categories as applicable is presented here. These include dwellings and outbuildings; industrial complexes; piers and wharves; landfill; and other. The conclusions presented in this chapter may be altered when research on the entire project area is completed and a final list of all potentially sensitive areas along the entire length of the project corridor is compiled.

Route 9A Reconstruction Project

Numerous piers dating to the nineteenth century were located in the current route of West Street or Tenth Street and Marginal Street and may have become part of the landfill. It would be impractical to attempt either excavation or avoidance of all of these features. However, the importance of such resources cannot be denied. The sample chosen and presented here for further consideration is preliminary and was based on age of construction and the potential for answering specific questions regarding shoreline development. It includes:

- o Pier 34, at Harrison Street, was built between 1828 and 1836. The pier became part of West Street landfill between 1897 and 1902.
- o The Harrison to Franklin Street steamship landing, built between 1874 and 1879, may have become part of the waterfront landfill between 1897 and 1902.
- o By 1827, the Poughkeepsie Steamboats Pier 35 at Franklin Street was built and later, became part of the landfill between 1897-1902.
- o At North Moore Street, Pier 36 was also built by 1827 but was incorporated into the city's landfill between, 1879-1885.
- o The Laight Street Pier, built between 1852 and 1854, was covered with landfill by 1902.
- o The Desbrosses Street Pier, which hosted public baths, was in place by 1826 and became part of the landfill by 1902.
- o Seen on maps by 1827, Pier 40, which served the Coney Island and Norwich Line for Boston, became part of the landfill between 1897 and 1902.
- o The Empire Pier, or Pier 43, between Spring and Vandam Streets, was in place by 1824 but may have become part of the landfill by 1879.
- o The LeRoy Street Pier 49 was, however, not built until the early 1850s and was subsequently merged with the shoreline by landfilling no later than 1879.
- o Pier 53 at Perry Street was built between 1846 and 1852 and became part of the landfill by 1902.

It is highly probable that undocumented piers, wharves, quays and fill retaining devices were incorporated into the fill during the land reclamation process. Since a diverse number of methods of shoreline expansion were used in Manhattan, varying with age of construction and individualistic techniques, these resources are considered an important research issue toward documenting the development of the city.

Harrison Street to West 18th Street

Industrial buildings and complexes which may warrant archeological investigations are the buildings and their associated commercial yards once present on Blocks 648, 649, 650, 651, 644, 653, 645, 686, 687, and 689. Each of these blocks, from south to north, is discussed below:

- o Block 648, between Bank and Bethune Streets, hosted on Lot 3990/K. two sheds of Cosgraff's lumber yard between c. 1885 and c. 1902. Lot 3999 supported a building and shed associated with the lumber yard dating to c.1879 and c.1885 through c.1902. Also on Lot 3999 were two buildings and two sheds housing a salamander works between c.1879 - 1902.
- o Block 649, between 12th and Jane Streets, on Lots 4120 through 4124 held the extension of B. Brooks and Company varnish factory between c.1885 - 1902 while Lots 4089/D-H held sheds between the same years.
- o Block 649, between Jane and Horatio Streets, hosted on Lot 4129/E and the north half of 4129/F a shed between c.1879 - 1902 while on Lot 4129/F a building was on the south half of the lot between c.1885 - 1902.
- o Block 650, between Horatio and Gansevoort Streets, had, on Lot 4169, sheds on it between c.1879 - 1902.
- o Block 651, between Gansevoort and Bogart Streets, hosted a building at the intersection of Gansevoort and West Streets between c.1859 - 1879.
- o Block 644, between Gansevoort and Little West 12th Streets, hosted on Lot 1 a pump-house/meat market between c.1900 and 1989.
- o Block 653, between Little West 12th and West 13th Streets, hosted on Lot 4326 a one-story building between c.1902 and c.1913.
- o Block 645, between Little West 12th and West 13th Streets, held a pottery works on Lots 3792 through 3794 from c.1852 to 1989. The building may still be standing. Lots 3791 held buildings from c.1902 to today. On Lots 3849 and 3850 there was a building on the north ends from c.1950 to 1989. On Lots 3849 and 3850 there was a butcher shop building between c.1902 - 1989. There was also a meat market building on Lots 3851 and 3852 between c.1902 to 1989. On Lots 3853-3854 a meat market/dance hall building stood from c.1885 through today. Lots 3855 through 3857 hosted a meat storage building between c.1885 and 1964. The east end of Lot 3858 held a building from c.1906 to today.
- o Block 654, between West 13th and West 14th Streets, on Lot 4362, hosted a variety of buildings associated with a lumber yard enterprise between c.1859 - 1879, and, in part, to c.1913. Lot 4362 also held a shed not associated with the lumber yard business between c.1902 and c.1913. The

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west half of Lot 4369 held buildings between c.1885 and c.1902. Both Lots 4376 and 4377 hosted structures between c.1902 and c.1913.

- o Block 686, between West 14th and West 15th Streets, had a building on Lot 1204 between c.1859 and c.1879 and a shed on each of Lots 1205 and 1210 between c.1879 and c.1885. On Lot 1211 there was also a shed, associated with the Carrol Lumber Company, between c.1879 and c.1902. On Lots 1212 through 1214 there was a shed on the southern part of the lots between c.1879 and c.1913 while in the middle of Lot 1212 a shed stood only between c.1879 and c.1885. A brick shed stood on the southern end of Lot 1215 between c.1879 and c.1913 and a wood shed covered the rest of the lot between c.1902 and c.1913. Lot 1249 held a brick building between c.1902 and c.1913. Lots 1216 and 1239 had a shed which stood between c.1879 and c.1885.
- o Block 687, between West 15th and West 16th Streets, on Lots 1481 and 1482, hosted sheds between c.1879 and c.1885 and c.1902, respectively. A shed stood on the middle of Lots 1482 and 1483 between c.1859 and c.1879. An office building also stood on Lot 1486 between 1859 and c.1902. Between c.1859 and c.1902 a storage building stood on the south ends of Lots 1487 through 1492. A cooperage was on the north ends of Lots 1488 through 1492 between c.1859 and c.1902. On Lot 1513 there was a shed between c.1879 and c.1885. Lot 1515 hosted, on the north half of the lot, a shed between c.1879 and c.1885. Lots 1517 and 1518 held cow stables on the south ends of the lots and the north ends of the lots between c.1852 and c.1859.
- o Block 689, between West 17th and West 18th Streets, hosted, on Lots 173 through 176, 2029 through 2031, and the north halves of Lots 2032 and 2033, a coal house of the Manhattan Gas Company between c.1859 and c.1913. The north halves of Lots 2019 through 2021, 2023 through 2027, 2034 through 2038, and 2040 supported a retort house of the Manhattan Gas Company.

Identified landfill features which may warrant archeological investigation are possible sunken ships.

- o Documentation indicates that a ship sank at the Canal Street Pier sometime prior to 1812. Landfill in this area dates to between 1817 and 1824 and it is quite possible that the ship was left at the bottom of the river to contribute to the process of landfilling.

Further documentary research on this location may assist in determining whether the ship may exist as a potentially sensitive archeological resource.

Harrison Street to West 18th Street

- o On Lot 1515 of Block 687, between West 15th Street and West 16th Street, is an 1859 cistern associated with cow stables. Cisterns were usually capped when they were no longer in use sealing in potentially valuable archeological resources.

As stated above, this is a preliminary evaluation and the conclusions presented may be altered when research on the entire project area is completed.

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A. INTRODUCTION

The Route 9A Reconstruction Project from Battery Place to 59th Street has been undertaken in a collaborative effort between the New York State Department of Transportation (NYSDOT), the City of New York, and the Federal Highway Administration (FHWA). The planning and engineering process of the proposed reconstruction entails preparing an Environmental Impact Statement (EIS). Part of this EIS entails identification of potentially sensitive archeological resources within the project area, and then determination of the effects of prior demolition, excavation, or a change in historic context on these cultural resources. The result of this study is a preparation of an inventory of probable archeological sites, and recommendations of which sites are potentially significant and may meet the criteria for nomination to the National Register of Historic Places. This introductory chapter provided for each individual report will eventually be replaced by a final overall introductory section.

Vollmer Associates is coordinating the preparation of the EIS, while Allee King Rosen and Fleming, Inc. (AKRF) is directing the cultural resources portion of the EIS. Hartgen Archeological Associates, Inc. (HAA), in affiliation with Historical Perspectives, Inc. (HPI), has undertaken preparation of an inventory of potential archeological resources in the project area, an investigation of prior disturbance, and an assessment of the impact of the proposed project alternatives.

The proposed Route 9A Reconstruction spans from Battery Place to West 59th Street. This section of the report is concerned with the section between Harrison Street and West 18th Street (Figure 1-1). The archeological study area bounds are as follows: The southern boundary is Harrison Street and the northern boundary is West 18th Street. On the west the area is bounded by the U.S. Bulkhead line. On the east it is bounded by the west ends of numbered city blocks, and includes sidewalks along the block ends. At cross roads, the project area extends an additional 50 feet east to include the first 50 feet of the crossroad and sidewalks on the north and south borders of the road. There are several exceptions, described below.

At Canal Street the project area extends east to include the two blocks bounded by Canal, Spring, West, and Washington Streets. An additional approximate 100 feet along Canal Street is included. At Gansevoort Street, the project area bounds again extend eastward to include most of the block bounded by Gansevoort, Little West 12th, West, and Washington Streets, and half of the block north of this bounded by Little West 12th, West 13th, Washington, and West Streets. The project area extends to the west to include the MABSTOA Bus Garage, on the shoreline between West 15th and West 16th Streets. North of this, the project area

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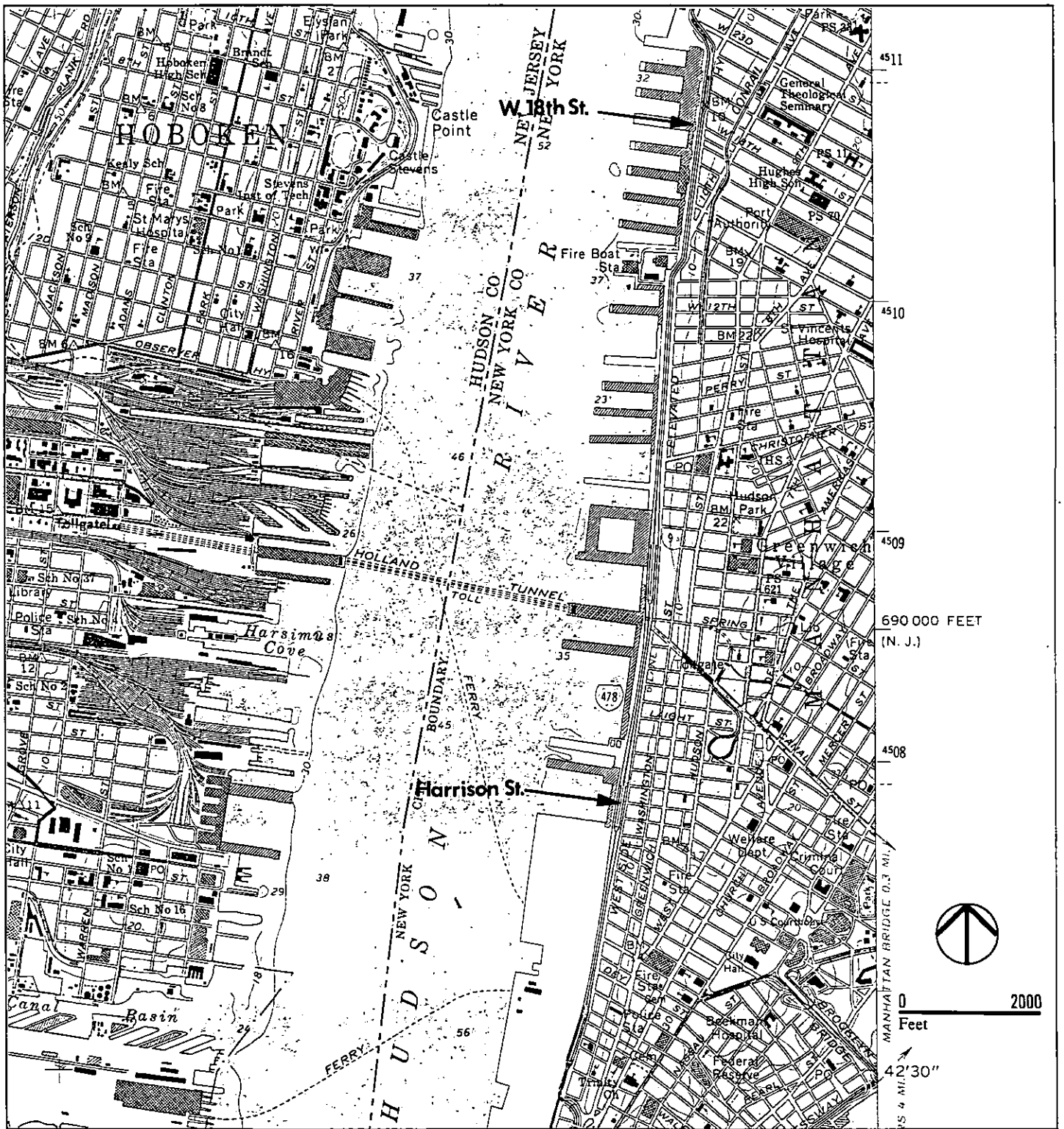
boundaries continue along the above described route. The Miller Elevated Highway is locally referred to as the West Side Highway (hereafter referred to as the Highway). Marginal Street lies between the 70 foot span of West Street and the U.S. Bulkhead line to the west.

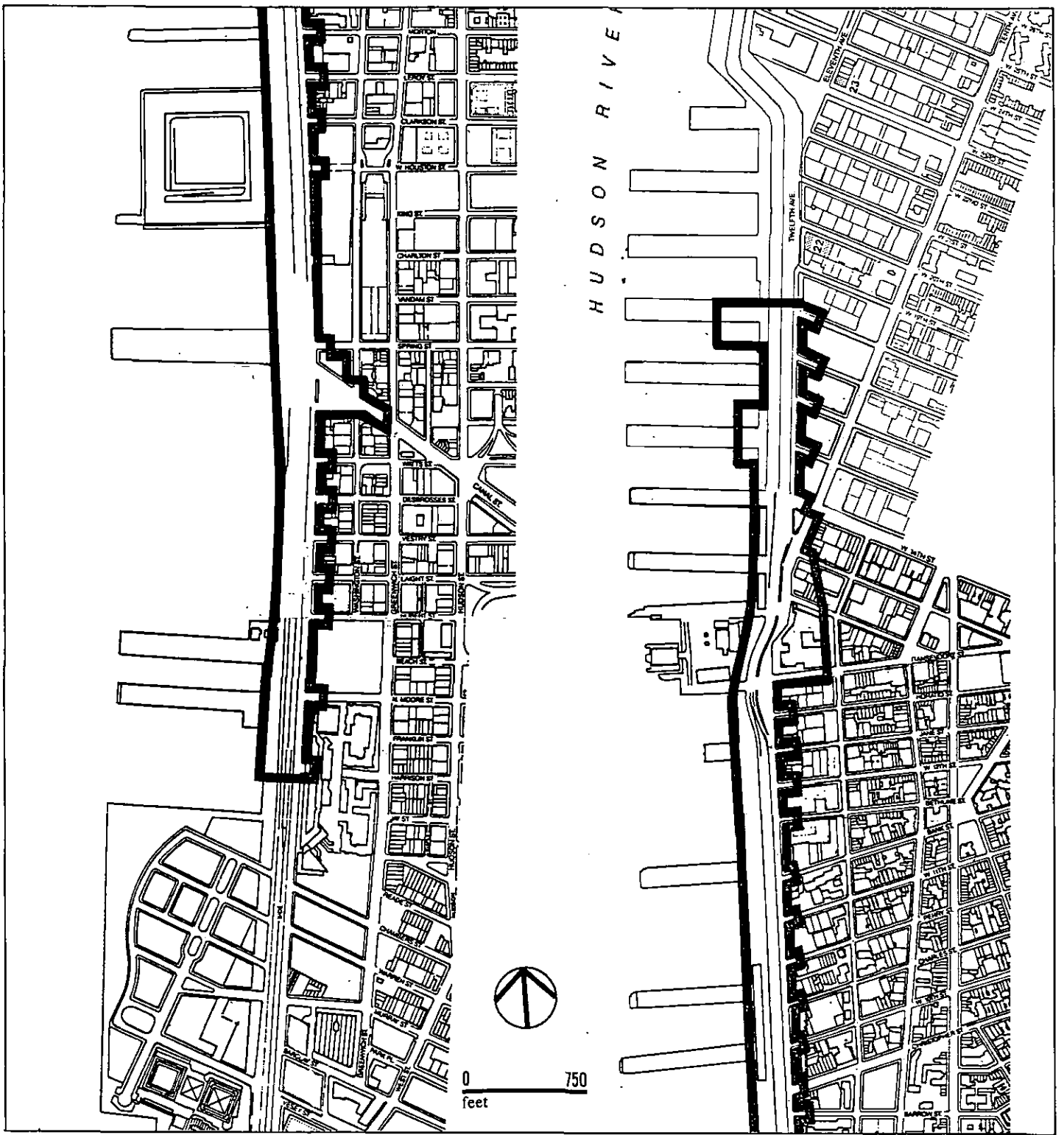
Prehistorically, the land now occupied by West Street and Marginal Street was beneath water. At various points in time, following deglaciation about 15,000 years ago, water levels were lowered exposing land along the shore. The width of the Hudson River was reduced, and areas submerged at the time of European settlement were exposed for habitation by various flora and fauna. These drowned shorelines were probably once utilized by Native Americans for resource procurement and processing, as well as habitation. The estuarial environment and nearby uplands would have provided necessary resources to sustain prehistoric populations.

The shoreline reconstruction compiled by Historic Conservation and Interpretation, Inc. (HCI) in 1983 for the Westway project has been utilized to determine the degree of prehistoric sensitivity for those areas submerged at the time of European settlement. The cartographic reconstruction of the drowned shoreline, which identified areas having the potential to possess Native American remains, was based on topographic and environmental features. A number of potentially sensitive areas were identified by HCI between Harrison and West 18th Streets, now beneath 30 to 50 feet of landfill.

Historically, development and landfilling were slower along the Hudson's shoreline than on the East River since the Hudson was deep and difficult to fill, and the East River accommodated the needs of early shippers. As new technologies were introduced, the use of the Hudson River increased and filling moved the shoreline west from its original route along Washington Street and between Tenth and Eleventh Avenues, west to include West Street and Marginal Street. The process of landfilling was slow, and often garbage, sunken ships and shoreline features associated with shipping, became part of the fill. The remnants of these activities have been encountered in a few places in lower Manhattan and undoubtedly exist in the project area. However, between West 11th and 18th Streets, the construction of the Chelsea-Gansevoort Piers in the late nineteenth and early twentieth centuries removed much of the landfill that was previously west of the project area.

The following archeological study addresses the potential prehistoric and historical archeological sensitivity of the project area between Harrison and West 18th Streets. The analysis has provided a synopsis of these potentially sensitive areas, together with a record of subsequent disturbance to these areas. A final list was compiled to present those features considered to be archeologically sensitive and previously undisturbed.





ROUTE 9A RECONSTRUCTION PROJECT

Legend

— Archeological Study Area

Archeological Study Area Boundaries
Harrison Street to West 18th Street

A. METHODOLOGY

Background research was conducted to establish a prehistoric and historical framework for the interpretation of potential resources. Areas of prehistoric and historical sensitivity were identified through archival and cartographic research. The previously compiled Cultural Resource report prepared for the Westway project in 1983 by Historic Conservation and Interpretation, Inc. (Rutsch et al. 1983), was applicable to this section since it addressed potential sensitivity between Battery Place and West 44th Street.

The focus of the prehistoric sensitivity section of the 1983 Cultural Resource report for Westway differed from the focus of this report. The previous project area encompassed a large area outboard of the current shoreline together with several inboard interchanges, and only extended as far north as West 44th Street. The research conducted in 1983 entailed reconstructing the prehistoric shoreline beneath the West Side Highway landfill and the outboard area. Sensitivity was assessed based on prehistoric topography and the degree of likelihood that Native Americans once found such topographic features attractive for subsistence and settlement. The final analysis sufficiently assessed archeological sensitivity for the current project area south of West 44th Street based on current theoretical and methodological issues. It was not necessary to conduct any additional research for that area.

The historic research conducted for the Westway project also differed from that conducted in this report due to the differences in project area boundaries as well as changes in methodological and theoretical concerns. Research concerns have changed through time as new techniques became available and topics of investigation became more refined. The research conducted for this report is guided by such projects. The previous report provided details of historical development at interchange areas, outside of the current project area. Because of current boundary differences, a cartographic reconstruction of historical development in the corridor has been compiled, and landowner lists and building histories have been acquired for areas where the Highway traversed previously lotted city blocks. Episodes of filling, construction, and disturbance have also been traced for the entire length of the corridor.

Currently, several phases of research have been performed including documentary research, cartographic analysis, and site files review. The scope of each of these tasks is presented below. The disturbance record has been established based on utility maps and the documented historical development.

DOCUMENTARY RESEARCH

A literature search was conducted of available ethnographic and historic accounts, and reports and data pertinent to the historical and prehistoric archeological record. Archeological reports for the surrounding area were reviewed. In addition, permit

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applications from various state, city and federal agencies were examined. Where available, photographic, print and clipping files were also reviewed. The following libraries and agencies were contacted and researched in New York City and Albany.

American Museum of Natural History
Holland Society Library
Municipal Art Society Library
Museum of the City of New York-Reference Collection
New York City Landmarks Preservation Commission
New York City Municipal Reference Library
New York City Municipal Archives
New York City Society of Mechanics and Tradesmen Library
New York Historical Society Library
New York Public Library
New York State Library-Manuscripts and Special
Collections
New York State Museum
New York State Office of Parks, Recreation and Historic
Preservation (SHPO)
Port Authority of New York and New Jersey
Regional Plan Association Library
Society of Engineers Library
South Street Seaport Library
U.S. Army Corps of Engineers

CARTOGRAPHIC ANALYSIS

Historical maps and atlases were obtained, and were examined to establish the presence of standing structures and features within the project parcel throughout documented history, and to establish the prehistoric topographic and environmental conditions. Numerous maps and atlas were reviewed. It was sufficient to review maps and atlases at five-to-ten year intervals, since buildings of shorter duration would probably not greatly contribute to the archeological record. In addition, short-term temporary structures which would have stood for less than five-to-ten years, usually lack permanent subterranean foundations and therefore do not cause substantial disturbance.

In addition to the above libraries researched, the Olmstead Center in Flushing, Queens was contacted for maps of early parks existing within the project area. Certain maps at the United States Army Corps of Engineers were also reviewed for shoreline disturbance. At the Borough President's Office, the Topographic Bureau provided historical and geological maps.

PROPERTY RESEARCH

In order to determine the previous owners of land currently within the bounds of the project parcel, and the development and subsurface disturbance of these parcels,

Chapter III:

land transaction records were reviewed at the New York City Department of Finance, Index Division. Individual lot development was followed by obtaining Block and Lot files and microfiche from the New York City Buildings Department. This level of research was limited to reviewing ownership records, and did not include deed research. If appropriate, this documentation would be reviewed during Stage 2 investigations.

SITE FILES REVIEW

The New York City Landmarks Preservation Commission (NYCLPC) was contacted for information on culturally significant areas previously identified in the project area and vicinity. In addition, the NYCLPC provided a predictive model of prehistoric site location for the project area. Site files were also reviewed at the New York State Museum and the State Office of Parks, Recreation and Historic Preservation.

FIELD VISIT

A walkover survey was conducted of the entire project area between Harrison and West 18th Streets and photographs were taken at each intersection of a cross road along West Street and Tenth Avenue. Photographs were also taken from the Hudson River. Additional photographs were taken as deemed necessary.

A. PROJECT AREA CONDITIONS

ENVIRONMENTAL CONDITIONS

During the Pleistocene period, ice advanced in North America four times. In the last 50,000 years, the Wisconsinian period, ice was 1,000 feet thick over Manhattan. Gravel and boulders deposited at the ice sheet's melting margin formed Long Island about 15,000 years ago (Kieran 1982:26). During the last 10,000 years, glacial till and outwash were covered by the fluvial deposits of the Hudson River. Sea levels have gradually risen as glaciers retreated, and the velocity of the Hudson River has decreased (Vollmer Associates 1989:6). Estuary formation in the Hudson began between 11,000 to 12,000 years ago. Between 8,000 and 10,000 thousand years ago, the river experienced a reduction in salinity, which then increased between 7,000 and 8,000 years ago when the estuary obtained its maximum extent (Rutsch et al. 1983:25). The Hudson River is known for freezing in the winter, with ice floating down river during spring thaws (Luke 1953:10).

The project area between Harrison and West 18th Streets along the Hudson River is part of the embayed section of the Coastal Plain which extends along the Atlantic Coast and ranges from 100 to 200 miles wide (Figure 4-1). The Manhattan prong, which includes southwestern Connecticut, Westchester County, and New York City, is a small eastern projection of the New England uplands, characterized by 360 million year old highly metamorphosed bedrock (Schuberth 1968:11). The Manhattan ridge generally rises in elevation towards the north, and sinks towards the south. South of 30th Street, the bedrock dips down several feet beneath the earth's surface, and south of Washington Park it plunges down below 100 feet, forming a subterranean valley.

The prevalent gneissoid formation is known as Hudson River metamorphosed rock. The city is characterized by a group of gneissoid islands, separated from each other by depressions which are slightly elevated above tide and filled with drift and alluvium. The area consists of drift with underlying crystalline rocks including stratified gneiss, mica schist, hornblende gneiss and hornblende schist with some feldspar and quartz (Gratacap 1909:27). Between West 13th and 31st Streets there is little rock exposure, and the surface is diversified with hills of gravel, sand, and earth dotted with large boulders (Ibid.:10).

Historical development has altered many of the natural topographic features that once characterized Manhattan (Gratacap 1909:5). Between Harrison and West 18th Streets, the land now supporting West Street and Marginal Street was submerged through at least the early nineteenth century. Prior to that time the Hudson River shoreline meandered between what are now Greenwich and Washington Streets, and Tenth and Eleventh Avenues. The shoreline was characterized by bluffs with beaches below them (Stokes Vol. 3 1909:157). A lateral, kame-like, ridge extended from Warren Street to near Canal Street where

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the Lispinard farm once stood (Gratacap 1909:6). A deep valley with a large stream ran from the Collect Pond, east of the project area, through Lispinard's swamp along the current route of Canal Street and drained into the Hudson River (French 1860:418). Eventually a sewer line replaced the route of the stream; one example of how development has obliterated and hidden these natural topographic features (Gratacap 1909:5).

Soil within Manhattan is mostly glacial till, clay, sand, gravel, mud, and assorted debris (Kieran 1982:24). Within the project area, the soils include landfill, silty clay, clayey silt and fine sand, silty coarse to fine sand, and glacial till (Vollmer Associates 1989:7). The groundwater level fluctuates with tidal variations in the river (Ibid.:9).

CURRENT CONDITIONS

The original elevated West Side Highway has been removed from this section of the project, and an at-grade roadway exists where West Street was prior to the Highway's construction. Project area photographs show the current area conditions along the shoreline between Harrison and West 18th Streets (Figure 4-2). The area is generally non-residential, characterized by shipping-related facilities, small shops and businesses, and tall office buildings of lower Manhattan. The use of piers within this section, active through the nineteenth and twentieth centuries, has declined.

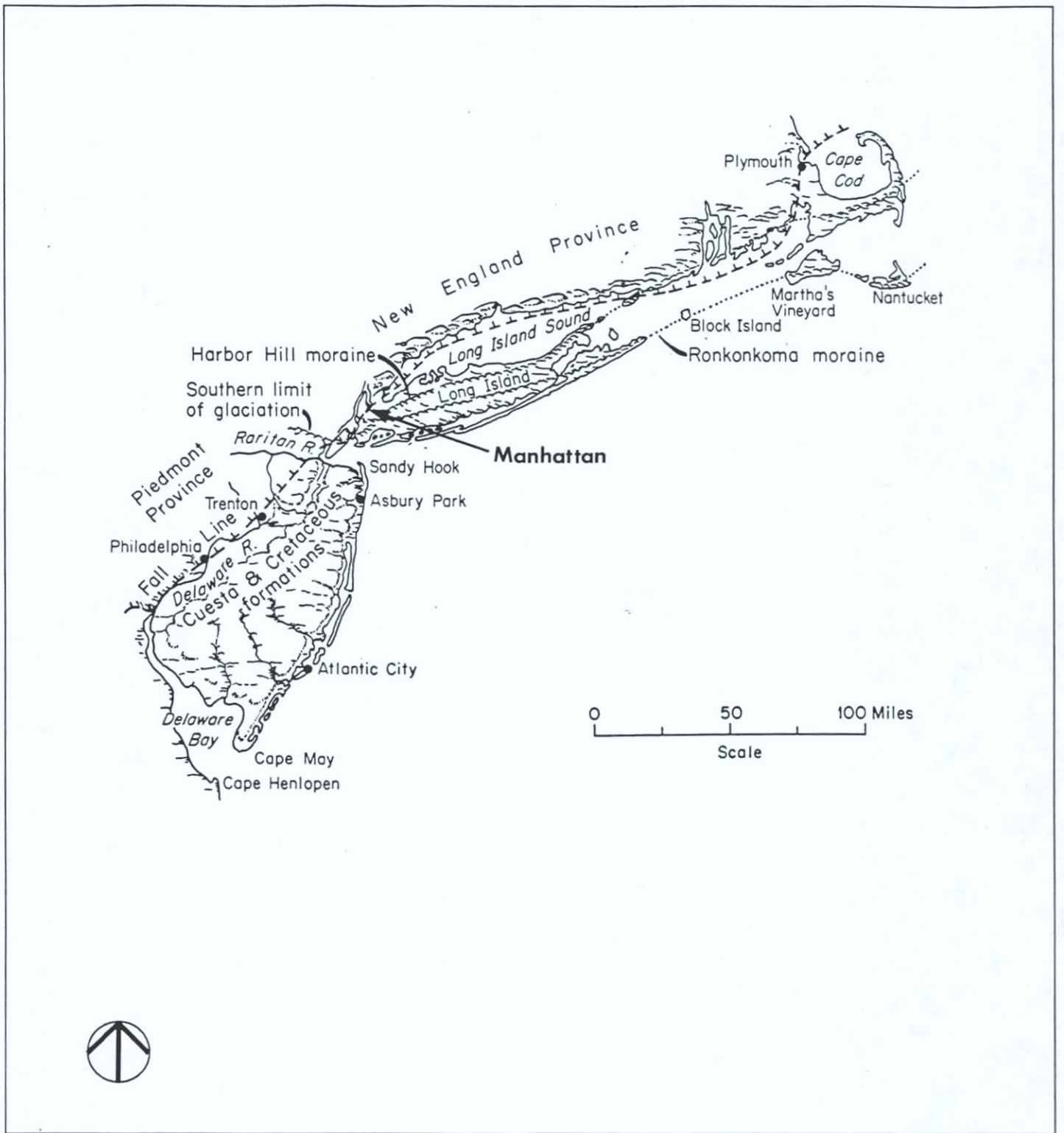
The condition of the bulkhead varies along the project parcel. Between Harrison Street and Watts Street, the bulkhead is constructed of timber piles supporting a massive concrete structure faced in the tidal range with large granite blocks. Between Piers 32 and 34, near Watts and Canal Streets, the bulkhead is of similar construction, and the upland area at the end of Pier 34, is paved with two concrete slabs, directly over the route of the Holland Tunnel. East of the slabs is a one-foot concrete depression caused by the loss of fill (Mueser Rutledge 1988:6). North of Pier 34 to Houston Street, a span of approximately 100 feet of the bulkhead is broken and fill has been lost directly to the east of it, resulting in the development of sink holes. Between Barrow and Christopher Streets, approximately 20 feet of the walkway to the east of the bulkhead has settled, also indicating loss of fill and the presence of underground openings.

On the north side of the landfill at the Gansevoort Destructor Plant, between Gansevoort and Bloomfield Streets, is a concrete platform which extends past an old crib located below grade (Mueser Rutledge 1988:9). Between Little West 12th Street and West 14th Street, the bulkhead is of the same construction described above, and lies entirely under building and platform structures. North of West 14th Street, the decks have been demolished and the bulkhead appears to be of the same construction.

The Holland Tunnel, built between 1920 and 1927, runs beneath West Street and Marginal Street at Canal Street, connecting New York and New Jersey. East and west-bound tubes are separate, each two lanes wide (Works Progress Administration

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1939:80). The tunnel was constructed using cast iron liner rings and internal concrete linings, and runs through silt and sand (Vollmer Associates 1989:11) In addition, a PATH tube runs beneath the project area at Morton Street. Construction for the tube began in 1874 and was finished in 1905. Some portions of the lining are brick while other portions are brick and concrete. In general, subsurface resources along West Street and Marginal Street undoubtedly "contain cribs, old bulkheads, sections of old piers, abandoned utility lines and other remnants of abandoned previous construction" (Ibid.). More recent utility lines are also present.



ROUTE 9A RECONSTRUCTION PROJECT

Physiographic Map of the North End of the Embayed Section of the Coastal Plain
 Source: Eisenberg 1976:10

Harrison Street to West 18th Street Archeological Study Area Site Photographs



Harrison Street passing through Manhattan Community College at right, North Moore Street at center, Hubert Street at left, Piers 25 and 26 in foreground
View from the Hudson River facing east 4/27/89



North Moore Street
Facing east from Marginal Street in front of Pier 25 9/13/89

This section contains photographs of present site conditions. Included are photographs showing the east and west extensions of the archeological study area into the streets intersecting West Street, and Eleventh Avenue *Figure 4-2*



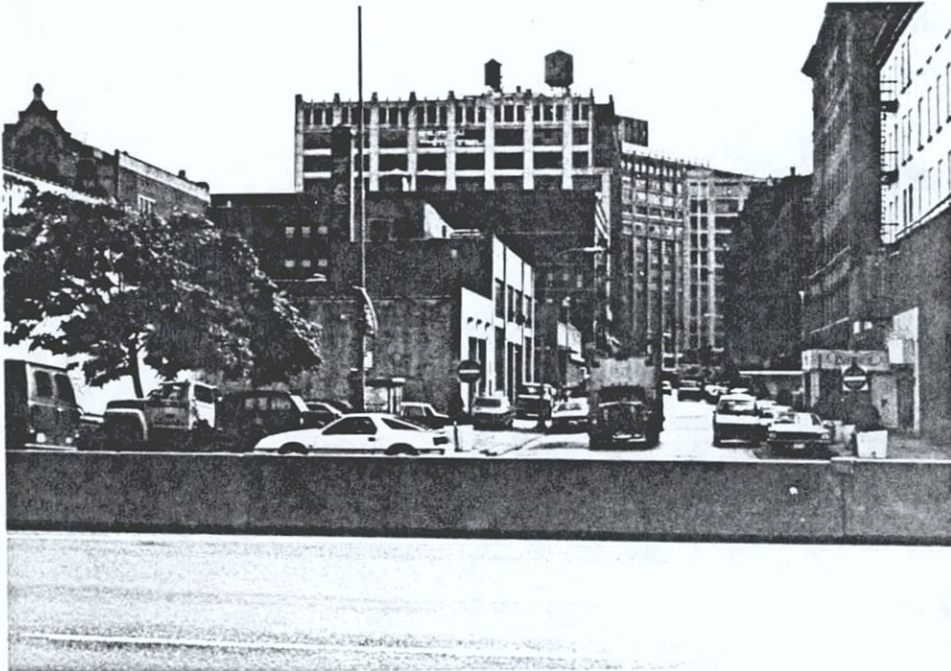
Hubert Street
Facing east from Marginal Street 9/13/89



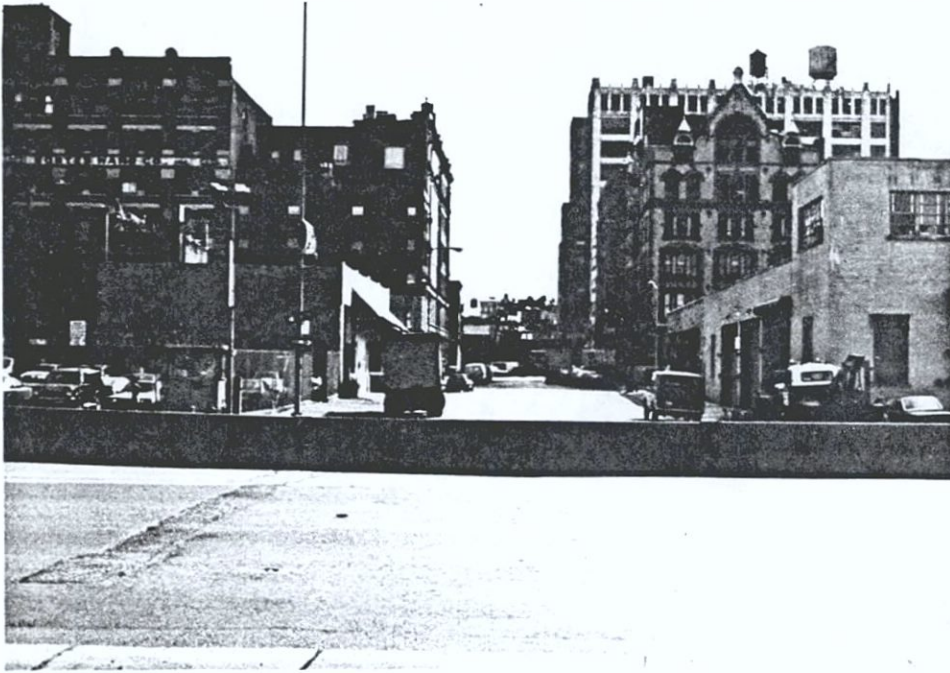
Laight Street
Facing east from Marginal Street 9/13/89



Vestry Street
Facing east from Marginal Street 9/13/89



Debrosses Street
Facing east from Marginal Street 9/13/89



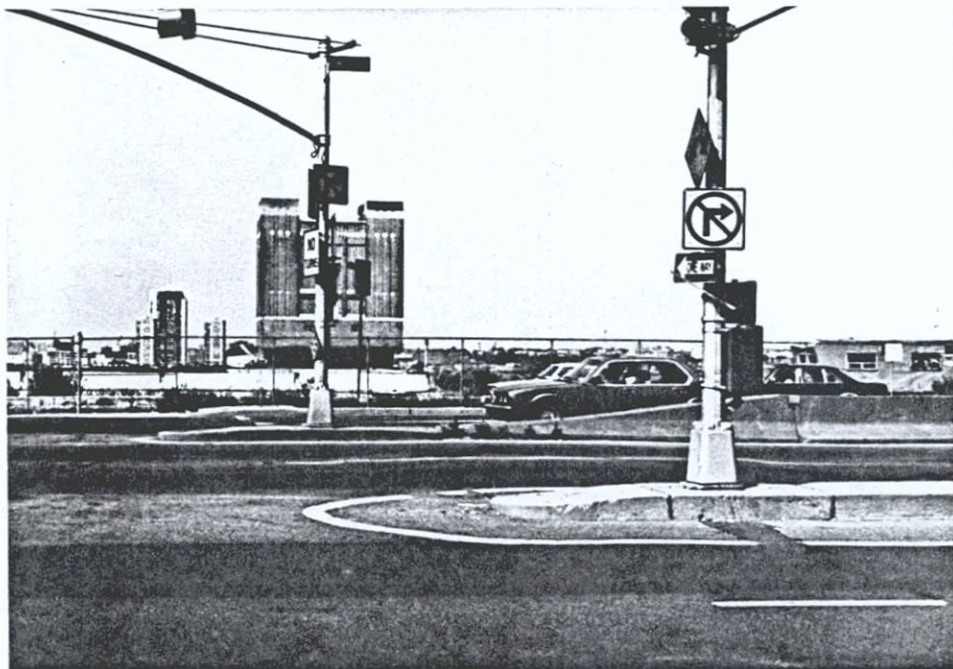
Watts Street
Facing east from Marginal Street 9/13/89



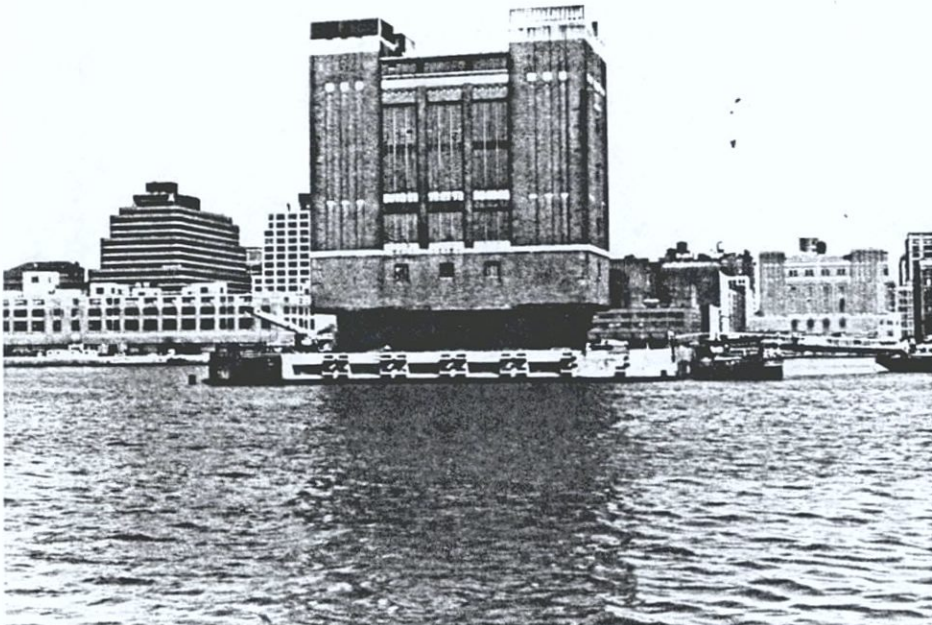
Canal Street, southern extension
Parking lot at left is within study area boundaries (Block 595). Facing east from Marginal Street between Piers 32 and 34 9/13/89



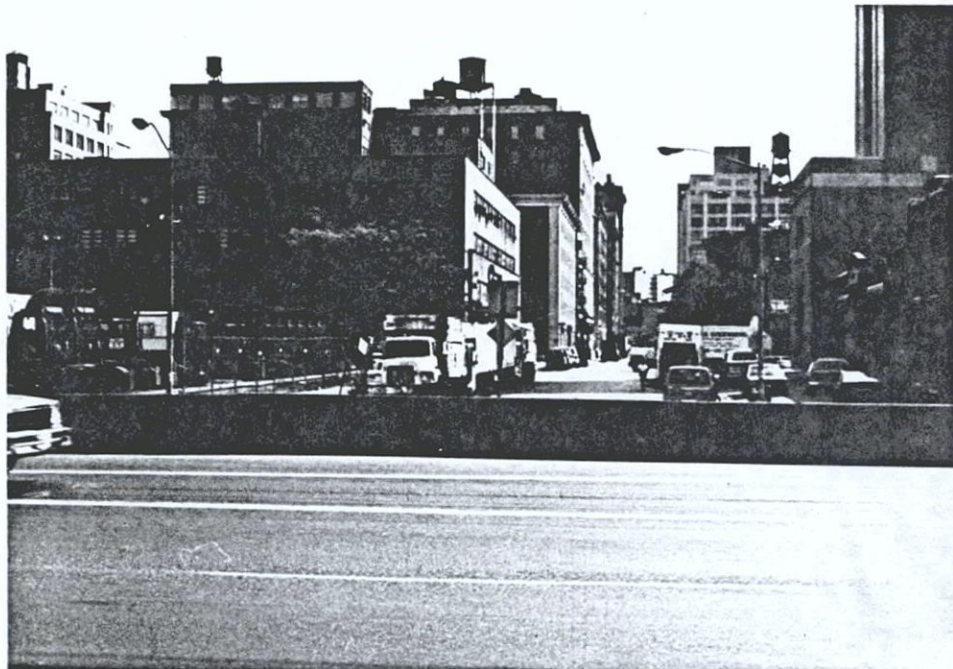
Canal Street, Base of Holland Tunnel ventilator building, city parking garage
Facing east from Marginal Street between Piers 32 and 34 9/13/89



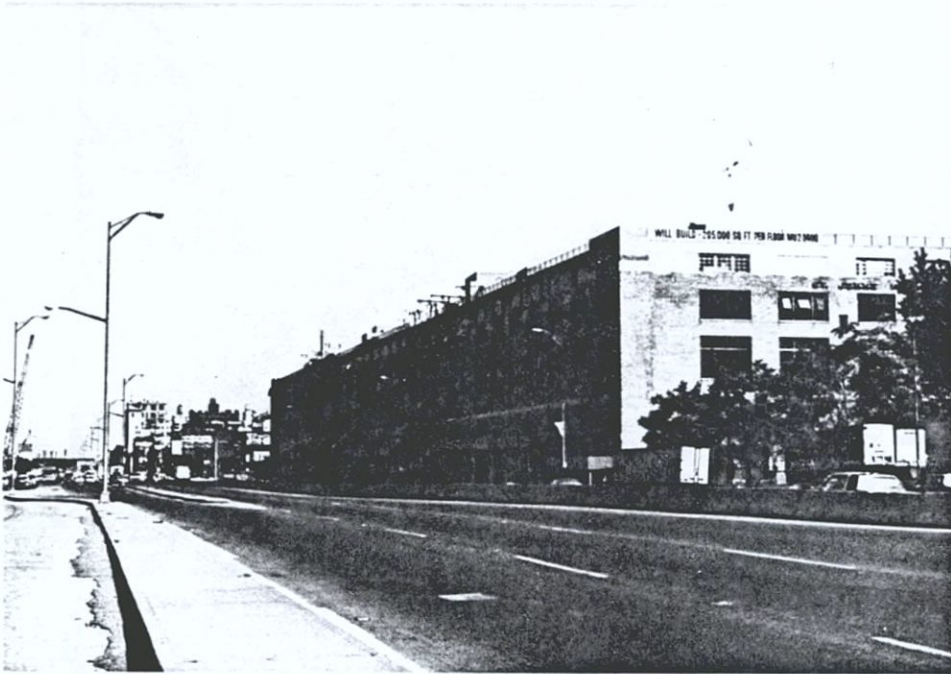
West Street, Pier 34, and Holland Tunnel ventilator building
Facing west from Canal Street 9/13/89



Holland Tunnel ventilator building, Canal Street ventilator building at right
View from the Hudson River facing northeast 9/13/89



Spring Street
*Base of Holland Tunnel ventilator building at right. Facing east from Marginal Street
in front of Pier 34 9/13/89*



The St. Johns Building
Facing northeast from Spring Street toward Carlson Street 9/13/89



Pier 40 complex, Bulkhead, St. Johns Building
View from the Hudson River facing northeast 9/13/89



West Houston Street passing through the St. Johns Building
Facing east from Marginal Street in front of Pier 40 piersheds 9/13/89



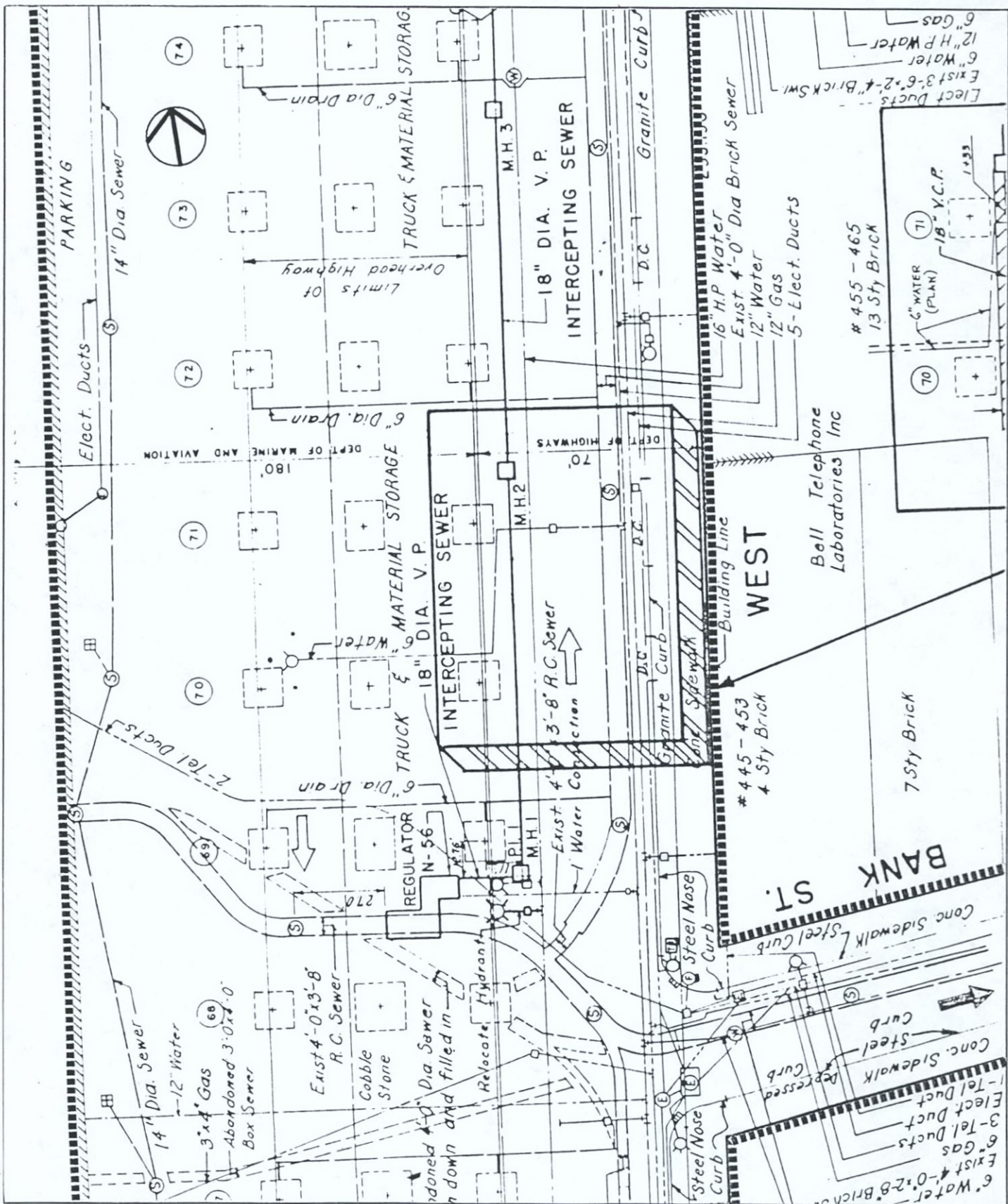
Pier 40 piershed
Facing west from West Houston Street 9/13/89



Clarkson Street
Facing east from Marginal Street in front of Pier 40 complex 9/13/89



Leroy Street
Facing east from Marginal Street 9/13/89



ROUTE 9A RECONSTRUCTION PROJECT

Legend

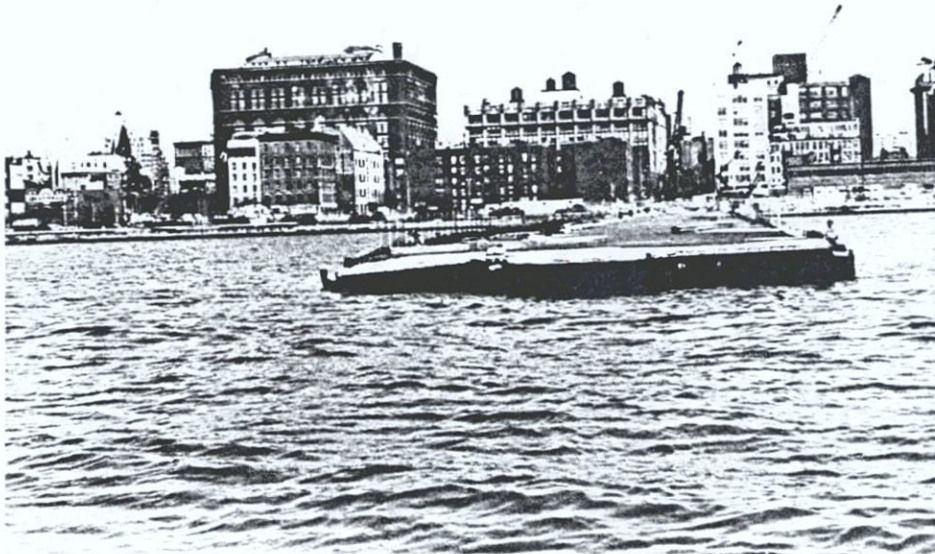
■■■■■ Archeological Study Area Boundaries

Example of Utilities in Archeological Study Area

Figure 4-2 (cont'd)

IV-14

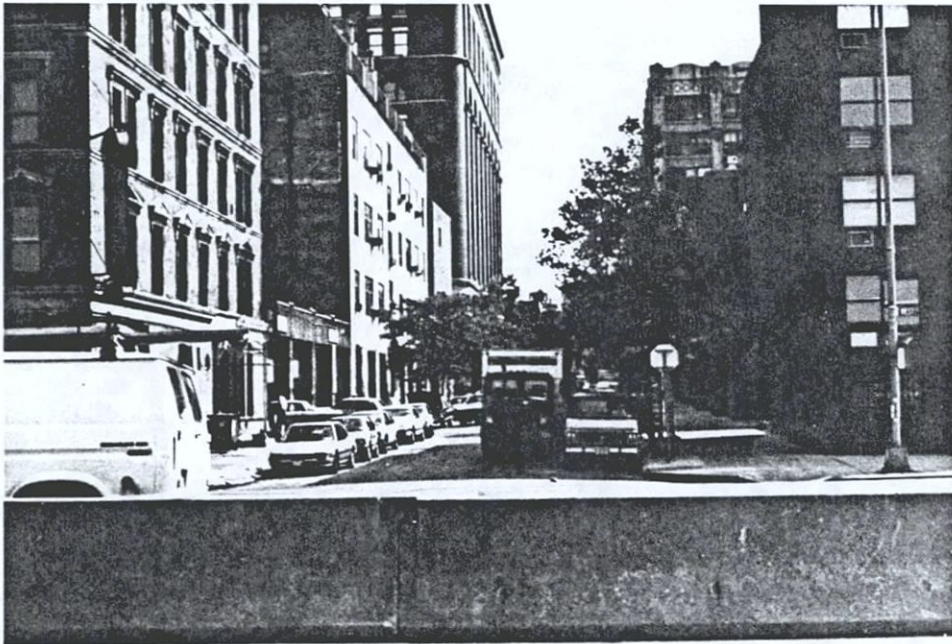
Figure 7-1



Pier 42
Park/public space along bulkhead at left. View from the Hudson River facing east
4/27/89



Morton Street
Facing east from Marginal Street in front of Pier 42 9/13/89



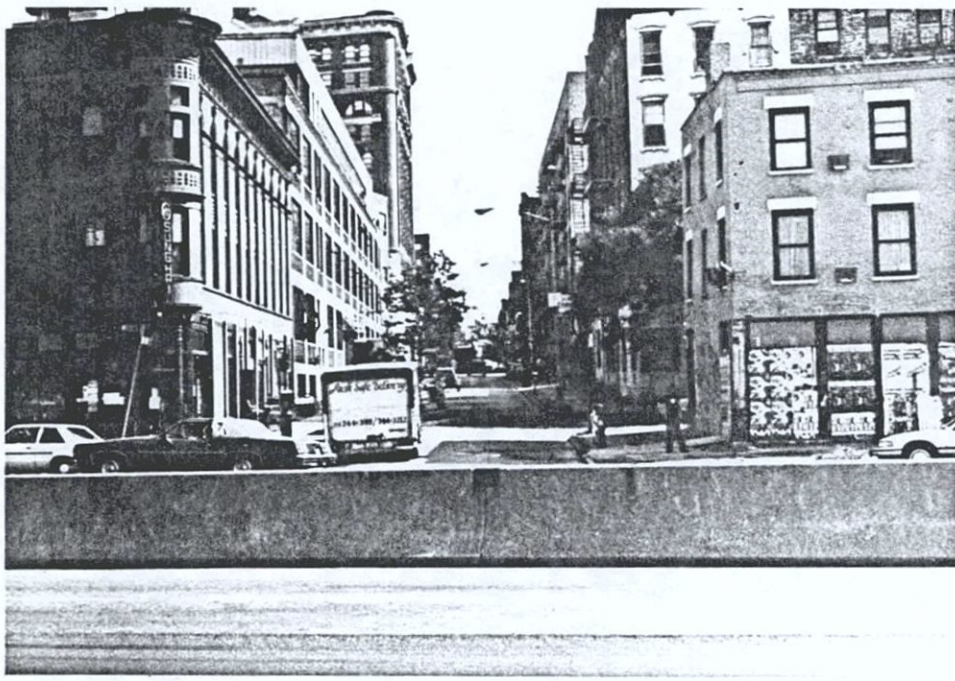
Barrow Street

Facing east from Marginal Street in front of Pier 42 public space 9/13/89



Christopher Street

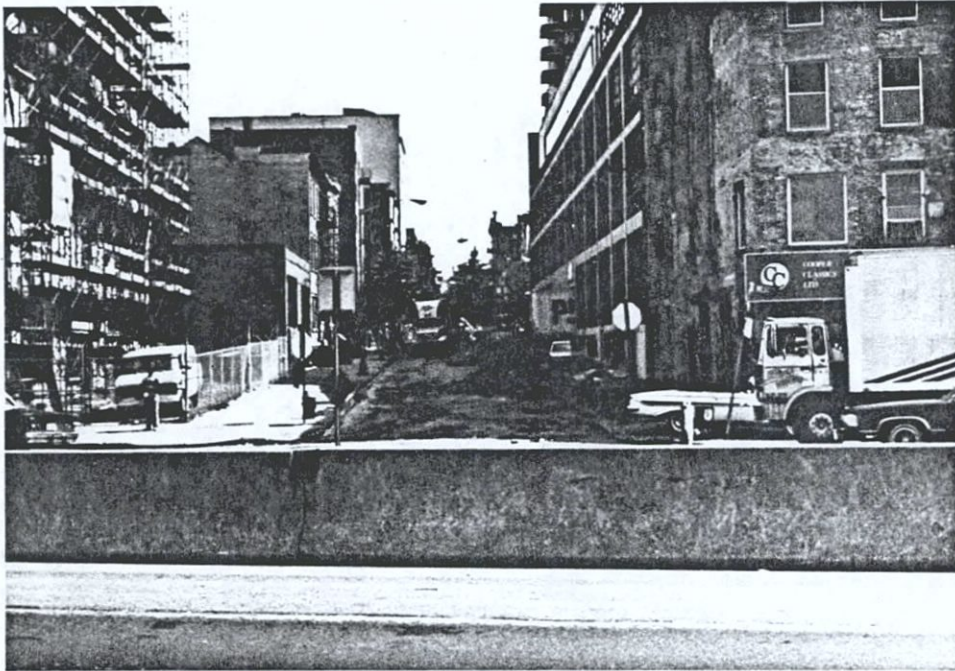
Facing east from Marginal Street 9/13/89



West 10th Street
Facing east from Marginal Street 9/13/89



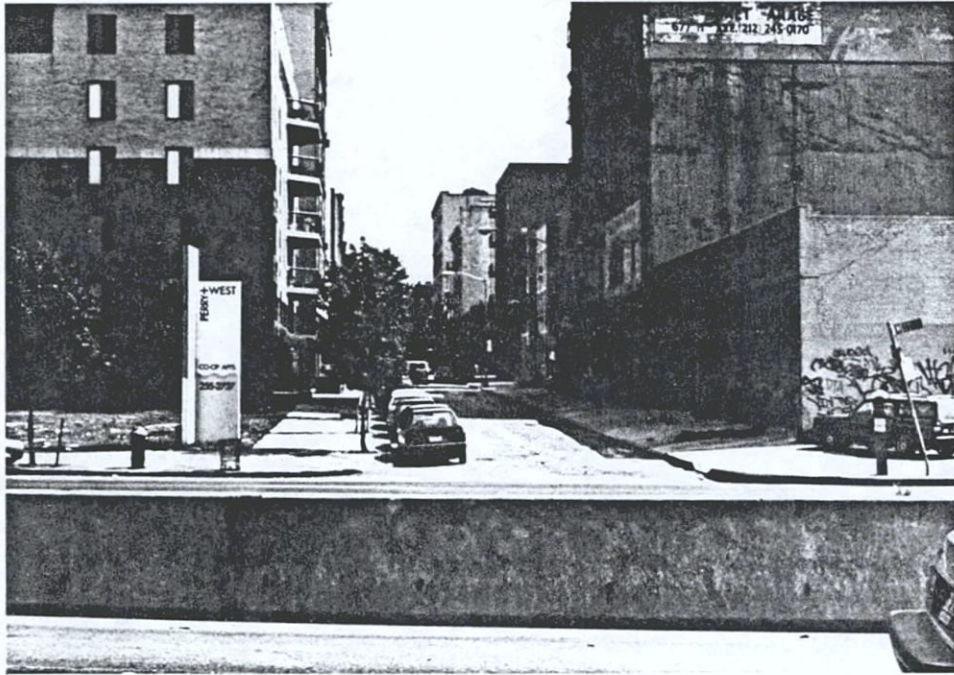
Bulkhead, Pier 45
Note condition of pilings. View from the Hudson River facing east 4/27/89



Construction in Charles Street
Facing east from Marginal Street in front of Pier 46 9/13/89



Pier 46, Bulkhead
The public now use Pier 46 as recreational space. View from the Hudson River facing east 4/27/89



Perry Street
Facing east from Marginal Street between Piers 46 and 48 9/13/89



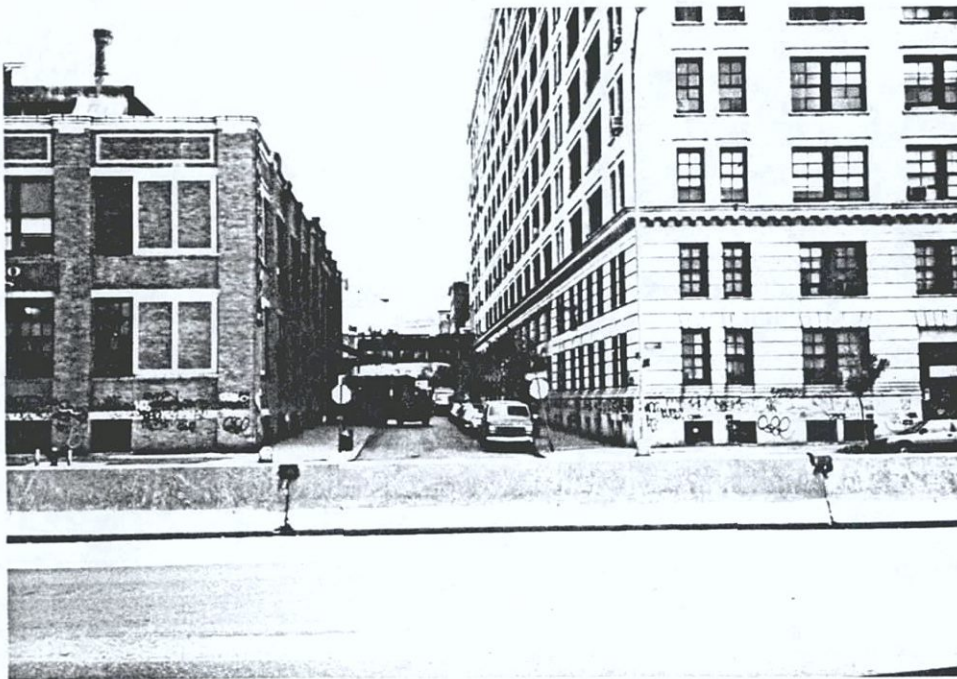
West 11th Street
Facing east from Marginal Street in front of Pier 48 9/13/89



Bank Street
Facing east from Marginal Street south of Pier 49 9/13/89



The Chelsea Piers area
Pier 49 in foreground, Pier 51 at center, and the Department of Sanitation facility at Gansevoort Street at left. View from the Hudson River looking northeast. 4/27/89



Bethune Street
Facing east from Marginal Street 9/13/89



West Street, Marginal Street
*Typical view at intersections of cross streets. Facing west from West 12th Street
9/13/89*



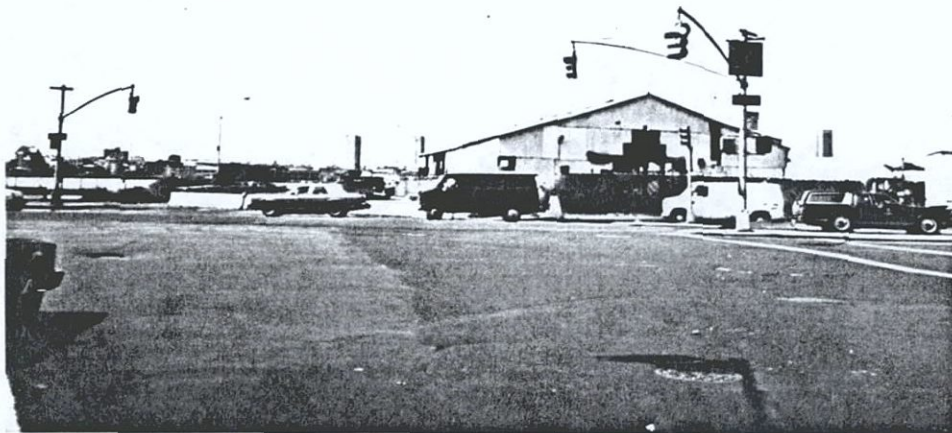
West 12th Street
Facing east from Marginal Street 9/13/89



Jane Street
Facing east from Marginal Street in front of Pier 51 9/13/89



Horatio Street
Facing east from Marginal Street 9/13/89



West Street, Gansevoort Street extension, Pier 52, Storage Shed
Southern section of Department of Sanitation complex. Facing west from Gansevoort Street 9/13/89



Gansevoort Street

Buildings at left are within study area boundaries (Block 644). Facing east from Marginal Street in front of Pier 52 9/13/89

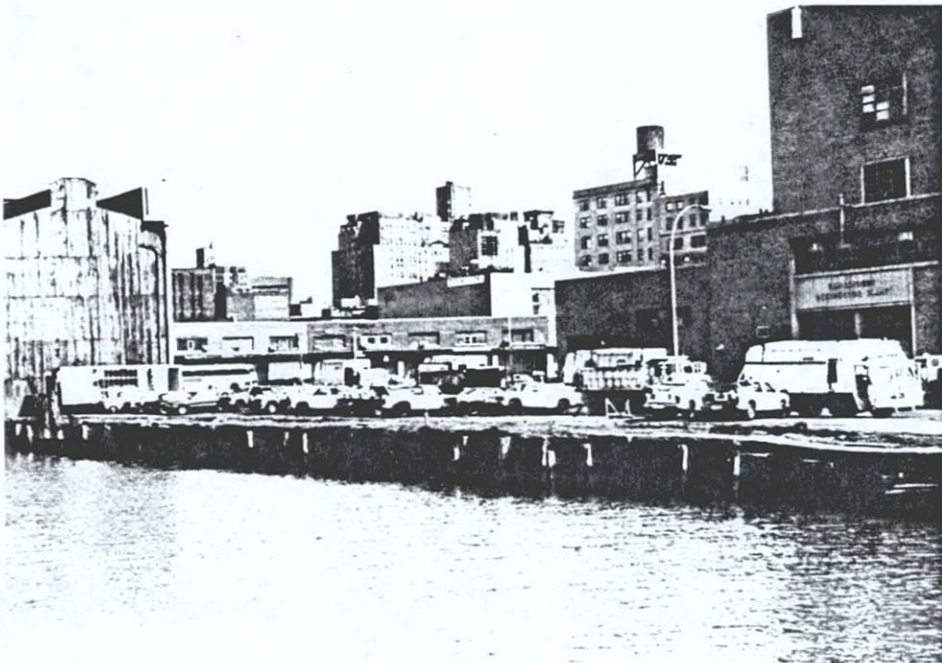


Department of Sanitation Gansevoort Destructor/Reclamation Plant

Entire complex is within study area boundaries. Corner of old Pier 54 piershed at right. Facing west from Little West 12th Street 9/13/89



Gansevoort Plant, Storage Shed, Bulkhead
View from the Hudson River facing northeast 4/27/89



Pier 53, Bloomfield Street, Reclamation Plant
Stone faced metal pier shed at left. View from the Hudson River facing southeast 4/27/89



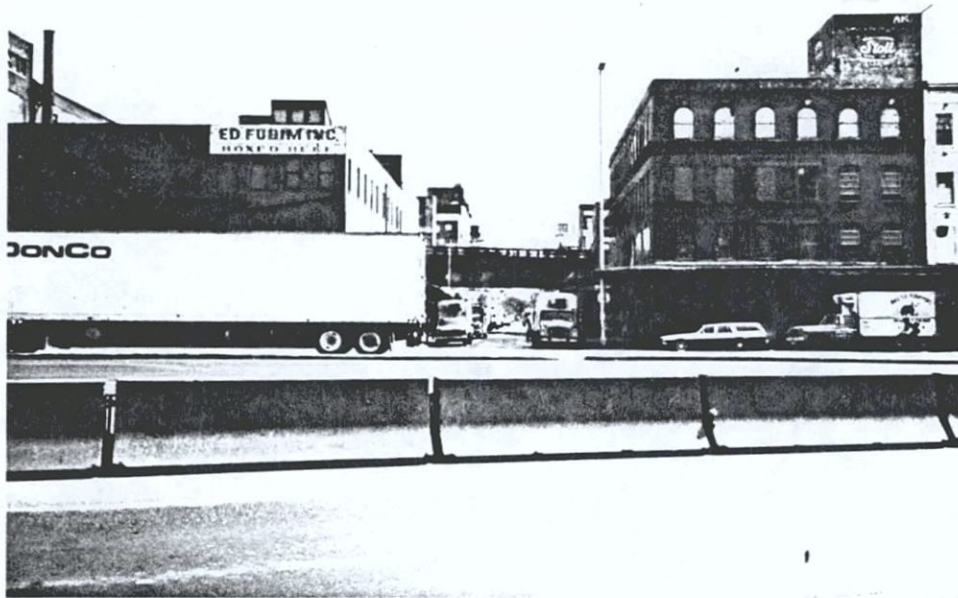
Bloomfield Street

Southern end of Pier 54 "Cunard White Star Line" piershed at right. Facing west from south of Little West Street 9/13/89



Little West 12th Street, Ninth Avenue Elevated

Facing east from Marginal Street in front of Pier 54 9/13/89



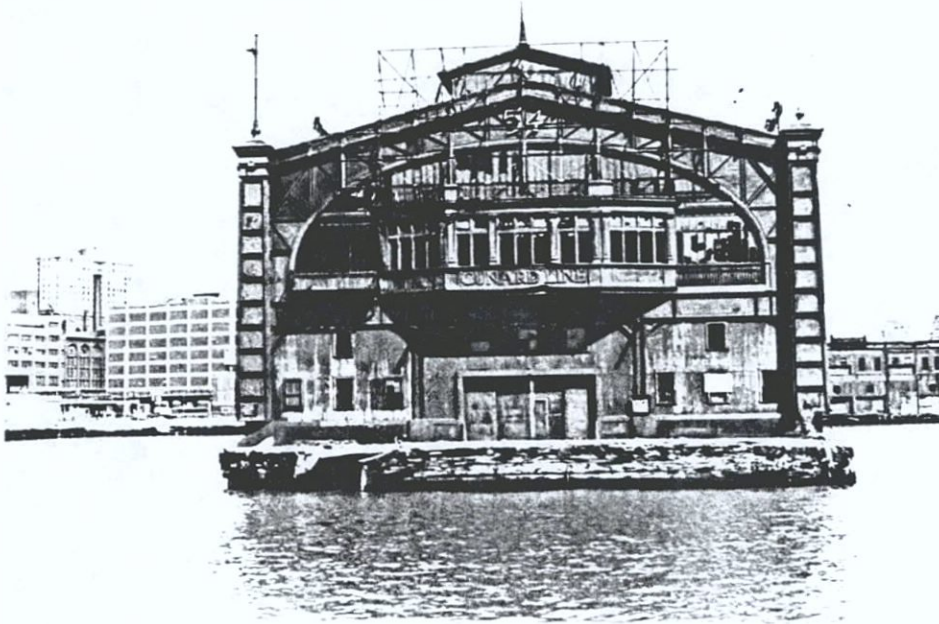
West 13th Street

The trailer truck is parked between Tenth Avenue and West Street on the remainder of lots that were part of the blocks affected by the Chelsea Pier excavations. Facing east from Marginal Street between Piers 54 and 56 9/13/89



Piershed, Slip, Bulkhead

View from the Hudson River facing northeast 4/27/89



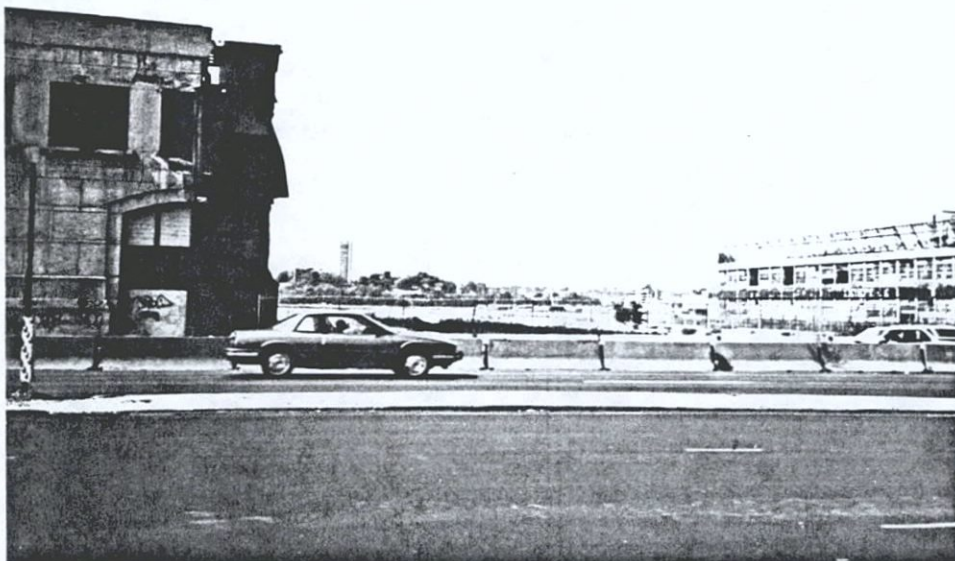
Pier 54
View from the Hudson River facing east 4/27/89



Pier 54 piershed
View from the Hudson River facing northeast 4/27/89



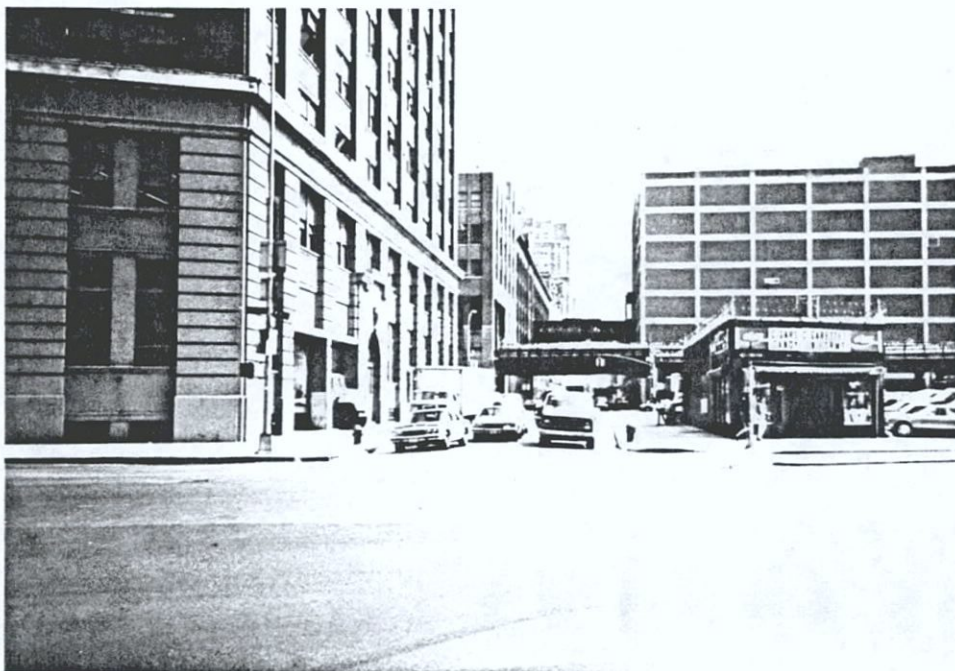
Unused Pier 54 piersheds facing West Street
View from the Hudson River facing east 4/27/89



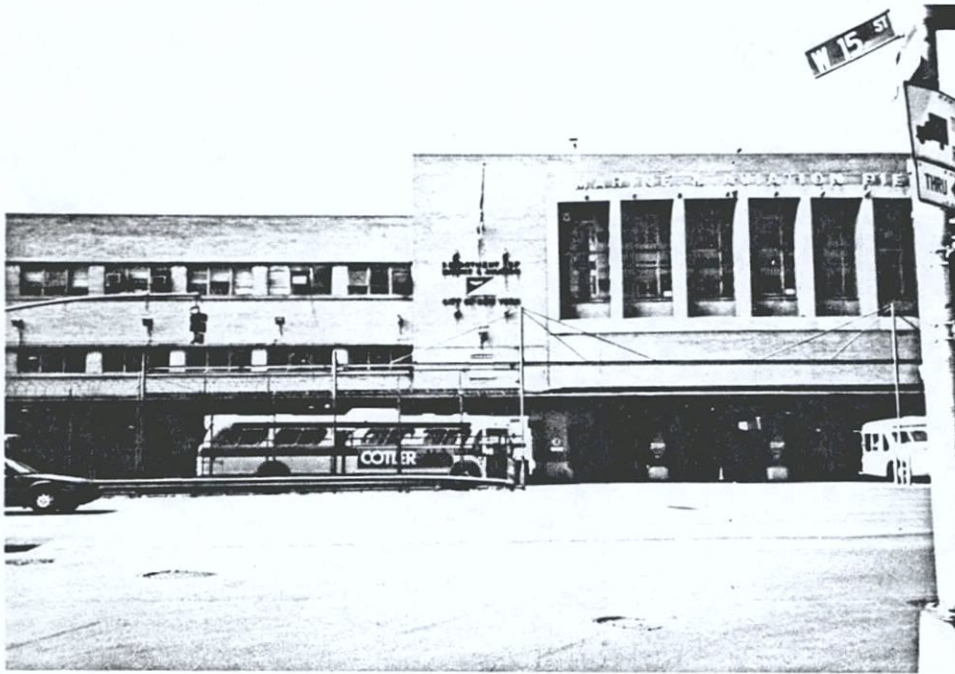
Beginning of Tenth Avenue, West Street, Pier 57
Facing northwest from West 13th Street 9/13/89



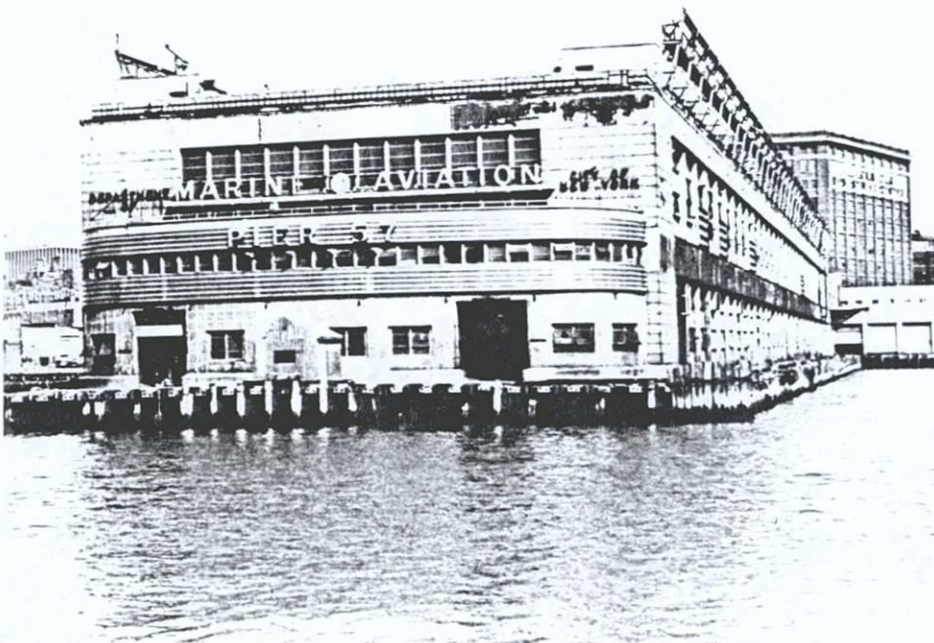
Eleventh Avenue, Tenth Avenue, West 14th Street
Facing east from Marginal Street in front of Pier 56 9/13/89



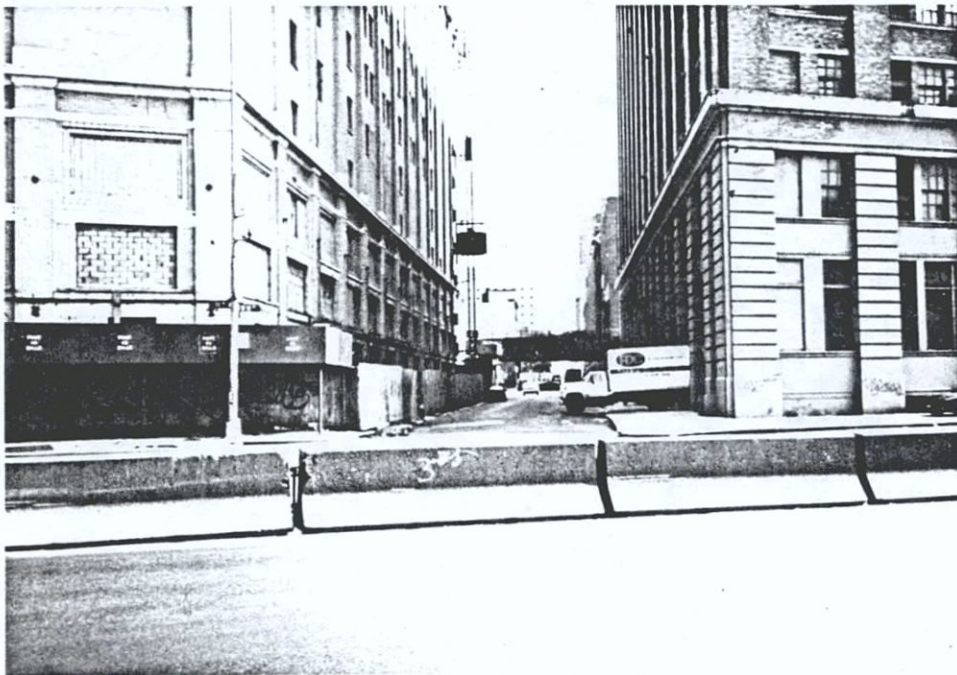
West 15th Street
Facing east from Marginal Street in front of Pier 57 9/13/89



Pier 57 piershed
Facing west from West 15th Street 9/13/89



Pier 57
View from the Hudson River facing east 4/27/89



West 16th Street
Facing east from Marginal Street in front of Pier 58 9/13/89



West 17th Street
Facing east from Marginal Street south of Pier 59 9/13/89



West 18th Street
Facing east from Marginal Street in front of Pier 59 9/13/89



Pier 59 piershed
Facing east from West 18th Street 9/13/89

A. PREHISTORIC RESEARCH

PREHISTORIC BACKGROUND

The scant archeological record that characterizes Manhattan renders it necessary to rely on regionally established models of prehistoric sequences for a comparative reference. Prehistoric settlement and subsistence trends have been established for the lower Hudson Valley and coastal New York areas, providing a contextual understanding of prehistoric land and resource utilization. The outline presented summarizes the prehistory of the region, based on long term archeological research. It should be noted that as research in the area continues, theoretical issues become more refined, affecting this regional chronology.

Prior to the arrival of Native Americans and subsequently Europeans, the Northeast experienced heavy glacial activity. During the last episode of the Pleistocene in the Northeast, the Wisconsin, ice reached its maximum advance between 18,000 and 16,000 years ago. After this period, glaciers slowly began to retreat north, with glacial gravel being deposited along the melting margin. By 13,000 years ago, ice had retreated north far enough so that the lower Hudson Valley and surrounding area was open for the re-establishment of flora and fauna. As ice melted, glacial lakes formed, eventually filling with sediments and becoming swamps. Current studies indicate that shortly after deglaciation, Native American populations arrived in the Northeast.

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

Between 14,000 and 12,000 years ago the Northeast was generally characterized as open woodland, rich in spruce. By 10,000 years ago, this had changed and the region was predominately pine (Gaudreau 1988:240). Pollen analysis shows that the southeastern New York region was comprised of a mixed coniferous-hardwood forest following deglaciation (Salwen 1975:43). The post glacial environment supported a diverse array of mega-fauna including mammoth, giant ground sloth, horse, and giant beaver, undoubtedly hunted for prehistoric subsistence. The PaleoIndian period represents the earliest documented human occupation in the Northeast, dating approximately between 12,000 to 9,500 B.P. (Before Present).

Few remnants of these first inhabitants have been encountered. It is quite possible and probable that Native Americans first occupied the continental shelf which was exposed during glaciation. The massive amount of water locked up in ice sheets and glaciers drastically lowered the sea level, extending the Atlantic coastline twenty to thirty miles south and east of what it currently is (Ibid.). The exposed continental shelf, now submerged beneath the ocean, would have possessed the resources necessary to support the emergent PaleoIndian population (Edwards and Emory 1977:19).

Artifacts attributed to this period from sites in the Hudson River Valley and throughout the Northeast include diagnostic Clovis-type fluted projectile points and processing tools such as scrapers, graters, and drills. Often these were made from cherts originating in eastern New York, and jasper from Pennsylvania and New Jersey. Lithics recovered far from their sources suggest well-defined or extensive travel or trade networks in operation at that time. Research in the Northeast has led to the postulation that small bands of hunters nomadically roamed large territories, relying predominantly on post-pleistocene megafauna. 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.

There are many unanswered questions regarding the settlement and subsistence systems of PaleoIndians. 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 in areas where deciduous trees dominated; and on ridge tops also dominated by deciduous trees (Eisenberg 1978:138). Throughout the Northeast it has been more common to locate isolated spot finds of diagnostic artifacts than habitation sites. The lack of recovered habitation sites may be due to post-glacial changes in topography or development where habitation sites once existed (Saxon 1973:252). The rising sea levels and resultant changes in water courses have probably inundated numerous encampments. However, since the Hudson River is a fjord (a narrow inlet of the sea bordered by steep cliffs), it is possible that early occupation sites may be preserved along the naturally elevated post-glacial shoreline (Snow 1980:180). Currently, no habitation sites have been identified on Manhattan Island.

Nearby on Staten Island, a PaleoIndian habitation site was located at Port Mobil (Ritchie 1980:xvii). The site was situated on high ground, sloping down to the Arthur Kill, about 1000 feet away. Although the site experienced significant disturbance, several fluted points were recovered together with additional tools made of eastern Pennsylvania tan and yellow jasper, and eastern New York Normanskill flint. Nearby along the tidal beach of the Arthur Kill, six fluted points were also found, made of jasper and local and exotic flints (Ibid.). This represents the only PaleoIndian component recovered within the metropolitan New York area. Spot finds further north have occurred along the Hudson River and its tributaries (Funk 1976:205).

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

The Archaic period, spanning approximately 6,500 years, has been subdivided into the Early, Middle, Late, and Terminal periods. During the Early Archaic (9,500-7,000 B.P.) fluctuations in the environment occurred, eventually giving way to a gradual warming trend, allowing newly available resources to become established. Although sea levels were rising, New York Harbor was still considerably smaller than it is today (Salwen 1975:49). As a result of environmental changes, it

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appears that the primary dependence on big game gave way to a hunting, fishing, and gathering economy, reliant upon a diversity of resources. The more reliable resource base may have facilitated population growth.

Artifacts of the period include bifurcate-base points which are often found along major drainages. Early Archaic sites in the coastal New York area tend to be located on tidal inlets, coves, and bays, and on fresh water ponds (Ritchie 1980:143). Few inland sites of the Early Archaic period have been found in northern New York and New England. However on Staten Island four sites containing cultural materials dating to this period were reported (Salwen 1975:50). Salwen attributes the earlier and more prolific population of the southeastern New York area to the early establishment of hardwood forests in that region (Ibid.). Although resources may have been abundant in the more northern areas, the climatic instability would not have provided a reliable resource base. The established hardwood forests may have attracted people to the more stable, southern New England and New York area (Dincauze and Mulholland 1977:450).

Middle Archaic cultures thrived from about 7,000 to 5,500 years ago, as the climate continued to warm allowing new flora and fauna to become established. Dincauze and Mulholland (1977) suggest that at this time seasonal movements based on the exploitation of specialized resources became well established, which may have encouraged territoriality. Tool kits expanded in response to diverse resource utilization, and artifacts include Neville and Stark projectile points. During the Middle Archaic period the exploitation of oysters along the Hudson River is represented by numerous shell middens. At Croton Point and Montrose Point, north of the project area along the Hudson in Westchester County, shell middens yielded dates of between 5,600 to 5,800 B.P. (Brennan 1974:85).

From approximately 5,500 to 4,000 B.P., Late Archaic cultures flourished across the Northeast. Warming trends promoted a resource-rich environment. Point types diagnostic of this period include small stemmed points such as Lamokas and Taconics, as well as Squibnocket and Brewerton Points. The lower Hudson Valley experienced increased habitation, with numerous shell middens along it dating to this period (Brennan 1974:87). Sites of this period include rockshelters, open woodland camps, and high bluffs along the Hudson. Archaic points found in the metropolitan New York area represent a high percentage of quartz use for this period (Suggs 1966:42). The dependence on local lithics could represent decreased areas of seasonal migration or a reduction in trade with neighboring groups.

The subsistence pattern in operation may have been one of a centrally based wandering pattern focused on the exploitation of seasonal resources. A high degree of cultural complexity is represented by the wide range of site types and the great diversity in site locations. More Late Archaic sites have been reported than for either of the two previous periods. The increase in the number of sites may reflect either an increase in the population brought on by the stabilizing environment, or a bias in site visibility. By the Late Archaic period, sea levels were much as they are today, and sites of this period would have less of a chance of being inundated.

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In addition, archeologists in the Northeast have postulated that small stemmed quartz points attributed to this period, actually represent an underlying cultural tradition, persistent through later periods (McBride 1984:133). Therefore, sites attributed to this period based on projectile point typologies may actually have been misidentified.

Three cultural traditions persisted in the Northeast during the Terminal Archaic period (4,000-3,000 B.P.). These include the Laurentian tradition represented by the Vergennes phase and the Vosberg complex; the small stemmed tradition represented by the Sylvan Lake complex; and the Susquehanna tradition represented by the Snook Kill and Orient phases (Funk 1976:250). Although Funk defines these three separate traditions as persisting in the Hudson River valley, Snow reassesses the distribution of Terminal Archaic points and suggests that the Susquehanna tradition dominated the first half of the period, comprised of Snook Kill, Perkiomen and Susquehanna Broad points, while the latter half of the period was dominated by the Orient complex characterized by the Orient Fishtail point (Snow 1980:237). The precise sequence of Terminal Archaic traditions, complexes and phases is a continued source of debate.

It is postulated that these traditions, based on distinct projectile point types, have different settlement patterns representing utilization of specific resource niches. According to Funk and Ritchie, authors of Aboriginal Settlement Patterns in the Northeast, sites of the Snook Kill Tradition, predominant in the southern sub-area, tend to be located on high, sandy river terraces (1973:342). Orient phase habitation and burial sites have been recovered from eastern Long Island (Ibid.:344). Whether these three distinct traditions, Laurentian, small stemmed and Susquehanna, represent the migration of new people into the area, or the spread of technologically new ideas, has yet to be determined. Lithic technologies were predominantly based on locally available raw materials, with the small stemmed point tradition relying heavily upon quartz.

Terminal Archaic groups ground and polished soapstone into bowls and other items. The majority of sites encountered in the region thus far existed along the Hudson River and its major tributaries. This appears to result from high visibility along major river drainages as opposed to the actual lack of sites in remote settings, as continued research from interior areas has produced sites of this period. Orient points have been radiocarbon-dated to approximately 4,000 to 2,800 B.P. in the Hudson Valley.

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

The Woodland period persisted in the Northeast from approximately 3,000 to 500 years ago. Again divided into three sub-categories, this period consists of the Early, Middle and Late periods. The first of these, the Early Woodland period, lasted from about 3,000 to 1,700 years ago and is represented by the Middlesex Phase in eastern New York. This period is marked by the introduction of ceramic vessels as part of the material culture. Crude, undecorated pottery called Vinette 1 was often tempered with steatite. Simply designed pottery of this type has largely been

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recovered from sites on major waterways and tributaries. Early Woodland, Middlesex Phase sites are commonly discovered during sand and gravel mining operations near a lake or river, as sites tend to be located on well drained knolls adjacent to fresh water (Ritchie 1980:201).

During this period a gradual cooling of the climate occurred, perhaps limiting resource availability. Settlement systems varied as a result of the desire to exploit alternative resources. Coastal resources providing year round stability were often sought, while upland hunting and gathering remained an important activity. Fish runs in rivers provided a stable and reliable resource. Woodland period fish weirs were utilized in the Hudson and smaller tributary rivers for the recovery of large quantities of anadromous fish (Brumbach 1986:35).

The Middle Woodland period, lasting from ca. 1,700 to 1,000 B.P., is marked by regional changes in ceramic styles. Stone tool assemblages of this period are characterized by Jack's Reef Corner Notched and Pentagonal as well as Fox Creek projectile points. A significant amount of exotic lithic materials were utilized, perhaps indicating increased trade networks. By this time, subsistence and settlement seem to have been characterized by semi-permanent settlements with task-specific locations utilized for the purpose of exploiting target resources. Ritchie and Funk identify several settlement types for Middle Woodland cultures including recurrently occupied small and semi-permanent large camps, small temporary camps, cemeteries, burial mounds and workshops (1973:349).

Numerous shell middens along the coast and the Hudson River attest to the importance of aquatic resources. During this period, maize was introduced from Meso-America and horticultural practices were slowly adapted into the lifeways of local Indians. The nature and extent of maize use prehistorically has been much debated by archeologists working in the Northeast. Research on Long Island has led to the hypothesis that prior to European contact, maize was not cultivated on the sandy, nutrient-poor soils of the island. The desire to trade with Europeans led Native Americans to settle more permanently along the coast where shells were available for wampum manufacturing. Concurrent with this shift in the settlement system was the need for a stable, storable economic resource. It is thought that maize horticulture was adopted to provide the support required for these villages (Ceci 1979:72). In addition to the research conducted in coastal New York areas, archeologists throughout the Northeast are now questioning the distribution and adoption of non-indigenous horticultural goods.

Material items of this period include ornamental pendants, pins, and the bow and arrow. Ceramics became technologically more advanced as walls became thinner and overall shape became rounded. It is suggested that the change to a rounded bottom corresponds with the introduction of maize and resulted from the desire to cook food longer (Braun 1980:100). Netmarking became a popular mode of decoration associated with this period. Ornamentation of the collars and bodies of pots also increased, often suggesting the cultural affiliation of the maker. Overall the remains representative of this period recovered from eastern New York are

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limited in number, compared to those found further to the west in the Great Lakes region (Funk 1976:298). This may be a misrepresentation resulting from biased sampling and preservation rather than the actual lack of sites.

The Windsor tradition was established in this period, with components of this tradition found along the Long Island Sound, and the Hudson and Connecticut drainages. In the lower Hudson Valley and on western Long Island, the tradition is represented by the Windsor North Beach and Clearview phases (Snow 1978:63). The Fox Creek Phase of the Middle Woodland period appears to have its center of distribution in the New York coastal region, and in the eastern New York drainages (Ritchie and Funk 1973:356). Settlement patterns reflect a restricted wandering system, excluding large base camps and semi-permanent villages. However, general trends of the period show a move toward a settlement system incorporating semi-permanent village occupations.

During the Late Woodland period, 1,200 to 500 years ago, the climate was similar to that of today. The documented settlement pattern indicates the use of diverse environmental settings including inland rockshelter sites, coastal and island sites, inland sites on major drainages, and campsites located near swamps and along streams. There is marked evidence of an overall increase in site size, abundance and artifact frequencies. An annual subsistence round of seasonal movements between riverine, coastal and inland wintering sites may have existed. The increase in horticultural activities may have affected seasonal movements, with spring and summer spent planting crops. While maize, beans, and squash became available, these did not comprise the entire subsistence base, as deer, small mammals, nuts, berries, and shellfish continued to be utilized. The semi-permanent settlement pattern may have led to competition and defense of arable land, contributing to regional territoriality (Mulholland 1988:163).

Artifact types of this period include the Levanna triangular projectile point and Cayadutta Incised pottery. The Windsor tradition was replaced by the East River tradition by about 600 B.P., and the Bowmans Brook and later Clasons Point phases are local manifestations of this period (Snow 1978:63). It is thought that the Bowmans Brook culture entered New York from New Jersey through Staten Island, where artifacts of this phase have been found (Ritchie 1980:269). Sites of this phase are situated on tidal streams or coves, with large village sites containing between fifty to one hundred pit features (Ibid.). Shellfish utilization is apparent at such sites. Ritchie notes that sites of the Clasons Point culture tend to be located on the second rise of ground above high-water level, on tidal inlets, and have many of the characteristics of the Bowmans Brook Phase (Ibid.:271).

Contact Period (500-300 B.P.)

The Contact period dating from 500 to 300 B.P. is typified by the initial interactions between Native American groups and Europeans. Native settlement patterns at the beginning of this period were essentially the same as those of the Late Woodland, and consisted of seasonal hunting and gathering. In spring and fall, areas along

streams were occupied to take advantage of fish runs. Upland and inland task specific sites were occupied for short periods for hunting, trapping, and lithic procurement activities. Semi-permanent villages near planted fields were also located in the interior, containing oval and round, bark and mat covered houses. Large pits were used for storing dried meat, fish, and corn, and it was common practice to burn fields to facilitate hunting, trapping and planting. It was not uncommon for horticultural villages to move to new locations after ten or twenty years as soil fertility, firewood and nearby game resources were depleted (Salwen 1975:57).

The first contacts between Native Americans and Europeans occurred when early explorers began to trade with the native population. As European materials were introduced, settlement and subsistence patterns changed drastically. Traditional tools were replaced by adopted European goods such as copper and iron. Shell beads and wampum were produced and furs were collected by Native Americans as a medium of exchange. Europeans were anxious to acquire furs from Native Americans, thus numerous trading posts were established along the Hudson River. Although early historic accounts suggest the presence of stockaded villages or forts in the Hudson Valley and coastal New York, archeological data indicate they were not present prior to the middle of the seventeenth century (Ritchie and Funk 1973:368).

During the seventeenth century, Manhattan was occupied by Indians speaking a Munsee dialect of the Eastern Algonquian language (Goddard 1978b:73; Figure 5-2). Northern Manhattan was primarily occupied by Native Americans, identified by the colonists as Wiechquesgeck (Grumet 1981:60). Large scale conflicts did not break out in New York until the arrival of Governor Willem Kieft in 1638, who maintained a hard-line policy with the local Indians. This policy caused the death of 1000 Native Americans between 1640 and 1645 due to conflicts (Washburn 1978:98). In 1655 Native Americans attacked New Amsterdam, and the ensuing Esopus Wars, named so for the involvement of the Esopus Indians, lasted until 1664. As a result, Algonquian bands in the lower Hudson Valley lost independence and fell under Dutch control (Ibid.).

The subsequent breakdown of native sociopolitical organization during the seventeenth century was caused by intertribal stress, plagues, and the desire of newcomers to obtain land rights. The plagues of 1616-1620, introduced by Europeans, depopulated many groups, with population losses in southern New England and New York estimated between 70-90 percent (Snow 1980:34). The conflicts engendered by rapid colonial expansion, war, and epidemics, caused many Native American groups either to leave the area or take up habitation in established communities (Brasser 1978:85).

At the time of European contact, the closest known Native American habitation site to the project area between Harrison and West 18th Streets was Sapohanikan Point now in Greenwich Village (Figure 5-1). Bolton reports that Sapohanikan was probably a landing place for canoes arriving from and departing to New Jersey (Bolton 1934:53). However, Skinner states that Sapohanikan was an Indian village

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probably located near the block bounded by Gansevoort, Little West 12th, West, and Washington Streets, and that there was an Indian settlement there as late as 1661 (Skinner 1961:52). He also notes that the name may have been applied to the general area. Skinner also reported Site 9, a village site on the Collect Pond near Canal Street, which possessed a large deposit of shells (Ibid.:630).

Grumet noted several other features south of this portion of the project area possessing Native American names. These include "Kapsee," a ledge of rocks now under Battery Park (Figure 5-1). Bolton suggested that this translated to "where the sharp rocks are," however Grumet notes that this was probably a derivation of the Dutch word "Kaaphoekje," meaning a little cape or promontory (Grumet 1981:17). In addition, "Catiemuts" was possibly a "fort or hill located near Pearl Street and Park Row" (Ibid.:8). "Ishpatena" was identified as a hill between Chatham and Varick Streets, which has since been leveled (Ibid.:16). "Werpoes," a label seen on many historic maps such as the MacCoun 1609 Hudson River map (MacCoun 1909a), was a derivative of the Delaware word "Wipochk," which meant a bushy place or thicket (Grumet 1981:58). This was the name given to an area of elevated land below Canal Street. At the time of European settlement, Native Indians referred to the Hudson River as "Mahicanituk," which translated to "the great waters or seas, which are constantly in motion" (Ibid.:22). The island of Manhattan itself was called "Minna-atn" which meant "Island of Hills" (Bolton 1934:47).

Established cultural chronologies are based on prehistoric sites found in the Metropolitan New York Area. On Staten Island, numerous prehistoric sites have been reported, ranging from the PaleoIndian through Woodland periods. A burial site on the southern portion of the island was found on a bluff overlooking the shoreline. The Tottenville site may include a wampum manufacturing station (Jacobson 1980:5). In total, over one hundred prehistoric sites have been reported from Staten Island, although significantly fewer have been scientifically studied. It has been postulated that cultural groups occupying the island were probably affiliated with groups in New Jersey and the mid Atlantic region. The island may have been between the bounds of New York and New Jersey groups (Ritchie 1980:145). If this is the case, then the role of Manhattan Island may have been similar. Because of the proximity of New Jersey cultural groups, as well as Long Island Sound groups, cultural traits of Manhattan Indians would undoubtedly reflect these associations.

The apparent settlement systems established for the coastal New York area have primarily been based upon the large and highly visible shell midden sites along the coast. An intensive survey of Shelter Island in the Long Island Sound has yielded a number of small short term lithic workshops and food processing stations, previously unseen and excluded from settlement pattern studies (Lightfoot et al. 1985:59). Further research and unbiased testing strategies in upland areas have shown that numerous sites exist in these locales. While the coast of Manhattan was undoubtedly attractive for Native American habitation, smaller interior sites may have been utilized as well.

SITE SURVIVABILITY

Professional and amateur archeologists have been excavating on Manhattan since the late nineteenth century. However, until after the 1930s field techniques and recording procedures were not comparable to the more scientific procedures used today. The data from these excavations are generally ambiguous so that findings cannot be assigned to a particular period (Baughner-Perlin et al. 1982:5). According to Alanson Skinner's research at the turn of this century, in southern Manhattan there had been Indian settlements at the Collect Pond along the east end of Canal Street, on Corlear's Hook at the East River, and at the village of "Sappokanican," situated on the Hudson River just south of West 14th Street. His estimation was that the only Indian remains left on Manhattan Island apparently were located at the extreme northwestern end (Skinner 1926:51). He does note, however, that the preponderance of findings from northern Manhattan is a reflection of both lower Manhattan's earlier development and northern Manhattan's relatively late occupation by Native Americans.

Recently it has been demonstrated that prehistoric archeological sites do still exist in the highly developed borough of Manhattan. "In 1980 during the excavation of Stone Street, as part of the Stadt Huys block, aboriginal pottery and lithics were found in the lowest levels of the excavation" (Baughner-Perlin et al. 1982:12). In the later Broad Street field investigation led by Joel Grossman, an *in situ* Contact period feature was found in direct association with the Dutch West India stockhouse (Karen Rubinson, personal communication to Cece Kirkorian, June 27, 1989). In addition to these *in situ* prehistoric finds, secondary deposits of prehistoric materials have also been recovered at numerous sites in Manhattan.

SHORELINE RECONSTRUCTION

A cartographic reconstruction of the prehistoric shoreline is necessary in order to assess the potential for deeply buried prehistoric archeological sites to exist beneath landfill. A subsurface soil and fill profile of West Street was constructed by HCI during the original survey for the Westway project. Based on core samples, paleoecologists and prehistorians reconstructed the post glacial shoreline between Battery Place and West 44th Street (Rutsch et al. 1983:17). Research was largely concerned with the nature of shoreline development outboard of current West Street. The research concluded that prior to European settlement, West Street was submerged beneath the Hudson River, and that "the area south of Lighthouse Street was considerably modified by artificial fill right down to nearly the level of the glacial gravels" (Rutsch et al. 1983:21). This would include the five blocks along West Street between Harrison and Lighthouse Streets. The topography of the top of the glacial gravel surface deposited prior to inundation was generally highest in the southern portion of the study area near Canal Street (Rutsch et al. 1983:19).

Borings taken south of Charles Street showed a stratum of organic gray silt up to 90 feet thick overlying various sand strata. Above this, along West Street, were deposits of landfill (Rutsch et al. 1983:43). The silt stratum was the result of river

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silt deposited after inundation, while the underlying sand was glacial outwash deposited as glaciers retreated north. North of Charles Street, there was a stratum of inorganic silts between the organic silt deposits and the surface of glacial deposits, and there were indications of the presence of a deep canyon prior to inundation. The discrepancy in the organic content may have resulted from differences in the level of pollen deposited in various periods after glaciation, with both levels representing the deposition of river silts. Several small islands, knolls, and headland areas between Harrison and West 18th Streets were also identified, now beneath West Street fill. These specific areas will be addressed in the Prehistoric Sensitivity section of this report.

Soil borings were reviewed from other projects within the vicinity (See Appendix 4, Kirkorian and Tidlow 1984:105). Borings taken by the Department of Public Works along Beach Street, between West and Washington Streets, show fill layers between 14 and 20 feet deep, containing sand, gravel, and wood. Beneath the fill were thick deposits of silt, sand, and clay (Kirkorian and Tidlow 1984:103). Soil borings on West Street between Hubert and North Moore Streets yielded fill varying between 17 and 28 feet in depth, with the deeper fill being further to the south. The composition of the fill in this area was similar with the addition of brick fragments and cinder. Below the fill layers was sand, silt, and gravel, extending to an unknown depth.

PREHISTORIC SENSITIVITY

It has been demonstrated that sites tend to be located on well drained elevated soils near fresh water resources. Environments providing diverse resource availability are conducive for prehistoric habitation. Coastal and riverine areas are particularly attractive habitation spots for this reason, providing a mix of aquatic, estuarial, and terrestrial resources. In particular, the confluence of streams and/or rivers were considered primary spots for habitation, and have a high potential to yield prehistoric archeological resources. Coves and inlets, providing protection from the strong winds coming down the Hudson, would have also been desirable habitation sites. Archeological research on islands within the southern New England area shows that settlement patterns are often affected by strong prevalent winds. Research on Nantucket and Block Island, each with strong northerly winds, shows a preference for settlement on south facing slopes (Little 1985:26). Presumably the strong winds coming down the Hudson would have had a similar affect on settlement patterns.

According to a study done by the New York City Landmarks Preservation Commission (NYCLPC), which identified areas potentially sensitive for prehistoric archeological remains within Manhattan, there are no sensitive areas within this section of the project parcel (Figure 5-3). It should be noted that the model is based on the potential to recover sites from the area of Manhattan that existed as original land at the time of European settlement. The model does not attempt to determine the potential sensitivity of drowned shorelines, once exposed for habitation. However, this particular task was attempted for the project parcel during the original Westway project.

Chapter V:

Research, conducted for the Westway project by HCI for the New York State Department of Transportation (see Rutsch et al. 1983), entailed a cartographic reconstruction of prehistoric shoreline development prior to filling. All of Twelfth Avenue and Marginal Street were submerged beneath the Hudson River when Manhattan was first settled by Europeans. However, during various prehistoric time periods when water levels were reduced, these areas were exposed and the Hudson's shoreline was further west. These historically submerged areas may have supported Native American populations prehistorically.

The paleoenvironmental study of the Westway project between Battery Place and West 44th Street was conducted by Richard R. Pardi and Dennis Weiss of Queens College and City College, respectively. The following is a synopsis of their conclusions (for a full description of research conducted, see Rutsch et al. 1983:Appendix 2). Radiocarbon and chemical samples from cores were used to establish the prehistoric chronological development of the shoreline. A topographic map was constructed showing the location and elevation of the shoreline as it changed through time. Specific areas categorized as potentially sensitive for prehistoric habitation were identified, based on topography and characteristics known to be conducive for prehistoric habitation. These areas are currently deeply buried beneath nineteenth century fill and river silts.

Four areas were identified by HCI as having the potential to possess prehistoric archeological remains between Harrison and West 18th Streets, and were recorded as Areas 7, 9, 17, and 20. The areas presented in this report are only those identified along West Street east of the bulkhead line, in the bounds of the current project area. Sites identified during the Westway survey, which were considered potentially suitable for aboriginal habitation, are now about 30 to 40 feet below the surface (Vollmer Associates 1987:3-1). As described in the above Shoreline Reconstruction section, soil borings have shown that fill ranges in depth between at least 18 to 25 feet and that beneath the fill lies a level of organic silt deposited by the river following inundation. The potentially sensitive areas identified by HCI are shown on Figure 5-4 and are described as follows.

The southernmost area identified existed between Park Place and North Moore Streets. Here (Area 7), there was once a slightly irregular shoreline forming the southern margin of a bay. In addition, there was possibly a steep slope to the water that may have been occupied by Native Americans between 7,200 and 7,500 years ago. This bay is now about 50 feet below the current sea level. Between Hubert and Laight Streets in West Street (Area 17), there was an irregular shoreline which sharply dipped eastward, forming the southern margin of a cove. The cove existed approximately 7,500 to 8,000 years ago, and is now 60 feet below the current sea level (Rutsch et al. 1983:59).

Further north, at Desbrosses Street (Area 9), was a northern margin of a bay between 7,200 and 7,500 years ago, now 50 feet below the current sea level. North of this, at Canal Street, there was a small cove near a marsh that existed between 6,500 and 7,200 years ago (Area 20) which is now approximately 40 feet below the

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current sea level (Rutsch et al. 1983:58). During historic times, a marsh existed near Canal Street, which drained the Collect Pond east of the project area. Each of these four areas identified may contain significant prehistoric cultural remains.

Although numerous other prehistoric topographic features were noted and described in detail, these were not designated as potentially sensitive for prehistoric remains since they lacked features attractive for habitation. The sinuous shoreline, that existed between 6,500 to 7,000 years ago, is now beneath between 30' and 50 feet of landfill. It is quite possible that habitation sites existed in the four areas cited. As previously noted, shell middens dating to the Middle Archaic period were recovered along the Hudson River to the north, in Westchester County (Brennan 1974:85). It is highly probable that shellfishing, fishing, hunting, and gathering were all activities performed along the shoreline in these loci.

As outlined above, the only prehistoric remains which may have been deposited within this portion of the project area, and might be disturbed by proposed reconstruction, exist between 40 and 60 feet below the current sea level in the route of West Street, east of the bulkhead line. These areas may have the potential to yield information on prehistoric lifeways in Manhattan, a subject poorly documented as of date, due to the small number of undisturbed sites recovered from the island.

A block by block summary of prehistoric sensitivity as discussed above is presented below. Those blocks possessing no sensitivity for prehistoric remains, as per the research conducted by HCI, were not included on this list.

Harrison Street to North Moore Street

Located between Park Place and North Moore Streets, including this block, was a slightly irregular shoreline forming the southern margin of a bay (Area 7). A steep slope to the water may have existed that could have been occupied by Native Americans between 7,200 and 7,500 years ago. This bay is now about 50 feet below the current sea level.

Hubert Street to Laight Street

Between Hubert and Laight Streets in West Street (Area 17), there was an irregular shoreline which sharply dipped eastward, forming the southern margin of a cove. The cove existed approximately 7,500 to 8,000 years ago, and is now 60 feet below the current sea level.

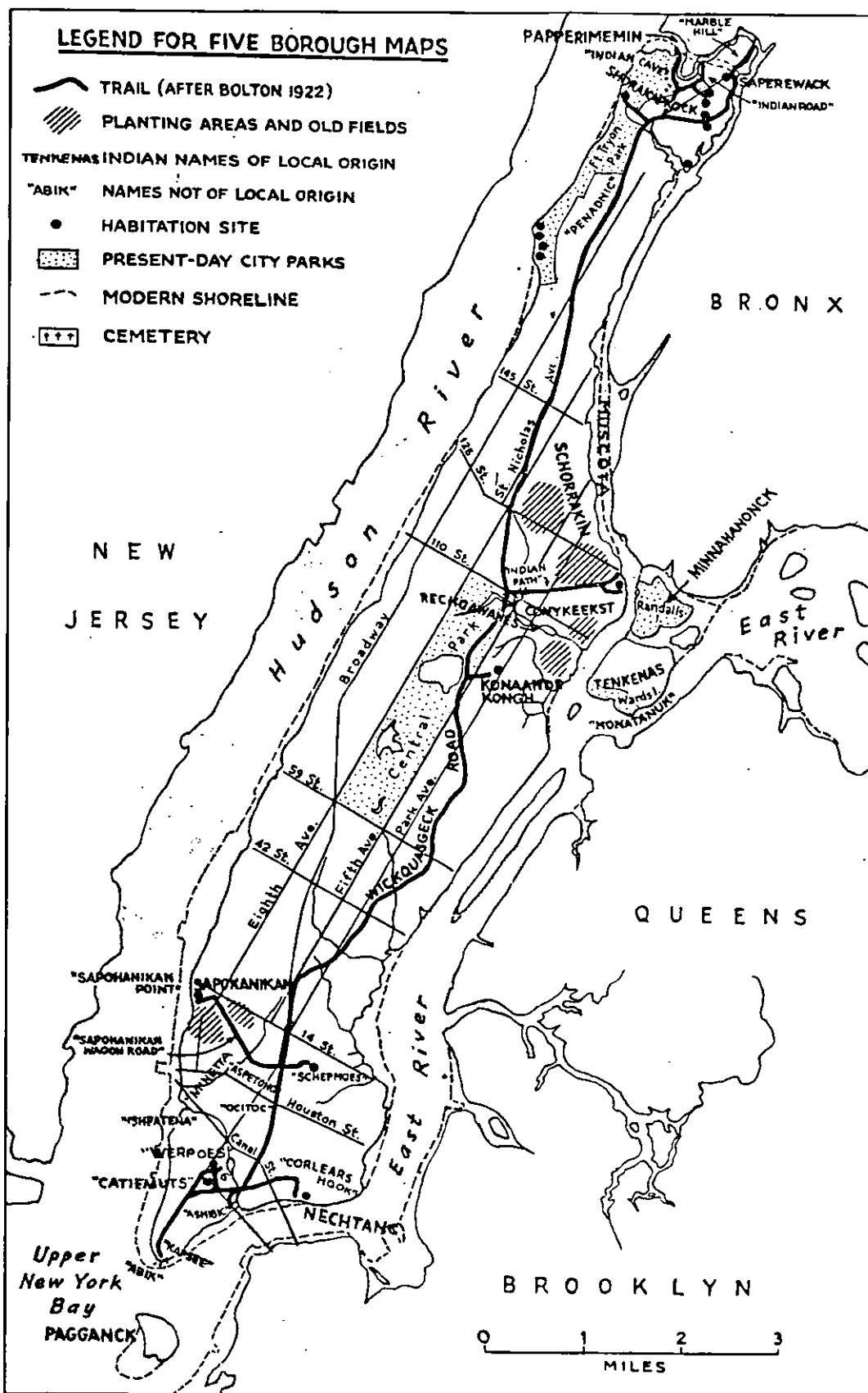
Desbrosses Street to Watts Street

Near the intersection of West and Desbrosses Streets (Area 9), there was a northern margin of a bay between approximately 7,200 and 7,500 years ago. This particular feature is now 50 feet below the current sea level.

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Canal Street to Spring Street

At the intersection of West and Canal Streets, there was a small cove near a marsh that existed between 6,500 and 7,200 years ago (Area 20). This is now approximately 40 feet below the current sea level. During historic times, a marsh existed near Canal Street which drained the Collect Pond east of the project area.

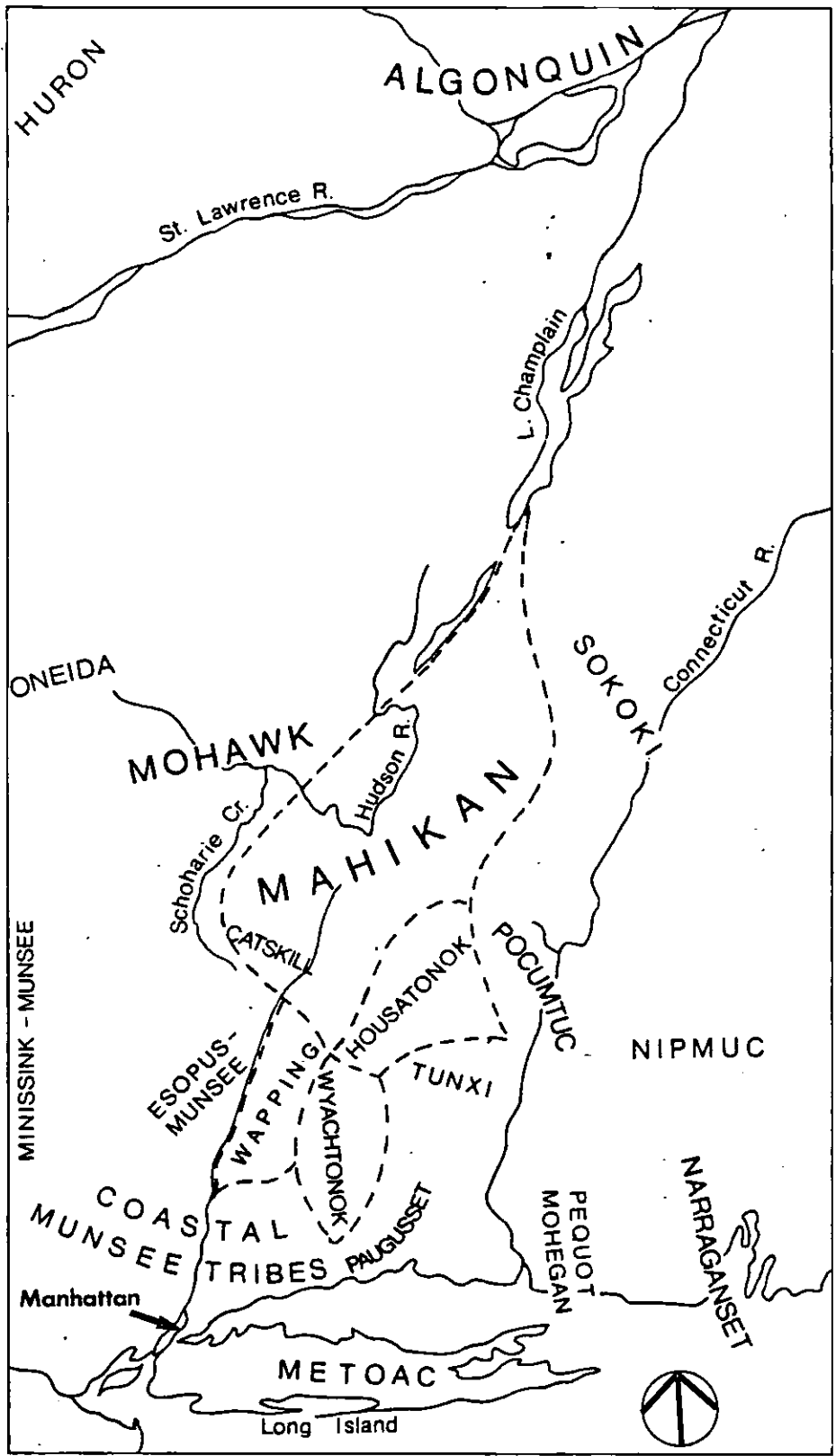


ROUTE 9A RECONSTRUCTION PROJECT

17th-century Native American Trails and Place Names on Manhattan Island

V-14

Figure 5-1

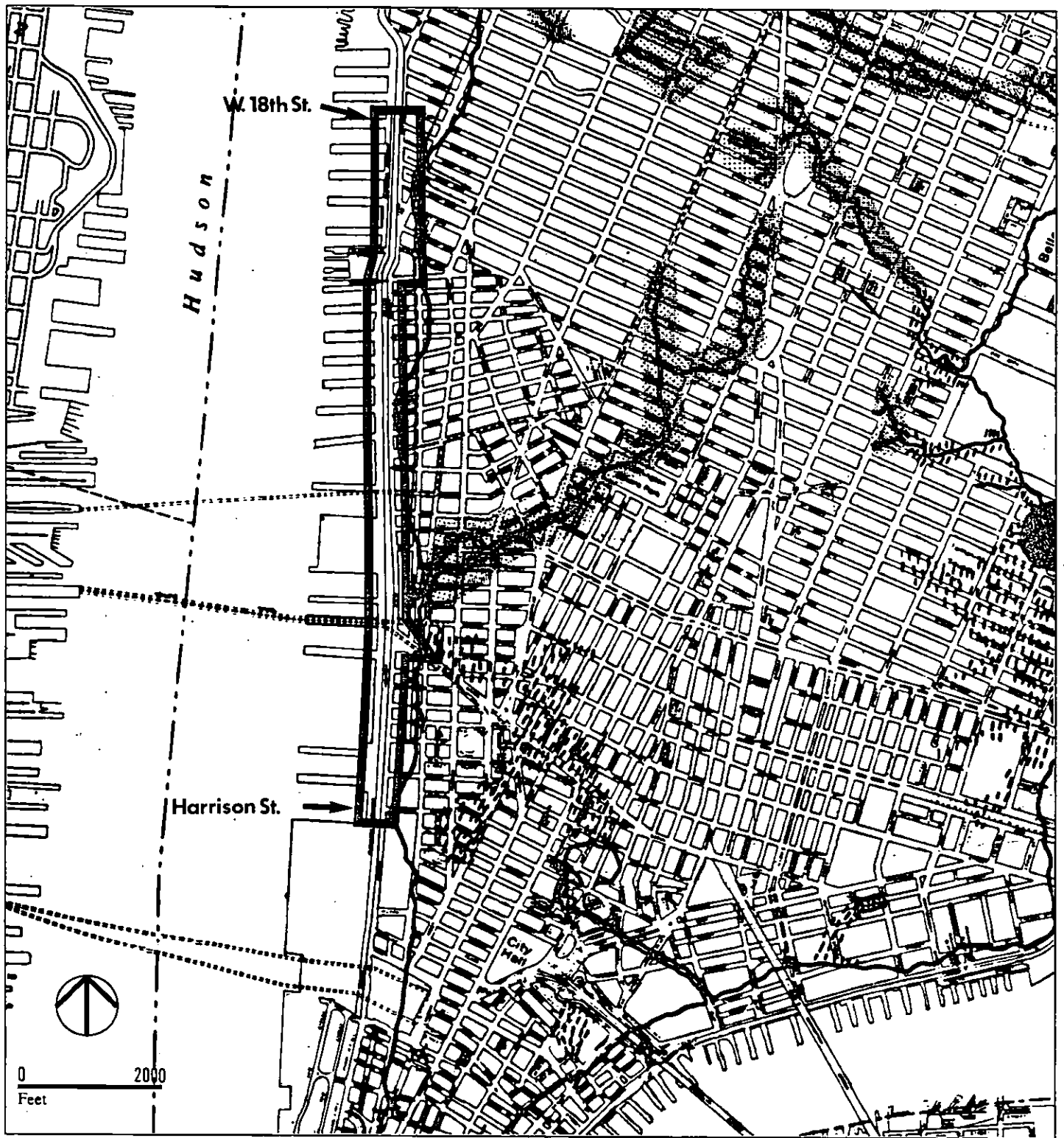


ROUTE 9A RECONSTRUCTION PROJECT




17th-century Native American Territories

Source: Brasser 1974

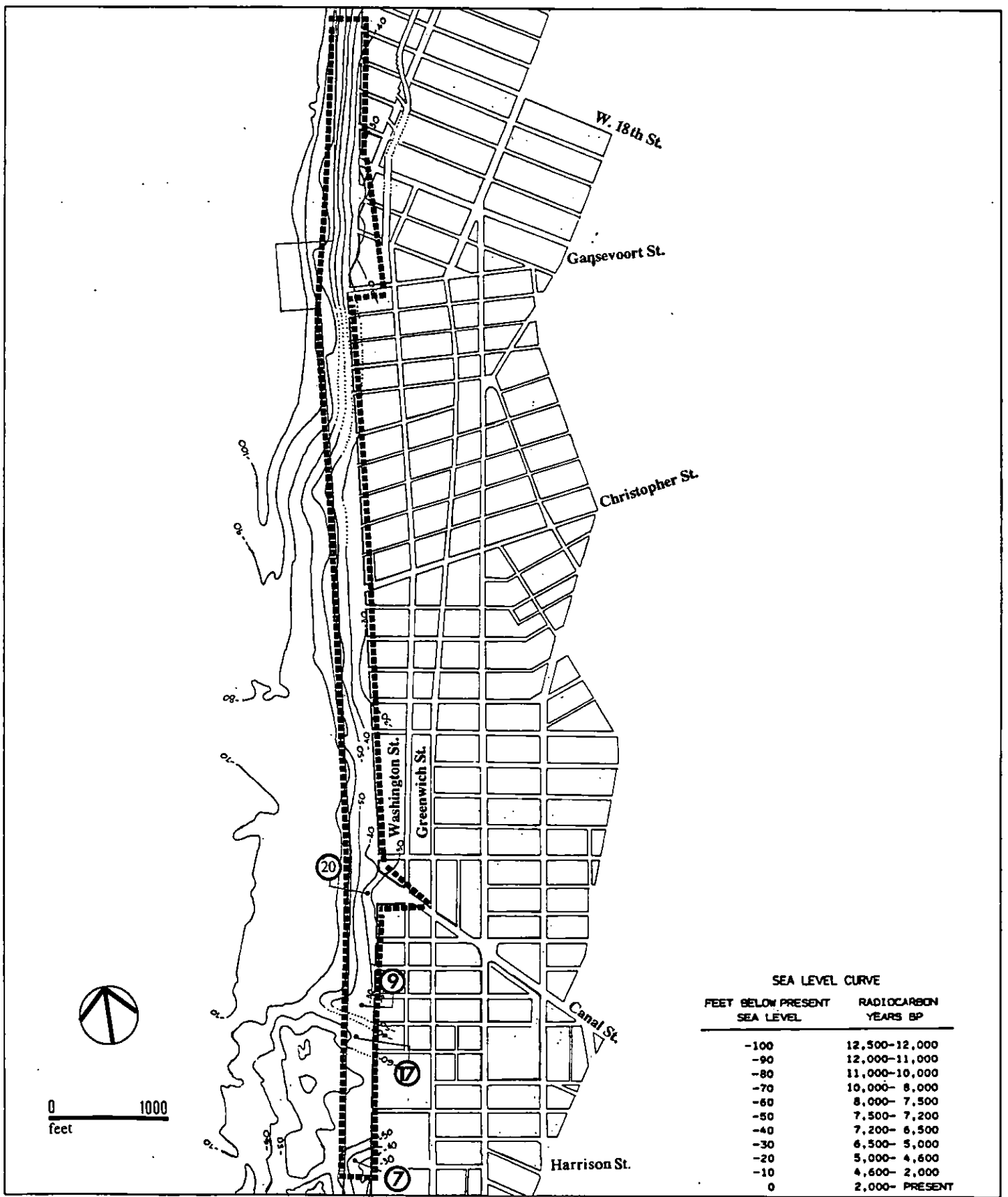
Figure 5-2



Legend

-  High Potential Site
-  Unexcavated Contact Site
-  Approximate Boundary of Study Area

Detail of Fig. 2: Prehistoric Sites, from the New York City Landmarks Preservation Commission Manuscript "Towards an Archaeological Predictive Model for Manhattan: A Pilot Study"



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Legend

- Extrapolation of Contour Lines
- ⊙ Map Reference Areas
- Approximate Boundary of Study Area

Prehistoric Sites Identified in the Westway Project Investigation
 V-17 by Historic Conservation and Interpretation, Inc.

Source: Rutsch, et al. 1983:48

Figure 5-4

A. HISTORICAL RESEARCH

HISTORICAL BACKGROUND

The first European to view Manhattan was probably Giovanni de Verrazano, when he sailed into New York harbor in 1524. Despite reports of Portuguese explorers entering into the bay prior to Henry Hudson's voyage, historical accounts are sketchy and often can not be verified (Kieran 1982:2). The nature of early trading voyages suggests that even if they did sail into the bay and up the Hudson River, activities were probably confined to the traders' ships, so as not to set foot on unexplored territory. It was not until 1609 when Hudson sailed up the great river, now bearing his name, that Europeans first landed on the island.

In 1613 the New Netherlands Company, which sponsored many voyages to the new world in search of trade goods, set up a storage and trade house on the southern tip of Manhattan (Wilson 1902:395). In addition, several shacks were built for traders settling on the island. As the fur trade grew, so did the population of Manhattan, and the small village expanded. In 1623 the Dutch West India Company received from the Dutch States General, a grant for all lands within Manhattan (Hoag 1905:32). Later, in 1626 Peter Minuit, the Director General, purchased Manhattan Island from the local Indians for what amounted to less than 25 dollars (Jones 1978:10). By 1664 the English had obtained possession of the island, and King Charles II granted the land to the Duke of York.

The early settlement on Manhattan was concentrated on the southern tip of the island. The Wall Street stockade, built in 1653 by the Dutch, demarcated the northern boundary of the city (Works Progress Administration 1939:58). In 1699 the British removed the stockade and the city slowly began to expand northward. At that time, West Street between Harrison and West 18th Streets was submerged land; and the shoreline along the Hudson River ran between what are now Greenwich and West Streets below Little West 12th Street, and between Tenth and Eleventh Avenues north of Little West 12th Street. By 1663 Governor Van Twiller was cultivating a large tobacco plantation north of Spring Street, along the Hudson River. The farm was known as Bossen Bouwerie, translated to "Farm in the Woods," and his home was located at the foot of Charlton Street (Ibid.:125). In the 1740s Sir Peter Warren purchased about 300 acres with several houses bordering the Hudson, including what is now Greenwich Village. The river frontage included in his estate was described as "a bluff along the river with a fine beach below" (Stokes Vol. 3 1909:157).

The land west of Broadway extending to the Hudson, between Fulton and Christopher Streets, was once part of the Queen's Farm. Queen Ann granted this tract to Trinity Church in 1705 (Works Progress Administration 1939:79). In 1794 William Rhinelander obtained a 99 year lease for a large portion of the Trinity Church land and, in 1797, the Common Council granted him rights to the water

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contiguous to his properties. The Rhinelanders, in turn, rented much of their land to commercial ventures for a substantial profit.

By 1639 there were a number of farmhouses along the shore of the Hudson River. Two of these belonged to Jan van Rotterdam, also known as Jan Cornelissen (Stokes Vol. 6 1926:118). The southernmost tract of Cornelissen's land was transferred to Anthony and Paulus Leendertsen van der Grift in 1662, two burgomasters of New Amsterdam. As a result, the tract between West 14th and 24th Streets, Eighth Avenue, and the Hudson River became known as the Burgomaster's Bouwery (Ibid.:118). By 1679, this tract was owned by the Mandeville family.

Despite the early settlers' reliance upon waterways for transportation, the Hudson (or North) River was not a popular place for docking, and the East River was more heavily relied upon. The depth of the Hudson and the high bluffs along the shore impeded its usage, and there were few coves to provide protection to ships from the strong northerly winds coming down the valley. In addition, during the winter months the Hudson was more likely to ice up than the East River (Buttenwieser 1987:27). All of these reasons contributed to the low usage of the Hudson shoreline during the seventeenth and eighteenth centuries.

In 1686 the Dongon Charter was put forth by Lieutenant Governor Thomas Dongon, who granted a charter to the Mayor Alderman of New York City, transferring land ownership from the Crown to the City of New York out to the low water mark (Hoag 1905:32). Private expansion along the Hudson River was slow compared to that along the East River, largely because the small number of wealthy landowners who controlled the use of the waterfront had no interest in expanding their properties since they enjoyed the residential atmosphere (Buttenwieser 1987:32). The earliest filling episode documented along the Hudson occurred between 1699 and 1701. This involved a grant issued to Meiser and others. As a result of the grant, three blocks bounded by Cedar and Cortlandt Streets and Greenwich Street and Washington Street were either filled or had rudimentary docks built onto the original shoreline (Ibid.:32). West Street was still land under water at that time.

In 1730 the Montgomery Charter extended owner privileges two blocks beyond the low water mark, and grants were issued that included the provision for three streets to be built parallel to the river (Hoag 1905:32). The grant ran from Bestaver's Killitie or riverlet, which emptied into the Hudson at the present Charlton Street, to the tip of the island at Fort George, now the intersection of State Street and Battery Place (Rutsch et al. 1983:94). These streets, Greenwich, Washington, and West, did not get built immediately (Buttenwieser 1987:34). The earliest docks constructed on the Hudson River were south of Vesey Street.

By the 1740s civil defense construction, spurred by the mounting conflict between the French and English, entailed erection of "a band of palisades...across the width of Manhattan from near the east side of Greenwich Street to Peck's Slip on the East River. Associated with the palisades were block houses and city gates...one such city gate at approximately the intersection of Greenwich Street and Chambers Street"

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(Kirkorian and Tidlow 1984:6). A circular structure, called the Grenadier's Battery, stood near Greenwich Street between Franklin and North Moore Streets. A line of breastworks extended along the river from this to Hubert Street, and a similar line extended to Desbrosses Street (Rutsch et al. 1983:95). An eight-gun block house was also built on "Dominie's Hook" in the 1750s, possibly between West, Hubert, Greenwich, and North Moore Streets (Kirkorian and Tidlow 1984:7). In addition, according to Ratzler's 1767 map, a series of defense entrenchments were placed along the western edge of Greenwich Street, from Murray Street north to the battery on "Dominie's Hook."

The Red Fort or North Battery was built as a result of the events preceding the War of 1812. The fort stood between Hubert and Laight Streets, west of West Street (Rutsch et al. 1983:162, Poppleton 1817). The fort was a semi-circular stone building with a stone magazine and a furnace. In 1823 the City received permission to use the bridge as a public landing place for incoming farm produce (Vollmer Associates 1987:11). The fort was eventually removed in 1832 and auctioned off in sections after having been used as both a landing for immigrant vessels and a dumping site (Rutsch et al. 1983:162). Although the site of the fort itself is west of the project area, the bridge connecting the fort to Hubert Street crossed the path of what is now West Street and Marginal Street.

In an attempt to spur the construction of a street along the shore, in 1795 the Common Council passed an ordinance creating an outer street, 70 feet wide, beyond which no grants could be made and no buildings erected. Three years later this was named West Street (Buttenwieser 1987:28). The proposed construction of West Street was intended to compel landowners to pursue landfilling where they were granted water rights. At that time, only Greenwich Street was complete and West Street was yet to be built. At the turn of the nineteenth century, there were numerous docks between Harrison Street and West 18th Street.

In 1811 a city plan was devised to provide for a system of streets and avenues for Manhattan. The Commissioner's Plan laid a grid system over the city, disregarding natural topographic features which may have impeded road construction. Regulating the streets involved grading and filling, removing massive rocks and boulders, and tearing down houses standing in the path of proposed roadway construction. Although the plan was laid down on paper, many of the roads were not actually constructed until decades later. West Street was depicted as a mostly completed outer street extending as far north as Christopher Street, although it was incomplete in far many more places than shown, as reported in the Block Histories section of this report. According to the Commissioner's Plan, the Canal Street Basin and Townsend's Dock at West 12th Street were the only major docking facilities on the Hudson north of Harrison Street (Rutsch et al. 1983:245). As a result, the tight development of narrow finger piers at each street-end, south of West 59th Street, was encouraged.

Although the Common Council was active in their attempt to assure the complete construction of West Street, filling and development was slow. On the Hudson in

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the 1830s, water lots were made into land to the west of Tenth Avenue as far north as West 16th Street (Buttenwieser 1987:40). John Jacob Astor, a realtor and proponent of landfilling, was responsible for filling in water lots between West 14th and 16th Streets, west of Tenth Avenue. Shorefront bluffs were leveled to "make streets and land for factories, warehouses and rowhouses. Debris was simply dumped into the river toward the newly mapped Thirteenth Avenue" (Ibid.).

Two distinct processes were associated with land reclamation and filling which entailed either unstructured harbor buildup and river accretion, or carefully engineered fill put within deliberately placed retaining devices (Geismar 1983:672). In lower Manhattan, ships have been sunk as cribbing in order to stabilize fill (Berger 1983:9). After wharves and piers were built, derelict ships were often sunk, and together these features contributed to and operated to retain fill. In one such case, a burned seventeenth century Dutch ship named the "Tiger" was sunk, only to be encountered during subway excavation at the corner of Dey and Greenwich Streets in 1916 (Solecki 1974:109). During the excavation of the adjacent World Trade Center, archeologists unsuccessfully searched for a portion of the ship not found during the subway construction. The Sally, a 35-ton vessel, sank on the north side of the Canal Street basin circa 1812 and no record of its removal exists (Vollmer Associates 1987:11).

Wood was a popular material for maritime use since it was a durable material which preserved well in water. Wooden cofferdams, wharves, and bulkheads were also built as retaining devices, framed with hewn logs, filled with loose stone, and covered with earth (Geismar 1983:30). The use of timber grillage as cribbing, common in Manhattan, has been traced to fifteenth century architect Marcus Vitruvius Pollio. Colonists continued to use this method as both the Dutch and English had previously, aided largely by the abundant supply of wood in the new world. Quays were built which entailed driving a row of wooden piles into the river with diagonal braces bolted to the inside, forming the face work of the quay. Earth and excavation materials filled the area behind. It was then planked over to form a roadway level with adjacent streets (Ibid.:31). Wooden jetties helped to enlarge the accommodations of ports and were built in the same manner as quays.

Landfill used to create West Street, Tenth Avenue, and the necessary cross roads originated from an array of sources. When the monetary value of clean fill from building excavations was realized, this ceased to be used for filling along the Hudson. Often wharves and piers were used as dumping boards where collected garbage was eventually pushed overboard into scows. Between Harrison and West 18th Streets, dumping boards existed at Vestry Street in 1830, Watts Street in 1846, Christopher Street in 1827, and Gansevoort Street in 1844 (Buttenwieser 1987:42). Often garbage collected on piers and wharves, only to be thrown into the adjacent slips as landfill. Rubbish, ash, ballast, street trash, and previously excavated materials deposited along the Hudson pushed the shoreline further west, and the dumping boards helped create lots beyond the City's 400 foot outer limit.

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The Gansevoort Market was built on landfill that previously supported the site of Fort Gansevoort, built in 1812. The fort once stood on the block bounded by Gansevoort Street, Little West 12th Street, Washington, and West Streets. Otherwise known as the "White Fort," Fort Gansevoort was built in preparation for the War of 1812. At that time, the Hudson River shoreline, north of Christopher Street, was "generally irregular and unimproved, except for the fort and Townsend's Dock at West 12th Street" (Vollmer Associates 1987:13). The subsequent Gansevoort Market, built in 1884, was "designed to accommodate farm wagons and consisted of ten parallel streets, each 33 feet wide separated by 6-foot walks" (Rutsch et al. 1983:381). In 1889 the New West Washington Market was constructed across from the Gansevoort Market, west of West Street. When the Chelsea-Gansevoort Piers were built at the turn of the twentieth century, the location of both markets was such that they blocked traffic on West Street south of Gansevoort Street (Ibid.:302). The route remained blocked until the West Side Highway was built. The West Washington Market was demolished in the 1930s and replaced by a City incinerator.

The Clinton Market once stood on the block bounded by Canal, West, Washington, and Spring Streets, also on landfill. The main market building was built between 1827 and 1829, and additional facilities were built in 1834 on the block bounded by West, Washington, Canal, and Hoboken Streets (Rutsch et al. 1983:382). By 1848 a two-story shed was constructed southwest of the main market building, fronting Canal Street. By 1860 the structure had deteriorated and was removed. Prior to the construction of the Clinton Market, a basin was constructed at the foot of Canal Street between 1808 and 1812. "The ends of two docks enclosing the basin, the southern one on a line with what was later Hoboken Street and the northern one just south of Spring Street, intersected the line of West Street and may have been covered over and preserved as West Street was filled" (Vollmer Associates 1987:11). In 1818 a resolution was passed extending West Street over the Canal Street basin and Spring Street slip, and in 1825 a petition was granted to continue West Street from Canal Street south to Hubert Street.

By the middle of the 1800s the use of the Hudson waterfront increased as newly designed ships required deeper berths. The introduction of the steamboat in 1807 and the production of larger vessels by local shipbuilders contributed to the need for longer piers in deeper water. The opening of the Erie Canal in 1825 and the demand for coal in New York City also contributed to this need (Buttenwieser 1987:39). To accommodate these industries, new piers were built extending into the Hudson. In the 1830s, 250 foot piers were constructed at the foot of King, Harrison, Franklin and North Moore Streets (Rutsch et al. 1983:83). By 1839 finger piers extended from every street end between Vesey and King Streets (Buttenwieser 1987:39). Soon the city was transformed into a major market place and financial center.

One of the major industries that played a substantial role in the development of the lower-west side was the Delamater Iron Works, founded in the 1830s near West and Laight Streets. The company was created by three men who repaired ships, working out of their machine and blacksmith shop. The business had

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expanded along West Street by 1838 and they later established a second company, the Phoenix Foundry. Development continued north to Vestry Street in 1840 (Vollmer Associates 1987:11). A second yard was opened at a newly filled waterfront lot at the foot of West 13th Street, near Tenth Avenue (Rutsch et al. 1983:352). By the 1850s, the blocks "bounded by Franklin, Greenwich, Vestry and West Streets contained a cluster of industries including the Birkbeck's Iron Foundry, the West Street Iron Foundry, Swifts Sugar Refinery and the Phoenix Foundry" (Vollmer Associates 1987:11). The foundries and industries served the piers along the shores of the Hudson.

Prior to 1844, private parties or individual owners built the piers, wharves, and slips along the rim of Manhattan (Hoag 1905:36). The waterfront conditions along either side of the island during the middle of the nineteenth century were considered deplorable. The solid base construction of the piers prohibited the flow of sewage out to sea, which created disease-infested waters (New York Pier and Warehouse Co. 1869:58). Recurrent plagues drove New Yorkers northward into cleaner residential districts. The piers themselves were also in a state of disrepair. Transportation of goods to and from the waterfront on the Hudson River was difficult due to the large volume of freight and numerous pedestrians.

In 1850 the Council on Wharves and Piers supported a resolution to build a bulkhead along the westerly line of Thirteenth Avenue from West 13th Street south to Gansevoort Street, and from Thirteenth Avenue along Gansevoort Street to West Street (Rutsch et al. 1983:98). At that time West Street extended as far north as Great Kill Road, now Gansevoort Street, and shoreline filling had created Thirteenth Avenue, one block west of West Street along the shoreline between Gansevoort and West 23rd Streets (Dripps 1852).

In 1847 the Hudson River Railroad was organized and a track was laid from "Chambers Street at Hudson Street, up Hudson to Canal Street, from Canal to West Street, thence along Tenth Avenue to 30th Street" (Rutsch et al. 1983:258). The railroad served the waterfront docks, which helped to spur the industrial and commercial nature of the lower-west side of Manhattan. In the 1870s the Hudson River Railroad merged with the New York Central and added a new passenger and freight terminal at St. Johns Park near Canal and Hudson Streets (Buttenwieser 1987:75). The use of railroads increased and 1875 marked the completion of elevated railways in Manhattan, facilitating travel to and from the southern part of the city (McCabe 1882:239).

In 1870 the Department of Docks was created. In the following year, the Commissioner of the Land Office granted rights and land to New York City for the construction of wharves, bulkheads, docks, piers, basins, and slips. The McClellan Plan resulted in the construction of a solid block and granite bulkhead wall around the southern half of Manhattan between West 61st and East 51st Streets. The wall was placed outside of the previously existing bulkhead, to allow for the expansion of streets, and the construction of Marginal Street. Directly along the shoreline, adjacent to the bulkhead, Marginal Street was designed to handle

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shorefront traffic, relieving congestion from Twelfth Avenue and West Street (Buttenwieser 1987:73).

The width of West Street south of West 11th Street, together with Marginal Street, was slated as 250 feet as per the McClellan Plan. However, in the 1890s West Street in this vicinity was still cluttered with intrusions (Rutsch et al. 1983:297). West Street maintained its width of 70 feet, and eventually the encroachments were cleared, allowing for the additional 180 feet for Marginal Street. North of West 11th Street, shoreline filling had pushed West Street inland by a block, and the route maintained its 70 foot width. At that time, the shoreline road was Thirteenth Avenue, also known as Twelfth Avenue in some places.

Providing transatlantic crossings in the late nineteenth and early twentieth centuries became a very competitive business, and steamship companies vied for space at the few longer piers that existed south of Perry Street (Buttenwieser 1987:83). Each year, longer steamships were built, and New York's pier space could not keep up with steamship company needs. In 1880 the Chelsea-Gansevoort Plan was proposed by Chief Engineer George Greene. The plan detailed the construction of piers long enough to accommodate the newly built steamships. Previously, the piers between West 11th and 23rd Streets were "intentionally undeveloped, as decades of filling had caused the land here to nestle against the state pierhead line" (Ibid.:84). The proposal called for adding 21 piers between West 11th and 23rd Streets, 80 feet wide and up to 530 feet long, and entailed removing shoreline fill and extending the piers east of the 1880 shoreline.

The section between West 12th and Gansevoort Streets was partially filled with the remains of prominent family estates. George Greene...recommended that all of the filling that had taken place at Chelsea-Gansevoort since the 1830s be undone. To construct new piers that met the requirements of contemporary steamships, part or all of the buildings on twenty-three city blocks would be razed and the blocks themselves excavated and turned back into deep water (Buttenwieser 1987:86).

Due to funding problems and legalities, the Chelsea-Gansevoort Plan was not actually acted upon until years later. In 1890 the War Department set new western limits on the pierhead line between West 11th and 14th Streets, and the original proposal was modified to include six 728 foot piers between these streets. Work began on the Gansevoort section in 1894, and was complete by 1902 when the six piers were opened to the Cunard, White Star, and Leyland lines for passenger ships (Buttenwieser 1987:94). Also in 1902, work began on the Chelsea section of the project which had also been revised from the original 1880 proposal. In 1897 the planned piers were lengthened to 800 feet by proposing removal of an additional quarter-block of land to the east. In 1903 the Chelsea Improvement Plan was changed to build 1000 foot piers (Ibid.:96).

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Architects Warren and Wetmore, designers of Grand Central Station, were hired by the city to design pier sheds for the Chelsea Improvement Plan. The result was a row of concrete and pink granite buildings spanning the shore. "The two-story, unified facade was designed with triangular pediments that hung over the entryways at the ends of east-west streets. In these, and over the first floor windows, heroic cement sculptures were set celebrating the history of trade" (Buttenwieser 1987:99). The project was completed in 1910 (Figure 6-1).

With the construction of the Chelsea Piers, everything west of what is now Eleventh Avenue, between West 11th Street and West 18th Street, was removed (Figure 6-2). The width of the new Eleventh Avenue between the city blocks and the bulkhead line, now within the project area, was 250 feet after this alteration. The route remained this way until sometime between 1950 and the 1980s when a platform was built west of the bulkhead line between West 17th and 22nd Streets. The project area extends west of the bulkhead line to include this addition between West 17th and 18th Streets.

In the 1930s, West Street was edged with busy docks and was the "main highway for the city's incoming and outgoing supplies" (Works Progress Administration 1939:58). Also on the lower west-side were some of the city's largest produce markets, and numerous warehouses interspersed with tenements. South of West 23rd Street, the Hudson River was walled by an "almost unbroken line of bulkhead sheds and dock structures" (Ibid.:69). Cross streets experienced heavy traffic bound for ferries and steamers.

The West Side Highway (Highway) was constructed in the 1920s and 1930s to help alleviate waterfront congestion. In the 1930s the Highway ran from its northern border at West 72nd Street as far south as Duane Street where entrance and exit ramps were located (Works Progress Administration 1939:71). By 1947 the elevated structure continued as far south as Rector Street (Figure 6-3). Between Rector Street and West 39th Street the "viaduct columns were supported on grillage-type footings which in turn were supported by 18 inch diameter steel pipe piles driven to bedrock and filled with concrete" (Vollmer Associates 1989:10). A 350 foot parabolic bridge over Canal Street linked the southern section with the remaining elevated northern section (Works Progress Administration 1939:70). The Highway was demolished south of West 43rd Street in the 1970s, and an at-grade roadway was built to replace it. The remainder of the Highway south of West 59th Street was removed in 1989.

WEST SIDE HIGHWAY CONSTRUCTION

In 1925 Nathan Miller, Manhattan Borough President, outlined plans for an elevated highway running from Canal to 72nd Street, to alleviate traffic from Twelfth Avenue and Marginal Street. The plan was approved by Governor Smith in 1926 and construction was started in 1927 (Stern et al. 1987:698). The City and Hudson River Railroad Company shared in the expense of construction. In 1929 the Depression caused a temporary halt in construction, and when funds ran low, Robert Moses convinced Governor Herbert Lehman that the entire highway was a continuous grade crossing and thus could receive funding from the Grade-Crossing Elimination Fund (Ibid.:698). Highway construction was completed between Canal Street and 72nd Street, and opened by 1938 (Csanyi 1938:177). The construction along the shoreline for the highway caused a tremendous amount of disturbance, as described below.

According to the Contract Bid proposal for the construction of the West Side Highway, the construction entailed numerous stages. The following is a list of requirements for the construction of the highway:

Fill and Backfill- "All trenches shall be backfilled, and backfill shall include clean earth, clean ash, clean cinders, and stone."

Sidewalks- "Sidewalks shall be graded to a depth of 10" below the finished sidewalk grade."

Piles- "Piles that are less than 24' shall be constructed of cement and reinforced steel." Some piles are over 40 feet long.

Width of Excavation- "For each as follows: sewers, basin counts, drains, manholes, inlets...6" wide pipe=2'6" wide trench. 8" wide pipe=2'8" wide trench. 10" wide pipe=2'10" wide trench. 12" wide pipe=3' wide trench. 15" wide pipe=3'3" wide trench. 18" wide pipe=3'6" wide trench. 24" wide pipe=4' wide trench. For all concrete sewers, one foot on each side of the sewer, above the foundation. For manholes, risers, basins, overflow chambers, and inlets, one foot on all sides of the structure above the foundation."

Depth of Excavation- "Water pipe trenches: 4" pipe=2.4' wide, and 1' below top of pipe. 6" pipe=2.5' wide, and 1.1' below top of pipe. 8" pipe=2.7' wide and 1.3' below the top of pipe. 12" pipe=3' wide and 1.6' below the top of pipe. 16" pipe=3.3' wide and 2' below the top of pipe. 20" pipe=3.7' wide and 2.3' below top of pipe. 24" pipe=4' wide and 2.7' below top of pipe."

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Hydrants- "Total excavation in addition to the pipe trench is 4' long and 4' wide, the depth to 15" below the bottom of the hydrant."

Restoration of Park Areas- "Excavate, regrade and replace top soil and subsoil within the limits of...park."

General construction activities which caused subsurface disturbance entailed the following:

Remove rock ledge from areas adjacent to sewer structures by blasting, barring and wedging....If necessary to relocate water lines-permission must be granted by the Department of Water Supply, Gas and Electric. Fence posts extend 3' into the ground. Existing granite-block pavement will be covered with cement. Install under-ground lead-covered cables in the conduit provided for the Fire Alarm System (City of New York 1926:45-138).

The construction of the highway during the 1930s entailed sinking cast-iron caissons between 40 and 48 feet deep, and 4 to 5 feet wide. According to a report on the construction of the Miller Elevated Highway, subsurface conditions encountered during excavation proved to be quite interesting.

The original shoreline was much farther inland than it is at present and various buildings, docks and piers were built in what is now Twelfth Avenue. All these subsurface structures were allowed to remain when the area was filled in to form Twelfth Avenue...Rock-filled cribs and old bulkhead walls were frequently encountered. Such conditions were not at all unusual" (Harrington 1934:124).

BLOCK HISTORIES

The block histories presented are based on cartographic sources. An extensive array of maps and atlases were reviewed in order to observe potentially sensitive archeological features within the project area. Maps and atlases were reviewed at approximately five-to-ten year intervals. In some cases, several maps were used dating to the same period since the accuracy of each was difficult to ascertain. It was believed that this is sufficient to identify potentially sensitive areas and accurately track landfilling episodes. Buildings or features present for less than five to ten years rarely are constructed in such a manner as to leave a vertical or horizontal footprint on the landscape. Additionally, disturbance by these short term structures tends to be minimal. The chronological description presented is based on the atlases and maps reviewed. A full title list of cartographic sources referenced is provided in the Map and Atlas Section of the Bibliography, and the repositories where research was conducted are listed in the Methodology section. This section only presents potentially sensitive areas without assessing disturbance. Subsequent impact to these areas is presented in the Subsurface Disturbance section.

All lot numbers referenced in this section correspond to those visually presented on Figure 6-4 for clarification of each lot's location. For consistency, the lot numbers presented reflect the location of the lots as per the 1879 Bromley atlas. At later dates, lots were often renumbered, subdivided, or expanded to include a number of lots. In order to avoid confusion, the 1879 lot numbers were consistently used to refer to the specific locations of features.

The historical land owners listed are only for those properties which historically were lotted and are within the bounds of the project area. The blocks have each been presented individually and, where possible, lot numbers have been included. The information was acquired from the New York City Finance Department, Index Division, and from I.N.P. Stokes Iconography of Manhattan Island (1915-1926). In some cases, information from Stokes was limited or unclear so only the Index Division's material was presented.

Historical development has been traced along West Street and Tenth Avenue for the nineteenth and twentieth centuries. The avenues' names have changed through time as development altered their configurations. For ease of understanding refer to the figures presented in the text. The filling and development is presented from south to north, with each section demarcated by adjacent cross streets. Each section presented includes the development that occurred between the south boundaries of both the southern and northern cross streets. The only exception to this is the block between West 17th and West 18th Streets, which extends northward to include the northern boundary of West 18th Street. The only other areas covered are the blocks encompassed in the project area where the project parcel is extended eastward, and a western spur between West 15th and West 16th Streets where the MABSTOA Bus Garage is located.

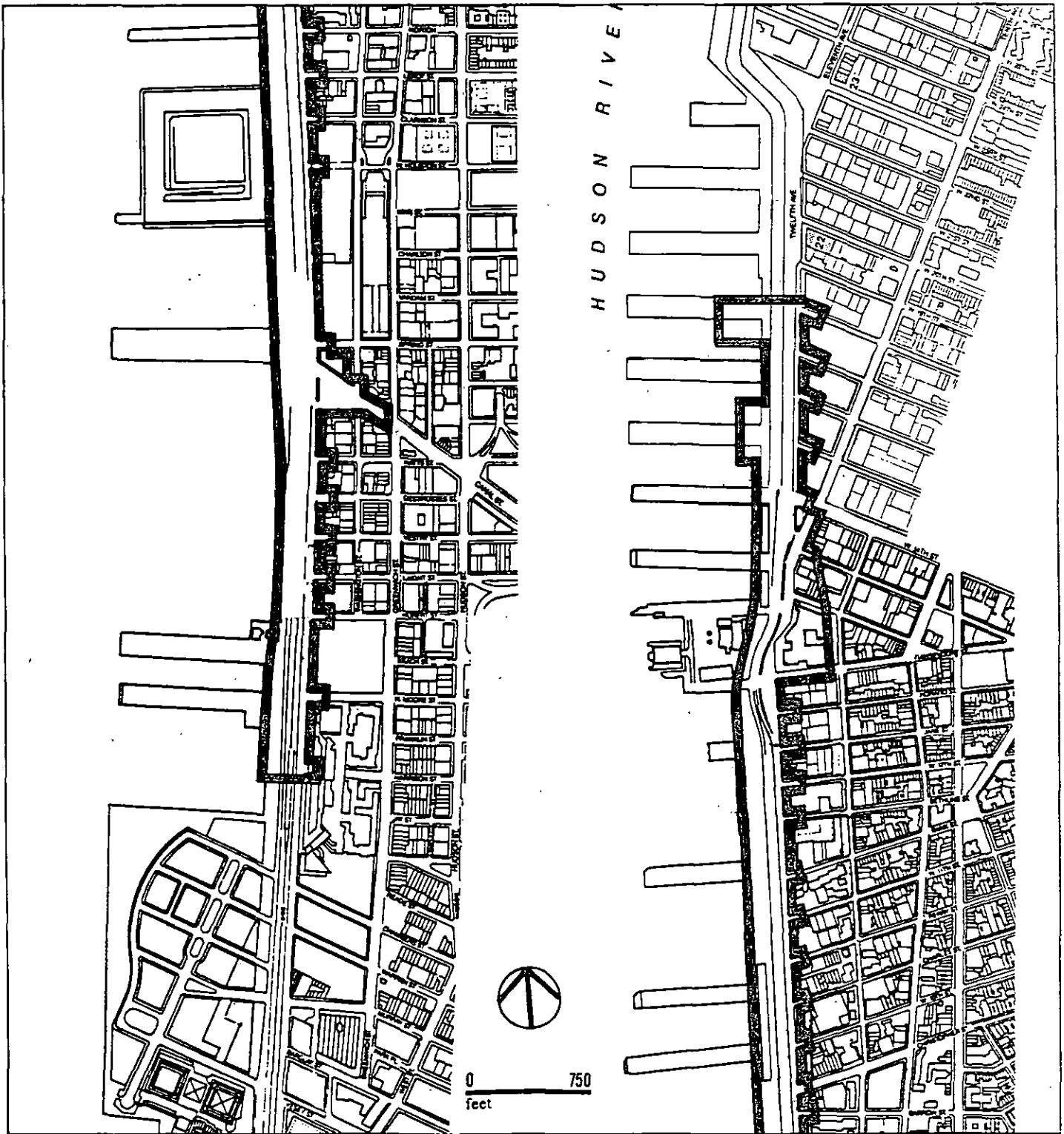
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While performing cartographic research, it was noted that there were several inconsistencies and problems with some of the resources as discussed below. It should be noted that the 1609 MacCoun map is a recreation, not an original document. The map was compiled in 1909. Unfortunately the 1819-1820 Randel map, which was considered one of the more accurate sources of the geography at that time, was not available for the area south of 12th Street. Therefore it was not presented in this section, as it is in others. The 1859 Viele Map of the City of New York, showing the original topography of Manhattan Island, does not pay attention to detail and obliterated many of the smaller features noted by Randel. Since the original historic shoreline was east of the project area, and the 1859 Viele map was not considered accurate, it was not included in this report.

There were problems with comparisons of the 1817 Poppleton and Longworth maps. Quite often, these two maps did not agree, although they were produced at the same time. In some cases, later maps substantiated the information on the Longworth maps, and in other cases it substantiated the Poppleton maps. There is a handwritten notation on the 1817 Poppleton map which states that the surveying for the publication actually took place in 1814. This may account for the inconsistencies between the two maps. Therefore, each block was treated individually with regard to map accuracy, and both maps were included in the attempt to delineate the correct cartographic depiction at that time.

Another problem was with the 1834 and 1837 Burr maps. These were consistently found to more accurately reflect development shown in the 1850s. For this reason, they were not included in the historical reconstruction of the project area. In addition, the 1855 Miller map did not accurately reflect the 1855 shoreline, but presented the original high water mark and farm borders. Since both of these features were east of the project area, it was also not included in this assessment.

Documenting development in the 1860s posed a problem since there were few resources found dating to this period. During the Civil War, New York's cartographers were redirected, and atlases were not produced in the abundance that they were in the 1850s (Alice Hudson, Director of the Map Division, New York Public Library, personal communication to Faline Schneiderman-Fox, April 1989). The only detailed map found dating to this period, Dripps 1868 Plan of New York City, showed West Street as a continuous road along the shoreline of the river, uninterrupted by intrusions. It seems that Dripps simply depicted the road as it was supposed to be for convenience. The 1868 Dripps map was not included in this section of the report for that reason.



ROUTE 9A RECONSTRUCTION PROJECT

Legend

————— Archeological Study Area Boundaries

Reference map for the following section
Harrison Street to West 18th Street

Route 9A Reconstruction Project

Harrison Street to Franklin Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth - (Figure 6-5) The block to the east of West Street has been filled and West Street is filled from Harrison Street northward, half way to Franklin Street. Only the eastern half of the street appears filled from mid-block north to Franklin Street, then known as Provost Street.

1817 Poppleton - West Street only appears filled from Harrison Street northward, half way to Franklin Street. There is no filling from mid-block to Franklin Street as seen on the 1817 Longworth map.

1824 Hooker - West Street is completely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) Same as the 1824 Hooker map.

1828 Hooker - Same as the 1824 Hooker map.

1836 Colton - West Street is complete, and there is a pier off of the end of Harrison Street extending into the path of what will be Marginal Street.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map, although the pier is numbered 32.

1852 Dripps - (Figure 6-8) The pier has been renumbered 34.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) There is a steamboat landing protruding into the route of what will be Marginal Street, mid-block between Harrison and Franklin Streets. Pier 34 is labeled "Rondout and Kingston Boats."

1885 Robinson - (Figure 6-10) The pier is now numbered 23.

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1897 Bromley - The pier is back to number 34, and everything appears the same as on the 1879 Bromley atlas.

1902 Bromley - Marginal Street is complete, and there are pier sheds lining the shorefront between Harrison and Franklin Streets.

1913 Hyde - (Figure 6-11) There is a one-story pier shed on the shoreline.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway appears in West Street, and all else is the same as on the 1913 Hyde atlas.

LANDFILL

West Street was first partially filled between 1808 and 1817, and was entirely filled by 1824. Pier 34 was built between 1828 and 1836 and stood in the route of Marginal Street at the foot of Harrison Street. A steamship landing was also in Marginal Street, built between 1874 and 1879. Both of these may have become part of the Marginal Street fill between 1897 and 1902.

HISTORIC SENSITIVITY

In addition to Pier 34 and the steamship dock, there were pier sheds on the shoreline stood between at least 1913 and 1950.

Route 9A Reconstruction Project

Franklin Street to North Moore Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth - (Figure 6-5) The block to the east of West Street has been filled as has a narrow portion of the eastern edge of West Street.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - West Street is completely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is a pier off of the end of Franklin, then known as Provost Street, in the route of what will be Marginal Street.

1828 Hooker - The pier is not present as it is on the 1827 Ewen map.

1836 Colton - The pier reappears as on the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The pier is numbered 33, and all else is the same as on the 1836 Colton map.

1852 Dripps - (Figure 6-8) The pier is now 35, and there is some fill in Marginal Street extending from Pier 35 north, half way to North Moore Street.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1856 Bacon map.

1879 Bromley - (Figure 6-9) Marginal Street is partially filled between Franklin and North Moore Streets but does not yet extend as far west as the bulkhead line. There appear to be pier sheds fronting the river. Pier 35 is labeled "Homer Ransdell and Co." and "Poughkeepsie Steamboat."

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

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1902 Bromley - Marginal Street is entirely filled and the pier sheds have been removed.

1913 Hyde - (Figure 6-11) Everything appears the same as on the 1902 Bromley atlas with the addition of a small structure in Marginal Street mid-block.

1925 Bromley - Same as 1913 Hyde atlas.

1950 Hyde - The West Side Highway appears in West Street, and there are two and three-story pier sheds spanning the waterfront on Marginal Street between Franklin and North Moore Streets.

SHORELINE FILL

The first filling occurred in West Street between 1808 and 1817 and the entire route was filled by 1824. Pier 35, built by 1827, may have become part of the Marginal Street fill. Marginal Street first experienced filling between 1846 and 1852 and the entire route was filled by 1902.

HISTORIC SENSITIVITY

In addition to Pier 35 which may be in the Marginal Street fill, there were pier sheds fronting the shoreline between 1879 and 1902, when they were removed. New pier sheds were built by 1950.

Route 9A Reconstruction Project

North Moore Street to Beach Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth - (Figure 6-5) West Street is complete between North Moore and Beach Streets.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - Same as the 1817 Longworth map.

1826 Prior Dunning - Same as the 1817 Longworth map.

1827 Ewen - (Figure 6-6) There is a pier at the end of North Moore Street in the path of what will be Marginal Street.

1828 Hooker - The pier does not appear as it does on the 1827 Ewen map.

1836 Colton - The pier reappears as on the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The pier has been numbered 34.

1852 Dripps - (Figure 6-8) Same as the 1846 Burr map.

1854 Dripps - Same as the 1846 Burr map.

1856 Bacon - Same as the 1846 Burr map.

1874 Viele - Same as the 1846 Burr map.

1879 Bromley - (Figure 6-9) There is some filling in Marginal Street but it does not extend as far west as the bulkhead line. There is one pier shed on Marginal Street between North Moore and Beach Streets. The pier has been renumbered 36 and is labeled "Morgan's LA. and Texas RR and SS Co."

1885 Robinson - (Figure 6-10) Marginal Street is entirely filled and there are two structures between North Moore and Beach Streets on Marginal Street.

1897 Bromley - Same as the 1879 Bromley atlas.

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1902 Bromley - The pier sheds have been removed and there are now no buildings in Marginal Street.

1913 Hyde - (Figure 6-11) There is one pier shed between North Moore and Beach Streets on the waterfront in Marginal Street.

1925 Bromley - There is a rectangular structure in the middle of Marginal Street between the two cross roads, east of the pier sheds along the shoreline.

1950 Hyde - The West Side Highway appears in West Street and there are no pier sheds or other structures in the project area.

SHORELINE FILL

West Street was entirely filled between 1808 and 1817. Pier 36 was built west of West Street by 1827 and may have become part of the Marginal Street fill between 1879 and 1885. The first filling in Marginal Street occurred between 1874 and 1879 and was entirely filled by 1885.

HISTORIC SENSITIVITY

In addition to Pier 36, there were several short term pier sheds and associated buildings in Marginal Street which sporadically appeared between 1885 and 1925.

Route 9A Reconstruction Project

Beach Street to Hubert Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth-(Figure 6-5) The block to the east is filled, and West Street is partially filled from Beach Street north, half way to Hubert Street. The very eastern edge of the street is complete as far north as Hubert Street.

1817 Poppleton-West Street is filled from Beach Street, half way up to Hubert Street and there is no filling between this and Hubert Street.

1824 Hooker-West Street is entirely filled.

1826 Prior Dunning-Same as the 1824 Hooker map.

1827 Ewen-(Figure 6-6) There is a pier at the end of Beach Street in the route of what will be Marginal Street.

1828 Hooker-The pier on the 1827 Ewen map does not appear.

1836 Colton-The pier at the end of Beach Street reappears as on the 1827 Ewen map.

1838 Hooker-(Figure 6-7) Same as the 1836 Colton map.

1839 Burr-The pier has been removed and there are no obstacles in the route of what will be Marginal Street.

1846 Burr-The pier has been replaced and is now numbered 35.

1852 Dripps-(Figure 6-8) The pier has been renumbered Pier 37.

1854 Dripps-Same as the 1852 Dripps map.

1856 Bacon-Same as the 1852 Dripps map.

1874 Viele-Same as the 1852 Dripps map.

1879 Bromley-(Figure 6-9) There is some filling in Marginal Street but it does not yet extend as far west as the bulkhead line. Pier 37 is labeled "Old Dominion Line for Norfolk."

1885 Robinson-(Figure 6-10) Marginal Street is completely filled.

1897 Bromley-Same as the 1879 Bromley atlas.

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1902 Bromley-Marginal Street is entirely filled and there are two pier sheds fronting the shoreline in Marginal Street.

1913 Hyde-(Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley-There is a long rectangular structure in Marginal Street east of the pier sheds, between Beach and Hubert Streets.

1950 Hyde-The West Side Highway appears in West Street and the buildings all appear as they did in 1925.

SHORELINE FILL

West Street first experienced filling between 1808 and 1817 and the route was entirely filled by 1824. Pier 37 was built west of West Street in the route of Marginal Street by 1827. Marginal Street was entirely filled between 1879 and 1885 and Pier 37 may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 37, there were several pier sheds and associated buildings in Marginal Street dating between 1885 and 1950.

Route 9A Reconstruction Project

Hubert Street to Laight Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth - (Figure 6-5) A bridge extends from Hubert Street, through the path of West Street and Marginal Street, to the North Fort west of the project area. There is no other fill in West Street.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - Same as the 1817 Longworth map although the fort is labeled "North Battery" and the bridge is numbered 29.

1826 Prior Dunning - The block to the east is filled, as is West Street. The fort and bridge are still to the west.

1827 Ewen - (Figure 6-6) Same as the 1826 Prior Dunning map.

1828 Hooker - Same as the 1824 Hooker map. No fill appears in West Street as it did previously in 1826.

1836 Colton - West Street appears filled as it did in 1826.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The bridge has been renumbered 36.

1852 Dripps - (Figure 6-8) Same as the 1846 Burr map.

1854 Dripps - Same as the 1846 Burr map.

1856 Bacon - The bridge/pier has been renumbered 38.

1874 Viele - Same as the 1846 Burr map.

1879 Bromley - (Figure 6-9) The area between the fort and West Street has been filled. North of this, to Laight Street, the route of Marginal Street is still land under water. The bridge/pier is labeled "Pennsylvania Railroad Co."

1885 Robinson - (Figure 6-10) There is additional fill in Marginal Street north of the bridge/pier, although the route is not yet entirely filled. The fort is absent and the bridge is now a pier off of the end of Hubert Street.

Chapter VI:

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Marginal Street is entirely filled and there is one pier shed on the shoreline in Marginal Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in West Street.

SHORELINE FILL

West Street first experienced filling by 1817 and the entire route was filled by 1826. Marginal Street experienced some filling by 1879 and the entire route was filled by 1902. A bridge, which later operated as Pier 38, was in the route of Marginal Street and West Street between 1817 and 1885, and may be in the landfill.

HISTORIC SENSITIVITY

In addition to the bridge extending to the fort previously described, there was one pier shed between Hubert and Laight Streets in the route of Marginal Street from at least 1902 to 1950.

Route 9A Reconstruction Project

Laight Street to Vestry Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth through 1824 Hooker - (Figure 6-5) The route of West Street is land under water.

1826 Prior Dunning - The block to the east and West Street are both entirely filled.

1827 Ewen - (Figure 6-6) Same as the 1826 Prior Dunning map.

1828 Hooker - Same as the 1826 Prior Dunning map.

1836 Colton - Same as the 1826 Prior Dunning map.

1838 Hooker - (Figure 6-7) Same as the 1826 Prior Dunning map.

1839 Burr - Same as the 1826 Prior Dunning map.

1846 Burr - Same as the 1826 Prior Dunning map.

1852 Dripps - (Figure 6-8) Same as the 1826 Prior Dunning map.

1854 Dripps - There is a short pier off of the end of Laight Street through the route of what will be Marginal Street, although the pier does not extend as far west as the bulkhead line.

1856 Bacon - Same as the 1854 Dripps map.

1874 Viele - Same as the 1854 Dripps map.

1879 Bromley - (Figure 6-9) The pier is labeled "Albany Day Line" and, from mid-block north to Vestry Street, Marginal Street is filled.

1885 Robinson - (Figure 6-10) The pier off of Laight Street has been extended as far west as the bulkhead line and appears to have been enlarged. The pier is now part of the Pennsylvania Railroad Complex which encompasses the piers off of Hubert Street to the south.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Marginal Street is completely filled. There is one pier shed fronting the shoreline between Laight and Vestry Streets.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

Chapter VI:

1925 Bromley - In addition to the pier shed, there is a rectangular building in Marginal Street to the east.

1950 Hyde - The rectangular building in Marginal Street has been removed and the pier shed on the shoreline is still present. The West Side Highway is in West Street.

SHORELINE FILL

West Street was entirely filled between 1824 and 1826 and Marginal Street first experienced filling between 1874 and 1879. The route was entirely filled by 1902. A pier off of Laight Street, built by 1854, may have become part of the Marginal Street landfill by 1902.

HISTORIC SENSITIVITY

In addition to the pier previously mentioned, there was a pier shed building in Marginal Street between 1902 and at least 1950.

Route 9A Reconstruction Project

Vestry Street to Desbrosses Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth through 1824 Hooker - (Figure 6-5) The route of West Street is land under water.

1826 Prior Dunning - The entire route of West Street is filled.

1827 Ewen - (Figure 6-6) There is a pier numbered 37, west of West Street at the foot of Vestry Street.

1828 Hooker - Same as the 1824 Hooker map.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map.

1852 Dripps - (Figure 6-8) The pier has been renumbered 39. All else is the same as on the 1836 Colton map.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - There is a small dock or pier base off of West Street, mid-block between Vestry and Desbrosses Streets, in the route of what will be Marginal Street.

1874 Viele - From mid-block to Desbrosses Street, Marginal Street has been filled and the Jersey City Ferry/Pennsylvania Railroad now occupies the pier complex west of Marginal Street.

1879 Bromley - (Figure 6-9) Pier 39 is labeled "New York and Albany Line." There is additional filling in Marginal Street but it still does not extend as far west as the bulkhead line north of Vestry Street. There are pier sheds and associated structures in Marginal Street which appear to be part of the Pennsylvania Railroad Company complex.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Marginal Street is completely filled and there are pier sheds between Vestry and Desbrosses Streets.

Chapter VI:

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - There is a small rectangular structure in Marginal Street, east of the pier sheds along the shoreline.

1950 Hyde - The West Side Highway is in West Street and the small rectangular building has been removed.

SHORELINE FILL

West Street was entirely filled between 1824 and 1826 and Marginal Street was filled between 1874 and 1902. Pier 39 at Vesey Street, built by 1827, may have become part of the Marginal Street fill.

HISTORIC SENSITIVITY

In addition to Pier 39, there were pier sheds and associated buildings in Marginal Street between 1879 and at least 1950.

Route 9A Reconstruction Project

Desbrosses Street to Watts Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth - The route of West Street is land under water.

1817 Longworth - (Figure 6-5) There is a pier off of Desbrosses Street which does not quite extend as far west as West Street.

1817 Poppleton - The pier on the 1817 Longworth map now appears to extend through the path of what will be West Street.

1824 Hooker - The pier is numbered 30 and West Street does not yet exist. There is now a T-shape at the end of the pier, with the western end of the T in the route of West Street.

1826 Prior Dunning - West Street is completed and filled. In the location of the previous pier is a short pier extending west into the path of what will be Marginal Street.

1827 Ewen - (Figure 6-6) Same as the 1826 Prior Dunning map although the pier is now numbered 37 1/2.

1828 Hooker - Same as the 1824 Hooker map.

1836 Colton - Same as the 1826 Prior Dunning map.

1838 Hooker - (Figure 6-7) Same as the 1826 Prior Dunning map.

1839 Burr - The pier has been renumbered 30.

1846 Burr - The pier has been renumbered 38.

1852 Dripps - (Figure 6-8) The pier now houses Public Baths and all else is the same as on the 1826 Prior Dunning map.

1854 Dripps - The pier has extended west beyond the bulkhead line.

1856 Bacon - The pier is now labeled "Projected Pier" although it definitely appears on the map.

1874 Viele - From Desbrosses Street north to mid-block, the Jersey City Ferry/Pennsylvania Railroad complex is in Marginal Street and extends west beyond the bulkhead line.

1879 Bromley - (Figure 6-9) Same as the 1874 Viele map.

Chapter VI:

1885 Robinson - (Figure 6-10) Same as the 1874 Viele map.

1897 Bromley - Same as the 1874 Viele map.

1902 Bromley - Marginal Street is entirely filled and there are pier sheds fronting the shoreline between Desbrosses and Watts Streets.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway appears in West Street.

SHORELINE FILL

Old Pier 30 extended through the route of West Street by 1817 and the route was filled between 1824 and 1826. By 1826 a second pier had been built at the end of Desbrosses Street in the route of Marginal Street which may have eventually become part of the landfill. The Jersey City Ferry/Pennsylvania Railroad complex in Marginal Street, which stood from c.1874 to c.1902, may have also become part of the landfill. Marginal Street was filled between 1897 and 1902.

HISTORIC SENSITIVITY

In addition to the piers and the ferry complex, a pier shed stood in the project area in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Watts Street to Hoboken Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1808 Longworth through 1826 Prior Dunning - (Figure 6-5) The route of West Street is land under water.

1827 Ewen - (Figure 6-6) West Street is entirely filled. There is a pier at the end of Watts Street numbered 38 in the route of what will be Marginal Street.

1828 Hooker - Same as the 1824 Hooker map.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map.

1839 Burr - Same as the 1827 Ewen map.

1846 Burr - Same as the 1827 Ewen map although the pier is now 39.

1852 Dripps - (Figure 6-8) The pier has been renumbered 40 and labeled "Coney Island."

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - The Hoboken Ferry landing extends west from south of Hoboken (Canal) Street in the route of Marginal Street. Pier 40 is still present.

1874 Viele - The Hoboken Ferry landing now extends as far west as the bulkhead line, filling Marginal Street entirely between Watts and Hoboken Streets. Pier 40 has been incorporated into the complex.

1879 Bromley - (Figure 6-9) Pier 40 is the "Norwich Line for Boston" and extends west of Marginal Street. The northern berth for the Hoboken Ferry landing was extended eastward, removing some of the fill or dockage that had previously been in Marginal Street. The northern pier of the ferry landing, Pier 41, is labeled "Peoples Line for Albany," and extends out from West Street through Marginal Street from just south of Hoboken Street.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Marginal Street is entirely filled and there are pier sheds along the shoreline in Marginal Street between Watts and Hoboken Streets. Hoboken Street is now called Canal Street.

Chapter VI:

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas although there is a small building labeled "Department of Docks and Ferries" located between two pier sheds.

1925 Bromley - Same as the 1913 Hyde atlas although the small building is now labeled "Dockmaster Office, First District."

1950 Hyde - The small building has been removed and the pier sheds still exist along Marginal Street. The West Side Highway is in West Street.

SHORELINE FILL

West Street was filled entirely between 1826 and 1827. Marginal Street experienced filling sporadically between 1879 and 1902. Pier 40, built by 1827, and the Hoboken Ferry Complex, built by 1856, were in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 40 and the Hoboken Ferry Complex, there were pier sheds and a small building which stood between at least 1902 and 1950.

Route 9A Reconstruction Project

Hoboken Street to Canal Street - West Street and Marginal Street.

The only lot within the project area is Lot 86 on Block 595. Hoboken Street between Washington and West Streets is also included.

HISTORIC LANDOWNERS

According to the twentieth century historian, Isaac Newton Phelps Stokes, this block was originally swamp land. The swamp was granted to Anthony Rutgers by the governor in 1733. In 1746, the property was divided among his heirs: Widow Cornelia, Elsie Lispenard, Mary Barclay, Aletta Lesserts, and grandson Anthony Rutgers (Stokes Vol. 6 1926:102).

As per the Index Division's Block Summary:

"The easterly and westerly parcel of this block lay within the Trinity Church farm. The middle parcel lay within the farm of Anthony Rutgers who devised his property by will proved September 17, 1746, to his heirs and devisees, this parcel lay within the share of Leonard Lispenard. It passed by devise to his son Anthony Lispenard, who conveyed in lot form beginning July 18, 1795. The westerly parcel was included in lands under water."

There were no other records available for this block.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The project parcel is land under water. There is a pier in the path of Hoboken Street, extending to the eastern border of what will be West Street. This is the southernmost pier of the Canal Street basin.

1817 Poppleton - The eastern end of the pier extends through the route of what will be West Street.

1824 Hooker - Block 595 and Hoboken and West Streets have been filled. The Hoboken Ferry Landing is at the end of Hoboken Street in what will be Marginal Street.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) The block is labeled "Corporation of New York" and there is a pier mid-block between Hoboken and Canal Streets extending west of West Street through what will be Marginal Street. The ferry landing is still at the end of Hoboken Street.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map although the pier has been labeled "Clinton P."

Chapter VI:

1839 Burr - The mid-block pier now appears slightly south of its previous location, now at the end of Hoboken Street where the ferry landing was, and is labeled "Ferry to Hoboken." This is probably a cartographic error.

1846 Burr - The pier still shown at the foot of Hoboken Street is now labeled number 40. This is also probably a cartographic error.

1852 Dripps - (Figure 6-8) The pier is again shown mid-block between Hoboken and Canal Streets. Now numbered 41, the pier is labeled "Collins Line of Liverpool Steamships." The ferry landing is again shown at the end of Hoboken Street, separate from the pier. There are three small structures on the ferry landing platform. The block between Hoboken and Canal Streets is labeled "Clinton Market." There is a rectangular building fronting Canal Street within the block.

1854 Dripps - Same as the 1852 Dripps map, although the three structures on the ferry platform have been removed.

1856 Bacon - Same as the 1852 Dripps map.

1859 Perris - (Figure 6-12) The block is now vacant.

1874 Viele - There is a new pier extending from Hoboken Street that is part of the Hoboken Ferry landing. Pier 41 is still mid-block and nothing else has changed from the 1859 Perris map.

1879 Bromley - (Figure 6-9) Hoboken Street is now labeled Canal Street and the block is now a park. Marginal Street is filled north of Pier 41, and both piers and the ferry landing are still present.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas, although Pier 41 is now Pier 33.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - (Figure 6-13) Marginal Street is partially filled between the two piers and the block is still a park. The ferry landing is no longer present and the pier at the foot of Hoboken Street is numbered 32 and labeled "Peoples Line for Albany."

1913 Hyde - (Figure 6-11) Marginal Street is entirely filled and there is a small pier shed in Marginal Street. In the southwest corner of the park is a small structure fronting what was Hoboken Street, now Canal Street.

1925 Bromley - Same as the 1913 Hyde atlas, although the park now appears vacant.

Route 9A Reconstruction Project

1950 Hyde - Marginal Street is entirely filled and the piers have been removed. There are two-story pier sheds along the waterfront.

SHORELINE FILL

The route of West Street, Hoboken Street, and the project block were filled between 1817 and 1824. Marginal Street first experienced filling between 1874 and 1879 and was entirely filled by 1913. By 1817 there was a pier extending through the path of Hoboken Street, into West Street, that was part of the Canal Street basin. The pier became part of the landfill by 1824. New Pier 33 was built mid-block through Marginal Street between 1826 and 1827. New Pier 32 was built at the foot of Hoboken Street between 1859 and 1874. Both piers may have become part of the Marginal Street landfill by 1913. Part of the Hoboken Street ferry landing, built by 1824, may have become part of the Marginal Street landfill.

HISTORIC SENSITIVITY

In addition to the piers and ferry landing, there was a structure on the block fronting Canal Street built by 1852 and removed by 1859. A small structure was built in the southwest corner of the block by 1913, removed by 1925. A pier shed was built along the shoreline in Marginal Street between 1902 and 1913, standing through at least 1950.

Chapter VI:

Canal Street to Spring Street - West Street and Marginal Street.

The only lot within the project area is Lot 87 on Block 595. Canal Street between Greenwich and West Streets is also included.

HISTORIC LANDOWNERS

According to the twentieth century historian, Isaac Newton Phelps Stokes, this block was originally swamp land. The swamp was granted to Anthony Rutgers by the governor in 1733. In 1746, the property was divided among his heirs: Widow Cornelia, Elsie Lispenard, Mary Barclay, Aletta Lesserts, and grandson Anthony Rutgers (Stokes Vol. 6 1926:102).

As per the Index Division's Block Summary:

"The easterly and westerly parcel of this block lay within the Trinity Church farm. The middle parcel lay within the farm of Anthony Rutgers who devised his property by will proved September 17, 1746, to his heirs and devisees, this parcel lay within the share of Leonard Lispenard. It passed by devise to his son Anthony Lispenard, who conveyed in lot form beginning July 18, 1795. The westerly parcel was included in lands under water."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Lorton, L.	Lowerre, J.	87	1808	87	151
Lorton, L.	Van Tassell/Brush	87	1810	86	318
Lorton (exec.)	Ferris, J.	87	1810	87	192
Lowerre/Ferris	building agrment.	87	1810	87	336
Lorton (exec.)	Sturtevant, E.	87	1815	111	470
Van Tassel, J.	Brush, C.	87	1817	119	346
Sturtevant, E.	Greene, J.	87	1817	123	492
Green, J.	Greene, John	87	1826	208	488
Green, J.	Mayor Alderman	87	1827	228	265
City of New York			?		

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) Canal Street is filled as far as the western border of Washington Street and the rest of the parcel is land under water. There is a pier mid-block, extending west from Washington Street to the eastern border of West Street. The pier is the northern part of the Canal Street basin.

1817 Poppleton - The pier is still mid-block and appears to extend through the path of West Street. The northern half of the block, between Canal and Spring Streets, has been filled along Spring Street and is labeled "Lewis Lorton."

1824 Hooker - The block and Canal Street are entirely filled from Greenwich to West Street. West Street has also been filled. The Canal Street basin has been filled and the pier is no longer present. There is a new pier extending off the end of Canal Street through what will be Marginal Street, which forms the southern part of a public basin.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) The block has been divided and the southern half is labeled "Corporation of New York." The northern half has been lotted and landowners include Green, Lowerre, Hanmer, Chichester, and Brush. The configuration of the project area appears the same as on the 1824 Hooker map.

1836 Colton - There appears to be an C-shaped structure fronting Spring, West, and Washington Streets. In the center of the block, fronting Canal Street, is an additional small structure.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map.

1852 Dripps - (Figure 6-8) The Canal Street pier is numbered 42. The structures are still on the block, now labeled "Clinton Market."

1854 Dripps - Same as the 1852 Dripps map.

1859 Perris - (Figure 6-12) Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled. All else is the same as on the 1852 Dripps map.

Chapter VI:

1885 Robinson - (Figure 6-10) It appears that there is one structure covering the entire block which is still labeled "Clinton Market."

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - (Figure 6-13) There is one large structure covering the entire block, labeled "Market."

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - The Holland Tunnel has been built through the route of Canal Street. The block has been divided into two separate lots. The eastern one-third is now Lot 90 and is now covered by a ventilator building for the tunnel. The western two-thirds of the lot is now covered by a one-story building, labeled "Department of Street Cleaning." There is a pier shed spanning the shoreline in Marginal Street.

1950 Hyde - The West Side Highway has been built in the route of West Street. The pier shed is still present.

SHORELINE FILL

West Street, Canal Street, and Block 595 were partially filled by 1817 and were entirely filled by 1824. Marginal Street was filled between 1874 and 1879. A pier was built mid-block through the block and West Street by 1817, and may have become part of the landfill by 1824. Pier 42 was built at the foot of Canal Street by 1824, and may have become part of the Marginal Street landfill by 1879.

HISTORIC SENSITIVITY

The two piers discussed above were the only sensitive features within this portion of the project area. Any nineteenth century structures once present were disturbed by the 1920s construction of a ventilator building and garage for the city street cleaning department. Pier sheds were built along the shoreline and stood from at least 1925 through 1950.

Route 9A Reconstruction Project

Spring Street to Vandam Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The route of West Street is land under water.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - There are two piers extending west, one just south of Spring Street and another mid-block. These two piers form a basin with the eastern portion of West Street creating the eastern margin of the basin. North of the basin to Vandam Street, West Street has been entirely filled. Vandam Street has not yet been extended as far west as West Street, however the route of what will be Vandam Street is entirely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) Same as the 1824 Hooker map.

1828 Hooker - Same as the 1824 Hooker map.

1836 Colton - West Street is entirely filled and complete.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map. The pier between Spring and Vandam Streets is numbered 42.

1852 Dripps - (Figure 6-8) The pier has been renumbered 43 and labeled "Empire Pier."

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Vandam Street has been regulated as far west as West Street and all else is the same as on the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Vandam Street appears as it did on the 1852 Dripps map and Marginal Street has been entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

Chapter VI:

1902 Bromley - Same as the 1879 Bromley atlas.

1913 Hyde - (Figure 6-11) There are pier sheds along the shoreline between Spring and Vandam Streets. All else appears the same as on the 1902 Bromley atlas.

1925 Bromley - Same as the 1913 Hyde atlas, and the Holland Tunnel appears to have been constructed beneath Spring Street.

1950 Hyde - The West Side Highway is in West Street. All else is the same as on the 1925 Bromley atlas.

SHORELINE FILL

West Street first experienced filling by 1824 and was entirely filled by 1836. Marginal Street was filled between 1874 and 1879. Pier 43, built by 1824, was mid-block and may have become part of the Marginal Street landfill.

HISTORIC SENSITIVITY

In addition to Pier 43, there were pier sheds along the shoreline between at least 1913 and 1950.

Route 9A Reconstruction Project

Vandam Street to Charlton Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The route of West Street is land under water.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - West Street is entirely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is the proposed outline of a pier at the foot of Vandam Street.

1828 Hooker - Same as the 1826 Prior Dunning map.

1836 Colton - Same as the 1828 Hooker map.

1838 Hooker - (Figure 6-7) Same as the 1828 Hooker map.

1839 Burr - Same as the 1828 Hooker map.

1846 Burr - Same as the 1828 Hooker map.

1852 Dripps - (Figure 6-8) There is a pier extending from the foot of Vandam Street, numbered 44, through the route of what will be Marginal Street.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Pier 44 is now Pier 36 and is labeled "Inman S.S. Line." Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas although the pier is relabeled number 44.

1902 Bromley - There are pier sheds on Marginal Street fronting the shoreline.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

Chapter VI:

1950 Hyde - The West Side Highway appears in the route of West Street. All else is the same as on the 1902 Bromley atlas.

SHORELINE FILL

West Street was entirely filled between 1817 and 1824 and Marginal Street was entirely filled between 1874 and 1879. Pier 44, built by 1852, was in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 44, shoreline pier sheds spanned the block between at least 1902 and 1950.

Route 9A Reconstruction Project

Charlton Street to King Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) West Street is entirely filled between Charlton and King Streets.

1817 Poppleton - There is no filling in West Street as seen on the 1817 Longworth map.

1824 Hooker - West Street appears unfilled as it did on the 1817 Longworth map.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) At the foot of Charlton Street is a pier numbered 43. A second pier extends off of the foot of King Street. Together they form a basin labeled "Corporation of the City of New York."

1828 Hooker - Pier 43 is still present, however the pier at the end of King Street is not.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map.

1839 Burr - Same as the 1827 Ewen map.

1846 Burr - Same as the 1827 Ewen map.

1852 Dripps - (Figure 6-8) Pier 43 has been renumbered 45.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - There are pier sheds spanning the block along the shoreline in Marginal Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

Chapter VI:

1925 Bromley - There is a small rectangular structure in Marginal Street, east of the pier sheds.

1950 Hyde - The West Side Highway appears in West Street and the rectangular building is gone. The pier sheds are still present.

SHORELINE FILL

It appears that West Street was entirely filled by 1817. Pier 45, built by 1827, may have become part of the Marginal Street landfill. Marginal Street was entirely filled between 1874 and 1879.

HISTORIC SENSITIVITY

In addition to Pier 45, there were pier sheds and associated buildings in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

King Street to West Houston Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) West Street is entirely filled between King Street and West Houston Street, then known as Hammersley Street.

1817 Poppleton - West Street is not filled as it appears on the 1817 Longworth map.

1824 Hooker - West Street appears filled as it did on the 1817 Longworth map.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is a pier at the end of King Street, numbered 44, which is part of the basin discussed in the previous block.

1828 Hooker - The pier is not present as on the 1827 Ewen map.

1836 Colton - The pier has reappeared as it was on the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map.

1852 Dripps - (Figure 6-8) The pier has been renumbered 46.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Same as the 1879 Bromley atlas.

1913 Hyde - (Figure 6-11) There are pier sheds on the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

Chapter VI:

1950 Hyde - The West Side Highway is in West Street and all else is the same as on the 1913 Hyde atlas.

SHORELINE FILL

It appears that West Street was entirely filled by 1817 and Marginal Street was filled between 1874 and 1879. Pier 46, built by 1827, was in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 46, there were shoreline pier sheds which stood in Marginal Street between at least 1913 and 1950.

Route 9A Reconstruction Project

West Houston Street to Clarkson Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) West Street is entirely filled between West Houston and Clarkson Streets.

1817 Poppleton - West Street is not filled as it appeared on the 1817 Longworth map.

1824 Hooker - West Street appears filled as it did on the 1817 Longworth map.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) Same as the 1824 Hooker map.

1836 Colton - Same as the 1824 Hooker map.

1838 Hooker - (Figure 6-7) Same as the 1824 Hooker map.

1839 Burr - Same as the 1824 Hooker map.

1846 Burr - Same as the 1824 Hooker map.

1852 Dripps - (Figure 6-8) There is a pier at the end of West Houston Street, numbered 47, extending through the route of what will be Marginal Street.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Same as the 1879 Bromley atlas.

1913 Hyde - (Figure 6-11) There are pier sheds on the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway appears in West Street and all else appears the same as on the 1913 Hyde atlas.

Chapter VI:

SHORELINE FILL

It appears that West Street was entirely filled by 1817 and Marginal Street was filled between 1874 and 1879. Pier 47, built by 1852, was in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 47, there were shoreline pier sheds which stood in Marginal Street between at least 1913 and 1950.

Route 9A Reconstruction Project

Clarkson Street to Leroy Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) West Street is entirely filled between Clarkson and Leroy Streets.

1817 Poppleton - West Street is not filled as it appears on the 1817 Longworth map.

1824 Hooker - West Street appears filled as it did on the 1817 Longworth map.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is a pier off of the end of Clarkson Street through the route of what will be Marginal Street.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map.

1839 Burr - Same as the 1827 Ewen map.

1846 Burr - The pier is numbered 45 and all else is the same as on the 1827 Ewen map.

1852 Dripps - (Figure 6-8) The pier has been renumbered 48.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - There is a pier shed spanning the waterfront in Marginal Street between Clarkson and Leroy Streets.

1913 Hyde - (Figure 6-11) The pier shed appears to have been expanded and now spans the entire length of the block along the shoreline.

1925 Bromley - Same as the 1913 Hyde atlas.

Chapter VI:

1950 Hyde - The West Side Highway is in West Street and the pier sheds are still present.

SHORELINE FILL

It appears that West Street was entirely filled by 1817 and Marginal Street was filled between 1874 and 1879. Pier 48, built by 1827, was in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 48, there were shoreline pier sheds which stood in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Leroy Street to Morton Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The block to the east of West Street is completely filled. Only the eastern border of West Street along the block has been filled.

1817 Poppleton - Neither the portion of the block adjacent to the project area nor West Street appear filled as previously seen on the 1817 Longworth map.

1824 Hooker - West Street is completely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) Same as the 1824 Hooker map.

1836 Colton - Same as the 1824 Hooker map.

1838 Hooker - (Figure 6-7) Same as the 1824 Hooker map.

1839 Burr - Same as the 1824 Hooker map.

1846 Burr - Same as the 1824 Hooker map.

1852 Dripps - (Figure 6-8) Same as the 1824 Hooker map.

1854 Dripps - There is a pier off of the foot of Leroy Street through the path of what will be Marginal Street.

1856 Bacon - The pier has been numbered 49 and all else is the same as on the 1854 Dripps map.

1874 Viele - Same as the 1856 Bacon map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - There is a pier shed extending from Leroy Street, north to the middle of the block, on the shoreline in Marginal Street.

1913 Hyde - (Figure 6-11) The pier shed has been expanded to extend between Leroy and Morton Street along the shoreline.

1925 Bromley - Same as the 1913 Hyde atlas.

Chapter VI:

1950 Hyde - The West Side Highway is in West Street and the pier sheds still span the shoreline.

SHORELINE FILL

It appears that West Street was entirely filled between 1817 and 1824 and Marginal Street was filled between 1874 and 1879. Pier 49, built by 1854, was in the route of Marginal Street and may have become part of the landfill.

HISTORIC SENSITIVITY

In addition to Pier 49, there were shoreline pier sheds which stood in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Morton Street to Barrow Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The southern half of Morton Street is filled to the eastern border of West Street. The remainder of the block and the route of West Street are not yet filled.

1817 Poppleton - Neither Morton Street nor West Street are filled.

1824 Hooker - Same as the 1817 Longworth map.

1826 Prior Dunning - Morton Street is filled as far west as the western border of West Street. The remainder of West Street has not yet been filled.

1827 Ewen - (Figure 6-6) West Street is entirely filled and there is a proposed pier at the foot of Morton Street through the route of what will be Marginal Street.

1836 Colton - The pier is no longer present as seen on the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - Same as the 1836 Colton map.

1852 Dripps - (Figure 6-8) There is a pier at the foot of Morton Street, numbered 49, in the route of what will be Marginal Street.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - The pier has been renumbered 50 and all else is the same as on the 1852 Dripps map.

1874 Viele - Same as the 1856 Bacon map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled.

1885 Robinson - (Figure 6-10) There is a small building in Marginal Street, just south of Barrow Street.

1897 Bromley - Same as the 1879 Bromley atlas. The building on the 1885 Robinson atlas does not appear.

1902 Bromley - Same as the 1879 Bromley atlas.

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1913 Hyde - (Figure 6-11) There are pier sheds spanning the shoreline between Morton and Barrow Streets labeled "Coal Station."

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway is in West Street and all else is the same as on the 1913 Hyde atlas.

SHORELINE FILL

West Street first experienced filling by 1817 and was entirely filled by 1827. Pier 50 was built by 1852 at the foot of Morton Street and may have become part of the Marginal Street landfill. Marginal Street was entirely filled between 1874 and 1879.

HISTORIC SENSITIVITY

In addition to Pier 50, several pier sheds were built on the shoreline in Marginal Street and stood between at least 1913 and 1950. A small building also appeared in Marginal Street in 1885, just south of Barrow Street, east of the future location of the pier sheds. The building did not appear on earlier or later maps.

Route 9A Reconstruction Project

Barrow Street to Christopher Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The route of West Street is land under water.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - Barrow Street has not yet been filled as far west as West Street. From mid-block north to Christopher Street, West Street has been filled and completed.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) West Street has been entirely filled.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map.

1839 Burr - Same as the 1827 Ewen map.

1846 Burr - Same as the 1827 Ewen map.

1852 Dripps - (Figure 6-8) Same as the 1827 Ewen map.

1854 Dripps - There is a pier off the foot of Barrow Street through the route of what will be Marginal Street.

1856 Bacon - The pier has been removed and a ferry landing has been built between Barrow and Christopher Streets for the Hoboken ferry.

1874 Viele - The ferry landing is still occupied by the Hoboken ferry and is also labeled "D.L. and W. RR." It is still in the route of what will be Marginal Street.

1879 Bromley - (Figure 6-9) Marginal Street has been completely filled and the ferry landing is now west of Marginal Street.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - There is a building in Marginal Street associated with the ferry landing, spanning the entire length of the block between Barrow and Christopher Streets.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

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1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway is in West Street and all else is the same as on the 1902 Bromley atlas.

SHORELINE FILL

West Street first experienced filling between 1817 and 1824 and was entirely filled by 1827. A pier was built by 1854 in the route of Marginal Street, removed by 1856. A ferry landing was built north of the previous location of the pier. It stood in the route of Marginal Street until the route was filled between 1874 and 1879.

HISTORIC SENSITIVITY

In addition to the ferry landing there was an associated building in Marginal Street, built by 1902, which stood through at least 1950.

Route 9A Reconstruction Project

Christopher Street to West 10th Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) West Street is entirely filled between Christopher Street and West 10th Street, then known as Amos Street.

1817 Poppleton - West Street is not yet filled as previously seen on the 1817 Longworth map. There is a State Prison in the block between Christopher and West 10th Streets, east of the project area.

1824 Hooker - West Street is completed and filled and this area appears to be part of the grounds associated with the prison.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is a pier off of West Street, just north of Christopher Street, through the route of what will be Marginal Street.

1836 Colton - Same as the 1827 Ewen map.

1838 Hooker - (Figure 6-7) Same as the 1827 Ewen map although a market has replaced the State Prison.

1839 Burr - Same as the 1838 Hooker map.

1846 Burr - The pier has been numbered 46 and all else is the same as on the 1838 Hooker map.

1852 Dripps - (Figure 6-8) There is a small ferry landing at the foot of Christopher Street for the Hoboken ferry, in the route of what will be Marginal Street. Pier 46 has been renumbered Pier 50.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - The ferry landing has been enlarged south to extend through Christopher Street.

1874 Viele - Same as the 1854 Dripps map. The ferry landing does not appear as large as it did on the 1856 Bacon map.

1879 Bromley - (Figure 6-9) Marginal Street is entirely filled. The ferry landing is now west of Marginal Street.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

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1902 Bromley - There are pier sheds spanning the block from Christopher Street to West 10th Street in Marginal Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway is in West Street and all else is the same as on the 1902 Bromley atlas.

SHORELINE FILL

West Street appeared to have been filled between 1817 and 1824. Old Pier 50 was built off of West Street by 1827 and may have become part of the Marginal Street landfill. The Hoboken ferry landing was built by 1852 and may also be part of the Marginal Street landfill. Marginal Street was entirely filled between 1874 and 1879.

HISTORIC SENSITIVITY

In addition to Old Pier 50 and the Hoboken ferry landing, there were pier sheds spanning the block between Christopher and West 10th Street which stood between at least 1902 and 1950.

Route 9A Reconstruction Project

West 10th Street to Charles Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The State Prison is on the block between West 10th and Charles Streets, east of the project area. West Street is filled and appears to be part of the prison's grounds. West 10th Street, then Amos Street, is blocked off west of Washington Street due to the State Prison.

1817 Poppleton - West Street is not complete. The vacant area is labeled "Dock" and the prison is shown to the east.

1824 Hooker - West Street is completely filled and still appears as part of the prison's grounds.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is a pier off of West Street in the route of what will be Marginal Street, just north of West 10th Street, then Amos Street. The pier is labeled "Corporation of the City of New York." The bulkhead is extended slightly west of West Street between these two cross roads and may be part of the dockage for the prison.

1836 Colton - The pier is still present and the dockage does not appear west of West Street.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The pier has been numbered 47 and is labeled "Old State Prison Dock."

1852 Dripps - (Figure 6-8) The pier has been renumbered 51.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) There is a basin off of West Street between West 10th and Charles Streets. Marginal Street is filled as far west as the bulkhead line only at West 10th Street.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

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1902 Bromley - Marginal Street is filled to the bulkhead line, as far north as the southern border of Charles Street.

1913 Hyde - (Figure 6-11) Marginal Street is completely filled through Charles Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway is in the route of West Street.

SHORELINE FILL

It appears that West Street was filled by 1817. Marginal Street first experienced filling between 1874 and 1879 and was entirely filled by 1913. Pier 51, the Old State Prison Pier, was built by 1827 and may have become part of the Marginal Street landfill by 1913.

HISTORIC SENSITIVITY

Pier 51 was the only feature identified within the project area.

Route 9A Reconstruction Project

Charles Street to Perry Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth-(Figure 6-5) West Street is filled at Charles Street and may be part of the prison's grounds at this intersection. Charles Street has been blocked off west of Washington Street by the State Prison.

1817 Poppleton-Charles Street is shown filled as far west as the western border of West Street and forms the northern edge of the prison dock discussed in the previous block.

1824 Hooker-West Street is completely filled.

1826 Prior Dunning-Same as the 1824 Hooker map.

1827 Ewen-(Figure 6-6) There is a pier off of West Street in the route of what will be Marginal Street, just north of Charles Street. There is an alley half way between Charles and Perry Streets, east of the project area.

1836 Colton-Charles Lane replaces the alley.

1838 Hooker-(Figure 6-7) Same as the 1836 Colton map.

1839 Burr-West Street is shown as land under water although this is probably a cartographic error.

1846 Burr-The pier is numbered 48 and all else is the same as on the 1838 Hooker map.

1852 Dripps-(Figure 6-8) The pier has been renumbered 52.

1854 Dripps-Same as the 1852 Dripps map.

1856 Bacon-Same as the 1852 Dripps map.

1874 Viele-Same as the 1852 Dripps map.

1879 Bromley-(Figure 6-9) Pier 52 has been removed and there is a basin in its place.

1885 Robinson-(Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley-Same as the 1879 Bromley atlas.

1902 Bromley-Marginal Street is entirely filled.

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1913 Hyde-(Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley-Same as the 1902 Bromley atlas.

1950 Hyde-The West Side Highway is in West Street.

SHORELINE FILL

West Street was entirely filled between 1817 and 1824 and Marginal Street was entirely filled between 1897 and 1902. Pier 53 was built near Charles Street by 1827 and was removed by 1879.

HISTORIC SENSITIVITY

None.

Route 9A Reconstruction Project

Perry Street to West 11th Street - West Street and Marginal Street.

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The route of West Street is land under water.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - West Street is completely filled.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) Same as the 1824 Hooker map.

1836 Colton - Same as the 1824 Hooker map.

1838 Hooker - (Figure 6-7) Same as the 1824 Hooker map.

1839 Burr - West Street is shown as land under water, however this is probably a cartographic error.

1846 Burr - Same as the 1838 Hooker map.

1852 Dripps - (Figure 6-8) There is a pier at the end of Perry Street, numbered 53, extending through the route of what will be Marginal Street.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1874 Viele - Same as the 1852 Dripps map.

1879 Bromley - (Figure 6-9) A portion of Marginal Street has been built, spanning from Perry Street to West 11th Street along West Street. It does not extend as far west as the bulkhead line.

1885 Robinson - (Figure 6-10) Same as the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Marginal Street is completely filled. There is a pier shed spanning the entire length of the shoreline in Marginal Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

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1950 Hyde - The West Side Highway has been built in the route of West Street and the pier sheds are still present.

SHORELINE FILL

West Street was filled between 1817 and 1824 and Marginal Street first experienced filling between 1874 and 1879. Marginal Street was entirely filled by 1902. Pier 53, built by 1852 off of Perry Street, may have become part of the Marginal Street landfill.

HISTORIC SENSITIVITY

In addition to Pier 53, there were pier sheds present in Marginal Street along the shoreline between at least 1902 and 1950.

Route 9A Reconstruction Project

West 11th Street to Bank Street

The lots within the project area include those on former Block 647. These are Lots 3955 and 3955 A through H on the south half of the block and Lots 3960 and 3960 A through J on the north side of the block, together with the route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was wholly included in lands under water and passed to the parties indicated on the annexed diagram (Robert A. Durfee and A. Hammond). This block closed and discontinued 1st of January 1917."

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Cozzens, I.	Cozzens, W.	not lotted	1827	221	449
Hammond, A.	Mayor Alderman		1831	271	236
Manhattan Gas Light Co.	Quin, A.		1833	300	39
Warwick, J.	Palmer, B.		1841	417	229
Quin, A.	Griffin, E.		1852	622	367
Mayor Alderman	Griffin, E.		1853	617	630
Mayor Alderman	Durfee, R.		1853	625	109
Durfee, R.	Sutton, C.		1853	638	148
Griffin, E.	Story, M.		1853	654	255
Sutton, C.	Thayer, J.		1854	650	533
Thayer, J.	Story, M.		1854	650	563
Kelly for Story	Thayer/Campbell		1859	779	262

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Palmer	Groot, C.		1859	792	256
Thayer, J.	Groot, C.		1861	842	187
Dean for Jameson et al.	Campbell, D.		1861	841	526
Groot, C.	Hoffman, S.		1862	868	65
Campbell, D.	Groot, C.		1862	868	72
Groot, C.	Hunt/Russell		1862	861	567
Pultzo for Hunt/Russell	Thayer, J.		1863	879	273
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Kingsland, et al.	revocation of trust		1885	1869	406
Hewett for Thayer et al.	Hoffman, E.		1885	1907	58
Hoffman, C.	Hoffman, E.		1888	2141	417
Hessman, J.	Piratzky, A.		1891	1	391
Lourey (ref.)	Maslin, G.		1895	36	66
Maslin, G.	Madison Square Light Co.		1895	35	112
EM Nan Tassel Elevating Co.	AA Nantine & Co.		1896	41	236
Knickerbocker Trust Co.	Knickerbocker Ice Company		1898	67	80
Henderson, I.	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9

Route 9A Reconstruction Project

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The project parcel is land under water.

1817 Poppleton - Same as the 1817 Longworth map.

1824 Hooker - Same as the 1817 Longworth map.

1826 Prior Dunning - Same as the 1817 Longworth map.

1827 Ewen - (Figure 6-6) Same as the 1817 Longworth map.

1836 Colton - West Street is filled although the lots are still west of the shoreline.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - West Street no longer appears filled and the route appears as it did on the 1827 Ewen map.

1846 Burr - West Street is filled and the lots are completely filled. This is probably a cartographic error.

1852 Dripps - (Figure 6-8) West Street is filled although there appears to be no fill where the lots will be. Pier 54 is at the foot of West 11th Street, then known as Hammond Street, extending through what will be the southern portion of Lots 3955 D through H.

1854 Dripps - Same as the 1852 Dripps map.

1856 Bacon - Same as the 1852 Dripps map.

1859 Perris - West Street and the lots all appear filled. Lots 3955 and 3955 A through F are labeled "Kindling Wood Factory" and there appears to be a structure fronting West 11th Street on Lots 3955 and 3955 A, D, and E. At the corner of West 11th Street and West Street, in Lot 3955, is a square structure labeled "Office."

1874 Viele - The map does not show buildings although West Street and the lots appear filled.

1879 Bromley - (Figure 6-9) Lots 3955 and 3955 A through C are labeled "Wood Factory." The structure on Lots 3955 and 3955 A, D, and E is gone and there is

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now a new structure covering the western three-quarters of Lot 3955, fronting West 11th Street. Lots 3955 D through H are labeled "Coal Yard." There is now a shed covering all of Lot 3955 D and the eastern half of 3955 E. There is a stone-faced structure on the southern portion of Lots 3955 F, G, and H, fronting West 11th Street.

1885 Robinson - (Figure 6-10) Lots 3955 A through C are still labeled "Clark and Wilkins, Kindling Wood Factory" and the shed on Lots D and E is still present. The building on Lot 3955 is also still present. On the southern portion of Lot 3955 F, and covering all of Lots G and H, the building present in 1879 is now labeled "G. B. Lawton, Owner." All of the northern lots are labeled as part of the Kindling Wood Factory and Lot 3960 has three structures on it fronting Bank Street, two appear to be joined.

1897 Bromley - Unavailable for this block.

1902 Bromley - All of the structures have been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between West 11th Street and Bank Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street and the pier shed is still present.

SHORELINE FILL

West Street was filled between 1827 and 1836 and Marginal Street was filled between 1852 and 1859. Pier 54 stood through the route of West 11th Street in 1852, and extended through the southern ends of Lots 3955 D through H. The pier was part of landfill by 1859.

HISTORIC SENSITIVITY

In addition to Pier 54, there were several structures which were built by 1879 and removed by 1902. On Lot 3955 a building stood on the western three-quarters of the lot, fronting West 11th Street. A shed covered all of Lots 3955 D and part of E. A building belonging to G. B. Lawton stood on Lots 3955 F, G, and H. The earlier buildings on this parcel were disturbed by the construction of later structures. Pier sheds were present in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Bank Street to Bethune Street

The lots within the project area include those on former Block 648. These are Lots 3990 and 3990 A through K on the south half of the block and Lots 3999 and 3999 A on the north half of the block, together with part of the original route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was wholly included in lands under water and passed to the parties indicated on the annexed diagram (American Fur Co., William Van Hook). This block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Hammond, A.	Patten, J.		1828	229	468
Hammond, A.	Mayor Alderman		1831	271	236
Mayor Alderman	American Fur Co.		1846	473	422
American Fur Co.	Storm, G.		1846	479	403
Mayor Alderman	Van Hook, W.		1846	485	62
Van Hook, W.	Storm, G.		1846	485	66
Storm, G.	Mayor Alderman		1850	558	117
Livingston, R.	Hoffman, G.		1852	618	13
Ruggles (ref.) Cummings, B. (def.)	Green, M.		1870	1147	372
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Townsend, G.	Davis, J.	water lot	1874	1301	394

Chapter VI:

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Clute, J.	Livingston, L.		1874	1310	46
Hoffman, E.	Hoffman, C.		1888	2139	439
Hoffman, G.	Cosgraff, J. *	water	1891	3	55
Hoffman, C.	Chace, C. *		1891	5	182
Chace, C. (exec.)	Troment, F. *		1891	5	184
Gerry/Livingston (exec.)	Patterson, T. *		1892	17	128
Cosgraff, J.	Von Dohlen, J.		1893	20	366
Gerry, L.	Morse/Kendall		1894	31	285
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project area is land under water.

1836 Colton - The route of West Street has been filled.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - West Street is shown as land under water.

1846 Burr - West Street and the block are both filled, however this is probably a cartographic error.

1852 Dripps - (Figure 6-8) The block has not yet been filled, but West Street does appear filled:

Route 9A Reconstruction Project

1856 Bacon - Same as the 1852 Dripps map.

1859 Perris - West Street and the block are both filled and the parcel is vacant.

1874 Viele - Same as the 1859 Perris map.

1879 Bromley - (Figure 6-9) On Lot 3990, fronting West Street, is a structure covering the eastern third of the lot. Also fronting West Street, on the eastern quarter of Lot 3990 C, is a small building. A shed covers the western halves of Lots 3990 C and D. There is a second building on the eastern half of Lot 3990 D, fronting West Street. Covering the middle of Lot 3990 F is another building, set back from West Street. Fronting Bank Street, on the southern third of Lot 3990 G, is a shed. The remainder of the lot is labeled "Chemical Works." Lots 3990 H, I, J, and K are vacant and labeled "Wood Yard." Lot 3999 covers the entire northeast corner of the block. There is one small structure at the corner of Bethune and West Streets. There is a second, small structure fronting West Street in the southeast corner of the lot, adjacent to the building on Lot 3990 F. A shed is in the southwest corner of the lot, adjacent to Lot 3990 G. Adjacent to the shed on the west, in Lot 3999 A, is an L-shaped shed which extends north to Bethune Street. In the northern portion of Lot 3999 A, fronting Bethune Street, is a small building. Another shed covers the southwest part of Lot 3999 A and a second building extends north of this shed to Bethune Street.

1885 Robinson - (Figure 6-10) The building on the eastern third of Lot 3990 is gone. There is now a shed on the western third of the lot, fronting Bank Street. Lots 3990 and 3990 A through D, G, and H are labeled "J. Leonard Manhattan Rolling Mill." The buildings on Lots 3990 C and D are still present. The building on Lot 3990 F has been extended east to front West Street and there is a second small structure on the western end of the lot. Together, Lots 3990 E and F are labeled "John Innes Son Rapid Iron Works." The shed on Lot 3990 G has been removed and the lot is vacant. On the northern three-quarters of Lot 3990 I is a shed. There are two wooden sheds covering all of Lot 3990 K. Lots 3990 I, J, and K are part of "Cosgraffs Lumber Yard." The structure on the northeast corner of Lot 3999 has been replaced by a larger building with a small extension on the south side. The building on the southeast part of Lot 3999 is still present. North of this building is a small shed set back from West Street. The shed on the southwest corner of the lot is also still present. There is a new shed in the northwest corner of the lot, fronting Bethune Street. Lot 3999 is still labeled as a lumber yard. All of the buildings on Lot 3999 A appear the same except for the shed and building on the western half of the lot, which now appear joined to form one long building. The eastern half of Lot 3999 A is now labeled "Salamandar Works." (See glossary)

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - All of the structures have been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between Bank and Bethune Streets.

Chapter VI:

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

West Street was probably filled between 1827 and 1836. The route of Marginal Street was filled between 1856 and 1859.

HISTORIC SENSITIVITY

There were numerous structures built on this block. On the eastern third of Lot 3990, a structure was built by 1879 and removed by 1885. By 1885 a shed had been built on the western third of Lot 3990, which was razed prior to 1902. On Lot 3990 C, a building was present on the eastern quarter of the lot by 1879, removed by 1902. On the western half of Lots 3990 C and D, a shed was built by 1879 and was removed by 1902. Another building stood on the eastern half of Lot 3990 D by 1879, also removed by 1902. The structures on Lots 3990, 3990 A through D, G, and H were part of a rolling mill. In the middle of Lot 3990 F, a building was present in 1879, which had an extension built on the eastern side by 1885. The structure was razed by 1902. On the west end of the same lot another building was erected by 1885 and razed by 1902. Both structures were part of the Rapid Iron works in 1885. On the southern portion of Lot 3990 G, a shed stood between c.1879 and c.1885. On the northern three-quarters of Lot 3990 I, a shed was built by 1885 and razed by 1902. Covering all of Lot 3990 K, a shed was present in 1885, also razed by 1902. Both the structures on Lots 3990 I and K were part of Cosgraff's lumber yard. On Lot 3999, a structure was built on the southeast corner of the lot by 1879, standing through c.1902. A shed was built on the southwest corner of the lot by 1879. By 1885 a building stood on the northeast corner of the lot, a shed was built on the northwest corner of the lot, and a shed was built on the eastern part of the lot. All of these were razed prior to 1902. On Lot 3999 A, two buildings and two sheds were built prior to 1879 and were razed prior to 1902. Pier sheds were present in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Bethune Street to West 12th Street

The only lot within the project is Lot 4030 on former Block 649. Part of the original route of West Street is also in the project area.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block summary:

"This Block was included in lands underwater; and a central portion passed to R. Barker and E. Higginson. This block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
James (trt. of Mason)	James, J.	not lotted	1848	507	133
Knox, N.	Turney, P.		1849	520	61
Hayes, N.	Wheeler, D.		1849	521	151
McCall, et al.	Turney, P.		1850	540	242
Turney, P.	Ward, S.		1850	540	246
Mayor Alderman	Ward, S.		1850	551	231
Mayor Alderman	James, A.		1851	565	511
Wheeler, D.	Griffin, E.		1852	610	564
Griffin, E.	Southmayd, F.		1852	619	62
Griffin, E.	Webb, J.		1852	617	42
Webb, J.	Southmayd, F.		1853	624	272
Griffin, E.	Nesbitt, G.		1854	675	352
Griffin, E.	Flanagan, R.		1855	681	45

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GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Griffin, E.	Sell, W.		1855	681	55
Griffin, E.	Wheeler, D.		1855	676	566
Southmayd	Lowerre/Hawley		1857	732	604
Wheeler, D.	Nesbitt, G.		1857	740	165
Flanagan, R.	Nesbitt, G.		1857	740	167
Sell, M.	Nesbitt, G.		1858	761	509
James, A.	Angel, W.		1861	849	78
James, A.	Cragin/Martin		1862	857	668
Mayor Alderman	Barker/Higginson		1864	911	325
Barker/Higginson	Cragin/Martin		1864	911	331
Nesbitt, G.	Brooks/Fitzgerald		1865	937	472
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Cragin/Martin	Norrie, A.		1873	1251	6
Hawley, O.	Winch, M.		1873	1258	223
Ward S (exec.)	McLean, J.		1874	1275	573
Norrie, A.	Johnston, J.		1874	1307	157
McLean, J.	Mallon/Rourke		1876	1384	133
Ledecker, (ref.) Mallon (def.)	Whitehead, W.		1884	1837	186
Seaman, S.	Worther/Aldrich		1891	4	71
Winch, (exec.)	Aldrich, W.		1891	4	73
Johnston, J.	Campbell/Nichols/ Gwyer		1892	12	53

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Worther/Aldrich	Waldrich Land Co.		1893	18	101
Nesbitt, G. (exec.)	Worther/Aldrich		1895	40	472
Johnston, et al.	De Forest, E.		1896	42	305
Mayor Alderman	De Forest, E.		1896	45	222
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - West Street is shown filled.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - West Street is shown as land under water.

1846 Burr - West Street and the block are shown filled.

1852 Dripps - (Figure 6-8) There is no filling in the block although West Street has been filled.

1856 Bacon - Same as the 1852 Dripps map.

1859 Perris - The block and West Street are both filled. A building covers the entire block, labeled "Cragin and Co. Storage and Inspection of Provisions." There is a railroad track extending east-west through the building labeled "H.R.R.R. Track."

1874 Viele - Same as the 1859 Perris map.

Chapter VI:

1879 Bromley - (Figure 6-9) The building is still present and is now labeled "Old Storehouse."

1885 Robinson - (Figure 6-10) The eastern half of the block that is within the project area is no longer labeled, although the building is still present.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The building has been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between Bethune and West 12th Streets.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

West Street was filled between 1827 and 1836 and Marginal Street was filled between 1856 and 1859.

HISTORIC SENSITIVITY

The only structure that stood within the project area was a storage building that was built prior to 1859 and razed prior to 1902. Pier sheds were present in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

West 12th Street to Jane Street

The lots within the project area include those on former Block 649. These are Lots 4120 through 4124, 4085 through 4089, and 4089 A through G. Part of the original route of West Street is also in the project area.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block summary:

"This Block was included in lands underwater; and a central portion passed to R. Barker and E. Higginson. This block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
James (trt. of Mason)	James, J.	not lotted	1848	507	133
Knox, N.	Turney, P.		1849	520	61
Hayes, N.	Wheeler, D.		1849	521	151
McCall, et al.	Turney, P.		1850	540	242
Turney, P.	Ward, S.		1850	540	246
Mayor Alderman	Ward, S.		1850	551	231
Mayor Alderman	James, A.		1851	565	511
Wheeler, D.	Griffin, E.		1852	610	564
Griffin, E.	Southmayd, F.		1852	619	62
Griffin, E.	Webb, J.		1852	617	42
Webb, J.	Southmayd, F.		1853	624	272
Griffin, E.	Nesbitt, G.		1854	675	352

Chapter VI:

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Griffin, E.	Flanagan, R.		1855	681	45
Griffin, E.	Sell, W.		1855	681	55
Griffin, E.	Wheeler, D.		1855	676	566
Southmayd	Lowerre/Hawley		1857	732	604
Wheeler, D.	Nesbitt, G.		1857	740	165
Flanagan, R.	Nesbitt, G.		1857	740	167
Sell, M.	Nesbitt, G.		1858	761	509
James, A.	Angel, W.		1861	849	78
James, A.	Cragin/Martin		1862	857	668
Mayor Alderman	Barker/Higginson		1864	911	325
Barker/Higginson	Cragin/Martin		1864	911	331
Nesbitt, G.	Brooks/Fitzgerald		1865	937	472
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Cragin/Martin	Norrie, A.		1873	1251	6
Hawley, O.	Winch, M.		1873	1258	223
Ward S (exec.)	McLean, J.		1874	1275	573
Norrie, A.	Johnston, J.		1874	1307	157
McLean, J.	Mallon/Rourke		1876	1384	133
Ledecker, (ref.) Mallon (def.)	Whitehead, W.		1884	1837	186
Seaman, S.	Worther/Aldrich		1891	4	71
Winch (exec.)	Aldrich, W.		1891	4	73

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Johnston, J.	Campbell/Nichols/ Gwyer		1892	12	53
Worther/Aldrich	Waldrich Land Co.		1893	18	101
Nesbitt, G. (exec.)	Worther/Aldrich		1895	40	472
Johnston, et al.	De Forest, E.		1896	42	305
Mayor Alderman	De Forest, E.		1896	45	222
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - The route of West Street has been filled and there is a pier extending off of West Street through the block. The pier extends through Lots 4089 and 4089 A through G.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Neither West Street nor the block appear filled.

1846 Burr - Same as the 1838 Hooker map.

1852 Dripps - (Figure 6-8) West Street appears filled, although the block does not. The pier is shown south of its previous location, now at the foot of West 12th Street, then known as Troy Street. The pier is numbered 56.

1856 Bacon - Same as the 1852 Dripps map.

Chapter VI:

1859 Perris - The block is now shown filled. At the corner of West Street and West 12th Street, in Lot 4085, is a small structure labeled "Office." Lots 4085, 4086, and 4122 through 4124 are labeled "Lumber Yard." On the northern ends of Lots 4122 and 4123 is a structure. Lots 4087 and 4088 are labeled "Hydeville Slate Co." Fronting West Street, on the east half of Lot 4087, is a small structure labeled "Office." At the corner of West Street and Jane Street, on the eastern quarter of Lot 4089 B, is a small building. Fronting Jane Street, on the northern third of Lot 4089 E, is a small building. This lot and Lot 4089 F are labeled "Wood Yard." There is a livery stable on all of Lot 4089 G.

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) All of the structures shown in 1859 have been removed except for the building on the eastern quarter of Lot 4089 B. Fronting West Street, covering all of Lots 4085, 4086, and the eastern halves of Lots 4087 and 4088, is a structure labeled "Varnish Factory." On the western two-thirds of Lot 4089 is a shed. Fronting Jane Street, extending west from the small structure on Lot 4089 B, is a wooden shed. Lots 4089 C through G appear to have a stone-faced structure spanning the northern portion of the lots fronting Jane Street.

1885 Robinson - (Figure 6-10) The varnish factory has been extended west to span all of Lots 4120 through 4124, and is now labeled "C. Brooks and Co. Varnish Factory." The shed on Lot 4089 is still present, as are the buildings on Lot 4089 B. Lots 4089 and 4089 A and B are labeled "Chapman Slate Company." Each of Lots 4089 C through F have a shed, and there is one large shed covering all of G and H. It is unclear whether or not these are the same structures shown on the 1879 Bromley atlas.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The building has been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between West 12th Street and Jane Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

West Street was filled between 1827 and 1836. The remainder of the block was filled between 1856 and 1859. A pier was built off of West Street by 1836 and extended through several lots. However, later maps show that the pier was either removed or its location was misrepresented on both the 1836 and 1838 maps. In

Route 9A Reconstruction Project

1852 Pier 56 was shown in the route of West 12th Street. Filling would have placed this through the route of Marginal Street.

HISTORIC SENSITIVITY

In addition to Pier 56, several structures were present within the project area. On the eastern quarter of Lot 4089 B, a structure was built by 1859. By 1879 a shed was built on the remainder of the lot. By 1879 a varnish factory was built on all of Lots 4085 and 4086 and the eastern halves of Lots 4087 and 4088. By 1885 the factory had extended west to cover all of Lots 4120 through 4124. On the western two-thirds of Lot 4089, a shed was built by 1879 owned by Chapman Slate Company. Sheds were built on Lots 4089 C through H by 1885. It is unclear whether those sheds on Lots 4089 C through G were present in 1879. All of the structures were razed prior to 1902. Pier sheds were present in Marginal Street between at least 1902 and 1950.

Chapter VI:

Jane Street to Horatio Street

The lots within the project are include those on former Block 650. These are Lots 4125, 4129 and 4129 A through F; together with part of the original route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This Block was included in lands under water and the northerly portion passed to John Cox."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Knox, A.	Cutting, F.	not lotted	1834	316	391
Cutting, F.	Gilchrist, J.		1835	332	361
Cutting, F.	Butler, C.		1835	331	309
Bayard (trt.) Butler et al.	Green, G.		1839	401	176
Butler, C.	Wallis, J.		1839	403	114
Cambreng (ref.)	Mactier/Lowring		1840	405	412
Mactier, A.	Fowler, J.		1840	406	172
Mactier, A.	Morison, J.		1840	409	190
Mayor Alderman	Taylor, T.		1844	441	425
Fowler, J.	Mactier, A.		1845	457	168
Towning, R. (exec.)	Harrison, J.		1845	464	261

Route 9A Reconstruction Project

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Morison, J.	Fowler, J.		1845	464	264
Mactier, A.	Harrison, J.		1845	464	266
Harrison, J.	Storm, G.		1845	464	268
Biddle, C.	Gilchrist, J.		1846	485	96
Sargeant, S.	Gilchrist, J.		1846	485	97
Mayor Alderman	Storm, G.		1850	560	68
Mayor Alderman	Green, G.		1852	586	563
Hoffman, S.	Livingston, L.		1852	618	1
Livingston, R.	Hoffman, G.		1852	618	13
Mayor Alderman	Cox, J.		1853	625	85
Griffin, L.	Cox, J.		1854	649	683
Cox, J.	Kingsland, A.		1854	667	474
Green, G. (exec.)	McClean, J.		1866	974	384
Kingsland, A.	Lawton, G.		1871	1184	425
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Livingston, R.	Webster/Lewis		1873	1269	350
Webster/Lewis	The NY Lead Smelting Co.		1875	1308	199
Lacey (ref.) Lawton, G. et al. (defs.)	Sulzer, J.		1889	2232	429
Sulzer, J.	Lawton, S.		1889	2270	49
Becker/Howe/ Allaine	Lawton, G.		1890	2293	465

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GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Lawton, G.	Burnham, E. *		1891	1	177
Capen, W.	Martin & Co. *		1892	10	478
Lawton, S.	Buck, M. *		1894	26	146
Buck, M.	Brennan, J. *		1894	26	149
Lawton, S.	Sisser, V. *		1894	27	91
Green, G.	Anchor Brewing Co. *		1894	28	165
Ryan/Sartirona	Spenneke, A. *		1894	32	90
Sisser, W.	Charles Welge * & Co.		1895	32	433
Consumer's Ice Co.	Green, G. *		1895	34	472
Gansevoort Freezing & Cold Storage Co.	Schwarzchild & Sulzberger Co. *		1895	40	18
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - The route of West Street has been filled and there is a pier mid-way between Jane and Horatio Streets. The pier seems to extend through what will be Lots 4129 and 4129 A through F.

Route 9A Reconstruction Project

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - West Street does not appear to be filled.

1846 Burr - Both West Street and the block appear filled.

1852 Dripps - (Figure 6-8) West Street appears filled and the pier is now numbered 57.

1856 Bacon - Same as the 1852 Dripps map.

1859 Perris - Both West Street and the block appear filled. Lot 4125 is labeled "Marble Yard." There is one small structure on the northern part of the lot, set back from West Street. Fronting Horatio Street is a shed covering all of Lot 4129 D. There is another structure covering all of Lot 4129 E. On the northern three-quarters of Lot 4129 F is a building, fronting Horatio Street, that is part of the New York Kindling Wood Company.

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) There is a structure covering all of Lot 4125 except for a vacant strip along Jane Street. The structure is labeled "New York Lead Works." There is a small structure at the corner of West Street and Horatio Street on the eastern quarter of Lot 4129 C. On the western part of Lot 4129 C is another small structure fronting Horatio Street. There is now a large shed covering all of Lots 4129 D, E, and the northern half of F. This has replaced the previous buildings on these lots.

1885 Robinson - (Figure 6-10) The building on Lot 4125 has been extended south to Jane Street, covering the previously undeveloped area, although the structure no longer extends as far west as the western border of the lot. The lead works building is now occupied by the "New York Smelting and Refining Co." There is now a small, separate building on the western portion of the lot, fronting Jane Street, where the lead works structure was previously. The structure on Lot 4129 C has been removed. Lots 4129 and 4129 A through C are now covered by a large building fronting West Street, labeled "Marchand and Co. Chemical Works." The structure on Lots 4129 D, E, and F is still present. A second building has been constructed on the southern half of Lot 4129 F.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The building has been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between Jane Street and Horatio Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

Chapter VI:

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

West Street was filled between 1827 and 1836. Marginal Street was filled between 1856 and 1859. Pier 57 was built off of West Street by 1836 through what eventually became Lots 4129 and 4129 A through F.

HISTORIC SENSITIVITY

In addition to Pier 57, several structures stood in the project area. By 1879 a building housing the New York Lead Works spanned most of Lot 4125. By 1885 the structure was occupied by the New York Smelting Company and had been expanded to the south. A second structure was built on the western end of the lot by 1885. A chemical works building was constructed on Lots 4129 and 4129 A through C by 1885. By 1879 a shed covered all of Lots 4129 D, E, and the north half of F, and a second structure had been built on F by 1885. All of the structures were razed by 1902. A pier shed was present in Marginal Street between at least 1902 and 1950.

Route 9A Reconstruction Project

Horatio Street to Gansevoort Street

The lots within the project area include those on former Block 650. These are Lots 4165 and 4169, together with part of the original route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This Block was included in lands under water and the northerly portion passed to John Cox."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Knox, A.	Cutting, F.	not lotted	1834	316	391
Cutting, F.	Gilchrist, J.		1835	332	361
Cutting, F.	Butler, C.		1835	331	309
Bayard (trt.) Butler et al.	Green, G.		1839	401	176
Butler, C.	Wallis, J.		1839	403	114
Cambreng (ref.)	Mactier/Lowring		1840	405	412
Mactier, A.	Fowler, J.		1840	406	172
Mactier, A.	Morison, J.		1840	409	190
Mayor Alderman	Taylor, T.		1844	441	425
Fowler, J.	Mactier, A.		1845	457	168
Towning, R. (exec.)	Harrison, J.		1845	464	261
Morison, J.	Fowler, J.		1845	464	264

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<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Mactier, A.	Harrison, J.		1845	464	266
Harrison, J.	Storm, G.		1845	464	268
Biddle, C.	Gilchrist, J.		1846	485	96
Sargeant, S.	Gilchrist, J.		1846	485	97
Mayor Alderman	Storm, G.		1850	560	68
Mayor Alderman	Green, G.		1852	586	563
Hoffman, S.	Livingston, L.		1852	618	1
Livingston, R.	Hoffman, G.		1852	618	13
Mayor Alderman	Cox, J.		1853	625	85
Griffin, L.	Cox, J.		1854	649	683
Cox, J.	Kingsland, A.		1854	667	474
Green, G. (exec.)	McClean, J.		1866	974	384
Kingsland, A.	Lawton, G.		1871	1184	425
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Livingston, R.	Webster/Lewis		1873	1269	350
Webster/Lewis	The NY Lead Smelting Co.		1875	1308	199
Lacey (ref.) Lawton, G. et al. (defs.)	Sulzer, J.		1889	2232	429
Sulzer, J.	Lawton, S.		1889	2270	49
Becker/Howe/ Allaine	Lawton, G.		1890	2293	465
Lawton, G.	Burnham, E. *		1891	1	177

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Capen, W.	Martin & Co. *		1892	10	478
Lawton, S.	Buck, M. *		1894	26	146
Buck, M.	Brennan, J. *		1894	26	149
Lawton, S.	Sisser, V. *		1894	27	91
Green, G.	Anchor Brewing Co. *		1894	28	165
Ryan/Sartirona	Spenneke, A. *		1894	32	90
Sisser, W.	Charles Welge & Co. *		1895	32	433
Consumer's Ice Co.	Green, G. *		1895	34	472
Gansevoort Freezing & Cold Storage Co.	Schwarzchild & Sulzberger Co. *		1895	40	18
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - The route of West Street has been filled.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - The route of West Street is shown as land under water.

Chapter VI:

1846 Burr - Both West Street and the block have been filled.

1852 Dripps - (Figure 6-8) West Street is filled and Lot 4169 appears filled.

1856 Bacon - West Street is filled, although no filling appears in Lot 4169 as it did on the 1852 Dripps map.

1859 Perris - Both West Street and the block have been filled. There are two small buildings on Lot 4169. One structure is set back from West Street in the southeast portion of the lot. The second structure is in the northeast corner of the lot at the intersection of Gansevoort and West Streets and is labeled "Office." The whole lot is labeled "Lumber Yard."

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) At the corner of West Street and Horatio Street, on the eastern half of Lot 4165, is a large building labeled "Tin Works." The two previous structures on Lot 4169 have been removed, and there is now a large structure on the eastern third of the lot labeled "Paint Works." The remainder of the lot, extending west of the project area boundary, appears to be a stone-faced structure fronting Gansevoort Street.

1885 Robinson - (Figure 6-10) The structure on Lot 4165 is now labeled "Eagle Wrought Iron Works." The structure on the eastern portion of Lot 4169 has been removed and the remainder of the lot has four sheds extending south from Gansevoort Street. These may be the stone-faced structures shown on the 1879 map. The northern half of the block is labeled "G.B. Lawton, Owner," and Lot 4169 is labeled "Factory Property."

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The buildings have been razed and the new route of West Street has been laid down over the block. There is one pier shed on the west side of Marginal Street between Horatio Street and Gansevoort Street.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

West Street was filled between 1827 and 1836 and Marginal Street was filled between 1856 and 1859.

Route 9A Reconstruction Project

HISTORIC SENSITIVITY

On the eastern half of Lot 4165, a structure was built by 1879 which housed a tin works and, subsequently, a wrought iron works factory. The structure was razed by 1902. On the eastern third of Lot 4169, a paint works factory was built by 1879, removed by 1885. On the western two-thirds of the same lot, sheds were built by 1879 and razed by 1902. A pier shed was built in the western portion of Marginal Street and stood between at least 1902 and 1950.

Chapter VI:

Gansevoort Street to Bogart Street

The lots within the project area include those on former Block 651. These are Lots 4205 through 4213, 4233, and 4234, together with part of the original route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was land under water lying wholly beyond the former high water mark. New York Central Railroad Company to the City of New York releases its right to the occupation of the street Aug 6, 1929."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Clinton, G.	Astor, J.J.	not lotted	1805	70	318
Tallmadge, et al.	Astor, J.J.		1819	145	284
Draper, S.	Varnum, J.		1852	621	495
Mayor Alderman	Varnum, J.		1852	621	499
Varnum, J.	Coleman, R.		1853	625	121
Coleman, R.	Green, J.		1853	636	363
Varnum/Coleman	Taylor, J.		1857	739	362
Green, J.	Williamson, D.		1858	749	570
Taylor/Varnum/ Williamson	Mayor Alderman		1864	900	524
Mayor Alderman	Forhan, M.		1867	1042	77
Mayor Alderman	Hagemeyer, C.		1868	1028	444
Mayor Alderman	Rosenbaum, A.		1868	1040	320

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Mayor Alderman	Dillon, A.		1869	1079	400
Mayor Alderman	Collins, W.		1871	1177	316
Mayor Alderman	Littman, M.		1871	1185	176
Comm. of Land Office	Mayor Alderman		1872	1194	651
Mayor Alderman	Sexton, J.		1874	1292	223
Forhan, B.	Wallace, B.		1875	1353	230
Barnes (ref.) Sexton J (def.)	Mayor Alderman		1881	1609	376
Hatsick, C.	Mayor Alderman		1882	1670	480
Wallace, B.	White, J.		1883	1712	184
Glass, J.	Armour & Co.		1891	7	263
Genet, E.	Purdy, H.		1898	59	34
Purdy, H.	Hawkesworth, M.A.		1898	59	35
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - The route of West Street has been filled.

Chapter VI:

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - The route of West Street has not been filled, contrary to the 1836 Colton map.

1846 Burr - West Street and the block have both been filled.

1852 Dripps - (Figure 6-8) Same as the 1846 Burr map.

1856 Bacon - There is no filling in the block although West Street is shown filled. There is a pier off of West Street at the foot of Gansevoort Street, extending through what will be Marginal Street.

1859 Perris - West Street is shown filled and there is only a small amount of landfill in Block 651 along West Street. Gansevoort Street appears entirely filled. At the intersection of Gansevoort and West Streets is a building. The structure extends from West Street onto the landfill.

1874 Viele - Both West Street and the block appear filled. No structures are shown on this map.

1879 Bromley - (Figure 6-9) Both the block and West Street are filled. The block is vacant and the eastern end of the block is labeled "Lumber Yard."

1885 Robinson - (Figure 6-10) The block is vacant and labeled "Wholesale Market." The block is associated with the Gansevoort Market, located east of West Street.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The West Washington Market has been constructed on this block. There are two rectangular market buildings within the project area, and Grace Avenue, Lawton Avenue, and Thompson Avenue bisect the block.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - Although the market buildings still appear, the West Side Highway has been constructed.

SHORELINE FILL

West Street was probably filled between 1827 and 1836 and Marginal Street was probably filled between 1859 and 1874. A pier extended off of West Street through Gansevoort Street in 1856 and appeared to become part of the landfill by 1859.

Route 9A Reconstruction Project

HISTORIC SENSITIVITY

In addition to the pier discussed above, a structure was built at the corner of Gansevoort Street and West Street by 1859. The structure was removed sometime prior to 1879. The West Washington Market buildings were built by 1902 and possibly stood through 1950.

Chapter VI:

Bogert Street to Bloomfield Street

The lots within the project area include those on former Block 651. These are Lots 4245 through 4251, together with part of the original route of West Street.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was land under water lying wholly beyond the former high water mark. New York Central Railroad Company to the City of New York releases its right to the occupation of the street August 6, 1929."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Clinton, G.	Astor, J.J.	not lotted	1805	70	318
Tallmadge, et al.	Astor, J.J.		1819	145	284
Draper, S.	Varnum, J.		1852	621	495
Mayor Alderman	Varnum, J.		1852	621	499
Varnum, J.	Coleman, R.		1853	625	121
Coleman, R.	Green, J.		1853	636	363
Varnum/Coleman	Taylor, J.		1857	739	362
Green, J.	Williamson, D.		1858	749	570
Taylor/Varnum/ Williamson	Mayor Alderman		1864	900	524
Mayor Alderman	Forhan, M.		1867	1042	77
Mayor Alderman	Hagemeyer, C.		1868	1028	444
Mayor Alderman	Rosenbaum, A.		1868	1040	320

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Mayor Alderman	Dillon, A.		1869	1079	400
Mayor Alderman	Collins, W.		1871	1177	316
Mayor Alderman	Littman, M.		1871	1185	176
Comm. of Land Office	Mayor Alderman		1872	1194	651
Mayor Alderman	Sexton, J.		1874	1292	223
Forhan, B.	Wallace, B.		1875	1353	230
Barnes (ref.) Sexton J (def.)	Mayor Alderman		1881	1609	376
Hatsick, C.	Mayor Alderman		1882	1670	480
Wallace, B.	White, J.		1883	1712	184
Glass, J.	Armour & Co.		1891	7	263
Genet, E.	Purdy, H.		1898	59	34
Purdy, H.	Hawkesworth, M.A.		1898	59	35
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - West Street appears filled, although the block is still land under water.

Chapter VI:

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Both West Street and the block have not been filled.

1846 Burr - Both West Street and the block have been filled.

1852 Dripps - (Figure 6-8) Same the 1846 Burr map.

1859 Perris - West Street appears filled, and the block is not filled except for a small section along West Street.

1874 Viele - Both West Street and the block appear filled.

1879 Bromley - (Figure 6-9) Lots 4245 through 4247 are vacant and labeled "Lumber Yard." There are structures on Lots 4248 and 4249, fronting West Street. There are two structures on Lot 4251, fronting Bloomfield Street.

1885 Robinson - (Figure 6-10) The block is now vacant and labeled "Wholesale Market." The market is associated with the Gansevoort Market, located on the east side of West Street.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The West Washington Market has been constructed on this block, and there are two rectangular market buildings within the project area. Loew Avenue and Hewitt Avenue now bisect the block.

1913 Hyde - (Figure 6-11) Same as the 1902 Bromley atlas.

1925 Bromley - Same as the 1902 Bromley atlas.

1950 Hyde - Although the market buildings still appear, the West Side Highway has been constructed.

SHORELINE FILL

West Street was probably filled between 1827 and 1836 and Marginal Street was probably filled between 1859 and 1874.

HISTORIC SENSITIVITY

Two market buildings of the West Washington Market were built on the block by 1902 and may have stood through 1950. Earlier structures dating to c.1879 were probably disturbed by the construction of the market.

Route 9A Reconstruction Project

Bloomfield Street to Little West 12th Street

The lots within the project area include those on former Block 652. These are Lots 4275 through 4278, together with part of the original route of Tenth Avenue.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was included in lands under water, and passed to Joseph B. Varnum. This block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Clinton, G.	Astor, J.	not lotted	1805	70	318
Tallmadge, et al.	Astor, J./S.		1819	145	284
Draper, S./F.	Varnum, J.D.		1852	621	495
Mayor Alderman	Varnum, J.B.		1852	621	499
Varnum, J./M.	Coleman, R.		1853	625	121
Coleman, R./S.	Green, J.		1853	636	563
Varnum, J./M. Coleman, R./S.	Taylor, J.		1857	739	362
Green, J.	Williamson, D.		1858	749	570
Taylor, J./L. Varnum, J./M. Williamson, D.	Mayor Alderman		1864	900	524
Mayor Alderman	Knickerbocker Ice Co.		1867	1040	179
Mayor Alderman	Pennsylvania Coal Co.		1868	1061	288
Mayor Alderman	Dillon, R.		1870	1171	29

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<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Mayor Alderman	Hoe, J./A.		1871	1174	249
Mayor Alderman	Graham, J.		1871	1174	311
Mayor Alderman	Coleman, J/C.		1871	1160	627
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Pennsylvania Coal	Hurdsfield, T.		1878	1425	290
Hurdsfield, T.A.	Pennsylvania Coal Co.		1878	1474	29
Pennsylvania Coal Company	Graham, J.		1878	1474	299
Mayor Alderman	Ely, A.		1879	1501	69
Coleman, J.	Glass, J.		1884	1827	82
Graham, J.	Glass, J.		1887	2007	458
Glass, J.J.	Maddock, W.		1887	2064	363
Maddock, W.	Graham, M.		1888	2186	219
Peabody, C.	Glass, J.		1891	5	31
Glass, J.	Adams Hotel Co.		1892	11	129
Graham, M.A.	Equitable Life Assurance Society		1892	13	80
Peabody, C.	Glass, J.		1894	32	359
Hamilton, E.	Cunningham, J.		1897	51	484
Ely, A.	Seagrist, F.		1897	57	168
Seagrist, F.	Ely, A.		1898	62	68
Knickerbocker Ice Co.	Consolidated Ice Co.		1898	59	450

Route 9A Reconstruction Project

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Ely, A./ Equitable Life Assurance Society	Party Wall AGREEMENT		1898	62	330
Knickerbocker Trust Co.	Consolidated Ice Co.		1898	64	456
Consolidated Ice Co.	New York Knickerbocker Real Estate Company		1898	66	142
Glass, J.	Conron, J.J. Firm of Conron Brothers		1898	66	235
Mott, W.	Roettger, J.		1901	82	431
Henderson, I. (master commissioner) Farmers Loan & Trust Co.	Cornell, E.		1912	219	400
Central Park, North and East River Railroad Company	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - Tenth Avenue is filled, although there is no fill in the block.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - There is no filling in Tenth Avenue.

1846 Burr - Both the block and Tenth Avenue are filled.

1852 Dripps - (Figure 6-8) Same as the 1846 Burr map.

1859 Perris - Tenth Avenue appears filled and there is some filling in the block along Tenth Avenue. There is a structure on the landfill, extending into the river,

Chapter VI:

which appears to be located where Bloomfield Street and Lot 4275 will be located. There is also a small structure in Tenth Avenue, just south of West 12th Street.

1874 Viele - Both Tenth Avenue and the block have been filled.

1879 Bromley - (Figure 6-9) There appear to be structures on Lots 4275 through 4277. The remainder of the block is vacant and the building in Tenth Avenue has been removed.

1885 Robinson - (Figure 6-10) There are buildings on the eastern halves of Lots 4275 through 4278, fronting Tenth Avenue.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The previous structures on Lots 4275 through 4278 have been removed. All four lots are covered by one structure labeled "Adams House."

1913 Hyde - (Figure 6-11) The structure on the lots has been removed and replaced by West Street and Marginal Street. There is a two-story pier shed on the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been built in the route of West Street.

SHORELINE FILL

What is now West Street, originally Tenth Avenue, was filled between 1827 and 1836. The route of Marginal Street was filled between 1859 and 1874.

HISTORIC SENSITIVITY

A small structure was present in the route of Tenth Avenue in 1859. The building was removed by 1879. The Adams House was built on all of the lots by 1902 and razed by 1913. Any earlier structures were disturbed by the construction of the Adams House.

Route 9A Reconstruction Project

Gansevoort Street to Little West 12th Street - East of West Street

The only lot within the project area is Lot 1 on former Block 644.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally within the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731, and Jellis Jansen Mandeville received a patent from part of this tract (Stokes Vol. 6 1926:157-159).

As per the Index Division's Block Summary:

"The easterly portion, within the farm of George Clinton, was in the possession of J. J. Astor and the heirs of G. Clinton, Matthias B. Talmadge and others, in 1813. They partitioned the property in lots in the same year, by deed recorded in 1819, as per map number 10 filed in the Register's Office. The balance was included in lands under water and was conveyed by the City in water grants as follows:

1. The northwest part to J.J. Astor January 2, 1828.
2. The southwest part to J.J. Astor March 24, 1828."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Mandeville, Y.	Campbell D.	not lotted	1784	41	416
Marston, J.	Rivington, J.		1790	46	147
Rivington, J.	Clinton, G.		1790	46	149
Clinton, G.	Astor, J.J.		1805	70	318
Genet, et al.	Astor, J.J.	1	1829	244	481
USA	Mayor Alderman	1	1851	575	250
Mayor Alderman	Bleecker St & Fulton RR Co.	1	1876	1398	375
Jones, G.	Mayor Alderman *	1	1878	1450	370
McCleese, S.	Wing, C.	1	1888	2155	100
NY Elevated RR Co. Manhattan RR Co.	AGREEMENT		1891	6	169

Chapter VI:

CARTOGRAPHIC REVIEW

1817 Longworth - (Figure 6-5) The original shoreline is east of the project area. In what will be Block 644, there is some fill which juts out into the river. Fort Gansevoort has been built on the fill and appears to be a D-shaped structure.

1817 Poppleton - Fort Gansevoort is present and appears to be slightly larger than on the 1817 Longworth map.

1824 Hooker - The fill appears the same but the fort has been widened. There are two outbuildings east of the fort, also within the project area.

1826 Prior Dunning - Same as the 1824 Hooker map.

1827 Ewen - (Figure 6-6) There is now only one outbuilding in the project area and the fort is still present.

1836 Colton - The entire block has been filled and it is unclear whether or not the fort is still present.

1838 Hooker - (Figure 6-7) The block has been filled and the fort is still present.

1839 Burr - Same as the 1827 Ewen map.

1846 Burr - The block is filled and a label indicates that the fort is still present.

1852 Dripps - (Figure 6-8) The fort and outbuilding have been removed. In the southwest corner of the block, an area is labeled "Lumber Yard." There are no structures within the project area.

1859 Perris - There is a north-south running building extending from the southwest corner of the block along West Street and Tenth Avenue. The structure does not extend as far north as Little West 12th Street. Part of the building adjacent to West Street is marked "Office." To the east of this is a second building fronting Gansevoort Street and extending north half way to Little West 12th Street. Fronting Little West 12th Street is an L-shaped structure with the northern part running parallel to Little West 12th Street and a southern extension running into to the block. East of this, is another north-south running building also fronting Little West 12th Street. A building extends southwest from the northeast corner of the block. The southwestern end of the building is in the project area. The whole block is labeled "Hudson River Railroad Co.'s Freight Depot."

1874 Viele - No structures appear on this map.

1879 Bromley - (Figure 6-9) The block is vacant.

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1885 Robinson - (Figure 6-10) There are two buildings present in the northwest corner of the block. One is directly situated in the northwest corner and the second is in the shape of an L surrounding the first. The block is labeled "Wholesale Market."

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The structures are still present. The building in the northwest corner is two stories tall while the L-shaped building is one-story tall. The block is labeled "Market Stand."

1913 Hyde - (Figure 6-11) The two structures are still present and there is also a one-story pumping station in the southwest corner of the block, fronting Gansevoort Street. The block is labeled "West Washington Market."

1925 Bromley - The structures in the northwest corner of the block are still present. The pumping station has high pressure fire service and the block is labeled "Gansevoort Market Stand."

1950 Hyde - The West Side Highway has been built over the northwest corner of the block. It is unclear if the buildings are still present.

SHORELINE FILL

The first fill appeared by 1817, and the block was entirely filled by 1852.

HISTORIC SENSITIVITY

Two market buildings were present in the northwest corner of the block by 1885 and appeared to stand through 1950. A pump station was built in the southwest corner of the block by 1913 and may have stood through 1950. The construction of the market buildings disturbed any earlier remains.

Chapter VI:

Little West 12th Street to West 13th Street

The lots within the project area include those on former Block 653. These are Lots 4359 through 4361 and 4315 through 4326. Former Block 645 included Lots 3791 through 3794 and 3849 through 3858. These eventually were renumbered Lots 24 through 21 and 10 through 1, respectively. Part of the original route of Tenth Avenue is also in the project area.

HISTORIC LANDOWNERS.

BLOCK 645

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"The easterly portion, within the farm of George Clinton, was in the possession of J.J. Astor and the heirs of G. Clinton, Matthias B. Talmadge and others, in 1813. They partitioned the property in lots in the same year, by deed recorded in 1819, as per map number 10 filed in the Register's Office. The balance was included in lands under water and was conveyed by the City in water grants as follows:

1. The northwest part to J.J. Astor January 2, 1828.
2. The southwest part to J.J. Astor March 24, 1828.

Block closed in 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Mandeville, Y.	Campbell, D.		1784	41	416
Marston, J.	Rivington, J.		1790	46	147
Rivington, J.	Clinton, G.		1790	46	149
Clinton, G.	Astor, J.J.		1805	70	318
Astor, J.J.	LeRoy, J.	5-15	1814	105	61
Dickey, R.	Gibson, H.	3	1814	106	593

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GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Tallmadge, et al.	Astor, J.J.	1-4, 5-15, 17-24	1819	145	284
Clinton, G.	Astor, J.J.	3	1827	220	344
Van Walkenburgh, J.	Aaron *	1-2, 21-24	1846	477	265
Paige/Bowman	Pyle, J.	1-4	1874	1289	469
Pyle, J.	Strauch, P. *	2	1883	1761	102
Astor, J.	Donnelly, W. *	1	1885	1925	10
Astor, J.	McClees, S. *	22,23	1888	2154	445
Fleming, J.	Kolloge, W. *	21	1891	6	281
McClees, S.	Fleming/Peters*	22,23	1892	11	106
Kissam, et al. trt. for Astor	Strauch, P.	5,6,9	1893	22	472
Kissam et al.	Swift, G. *	8	1894	26	209
Donnelly, C.	Klatte, H. *	20	1896	45	434
Fleming, J.	Noth, R. *	21	1897	55	38
Fleming/Peters	Meyerhoff, * et al.	22,23	1900	78	435
Strauch, P.	Klatte, H. *	1	1907	173	354
Klatte, H.	Consumers * Brewing Company	1	1907	173	333
Fleming/Peters	Lawless, R. *	22	1913	220	290
Strauch, P.	George Hotchkiss & Co. *	5,6	1914	231	158
Swift & Co.	George Hotchkiss & Co. *	7,8	1914	232	144

Chapter VI:

GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Astor, et al.	Astor, J.J.	1-15 17-24	1878	1436	271
Farmers Loan & Trust Co. Co. (trt. for Astor)	Carmana Realty	1-4 17-24	1922	3300	497
Carmana Realty	Wing, F.L.	17	1923	3389	139
Carmana Realty Co.	Kraus Bros. Holding Co.	1,24	1924	3425	4
Carmana Realty	Berthis Realty	21	1924	3435	67
Carmana Realty	Golden Packing	22	1924	3440	317
Carmana Realty	Oneto, A.	23	1924	3443	207
Carmana Realty	Loeber, Mae	2-4	1926	3519	246
Loeber, Mae	Frupol Realty	2-4	1926	3519	247
Oneto, A.	Gazzale, N.	23	1927	3627	381
Gazzale, N.	Kaproco Realty	23	1929	3725	134
Wing, F.L. Kaproco R.C.	NYS Realty Co. Wholesale Veal	17 23	1929 1930	3731 3754	313 239
Kraus, M., et al.	Kraus Bros.	1, 24	1938	3988	261
20 Tenth Ave Co.	Kraus, M., et al.	1, 24	1938	3988	263
Wholesale Veal	Barr/Lieber	23	1940	4043	443
Greenes, et al.	30 Tenth Ave.	5	1946	4452	348
Greenes, et al.	32 Tenth Ave.	8	1946	4416	190
Greenes, et al.	Swift & Co.	5,6,9	1946	4429	6
Lieber, A.	Barr, H.	23	1947	4520	93
Barr, R., et al.	Barr & Son, Inc.	23	1963	5228	243

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<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Barr & Son, Inc.	Feldman, B.	23	1964	5275	58
Feldman, B.	Cabala Realty	23	1967	138	291
Swift & Co.	820 Holding Co.	5,6,9	1969	160	681

Chapter VI:

Block 653

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was included in lands under water, and passed to William B. Astor. This block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Clinton, G.	Astor, J.	not lotted	1805	70	318
Mayor Alderman	Astor, W.		1849	528	151
Mayor Alderman	Astor, W.		1849	528	153
Mayor Alderman	Astor, W.		1850	553	54
Comm. of the Land Office	Mayor Alderman		1872	1194	651
Astor, J., et al. Astor, J./W.	partition deed		1878	1436	271
Astor, W.	Shute, C. *		1880	1541	169
Shute, C.	Schulte, J. *		1881	1569	474
Schulte, J.	Shute, H. *		1881	1569	478
Winch, M./E.	Brooks, C./M.	water lot	1885	1864	308
Fay, J./ Kunhast, H.	party wall agreement	not lotted	1888	2141	110
Astor, W.	Fay, J. *		1888	2151	313
Early, E./ Health Department of the City of NY	AGREEMENT		1888	2169	309

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GRANTOR	GRANTEE	LOTS	DATE	LIBER	PAGE
Astor, J.	Early, E. *		1889	2220	335
Astor, J.	Fay, J. *		1889	2219	421
Fay, J.	Biddle, J. *		1890	2303	109
Ryan, W./ Sartareno, A.	Reeber, F. *		1891	5	259
Reeber, F.	Deyerberg, H. *		1891	5	260
Early, E.	Farley, M. *		1893	17	480
Kunhast, H.	G. Fowler Son Co.		1896	45	332
Kunhast, H.	G. Fowler Son Co.		1896	45	330
Early, E.	Early, M. *		1896	46	82
Early, E.	Early, M. *		1896	46	83
Fay, J.	Sartarino, A./ Ryan, W.		1896	47	215
Kunhast, H./ N. Morris & Co./ Morris, E.	AGREEMENT		1897	51	170
Early, E.	Farley, M. *		1897	52	397
Farley, M.	Early, E.		1897	53	432
Fowler, G. Son & Co.	Morris, N., et al. * Nelson Morris & Co.		1897	56	268
Henderson, J. (master commissioner)	Cornell, E.		1912	219	400
Central Park North & East River RR. Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

Chapter VI:

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project area is land under water.

1836 Colton - Tenth Avenue and Block 645 have both been filled. Block 653 is still land under water.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - There is no fill in either Tenth Avenue or Block 645.

1846 Burr - Tenth Avenue and both blocks have been filled.

1852 Dripps - (Figure 6-8) Both blocks and Tenth Avenue have been filled. Block 653 is vacant. On Block 645, in the western quarter of Lot 3858, is a small structure at the corner of Little West 12th Street and Tenth Avenue. In the eastern quarter of Lot 3853 is another small building. At the corner of West 13th Street and Tenth Avenue, on Lot 3851, are two structures, one on the eastern end of the lot and one on the western end of the lot. Lots 3850 through 3858 and 3791 are labeled "Lumber Yard." On Lots 3792 through 3794 is one large structure fronting Little West 12th Street.

1859 Perris - On Block 653, there are several structures. At the corner of Little West 12th Street and Tenth Avenue, Lots 4315 and 4316 are labeled "Eagle Slate Yard." There is a structure in the southeast corner of Lot 4315 labeled "Office." Lot 4316 is covered by a shed. Lots 4317 through 4321 are labeled "Part of Dudley's Oil Yard." On Lot 4322, at the corner of Tenth Avenue and West 13th Street, is a two-story building on the eastern half of the lot. Separated by a yard, a one-story building covers the remainder of the lot. Fronting West 13th Street, on the northern quarter of Lot 4324, are two small buildings. The western building is labeled "Office." Adjacent to the office, on the northern quarter of Lot 4325, is a building. Lots 4323 through 4326 and 4359 through 4361 are labeled "Stone Yard." On Block 645, the structure on the western end of Lot 3858 is still present and is shown as a brick or stone one-story building. A frame addition, built to house provisions, covers the remainder of the lot. This is joined to a framed stable extending onto the southern quarter of Lot 3791. Lot 3857 is now covered by a frame structure and together with Lot 3858 is labeled "Dudley's Oil Yard." Lots 3855 and 3856 are covered with stables, frame buildings, and brick buildings which are also part of the oil yard. The building on Lot 3853 has been removed. There is now a frame building on the western ends of Lots 3852 and 3853, fronting Tenth Avenue, which is part of a granite yard. The two buildings on Lot 3851 have been joined by an extension which is also part of the granite yard. The building spanning all of Lots 3792 through 3794 now extends east to cover the remainder of Lot 3791 and is labeled "Galvanizing Works."

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1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) On Block 653, the structures on Lots 4315 and 4316 are still present. The two buildings on Lot 4322 are still present, now labeled "Iron Safe Mfg." On Lot 4323 is a small structure fronting West 13th Street. The buildings on Lots 4324 and 4325 are gone, but the lots are still part of the stone yard. On Block 645, there are two structures on Lot 3858 divided by a small vacant yard. The eastern structure appears to extend onto the southern quarter of Lot 3791. These may be the structures previously seen in 1859. Lot 3857 is now vacant. The buildings on Lots 3855 and 3856 is still present and is labeled "Lard Refinery." Lots 3851 through 3853 are now vacant. The galvanizing works building, on Lots 3791 through 3794, is now labeled "Hudson River Pottery."

1885 Robinson - (Figure 6-10) Block 653, Lot 4315 is vacant. The large shed has been removed from Lot 4316 and there is now a small shed on the western half of the lot. The structure on the eastern half of Lot 4322 has been removed. The one-story building on the remainder of the lot has turned into a shed. The structure on Lot 4323 is still present. On the northern half of Lot 4324, extending west through Lot 4325 and onto Lot 4326, is a structure. Lots 4323 through 4326 and 4359 through 4361 are part of the "R. Stewart Bluestone and Flag Yard." There are some changes and additions to the buildings present on Block 645 in 1879. The two buildings on Lot 3858 are still present, although the eastern structure no longer extends onto Lot 3791. The southern three-quarters of Lot 3791 is now covered by a wooden shed, and there is a second small wooden shed on the northern end of the lot. A small vacant yard exists between the two sheds. Lots 3853 through 3857 are covered by a structure labeled "Strauch Bros. Piano Forte Action Manufacturers." Fronting Tenth Avenue, on the western quarter of Lot 3852, is a small building which may be part of the piano manufacturing complex. At the corner of West 13th Street and Tenth Avenue, on the western three-quarters of Lot 3851, is another building.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - Block 653, Lot 4315 has two three-story buildings covering the entire lot. The easternmost structure has a basement. The building on Lot 4316 is still present, and there is a second three-story building in the eastern portion of the lot. Covering the eastern three-quarters of Lot 4317, 4318, and 4319, fronting Tenth Avenue, are three four-story buildings. There is a five-story building covering all of Lot 4320. On the eastern three-quarters of Lot 4321 is another five-story building. The previous building on Lot 4322 has been replaced by a five-story building covering the eastern three-quarters of the lot. The building on the northern quarter of Lot 4323 is still present. The structure on Lots 4324 through 4326 now covers only Lots 4324 and 4325 and is two stories tall. On the southern three-quarters of Lot 4326 is a one-story building. On Block 645, the structure on the west end of Lot 3858 is three stories tall. The building on the eastern end of Lot 3858 again appears to extend onto Lot 3791 and is two and three-stories tall. The piano manufacturing company still occupies the four-story building spanning Lots 3853

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through 3857. The structures on Lots 3851 and 3852 have been removed and replaced by a three-story building covering each lot. The southern half of Lots 3849 and 3850 are now covered by part of the piano manufacturing building. The structure spanning Lots 3792 through 3794 is still present and is three stories tall. There is now an extension on the north end of Lot 3791 occupied by the piano manufacturing company.

1913 Hyde - (Figure 6-11) The structures on Block 653 have been razed and the route of Marginal Street has been constructed over the block. On Block 645, Tenth Avenue cut off the western ends of Lots 3855 through 3858. The structure on the west end of Lot 3858 has been removed and a small two-story building has been built on what is left of the western half of the lot. The building on the eastern end of Lot 3858, extending onto Lot 3791, is still present. The piano factory building still exists on Lots 3853 through 3857, now labeled "Strauss Bros." The same structures are still present on Lots 3849 and 3850 but they are now occupied by a butcher. The building on Lots 3851 and 3852 is now four stories tall and is occupied by Swift and Company. The building on the north half of Lot 3791 is still present and is now

one-story in height. The building on Lots 3792 through 3794 is now shown as a three-story and one-story structure.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been built in the route of Tenth Avenue. The structures all appear as they did in 1913.

1988 Sanborn - The buildings all appear the same as on the 1950 Hyde atlas with the addition of a one-story building on the northern halves of Lots 3849 and 3850, fronting West 13th Street.

SHORELINE FILL

Tenth Avenue and Block 645 were both filled between 1827 and 1836. Block 653 was filled between 1839 and 1846.

HISTORIC SENSITIVITY

Numerous buildings were constructed on Block 653. On the northern quarter of Lot 4323, a building was present by 1879 which was razed by 1913. By 1885 a shed had been built on the west half of Lot 4316. A building was also built on Lots 4324 and 4325 by 1885 that was part of Stewart's bluestone yard. By 1902, three, four, and five-story structures had also been built on Lots 4315 through 4322. A one-story building had been built on Lot 4326. All of these were razed by 1913. On Block 645, a structure was built on Lots 3792 through 3794 by 1852 which is still standing. In 1859 the building housed a galvanizing operation and in 1879 the structure housed a pottery. In 1859 the building housed a galvanizing operation and in 1879 the structure housed a pottery. A structure was built on the eastern end

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of Lot 3858 and southern end of Lot 3791 by 1859. The structure appears to have been replaced between 1879 and 1885 when a shed covered the southern three-quarters of Lot 3791. By 1902 the shed had been removed and the building on the eastern end of Lot 3858 again appeared to extend onto the southern end of Lot 3791. On Lots 3853 through 3857, a building was constructed by 1885 which housed a piano forte factory. The building may still be present. Another structure was built on Lots 3851 and 3852 by 1902, once occupied by Swift Company, which may also remain standing. By 1902, a structure was built on the southern ends of Lots 3850 and 3849, once occupied by a butcher, which may also still stand. On the north half of Lot 3791, a one-story extension was constructed by 1859. This was later replaced by a shed between 1879 and 1885, and by 1902 the shed was replaced by an extension from the structure on Lot 3857 which housed a piano manufacturing company. By 1852, a building had been constructed on the western end of Lot 3858. This was razed by 1902 and is now in the route of Tenth Avenue. A two-story building was constructed on the west end of Lot 3858 by 1913 which may also still stand. By 1950 a one-story structure was built on the north end of Lots 3849 and 3850.

Chapter VI:

West 13th Street to West 14th Street

The lots within the project area include those on former Block 654. These are Lots 4362 and 4366 through 4378, together with part of the original route of Tenth Avenue.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Divison's Block Summary:

"This block was included in lands under water, a northeasterly portion passing to the heirs of Jacob Le Roy, and the southerly portion passing to John Astor. This Block closed and discontinued 1st of January, 1917."

* Indicates that this is a lease.

<u>GRANTOR</u>	<u>GRANTEE</u>	<u>LOT</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Mayor Alderman	White, C., et al.		1836	359	303.
Banyer, H.	Ludlow, R.B.		1840	409	536
Harrison, J.	Hogg, P. & Delamater, C.		1854	634	602
Mayor Alderman	White, C., et al.		1857	576	86
Hogg, S., et al.	Delamater, C.		1868	1035	304
Conron Brothers Company	Derby, P. * et al.	not lotted	1908	179	26
Derry, P., et al.	Ahearn * Construction Co.	not lotted	1908	180	148
Derry, P., et al.	Strand Hotel Co.	not lotted	1908	182	296
Ludlow, E. (comm. of)/ White, A., et al.	Conron Brothers Company *	not lotted	1908	183	357

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GRANTOR	GRANTEE	LOT	DATE	LIBER	PAGE
Ahearn Construction Co.	Saranac Realty Company *		1913	225	155
Conron Brothers	Derry, P. *		1913	224	377
Derry, P., et al.	Strand Hotel Company *		1913	225	157
Ludlow, E. (comm. of)/ White, A., et al.	Conron Brothers Company *		1913	224	381
Fash, M.C.L.	Central Union Trust Co. of NY		1921	3218	212
Searing, C.L., et al.	Forbes, R.S.		1923	3397	28
Kalin, J.	500 West 14th Street Realty Co.		1927	3617	263
500 W. 14th St.	Ural Realty Corp.		1931	3817	2
Ural Realty Co. Realty Corp.	Delamater Square		1931	3815	89
Delamater Co.	Duanco, Inc.		1969	145	1974

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - Tenth Avenue has been filled and there is fill in the north half of the block, probably in Lots. 4366 through 4378.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The whole block appears filled.

1852 Dripps - (Figure 6-8) The block appears filled and there are two structures in the project area. At the corner of Tenth Avenue and West 14th Street, on Lot

Chapter VI:

4369, is a large building covering the whole lot. The second structure appears to be on what will be Lots 4376 through 4378, and extends north into West 14th Street. The north half of the block is labeled "Steam Saw Mills."

1859 Perris - Both of the previous buildings have been removed. The eastern third of Lot 4362 is labeled "Lumber Yard." At the corner of West 13th Street and Tenth Avenue, in the southeast corner of Lot 4362, is a small building labeled "Office." On the north end of Lot 4362, abutting Lot 4366, there is a one-story building that is also part of the lumber yard. The remaining southern half of the block and three-quarters of the northern part of the block is labeled "Charles H. Delamater's Iron Works." West of the first office, fronting West 13th Street, is a larger two-story building labeled "Office." North of the second office building is an unlabeled two-story structure extending to the border of Lot 4374. Adjacent to the west side of this is a stable. On Lot 4369, at the corner of Tenth Avenue and West 14th Street, is an office building associated with a lumber yard. On the southern quarters of Lots 4372 and 4373 are two small adjoining structures, also associated with the lumber yard. In the northern quarter of Lot 4377 is a small structure fronting West 14th Street. Also fronting West 14th Street, on the northern half of Lot 4378, is another building.

1874 Viele - This map shows no structures.

1879 Bromley - (Figure 6-9) On Lot 4362, all of the previous structures have been removed except for the large office building on the west portion of the lot fronting West 13th Street. In the eastern half of the lot there is a C-shaped series of wooden sheds extending from West 13th Street, north towards West 14th Street, and then east to Tenth Avenue. The northernmost shed abutts Lot 4366, still part of the lumber yard. Lots 4366 through 4370 are labeled lumber yard and are all vacant. The remainder of the buildings have also been removed.

1885 Robinson - (Figure 6-10) In the eastern portion of Lot 4362, only one shed remains adjacent to West 13th Street and appears to be part of the Delamater Iron works. The office building has been extended west and become part of the main iron works building. Lots 4366 through 4371 are labeled "W.M. Gibson Lumber Yard." At the corner of West 14th Street and Tenth Avenue is a small building covering the eastern third of Lot 4369. The remaining portion of the lot is covered by a wooden shed. Fronting West 14th Street, on Lots 4370 and 4371, is a building on the northern ends of the lots. On Lot 4368 is a wooden shed extending west through the middle of Lots 4370 and 4371. On the southern portion of Lots 4370 and 4371 is another building. Lots 4372 through 4375 are labeled "W. J. Pollock Chemical Works." Fronting West 14th Street, on the northern quarters of Lots 4372 through 4375, is another building. On the southern three-quarters of Lots 4373 and 4374 is a structure with extensions east and west onto the southern quarters of Lots 4372 and 4375. Fronting West 14th Street, from Lot 4376 extending west through Lot 4378, is a building on the northern thirds of the lots which is part of the iron works.

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1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - The wood shed on Lot 4362 is still present. Fronting West 13th Street, between the shed and the iron works building, is a small structure. The iron works building is still present and a shed has been built onto the north side of the old office building. Northeast of the addition is a separate building abutting the border of Lot 4370. The eastern section of Lot 4362, together with Lots 4366 through 4368, are again labeled as a lumber yard. Only four of the structures on Lots 4368 through 4378 are still present. The shed on Lots 4368, 4370, and 4371 is still present, as is the two-story building on the northern section of Lots 4370 and 4371. The two structures on Lot 4369 are also still present. Fronting West 14th Street, covering all of Lots 4372 and 4373, is a four-story building. Fronting West 14th Street, there is a two-story building covering all of Lot 4374. On the northern quarters of Lots 4375 and 4376 is a two-story building fronting West 14th Street. There is a shed covering the remainder of the lots. There is a two-story shed on the northern portion of Lot 4377, with the remainder of the lot covered by another two-story shed. Lot 4378 is covered by a structure.

1913 Hyde - (Figure 6-11) All of the buildings have been razed and Tenth Avenue has been constructed over the block. There is a triangular-shaped hotel on what were previously the eastern ends of Lots 4367 through 4369. A pier shed has been built along the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been constructed in the route of Tenth Avenue and the pier shed is still present.

SHORELINE FILL

The original route of Tenth Avenue was filled between 1827 and 1836, as were Lots 4366 through 4378. Lot 4362 was filled between 1839 and 1846.

HISTORIC SENSITIVITY

Three buildings were present on Lot 4362 in 1859 that were not disturbed by the construction of later buildings. An office building on the western portion of the lot was later absorbed into the iron works structure. A two-story building on the northern part of the lot and a shed west of this were razed prior to 1879. A shed was built on the southeastern part of the lot by 1879, which stood until sometime prior to 1913. A building was constructed on the southern part of the lot by 1902 and was razed prior to 1913. A shed was also built by 1902, north of the office building. A third structure was built by 1902, abutting Lot 4370. These were all razed by 1913. A wooden shed was built extending from Lot 4368 through 4370 and 4371 by 1885. This was razed between 1902 and 1913. A shed was built on the north ends of Lots 4370 and 4371 by 1885 and was razed by 1913. Another building on the southern ends of these two lots was built by 1885 and razed by 1902. Lot

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4369 had two structures built on it by 1885 which were razed by 1913. A four-story building was constructed by 1902 on Lots 4372 and 4373. A building and a shed were built on Lots 4375 and 4376 by 1902. There were also two sheds built on Lot 4377 by 1902, and a building covered Lot 4378 by the same date. These were all razed by 1913. A pier shed was built on the shoreline by 1913 and stood through at least 1950.

Route 9A Reconstruction Project

West 14th Street to West 15th Street

The lots within the project area include those on former Block 686. These are Lots 1204 through 1216 and 1238 through 1249.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block lay in the Hudson River beyond the high water line. It was included in the partition between the heirs of George Clinton and John Jacob Astor. Subsequently water grants were made by the City of NY to John Jacob Astor, and William B. Astor, Guardian for M. and S. Ward."

* Indicates that this is a lease.

<u>GRANTEE</u>	<u>GRANTOR</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Clinton, G.	Astor, J.J.	not lotted	1805	70	318
Ward, S.	Belmont, A.	not lotted	1848	510	466
Westervelt	Belmont, A. (sheriff) City of NY (defs.)	water lot	1849	521	317
Belmont, A.	Griffin, F.	not lotted	1851	584	546
Robinson (ref.) for Revere, J.	Revere/Morris	not lotted	1853	646	245
Griffin, M.	Morris, F.		1856	714	544
Chanler, R.	NY Life Ins. & Trust Co. (trustee)	all	1895	39	112
Ward/Astor	Astor, E.	all	1896	43	129

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GRANTEE	GRANTOR	LOTS	DATE	LIBER	PAGE
Chanler, J.A./ Traubetzkoj, et al.	Chanler, W.A.		1897	49	378
Chanler/ Traubetzkoj	New York Life Ins.		1897	51	379
Chanler, W.	Emmet, A.	all	1897	53	16
Chanler, W.A.	Chanler, W.A.		1901	80	268
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR. Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166
Brown, C. (ref.)	Chanler, W.A., et al.		1918	3048	277
NY Life Ins. & Trust Co.	Armour & Co.		1918	3050	451
Chapman, E.W.	Armour & Co.		1918	3062	193
Emmet, A.B.	Armour & Co.		1918	3062	195
Aldrich, M.L.	Armour & Co.		1918	3062	185
Chanler, W.A.	Armour & Co.		1918	3048	279
Chanler, L.S.	Armour & Co.		1918	3062	183
Armour & Co.	National Biscuit Co.		1922	3301	151
National Biscuit Company	Uneeda Inc.		1927	3574	361
Uneeda Inc.	National Biscuit Co.		1929	3698	218
National Biscuit Company	Harmosa Oil Corp.		1952	4806	242

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GRANTEE	GRANTOR	LOTS	DATE	LIBER	PAGE
Harmosa Oil Co.	Brick Tire & Accessories, Inc.		1960	5124	289
Brick Tire Inc.	Chodorow, J.		1961	5156	608

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - There is some fill in the eastern half of the block.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The whole block has been filled.

1852 Dripps - (Figure 6-8) The project area has been filled. The lots are vacant.

1859 Perris - Fronting West 14th Street, on the southern half of Lot 1204, is a structure. On the southern part of Lot 1206 is a small office building, also fronting West 14th Street. Lots 1205 and 1206 are labeled "Lumber Yard." Also fronting West 14th Street, in Lot 1209, is another small office building. Lots 1207 through 1216 and 1238 through 1249 are labeled "Lumber Yard." Fronting West 15th Street, on the northern end of Lot 1246, is a small structure.

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) The lots all appear to be part of a lumber yard. The shed has been removed from Lot 1204. A shed covers all of Lot 1205. Lot 1206 is now vacant, and there is a shed in the northern quarter of Lot 1207. A shed also covers all of Lot 1208. The office building has been removed from Lot 1209 and there is now a shed on the western half of the Lot. A shed covers the northern three-quarters of Lot 1210, and another covers the southern quarter of Lot 1211. Fronting West 14th Street, from Lot 1212 extending west through the southern quarters of Lots 1213 and 1214, is another shed. Also on Lot 1212, on the middle of the lot, is another shed. On Lot 1215, fronting West 14th Street, is a small building. North of this is another shed in the middle of the lot. On the eastern half of Lot 1216, from West 14th Street extending north to West 15th Street through Lot 1239, is a wooden shed. The structure has been removed from Lot 1246. Fronting West 15th Street is a structure on the northern quarter of Lot 1248.

1885 Robinson - (Figure 6-10) All of the structures present in 1879 have been removed except for the shed on the southern end of Lot 1211 and the building on

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the southern end of Lot 1215. There is now a small building covering the southern third of Lot 1206, fronting West 14th Street. Also fronting West 14th Street, on the southern three-quarters of Lot 1209, is a shed. Lots 1210 through 1215 and 1240 through 1245 are labeled "J.J. Carrol Lumber Dealer."

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - A shed has been constructed on the north end of Lot 1204. All of Lots 1208 and 1209 are covered by sheds. A shed spans the southern ends of Lots 1212 through 1214. In addition to the brick shed on the south end of Lot 1215, a wooden shed now covers the remainder of the lot. Lots 1246 and 1247 are also covered by a wooden shed and there is a brick building on the northern quarter of Lot 1249. The shed on Lot 1211 has been removed.

1913 Hyde - (Figure 6-11) The buildings have all been razed and Eleventh Avenue has been built through the block. There is a pier shed along the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been built through the route of Eleventh Avenue.

SHORELINE FILL

The first filling in the project area took place between 1827 and 1836, with the entire parcel filled by 1846.

HISTORIC SENSITIVITY

On Lot 1204, a shed, built on the north end of the lot by 1902, was removed by 1913. In 1859, a building was present on the south end of Lot 1204. By 1879, a shed covered all of Lot 1205, removed by 1885. On Lot 1206, a building was present on the south end of the lot by 1885 which was removed between 1902 and 1913. A shed was built on the north end of Lot 1207 by 1879, removed by 1885. By 1902, all of Lots 1208 and 1209 were covered by sheds with part of the shed on Lot 1209 present since 1885. These were removed by 1913. In 1879 the northern three-quarters of Lot 1210 had a shed on it, removed by 1885. A shed was built on the southern three-quarters of Lot 1211 by 1879 and stood through c.1902. The southern ends of Lots 1212 through 1214 each had a shed in 1879. These did not appear in 1885, but reappeared in 1902. The 1885 map probably erroneously omitted them. The shed was razed between 1902 and 1913. On the middle of Lot 1212, a shed was present between 1879 and 1885. A brick shed was built on the southern end of Lot 1215 by 1879 and, by 1902, a wood shed had been built to cover the remainder of the lot. These were both removed between 1902 and 1913. A shed covered all of Lots 1216 and 1239 in 1879, removed by 1885. By 1902 a wood

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shed covered all of Lots 1246 and 1247. A building was present on the northern end of Lot 1248 by 1879, removed before 1885. A brick building was constructed on the northern end of Lot 1249 by 1902 which was removed prior to 1913.

Chapter VI:

West 15th Street to West 16th Street

The lots within the project area include those on former Block 687. These are Lots 1481 through 1492 and 1508 through 1518.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"Block 687 was conveyed by the City of New York in grants to S.D. Beekman May 1, 1827, William H. Johnson, May 1, 1827 and Dec. 29, 1845."

* Indicates that this is a lease.

<u>GRANTEE</u>	<u>GRANTOR</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Van Beuren, R.	Staples, J.	not lotted	1792	47	165
Clinton, G.	Astor, J.J.		1805	70	318
Graham/ Hardenbrook, et al.	Colden, D.	not lotted	1840	402	469
Johnson, W.	Beekman, S.D.		1841	411	600
Mayor Alderman	Johnson, W.	water lot	1846	476	218
Skidmore, W.	Powers/Jansen	not lotted	1849	487	432
heirs of Johnson, W.	Partition deed Johnson, et al.	water lots	1853	634	364
Johnson, E.	Johnson, B.		1856	713	187
Johnson, B.	Le Franc Chlorozone Works	not lotted	1894	23	455
Henderson, I. (master commission)	Cornell, E.		1912	219	400

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GRANTEE	GRANTOR	LOTS	DATE	LIBER	PAGE
Farmers Loan & Trust Co./ Central Park North & East River RR. Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166

CARTOGRAPHIC REVIEW

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - There is fill in the eastern half of the project area.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The entire block has been filled.

1852 Dripps - (Figure 6-8) The entire block is labeled "Wm. M. Johnson and Sons Cow Stables." Fronting West 15th Street, extending from Lot 1481 to approximately Lot 1490, is a narrow building. Running east-west along the center of the block, through Lots 1482 to 1493 and 1509 to 1518, is another long narrow building. Fronting West 16th Street, on Lot 1513 extending east through Lot 1518, is another narrow building. These three structures are stables.

1859 Perris - All of the stables have been removed. Lots 1481 through approximately Lot 1484 are labeled "Stone Yard." There is a shed running east-west through the mid-sections of Lots 1481 through 1483. There is a shed covering all of Lot 1485. Fronting West 15th Street, on Lot 1486, are two small buildings. The western structure is labeled "Office." On the northern end of Lot 1486, extending north onto Lot 1515, is a well and cistern. Fronting West 15th Street, on Lots 1487 through 1492, is a narrow structure on the southern three-quarters of the lots, labeled "Bradish Johnson's Storehouses." There is an east-west running coopeage on the southern ends of Lots 1508 through 1513 and the northern ends of Lots 1488 through 1492.

1874 Viele - There are no structures shown on this map.

1879 Bromley - (Figure 6-9) The shed on Lots 1481 through 1483 has been removed. There is now a shed on the southern three-quarters of Lot 1481, fronting West 15th Street. There are also two additional sheds on the southern quarters of Lots 1482

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and 1483, both fronting West 15th Street. Lots 1482, 1483, 1518, and 1519 are labeled "Lumber Yard." Covering all of Lots 1485 and 1516, extending between West 15th and 16th Street, is another shed. This appears to be an enlargement of the shed present on Lot 1485 in 1859. The small building on the eastern part of Lot 1486 is not present, nor is the cistern or well on this lot and Lot 1515. In the northwest corner of Lot 1486 is a small shed. The storehouse is still present on Lots 1487 through 1492. Fronting West 16th Street is a shed on the northern half of Lot 1515. From the western half of Lot 1513, extending west through the northern quarter of Lot 1512, is a shed. The cooperage appears the same on Lots 1511 through 1513 and 1488 through 1492. An extension has been built on the north side of this to West 16th Street, covering all of Lots 1508 through 1510.

1885 Robinson - (Figure 6-10) The shed on the southern end of Lot 1481 has been removed and the lot is vacant. The shed on Lot 1482 is still present, although the adjacent shed on Lot 1483 has been removed. The shed on Lots 1485 and 1516 is still present and has been extended east to cover all of Lot 1484. The shed on the northwest corner of Lot 1486 has been removed, and the office building present since 1859 has been enlarged to cover the southern half of the lot. The storehouse on Lots 1487 through 1492 is still present, and Lots 1487 through 1490 are labeled "Peter Farney Silk Works." The cooperage building is still present on the northern ends of Lots 1488 through 1492, and the structure has been extended on Lots 1511 through 1513, north to West 16th Street.

1897 Bromley - Same as the 1879 Bromley atlas.

1902 Bromley - All of the previous structures have been removed. The freight yard of the Central Railroad of New Jersey occupies the block. There are railroad tracks present in the southern half of the block. There is a shed fronting West 16th Street on the northern portion of Lot 1514. Also fronting West 16th Street, on all of Lot 1512, is a three-story structure.

1913 Hyde - (Figure 6-11) The two structures have been razed and the route of Eleventh Avenue and Marginal Street have been built through the block. There is a pier shed on the western part of Marginal Street along the shoreline.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been built on Eleventh Avenue.

SHORELINE FILL

The project parcel first experienced filling between 1827 and 1836, with the remainder filled by 1846.

HISTORIC SENSITIVITY

Cow stables were built on the property by 1852, removed by 1859. Later building construction disturbed most of the locations of the stables except for the northern part of Lots 1482 and 1483, the southern parts of Lots 1514 through 1518, and the northern ends of Lots 1517 and 1518. A shed was built on the mid-sections of Lots 1482 and 1483 by 1859, and was razed by 1879. An office building was constructed on the southern end of Lot 1486 by 1859, and was extended to cover the southern half of the lot by 1885. The structure was razed by 1902. A storehouse was built on Lots 1487 through 1492 by 1859, and was razed by 1902. A well and cistern were present on Lots 1486 and 1515 in 1859, but do not appear on later maps. Also by 1859, a cooperage was built on the north ends of Lots 1488 through 1492 and the south ends of Lots 1508 through 1513. By 1879 an extension of the cooperage building had been constructed to cover all of Lots 1508 through 1510 and, by 1885, another extension had been built to cover the remainder of Lots 1511 through 1513. Lot 1512 was disturbed by subsequent building construction. The structure was razed by 1902. A shed was built to cover all of lot 1485 by 1859, extended to cover all of Lot 1516 by 1879, and all of Lot 1484 by 1885. The structure was razed by 1902. A shed was built on the southern three-quarters of Lot 1481 by 1879 which was removed by 1885. Another shed on the southern end of Lot 1482 was built by 1879 and razed by 1902. A shed was also built on Lot 1483 by 1879 and razed by 1885.

A shed stood on the northwest corner of Lot 1486 in 1879 which was removed by 1885. Another shed was built on the north half of Lot 1515 by 1879, also removed by 1885. A shed was built on the west part of Lot 1513 by 1879, also removed by 1885. A shed was built on Lot 1514 by 1902. A three-story building was also built on Lot 1512 by 1902. Both of these structures were razed by 1913, and a pier shed was built on the shoreline by that date.

Chapter VI:

West 16th Street to West 17th Street

The lots within the project area include those on former Block 688. These are Lots 1754 through 1762 and Lots 1776 through 1783.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Divisions Block Summary:

"This parcel was conveyed by the City of New York in grants to George Rapelje, March 10, 1828 and Bradish Johnson, June 2, 1849."

* Indicates that this is a lease.

<u>GRANTEE</u>	<u>GRANTOR</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Lametter, G.	Campbell, D.	not lotted	1784	42	151
Beaty, E.	Campbell, D.		1785	42	320
Buyce/Higgins	Rivington, J.		1789	45	519
Rivington, J.	Rapelye, R.		1790	46	109
Rapelje, R.	Staples, J.		1830	264	430
Graham/ Hardenbrook, et al.	Colden, D.		1840	402	469
Skidmore, W.	Powers/Jansen		1849	487	432
Lee (trt.)	Johnson, E.A.	45 and	1853	654	109
Johnson, Ellen		water lot			
Johnson, B.	Johnson, J.	water lot	1853	637	641
Johnson, J.	The Manhattan Gas Light Co.	45	1858	756	266
Mayor Alderman	Johnson, J.	water lot	1858	762	206

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GRANTEE	GRANTOR	LOTS	DATE	LIBER	PAGE
The Manhattan Gas Light Co.	Consolidated Gas Co.	all	1885	1863	27
Henderson, I. (master commission)	Cornell, E.		1912	219	400
Farmers Loan & Trust Co./ Central Park North & East River RR. Co.	Cornell, E.		1912	220	9
Cornell, E.	Belt Line Railway Corp.		1913	223	166
Consolidated Gas Co. of NY	Merchants Refrigeration Co. of NY		1916	202	494
Consolidated Gas Co. of NY	Merchants' Refrigeration Co.		1916	202	494

CARTOGRAPHIC REVIEW.

1817 Longworth through 1827 Ewen - (Figures 6-5 and 6-6) The project parcel is land under water.

1836 Colton - Only the eastern part of the project area has been filled.

1838 Hooker - (Figure 6-7) Same as the 1836 Colton map.

1839 Burr - Same as the 1836 Colton map.

1846 Burr - The entire parcel has been filled.

1852 Dripps - (Figure 6-8) The parcel is filled and is vacant.

1859 Perris - The parcel is part of the Manhattan Gas Light Company. There are two-and-a-half circular storage tanks in the project area on Lots 1754 through 1759 and 1780 through 1783.

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) The tanks are still present. Fronting West 17th Street is a shed spanning the northern quarters of Lots 1776 through 1778.

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1885 Robinson - (Figure 6-10) The storage tanks are still present, but the shed has been removed. The entire block is labeled "Manhattan Gas Company."

1897 Bromley - Same as the 1879 Bromley.

1902 Bromley - The storage tanks are still present and are part of the Consolidated Gas Company. There is a structure on the northern quarters of Lots 1777 and 1778, fronting West 17th Street.

1913 Hyde - (Figure 6-11) The structures have been razed and Eleventh Avenue and Marginal Street have been constructed through the block. There is a pier shed along the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been constructed on the route of Eleventh Avenue.

SHORELINE FILL

The parcel first experienced filling between 1827 and 1836 and was entirely filled by 1846.

HISTORIC SENSITIVITY

Several storage tanks of the Manhattan Gas Company stood on Lots 1754 through 1759 and 1780 through 1783. The tanks were built by 1859 and were removed by 1913. A shed was built on Lot 1776 by 1879 and was razed by 1885. A structure was built on Lots 1777 and 1778 by 1902 and was razed by 1913.

Route 9A Reconstruction Project

West 17th Street to West 18th Street

The lots within the project area include those on former Block 689. These included Lots 2019 through 2041 and 173 through 176.

HISTORIC LANDOWNERS

According to the early twentieth century historian, Isaac Newton Phelps Stokes, this block was originally land under water adjacent to the Sir Peter Warren farm. Sir Peter Warren purchased the tract in 1731 (Stokes Vol. 6 1926:157).

As per the Index Division's Block Summary:

"This block was conveyed by the City of New York in grants to Samuel Boyd, January 2, 1827; George Rapelje, March 10, 1828; The Manhattan Gas Light Company, Dec. 29, 1845; Manhattan Gas Light, June 14, 1849."

* Indicates that this is a lease.

<u>GRANTEE</u>	<u>GRANTOR</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
Lametter, C.	Campbell, D.	not lotted	1784	42	151
Beaty, E.	Campbell, D.		1785	42	320
Rapelje, G.	Boyd, S.		1827	226	424
Boyd, S.	Mayor Alderman		1828	233	278
Graham/ Hardenbrook, et al.	Colden, D.		1840	402	469
Mayor Alderman	Manhattan Gas Co.		1846	476	214
Skidmore, W.	Powers/Jansen		1849	487	432
Johnson, et al.	Manhattan Gas Co.		1858	756	289
Manhattan Gas Co.	Consolidated Gas Co.	all	1885	1863	27
Consolidated Gas Co.	NY State Realty & Terminal Co.	all	1917	3007	63

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<u>GRANTEE</u>	<u>GRANTOR</u>	<u>LOTS</u>	<u>DATE</u>	<u>LIBER</u>	<u>PAGE</u>
NYS Realty & Terminal Co.	NY Central RR Co.		1932	3854	158
NY Central RR Co.	10-42 Corp.		1960	5103	584
10-42 Corp.	Maidman, I.		1964	5290	193
Maidman, I.	Chatham Assoc., Inc.		1965	5318	357

CARTOGRAPHIC REVIEW

1817 Longworth through 1838 Hooker - (Figures 6-5 through 6-7) The project parcel is land under water.

1839 Burr - There is some fill in the northeastern part of the project parcel.

1846 Burr - The entire block has been filled.

1852 Dripps - (Figure 6-8) The Manhattan Gas Company works occupies the block. Fronting West 18th Street, on the northern half of Lot 2038 and extending east onto the northern halves of Lots 2039 and 2040, is a structure. There is another building on the southern halves of Lots 2038 through 2041.

1859 Perris - Both of the structures present in 1852 have been removed. Fronting West 17th Street, Lots 2019 through 2027 are labeled "Coke Yard." There is a structure extending from the western part of Lot 2027 through Lot 2033, and Lots 173 through 176 is the Gas Light coalhouse. The Gas Light retort house fronts West 18th Street and covers all of Lots 2034 through 2041 and the northern ends of Lots 2019 through 2027.

1874 Viele - No structures are shown on this map.

1879 Bromley - (Figure 6-9) Same as the 1859 Perris map.

1885 Robinson - (Figure 6-10) The structures are all the same as on the 1859 Perris map and the block is owned by the Manhattan Gas Company.

1897 Bromley - Same as the 1885 Robinson map.

1902 Bromley - In addition to the previous structures, fronting West 17th Street on the southern quarters of Lots 2026 and 2027, is an extension from the coalhouse. The block belongs to the Consolidated Gas Company.

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1913 Hyde - (Figure 6-11) The buildings have all been razed, and the route of Eleventh Avenue and Marginal Street have been constructed through the block. A pier shed spans the block along the shoreline in Marginal Street.

1925 Bromley - Same as the 1913 Hyde atlas.

1950 Hyde - The West Side Highway has been built through the route of Eleventh Avenue.

SHORELINE FILL

The first filling in the project area took place between 1838 and 1839, with the remainder occurring by 1846.

HISTORIC SENSITIVITY

By 1859 there was a coalhouse built on Lots 2027 through 2033 and 173 through 176. An extension was added onto Lots 2026 and 2027 by 1902. A retort house was built on Lots 2034 through 2041 and 2019 through 2027 by 1859. Both structures were part of the gas company and were razed by 1913. A pier shed spanned the block and stood between at least 1913 and 1950.

HISTORICAL SENSITIVITY

Specific areas sensitive for potentially significant historical remains exist between Harrison Street and West 18th Street. Several buildings actually stood in the route of West Street and Tenth Avenue which could be considered potentially sensitive. Additional areas were found sensitive due to the eighteenth and nineteenth century landfill and wharf features they possess. Areas identified are referenced in the Block Histories section, which is based largely on cartographic data. The following presentation also includes information gathered at the Buildings Department, Block and Lot Division, and from secondary sources.

Categories of sensitivity were devised, and include dwellings and associated outbuildings; industrial buildings/complexes; piers and wharves; landfill; and other. The blocks along West Street and Tenth Avenue include the potential sensitivity for the cross street on the south. Going from south to north the following areas have been identified as being potentially sensitive for historical remains.

Dwellings and Associated Outbuildings

NONE.

Industrial Buildings and Complexes

Few building records were available for structures that were razed during the construction of the Chelsea Piers. According to Kenneth Cobb, Curator at the New York City Municipal Archives, prior to the 1970s the Building Department destroyed records of buildings that had been demolished (Personal Communication to Mary Dieter, October 11, 1989). From south to north, the following buildings were identified.

Between Hoboken and Canal Streets, on Block 595 Lot 86, there was a building fronting Canal Street which was built by 1848 (Rutsch et al. 1983:382). The building eventually deteriorated and was removed by 1859. The structure was probably part of the Clinton Market. By 1879 the block had become a city park. A second structure was built in the southwest corner of the block by 1913. The structure was removed in 1928 for construction of the Holland Tunnel (DM 382:1928; Block and Lot File).

Between West 11th Street and Bank Street, several structures on Block 647 were built between 1859 and 1879 and razed by 1902. On the western three-quarters of Lot 3955, a structure was built to house Clark and Wilkins Kindling Wood factory. On all of Lot 3955 D and part of E, a shed was built. The shed was part of the kindling wood factory and, later, was part of a coal yard. A structure was built on Lots 3955 F, G, and H, owned by G. B. Lawton.

Between Bank and Bethune Streets, numerous structures were built on Block 648. Many of the earlier structures were disturbed by the construction of later buildings

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and are not considered sensitive for archeological remains. On the eastern third of Lot 3990, a building was built between 1859 and 1879 and razed by 1885. The western third of the lot was covered by a shed by 1885 which was removed by 1902. The eastern quarter of Lot 3990 C had a building on it between c.1879 and c.1902. The western half of Lot 3990 C, together with the western half of 3990 D, possessed a shed between c.1879 and c.1902. Also on the eastern portion of Lot 3990 D, a building stood between c.1879 and c.1902. In 1885 Lots 3990 D and C were part of the J. Leonard Manhattan rolling mill. A structure, built on the middle of Lot 3990 F by 1879, belonged to John Innes Son Rapid Iron works. It was razed by 1902. A shed was built on the southern third of Lot 3990 G by 1879 and removed by 1885. The shed was part of a chemical works. A building had been constructed on the northern three-quarters of Lot 3990 I by 1885 and two sheds had been built, covering all of Lot 3990 K by the same date. Both structures were part of Cosgraff's Lumber yard and removed by 1902. On Lot 3999, a building stood on the southeast part of the lot between c.1879 and c.1902. Another building was present on the southwestern part of the lot at the same time, also part of a lumber yard. By 1885, three additional buildings were present on the northeast, northwest, and eastern parts of the lot. Two of these were sheds; one also associated with a lumber yard. On Lot 3990 A, two buildings and two sheds stood between c.1879 and c.1902. These were part of a salamander works.

Between Bethune and West 12th Streets, a storage building, owned by Cragin and Company, stood between c.1859 and c.1902. The structure covered all of the lots on Block 649 between these two cross streets. Between West 12th and Jane Streets, a structure was built on Block 649, Lot 4089 B by 1859. The structure, on the eastern end of the lot, was removed by 1902. By 1879 a shed had been built on the western three-quarters of the lot, which was removed by 1902. A varnish factory was built on all of Lots 4085 and 4086 and the eastern halves of Lots 4087 and 4088 by 1879. An extension was built onto Lots 4120 through 4124 by 1885. The structure was razed by 1902. On the western two-thirds of Lot 4089, a shed was present between c.1879 and c.1902. By 1885, sheds covered all of Lots 4089 C through H. These were all removed by 1902.

Between Jane and Horatio Streets, a smelting factory was built on Block 650, Lot 4125 by 1879. The factory was removed by 1902. A second building was present on the western end of the lot, built by 1885 and removed by 1902. A building was constructed on Lots 4129 and 4129 A through C by 1885, which was removed by 1902. On Lots 4129 D, E, and the northern half of F, a large shed stood between c.1879 and c.1902. A second building was constructed on the southern half of Lot 4129 F by 1885, also removed by 1902.

Between Horatio and Gansevoort Streets on Block 650, a structure was built on the east half of Lot 4165, standing from c.1879 to c.1902. The structure was occupied by a tin works and a wrought iron works. The eastern third of Lot 4169 had a building on it by 1879 and removed by 1885. The structure housed a paint company. On the western two-thirds of the same lot, sheds were built which stood from at least 1879 until they were removed prior to 1902.

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Between Gansevoort and Bogert Streets, a building stood on Block 651 at the corner of Gansevoort and West Streets between c.1859 and c.1879. Market buildings associated with the West Washington Market were built by 1902 on this block and on the block between Bogert and Bloomfield Streets. These appeared to stand through at least 1950 according to the cartographic review. However, the market buildings were demolished by 1950 and a city incinerator was then built on the site (DM 358:1950; Block and Lot File). In 1980, two 2,000 gallon gas/fuel tanks were installed at the incinerator site (FP 360:1980; Block and Lot File). Between Bloomfield and Little West 12th Street, a building fronted Tenth Avenue between c.1859 and c.1879. The Adams House, a hotel, was built by 1902 and was removed by 1913.

East of West Street, between Gansevoort and Little West 12th Streets, a market building was constructed on the northwest corner of Block 644 by 1885. This was removed in 1950 and subsequently replaced (DM 359:1950; Block and Lot File). The Gansevoort Market house was built in the southwest corner of the block c.1900, and became a pump station for the New York City Fire Department by 1908. In 1959 the structure was converted into a meat market (ALT 1023:1959; Block and Lot File). Currently the structure is occupied by the Gansevoort Market Meat Center. Construction during the twentieth century has extended the structure to cover most of the block (Willensky and White 1988:140). In 1937 a meat processing and dry storage building was constructed in the southeastern corner of the block. The three-story building was constructed on piles (NB 125:1937; Block and Lot File). Half of the structure is in the project area. In 1948 a two-story structure was built covering the northern half of the block and part of the southern portion of the block. The structure was also used for the meat market (NB 49:1948; Block and Lot File). A blueprint shows the building covering much of the approximate original site of Fort Gansevoort (Blueprint c.1950; Block and Lot File). Another building was constructed at the intersection of Tenth Avenue and Little West 12th Street by 1934 (ALT 2358:1934; Block and Lot File).

Between Little West 12th Street and West 13th Street, several buildings stood on former Block 653. On the northern quarter of Lot 4323, a building stood between c.1879 and c.1913. A shed was built on the western half of Lot 4316 by 1885. A building associated with a bluestone works was constructed on Lots 4324 and 4325 by 1885. A building was present in 1902 on Lots 4315 through 4322 and a one-story building was constructed on Lot 4326 by 1902. These were all razed between 1902 and 1913.

On former Block 645, also between Little West 12th and West 13th Streets, a pottery was built on Lots 3792 through 3794 by 1852, and may still be present. A building was constructed on the western end of Lot 3858 and according to cartographic research, stood between at least c.1852 and c.1902. In 1859 the building was a one-story brick structure at the corner of Little West 12th Street and Tenth Avenue. The building appeared the same through at least 1885. According to a map of the lot in 1890, the western corner of the lot had been removed by that time for the construction of piers, and Tenth Avenue had been realigned. The previous building

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was removed and replaced by a brick, three-story building measuring 25 feet by 40 feet (ALT 723:1890; Block and Lot File). At that time the structure had a store and tenement. In 1906 the building is listed as two-stories tall with a store and loft, and on the 1913 atlas, the structure is shown as one-story tall (ALT 1263:1906; Block and Lot File). The building may still be present. Due to the late date of construction and use as a tenement, post-dating the installation of utilities, the structure is not considered potentially archeologically significant.

On the east end of Lot 3858 and the south end of Lot 3791, a building was constructed by 1859 which was later replaced. The wooden structure on the east end of Lot 3858 appeared to have been replaced by a brick building by 1906 (ALT 1263:1906; Block and Lot File). In 1913 this is shown as a two-story building (Figure 6-11). Earlier structures on Lot 3791 were disturbed by the construction of brick buildings by 1902. In 1913 the lot was covered with a one and two-story building (Figure 6-11). A two and three-story structure with a basement used for meat storage and office space covered all of the lot in 1929 (ALT 577:1929; Block and Lot File).

A piano forte factory occupied the building constructed on Lots 3853 through 3857 by 1885. In 1889, the 51 foot by 80 foot three-story building with a basement, on Lots 3853 and 3854, was owned by W. Astor and leased by Peter Strauch (NB 54:1889; Block and Lot File). In 1964 a meat market occupied the structure (P&D 2429:1964; Block and Lot File). In 1972 the four-story building on Lots 3853 and 3854 had a cellar and was used as an office and for cold storage. In 1981 the basement was excavated to construct a public dance hall. The building is still present (ALT 61:1972, BN 5408:1981; Block and Lot File). By 1914 the structure on Lots 3855 through 3857 was a four-story beef storage facility, owned by Peter Strauch and leased by Swift and Company. In 1964 the storage building was demolished on those lots, which eventually were paved and used for vehicular parking (ALT 782:1914, DM 123:1964, ALT 95:1972; Block and Lot File).

A structure was also built on Lots 3851 and 3852 by 1902. In 1906 the three-story brick building with a basement was owned by Vincent Astor and leased by Swift and Company. The structure had ten foot deep foundations and was occupied by a beef market (ALT 1843:1906; Block and Lot File). In 1972 the four-story building was used for storage, meat processing, and offices (ALT 78:1972; Block and Lot File). The structure is still present. By 1902 a building housing a butcher shop was constructed on Lots 3849 and 3850. By 1913 a two-story building was present on the western end of Lot 3858. By 1950 a building had been constructed on the northern ends of Lots 3849 and 3850. These may all still be standing.

Between West 13th and West 14th Streets, on former Block 654, three structures associated with a lumber yard were built by 1859. An office building was present on the western part of Lot 4362, razed between 1902 and 1913. On the north part of the lot, a two-story structure was present. Directly west of this was a shed. These were removed by 1879. On the southeast corner of the lot, a shed was present between c.1879 and c.1913. North of the office building, another shed was present

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by 1902 and removed by 1913. On the southern part of the lot, another building was present between c.1902 and c.1913. A structure was present on the northern part of the lot, abutting Lot 4370 to the north, between c.1902 and c.1913. On Lots 4368 through 4370 and part of Lot 4371, a building was present in 1885, removed by 1913. Two additional structures were present on both the northern and southern ends of Lots 4370 and 4371 between c.1885 and c.1913. The northern building was four stories tall, owned by Louisa Pollock, and leased by the American Dunlap Tire Company (ALT 661:1897; Block and Lot File). Two buildings were present on Lot 4369 between c.1885 and c.1902. A four-story building had been built on Lots 4372 and 4373 by 1902. A building and a shed had been built on Lots 4375 and 4376 by 1902. Two sheds were constructed on Lot 4377 by 1902, and a building spanned all of Lot 4378 by the same date. These structures were all removed between 1902 and 1913.

In 1908 a three-story brick building with a cellar had been constructed between West 13th and West 14th Streets, and Tenth and Eleventh Avenues. The triangular-shaped building was constructed on Block 654, Lot 31, formerly Lots 4365 through 4368 and the southeast corner of Lot 4362. It was owned by the Connor Brothers (NB 65:1908; Block and Lot File). In 1918 Frank Davidson owned the property and Samuel Holoher leased it. The structure eventually became a hotel (ALT 144:1918, CO 72105:1972; Block and Lot File).

Between West 14th and West 15th Streets, on Block 686, Lot 1204, a shed was built on the north end of the lot by 1902 which was removed by 1913. In 1859, a building was present on the south end of Lot 1204. By 1879, a shed covered all of Lot 1205, removed by 1885. On Lot 1206 a building, present on the south end of the lot by 1885, was removed between 1902 and 1913. A shed was built on the northern end of Lot 1207 by 1879, removed by 1885. By 1902, all of Lots 1208 and 1209 were covered by sheds with part of the shed on Lot 1209 present since 1885. These were removed by 1913. In 1879 the northern three-quarters of Lot 1210 had a shed on it, removed by 1885. A shed was built on the southern three-quarters of Lot 1211 by 1879 and stood through c.1902. The southern ends of Lots 1212 through 1214 had a shed on them in 1879, which did not appear in 1885, but reappeared in 1902. The 1885 map probably erroneously omitted them. The shed was razed between 1902 and 1913. On the middle of Lot 1212, a shed was present between 1879 and 1885. A brick shed was built on the southern end of Lot 1215 by 1879 and, by 1902, a wood shed had been built to cover the remainder of the lot. These were both removed between 1902 and 1913. A shed covered all of Lots 1216 and 1239 in 1879, removed by 1885. By 1902 a wood shed covered all of Lots 1246 and 1247. A building was present on the northern end of Lot 1248 by 1879 and removed before 1885. A brick building was constructed on the northern end of Lot 1249 by 1902, removed prior to 1913.

Between West 15th and West 16th Streets, cow stables were built on the property by 1852 and removed by 1859. Later building construction disturbed most of the locations of the stables except for the northern part of Lots 1482 and 1483, the southern parts of Lots 1514 through 1518, and the northern ends of Lots 1517 and

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1518. A shed, built on the mid-sections of Lots 1482 and 1483 by 1859, was razed by 1879. An office building was constructed on the southern end of Lot 1486 by 1859, and extended to cover the southern half of the lot by 1885. The structure was razed by 1902. A storehouse was built on Lots 1487 through 1492 by 1859, razed by 1902. Also by 1859, a cooperage was built on the north ends of Lots 1488 through 1492 and the south ends of Lots 1508 through 1513. By 1879 an extension of the cooperage building had been constructed to cover all of Lots 1508 through 1510, and by 1885 another extension had been built to cover the remainder of Lots 1511 through 1513. Lot 1512 was disturbed by subsequent building construction. The structure was razed by 1902.

Also on the block, a shed was built covering all of Lot 1485 by 1859, extended to cover all of Lot 1516 by 1879, and all of Lot 1484 by 1885. The structure was razed by 1902. A shed was built on the southern three-quarters of Lot 1481 by 1879, removed by 1885. Another shed on the southern end of Lot 1482 was built by 1879 and razed by 1902. A shed was also built on Lot 1483 by 1879 and razed by 1885. A shed stood on the northwest corner of Lot 1486 in 1879 which was removed by 1885. Another shed was built on the north half of Lot 1515 by 1879, also removed by 1885. A shed was built on the west part of Lot 1513 by 1879, also removed by 1885. A shed was built on Lot 1514 by 1902. A three-story building was also built on Lot 1512 by 1902. Both of these structures were razed by 1913.

Storage tanks associated with the Manhattan Gas company were built on Block 688 between West 16th and West 17th Streets by 1859. The tanks spanned Lots 1754 through 1759 and Lots 1780 through 1783. The tanks were removed between 1902 and 1913. A shed was built on Lot 1776 by 1879, and removed before 1885. Another building spanned Lots 1777 and 1778 by 1902, removed by 1913. These were all part of the gas company.

A coal house spanned Lots 173 through 176 and Lots 2027 through 2033 on Block 689, between West 17th and West 18th Streets. The coal house was built by 1859 and was removed between 1902 and 1913. An extension was built onto Lots 2026 and 2027 by 1902, also removed by 1913. A retort house was built on Lots 2034 through 2041 and 2019 through 2027 by 1859, also removed by 1913.

In addition to the above structures, the only other structures identified in this category are the pier sheds once present in the route of Marginal Street. Almost the entire span from Harrison Street to West 18th Street possessed mid-to-late nineteenth century and twentieth century pier sheds on the western portion of Marginal Street. The majority of these pier sheds, located along the shoreline in Marginal Street, were built during the construction of the Chelsea Piers at the turn of the twentieth century and stood through at least the 1950s. Some sheds were removed as the piers settled into a state of disrepair, others continue to stand. There is no archeological significance associated with these buildings due to the late date and extensive documentation pertaining to construction. Currently standing pier sheds can provide adequate information on issues of historical interest associated with the Chelsea Piers.

Chapter VI:

Piers and Wharves

Numerous eighteenth and nineteenth century piers traversed the routes of West Street, Tenth Avenue, and Marginal Street. Going from south to north, the following piers and wharves were identified.

Pier 34 stood at the foot of Harrison Street and was used for boats to Rondout and Kingston. The pier was built between 1828 and 1836 and became part of the Marginal Street landfill by 1902. A steamship pier was built mid-way between Harrison and Franklin Streets, also traversing the route of Marginal Street. The pier was built between 1874 and 1879, and was part of landfill by 1902. Pier 35 stood at the foot of Franklin Street between c.1827 and c.1902, and may have become part of the Marginal Street fill. The pier was used by Homer Ransdell and Company and for steamboats to Poughkeepsie.

Pier 36 traversed the route of Marginal Street at North Moore Street. The pier stood between c.1827 and c.1885 and was used by Morgans Los Angeles and Texas Railroad and Steamship Company. Pier 37 was built at the foot of Beach Street by 1827 and became part of the Marginal Street landfill between 1879 and 1885. The pier was occupied by the *Old Dominion Line for Norfolk*. In 1856 the owners of the bulkhead between Beach and Hubert Streets were permitted to build a bridge and pile 18 feet beyond the bulkhead, 112 feet long, slightly north of Pier 37 (Rutsch et al. 1983:99).

A bridge was built by 1817 at the foot of Hubert Street, extending to the North Fort. The bridge eventually became Pier 38 and was used by the Pennsylvania Railroad Company. The pier spanned West Street and Marginal Street and may have become part of the landfill by 1885. The pier was constructed of timber combined with iron tension members (Rutsch et al. 1983:290). The Laight Street Pier was built between 1852 and 1854 and stood through c.1902. The pier was used for day boats to Albany. It ran through the route of Marginal Street. At Vestry Street, Pier 39 stood between c.1827 and c.1902 and traversed the route of Marginal Street. The pier was used by the New York and Albany line. By 1885 the Pennsylvania Railroad had built a covered shed on the pier (Rutsch et al. 1983:290).

Between Desbrosses and Watts Streets, Old Pier 30 was built by 1817 and may have become part of the West Street landfill by 1826. After West Street was filled, the Desbrosses Street pier was built by 1826 and stood in the route of Marginal Street until c.1902. The pier was once used for public baths. Mid-way between Desbrosses and Watts Streets, the Jersey City Ferry and Pennsylvania Railroad complex was built by 1874. It stood in Marginal Street until it became part of the landfill by 1902.

Pier 40 was built at the foot of Watts Street by 1827 and may have become part of the Marginal Street landfill by 1902. The pier was used by boats for Coney Island and the Norwich line for Boston. The Hoboken Ferry complex was built

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between Watts and Hoboken Streets by 1856. Part of the complex may have become landfill in Marginal Street by 1902. In 1848 the slip adjacent to the pier at Hoboken Street was filling with sewer discharge and trash from the streets, instigating a petition for dredging (Rutsch et al. 1983: 131). Pier 41, which was part of the ferry complex, stood in the route of Marginal Street between c.1879 and c.1902 and may have also become part of the fill. The pier was used by the People's Line for Albany.

Between Hoboken and Canal Streets, the Hoboken Street Pier was built by 1811 and may have become part of the West Street landfill by 1824. This formed the southern pier of the Canal Street basin (Rutsch et al. 1983:245). Subsequently, the Hoboken Ferry landing was built at the foot of Hoboken Street, through Marginal Street. The landing stood between at least 1824 and c.1902. New Pier 33 was built halfway between Hoboken and Canal Streets between 1826 and 1827. The pier, occupied by Collin's Line of Liverpool Steamships, may have become part of the Marginal Street landfill by 1913. New Pier 32, part of the ferry landing complex, was also built at Hoboken Street between 1859 and 1874 and may have become part of the Marginal Street landfill by 1913.

The northernmost pier of the Canal Street basin was built halfway between Canal and Spring Streets by 1811 and ran through Block 595, Lot 87, as well as West Street (Rutsch et al. 1983:245). The pier may have become part of the landfill by 1824. Pier 42, built at the foot of Canal Street by 1824, may have become part of the Marginal Street landfill by 1879. A roofed platform was built on the Canal Street pier in 1835 to provide protection for passengers (Ibid.:130). Pier 43, once known as the Empire Pier, was built by 1824 and may have become part of the Marginal Street landfill by 1879. The pier stood halfway between Spring and Vandam Streets, and in 1850 the pier was straightened (Rutsch et al. 1983:88).

At the foot of Vandam Street, Pier 44 was built between 1846 and 1852 and may have become part of the Marginal Street landfill by 1879. The pier was used by the Inman Steamship line. Pier 45, built between 1826 and 1827, stood at the foot of Charlton Street. The pier was owned by the City of New York and may have become part of the Marginal Street landfill by 1879. Pier 46 was built at the foot of King Street between 1826 and 1827 and may have become part of the Marginal Street landfill by 1879.

At the foot of West Houston Street, Pier 47 was built between 1846 and 1852 and stood through c.1879. The pier may have become part of the Marginal Street landfill. Pier 48 was built at the foot of Clarkson Street, through Marginal Street, between 1826 and 1827. The pier extended 250 feet into the river and was T-shaped (Rutsch et al. 1983:130). The pier may have also become part of the landfill by 1879. The pier was rebuilt in 1860 (Rutsch et al. 1983:118). Pier 49 was built between 1852 and 1854 at the foot of LeRoy Street. The pier may have also become part of the Marginal Street landfill by 1879.

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Pier 50, at the foot of Morton Street, was built between 1846 and 1852 and traversed the route of Marginal Street. The pier may have become part of the landfill by 1879. Another ferry landing for the Hoboken Ferry was built halfway between Barrow and Christopher Streets. The landing, built between 1854 and 1856, may have become part of the Marginal Street landfill by 1879. The ferry landing was also occupied by the Delaware, Lackawanna, and Western Railroad. The layout of the ferry landing consisted of a five-part plan with two piers on the wings and a two-story ferry house at the center (Rutsch et al. 1983:292).

Old Pier 50, situated just north of Christopher Street, was built between 1826 and 1827 and stood through the route of Marginal Street. The pier may have become part of the landfill by 1879. At Christopher Street itself, a ferry landing was built between 1846 and 1852 and may have also become part of the landfill by 1879. Pier 51 was present slightly north of West 10th Street. The pier, built between 1826 and 1827, may have become part of the Marginal Street landfill by 1913. The pier was operated by the City of New York and was once referred to as the Old State Prison Dock.

At the foot of Perry Street, Pier 53 was built between 1846 and 1852. The pier may have become part of the Marginal Street landfill by 1902. Pier 54 was built at the foot of West 11th Street between 1846 and 1852. The pier traversed Block 647, Lots 3955 D through H and probably became part of the block's landfill by 1859. Pier 56 was built at the foot of West 12th Street by 1852 and probably became part of the Marginal Street landfill by 1859.

Between Jane and Horatio Streets, Pier 57 was built between 1827 and 1836, and spanned Block 650, Lots 4129 and 4129 A through F. The block was filled by 1859 and the pier may have become part of the landfill. The Gansevoort Street pier was built by 1856 and may have become part of the Marginal Street landfill by 1959.

Landfill

The process of filling the shoreline and expanding the size of *Manhattan* began in the eighteenth century and has continued through the twentieth century. The earliest known episode of landfilling in West Street or Tenth Avenue in this section of the project area occurred sometime prior to 1817 between Charlton and Morton Streets. South of West 14th Street, the majority of filling in West Street took place prior to 1836 (Figure 6-7). North of West 14th Street, filling commenced by 1846 (Figure 6-8). In Marginal Street, landfilling dates as early as 1846 between Franklin and North Moore Streets. South of Hoboken Street, the majority of Marginal Street was filled by 1902 (Figure 6-11). Between Hoboken and West 10th Streets, most of the fill was completed by 1879 (Figure 6-9). North of West 10th Street, to West 18th Street, filling was completed by 1859 and 1874 (Figure 6-12).

The landfill in and of itself is not judged to be sensitive since filling episodes have been documented and artifacts found in this secondary context render little information. Numerous projects within Manhattan have documented land

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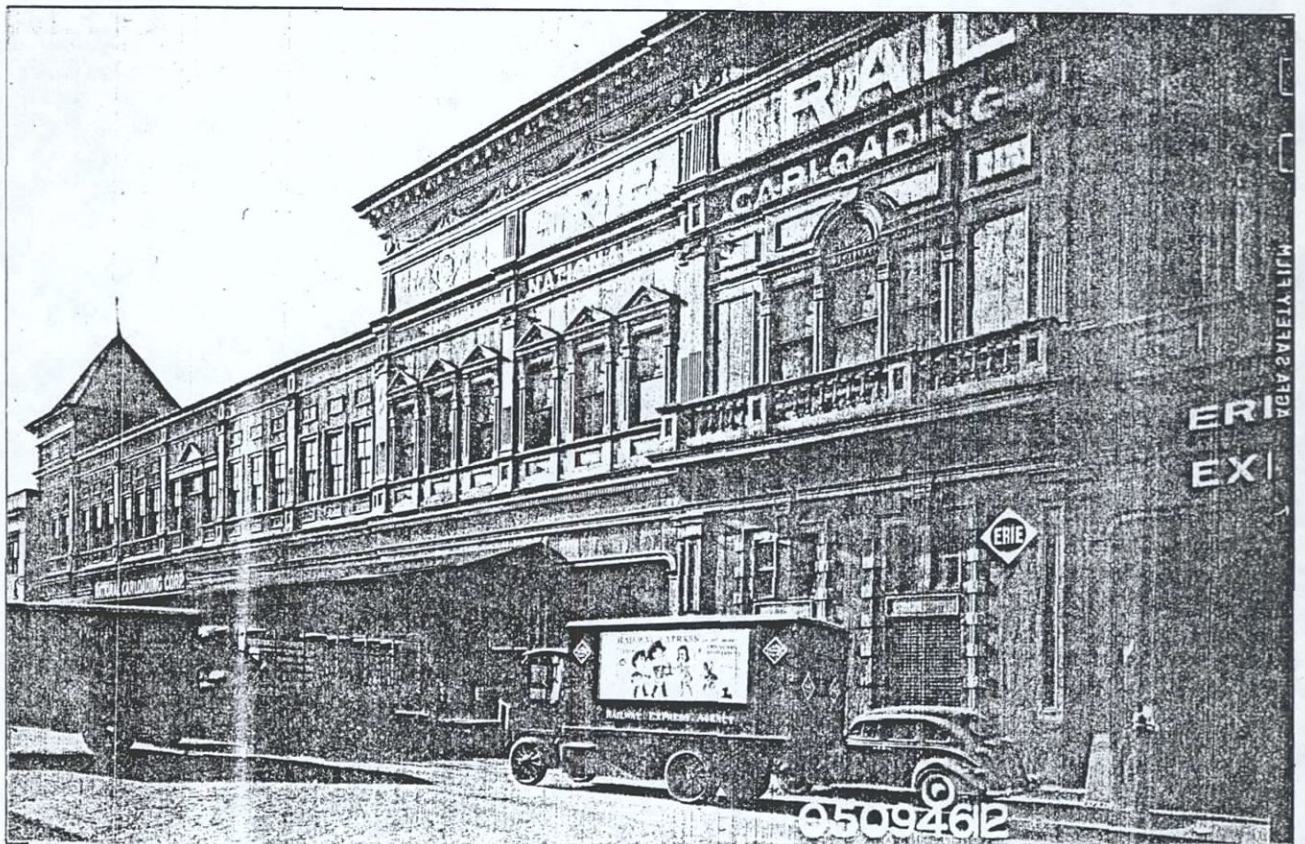
reclamation along both the shore of the East and Hudson Rivers (Figure 6-14). Records of the Common Council also documented landfilling as it occurred. In order for landfill itself to be considered worthy of subsurface archeological investigation, the deposition must be tied into a specific filling episode by a group or individual, such as a manufacturer discarding waste materials from the production process. Thus, if the resources are *in situ*, specific information can be gathered regarding manufacturing process or an individual's lifeways. If deposition is simply the collection of trash from an undesignated area, together with materials excavated elsewhere and debris from disasters, the information that can be acquired in such a context is minimal. In addition, since this section was filled at a later time, there is probably no sensitivity for sunken ships to exist within the landfill.

Although the contents of landfill may not contribute to our knowledge of early historical lifeways and neighborhood development, the retaining devices designed to create fast land varied technologically and may be considered potentially sensitive. Undoubtedly construction techniques changed through time as new materials and methods were adopted. While these types of features are rarely documented cartographically, areas which experienced filling may be sensitive for these types of remains.

In addition, one particular feature which may exist in the fill, sunken ships, is considered to be important. Ships left to decay along the shoreline sometimes sank, adding to the landfill. Between Harrison Street and West 18th Street, at least one ship sank and there is no documentary record of its subsequent removal. In 1812, a sunken vessel lay for over a year at the Canal Street pier. It is uncertain, at this point, whether this ship was regarded as a nuisance and removed or left where it sank (Rutsch et al. 1983:135). Landfill in this area, according to the cartographic record, dates to between 1817 and 1824. It is quite possible that the ship was left at the bottom of the river to contribute to the process of landfilling.

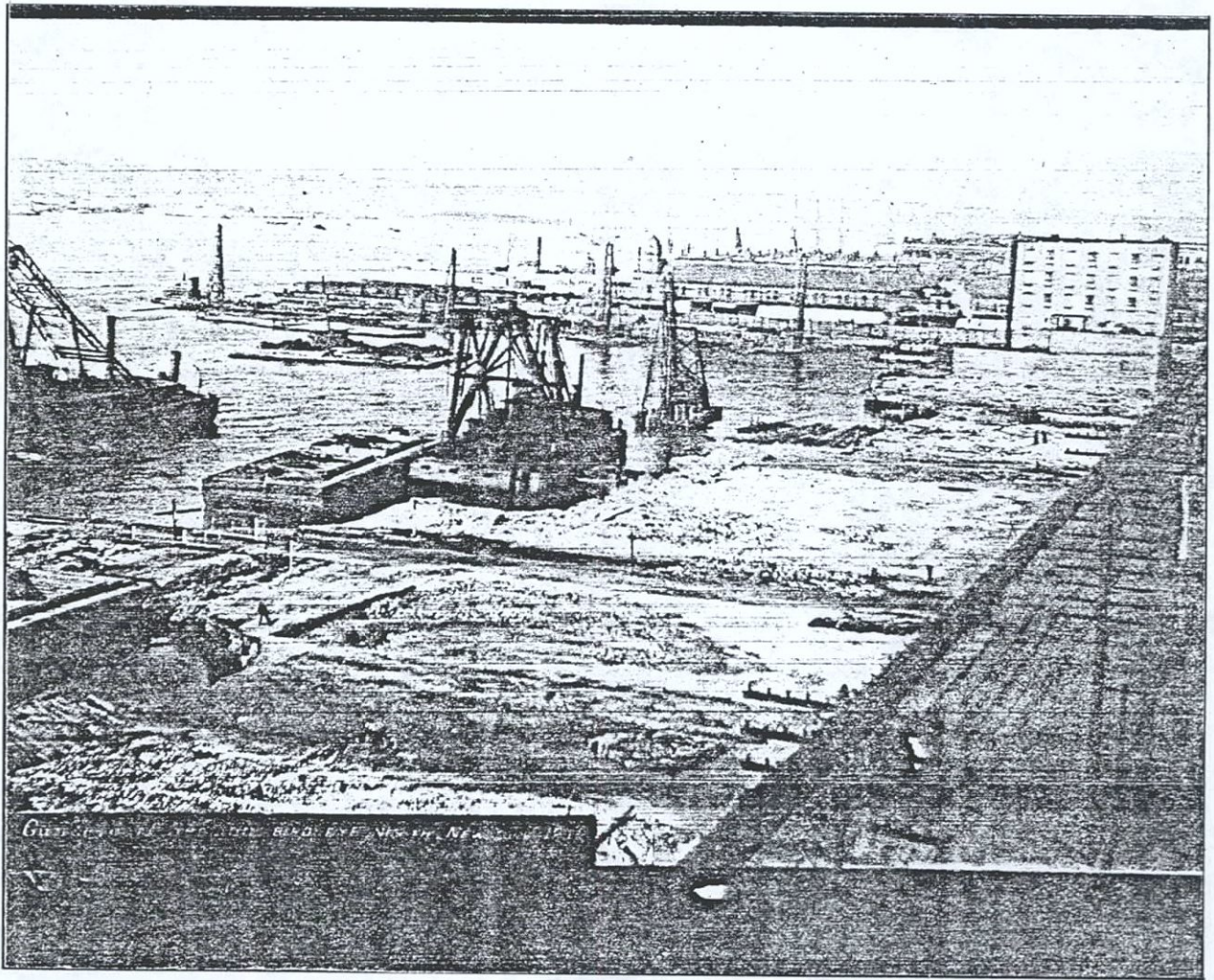
Other

Between West 15th and West 16th Streets, a well and cistern were present on Lots 1486 and 1515 in 1859, but do not appear on later maps. These were associated with cow stables located on the block at the time.



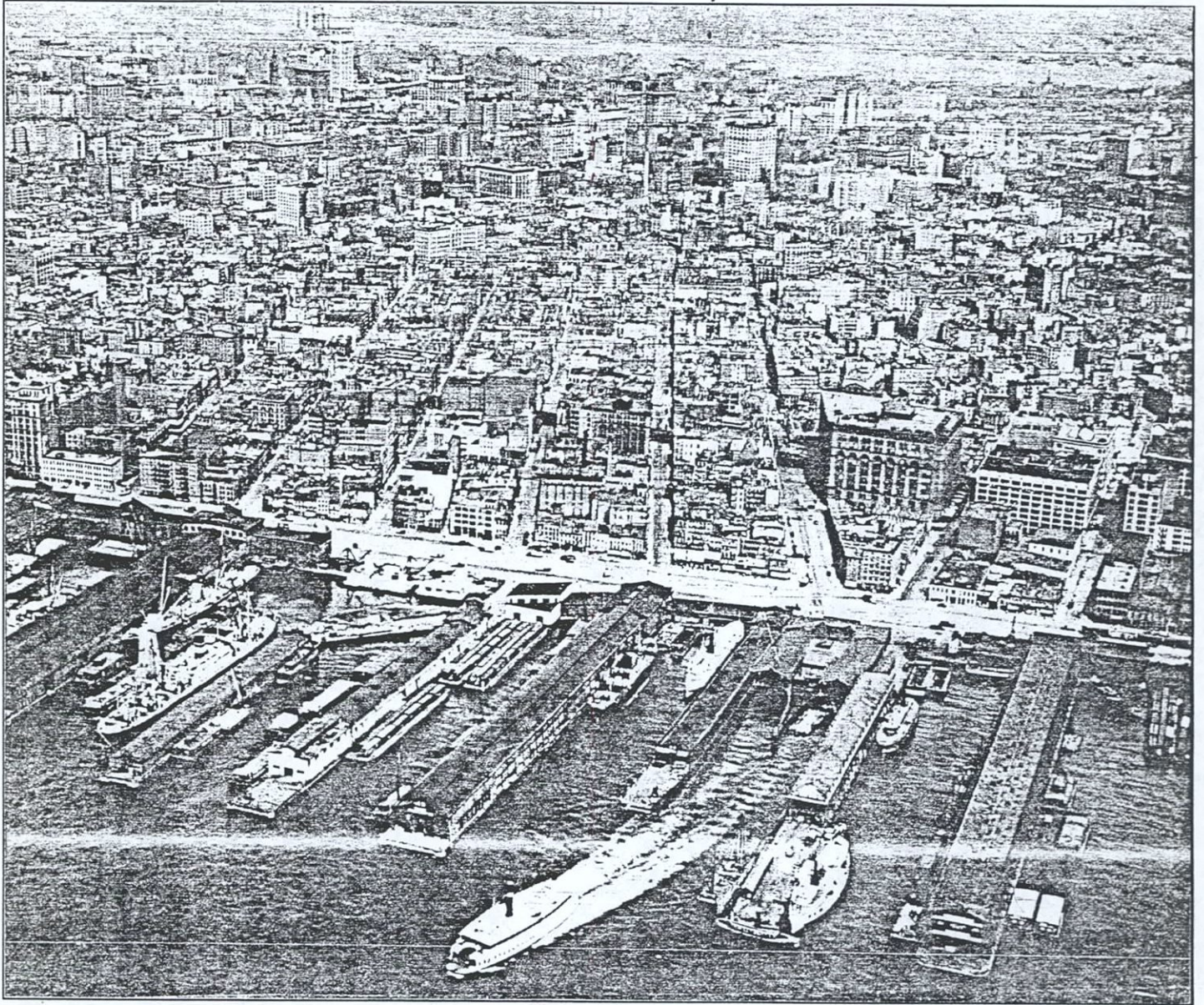
ROUTE 9A RECONSTRUCTION PROJECT

Examples of Chelsea Piersheds



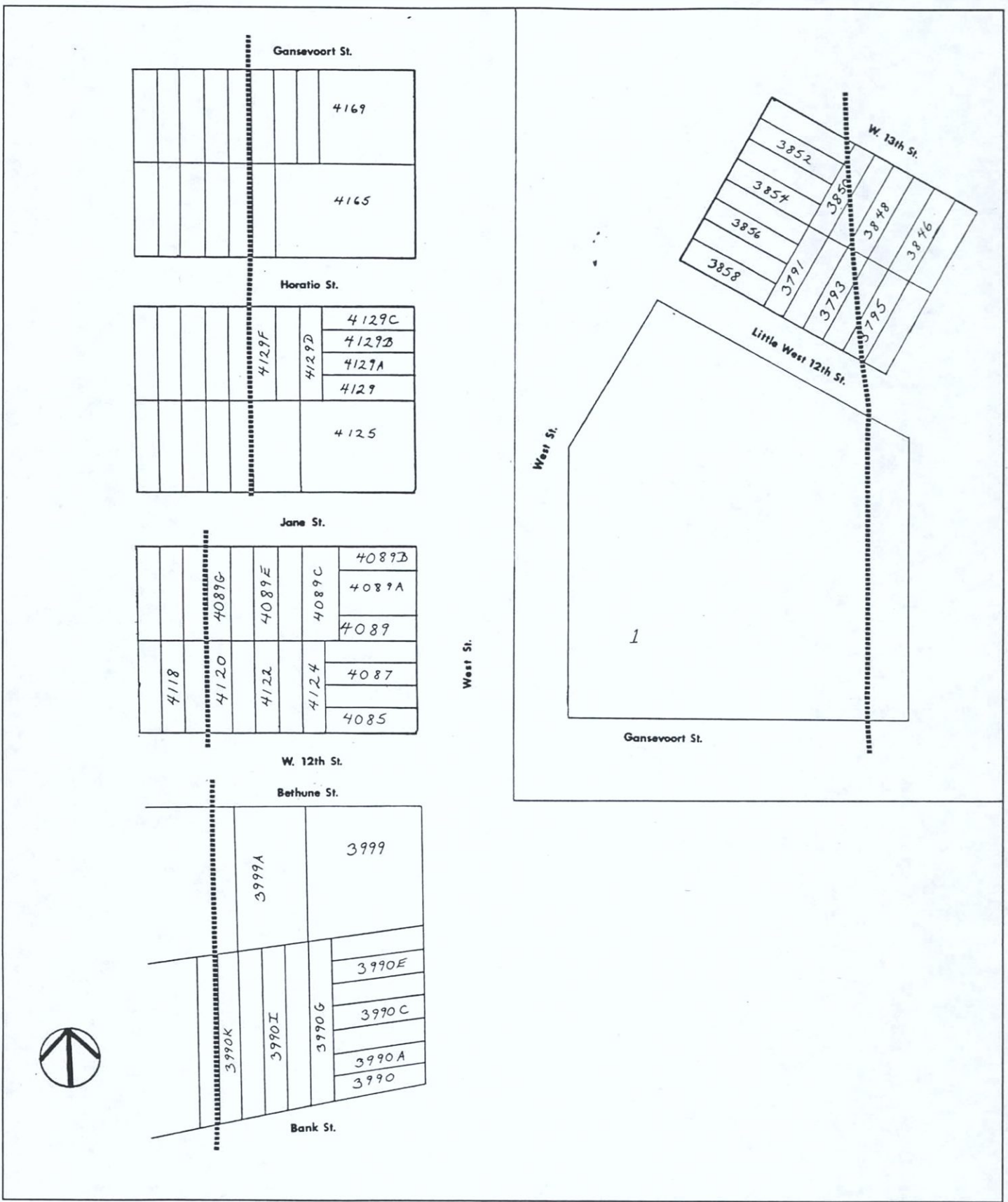
ROUTE 9A RECONSTRUCTION PROJECT

Fill Removal During Construction of Chelsea Piers, 1898
Courtesy of the South Street Seaport Herman Melville Library



ROUTE 9A RECONSTRUCTION PROJECT

Aerial View of the Study Area in 1924
From Bethune Street to Morton Street
Courtesy of the South Street Seaport Herman Melville Library



ROUTE 9A RECONSTRUCTION PROJECT

Legend

----- Approximate Boundary of Study Area

Schematic Lot Configuration for the Chelsea Piers Area
According to the 1879 Bromley Atlas

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Figure 6-4A

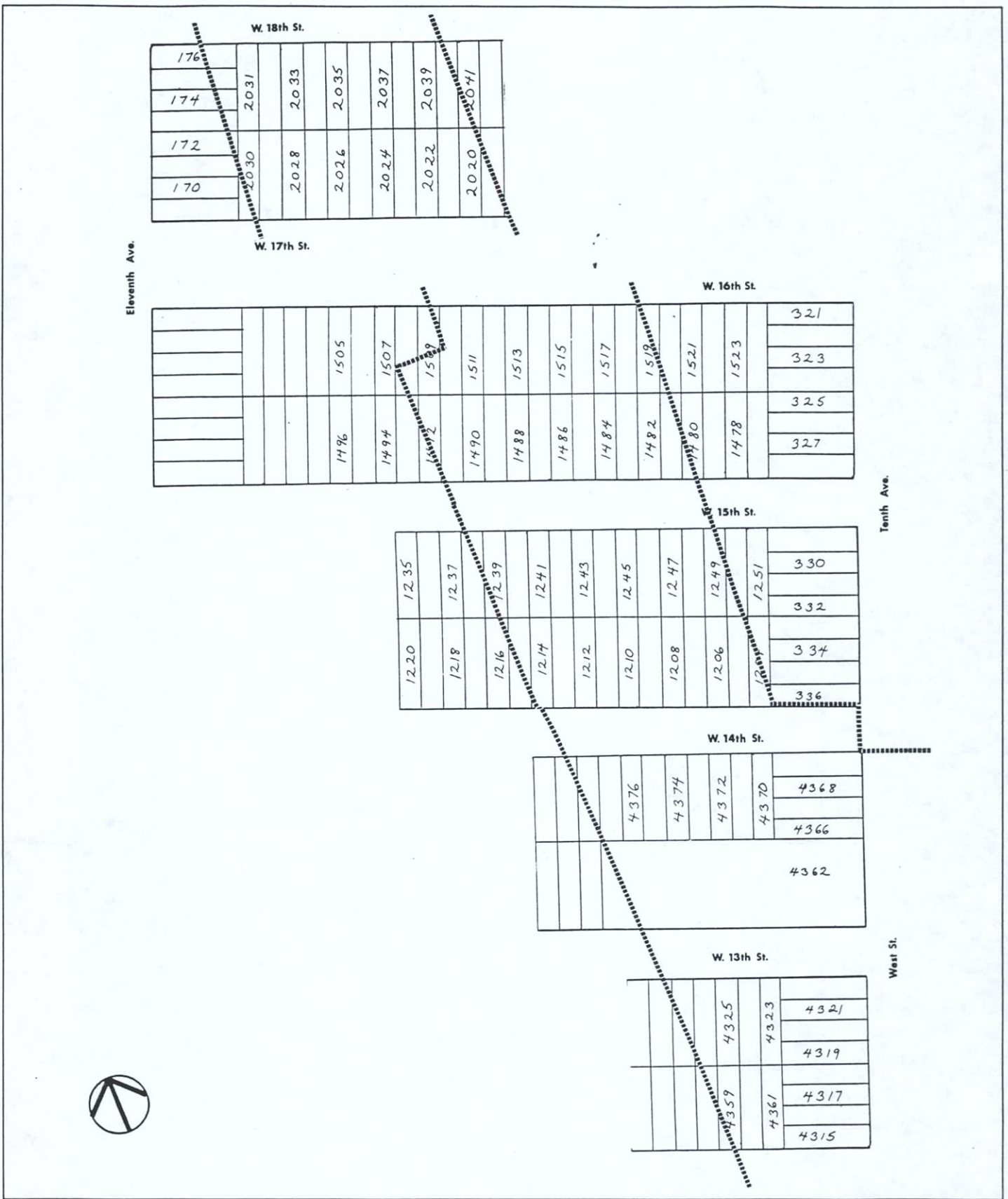
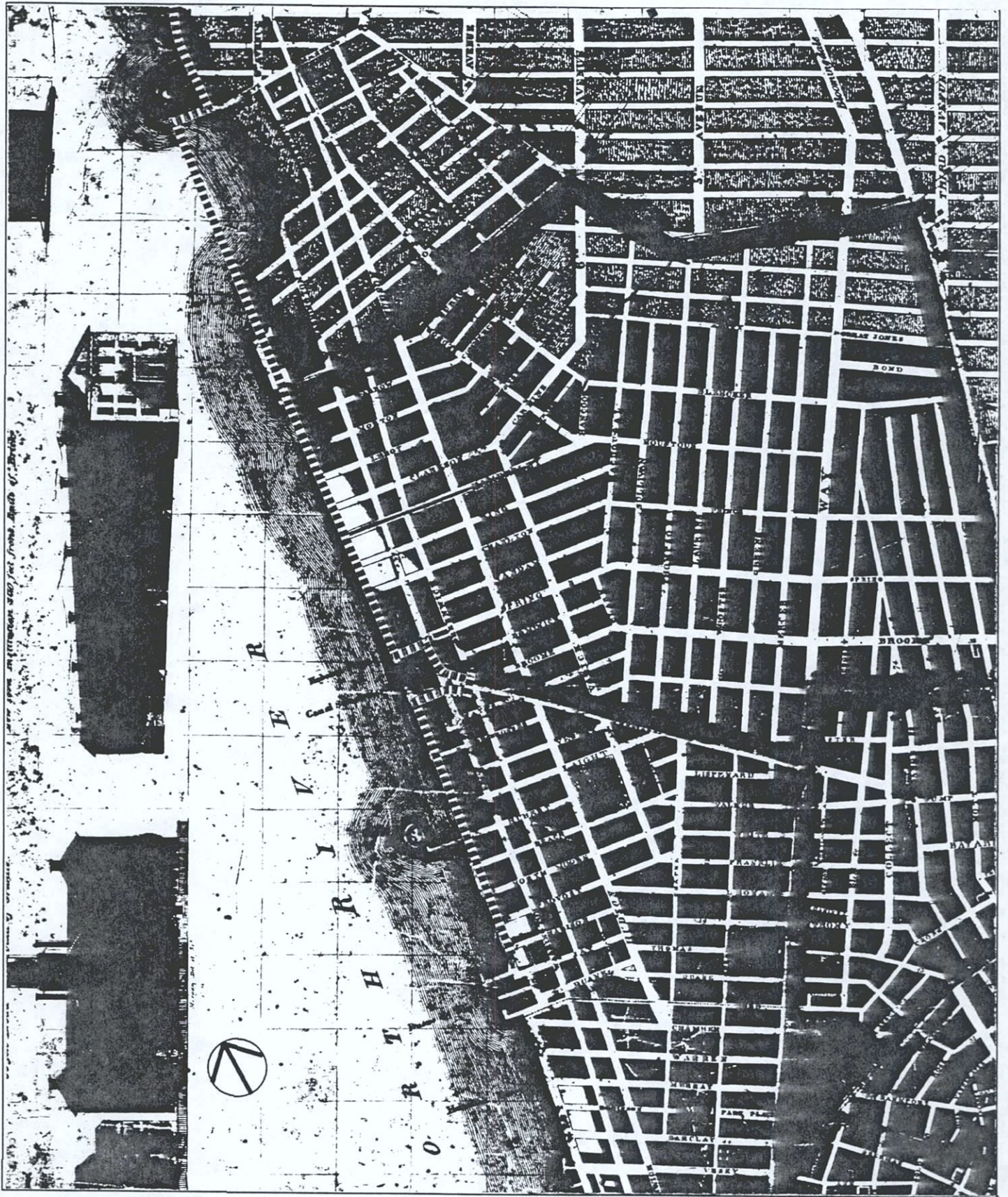


Figure 6-4B

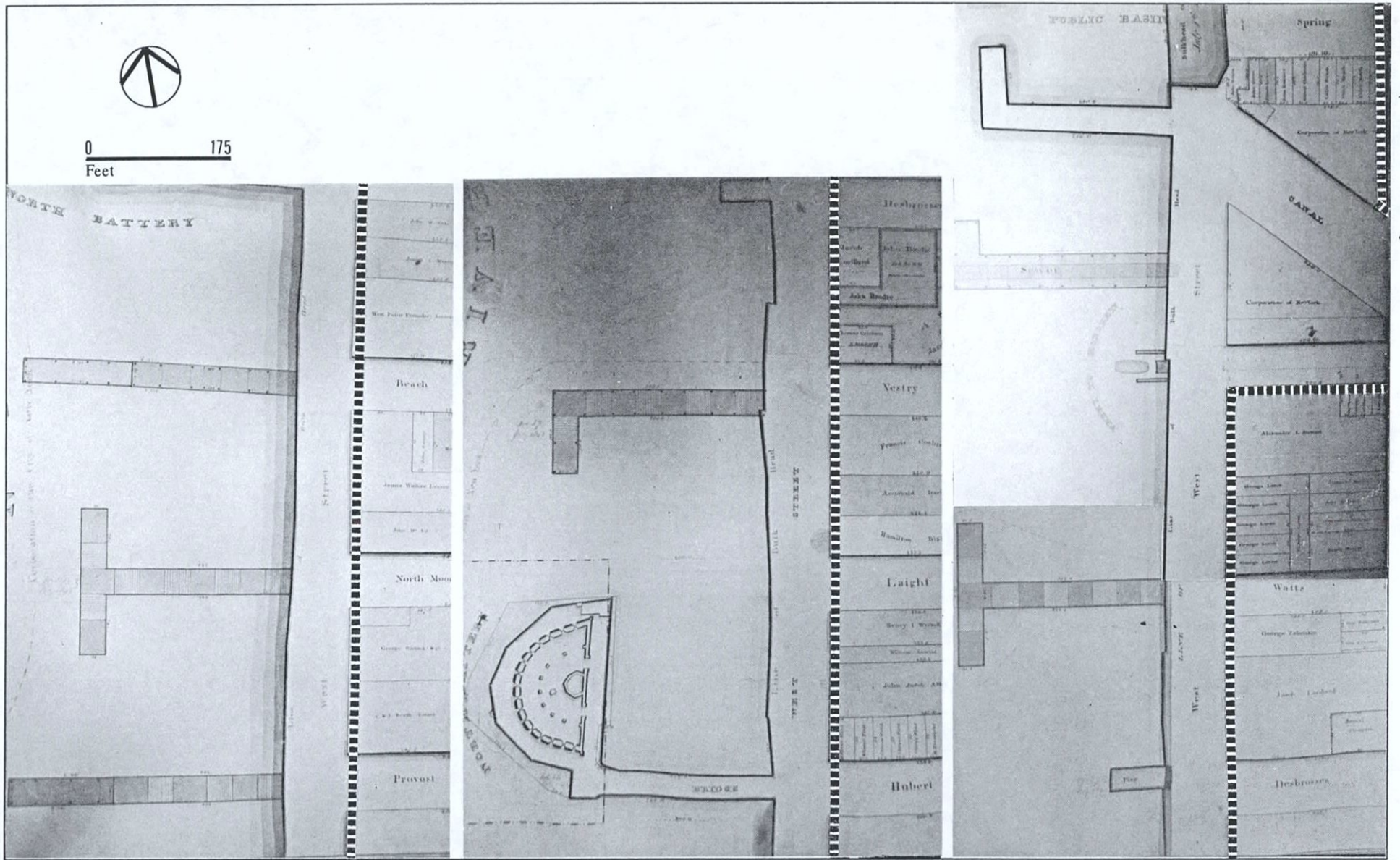


Legend

■■■■■ Approximate Eastern Boundary of Study Area
(No Scale)

1817 Longworth Actual Map and Comparative Plan
of New York

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Legend

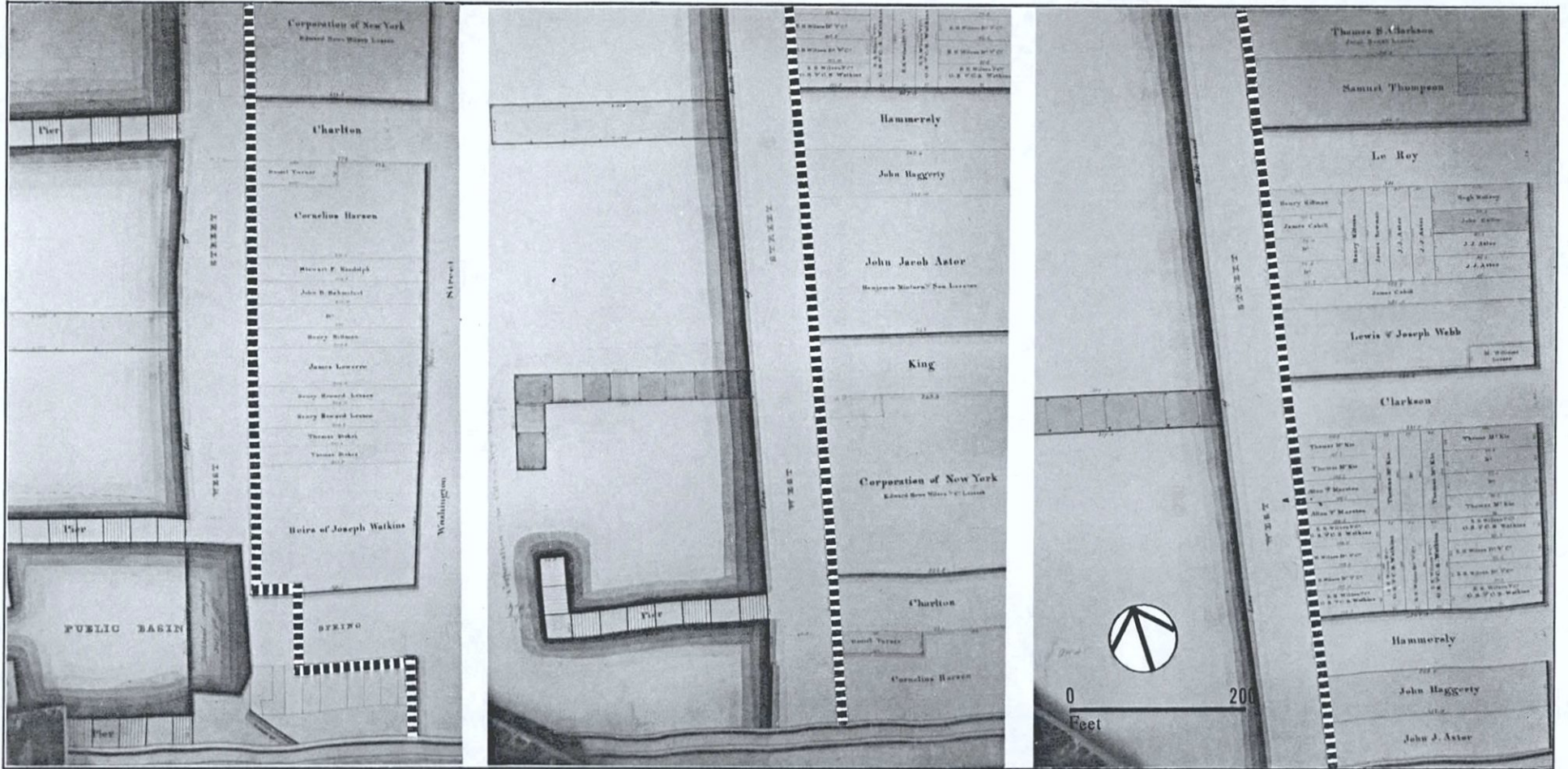
----- Approximate Eastern Boundary of Study Area

ROUTE 9A RECONSTRUCTION PROJECT

1827-1830 Ewen Maps and Surveys of the City of New York
Courtesy of the Manhattan Borough Presidents Office

Figure 6-6A

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ROUTE 9A RECONSTRUCTION PROJECT

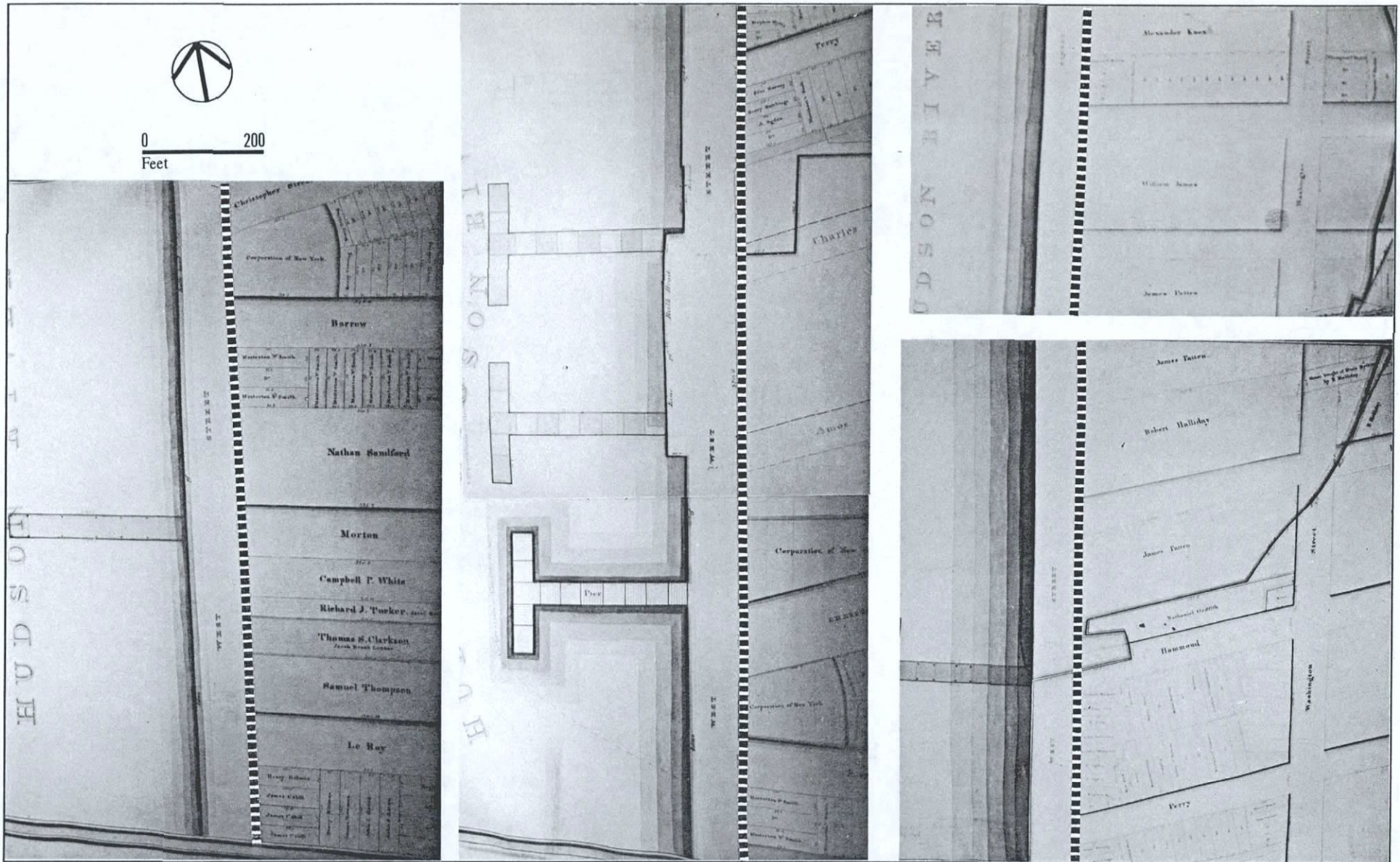
Legend

■■■■■■ Approximate Eastern Boundary of Study Area

1827-1830 Ewen Maps and Surveys of the City of New York
Courtesy of the Manhattan Borough Presidents Office

Figure 6-6B

VI-153



Legend

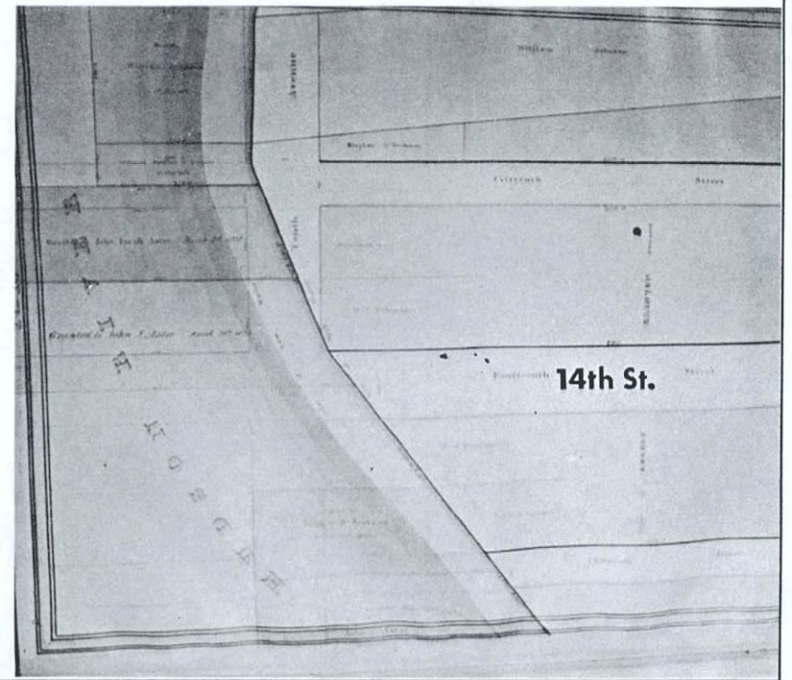
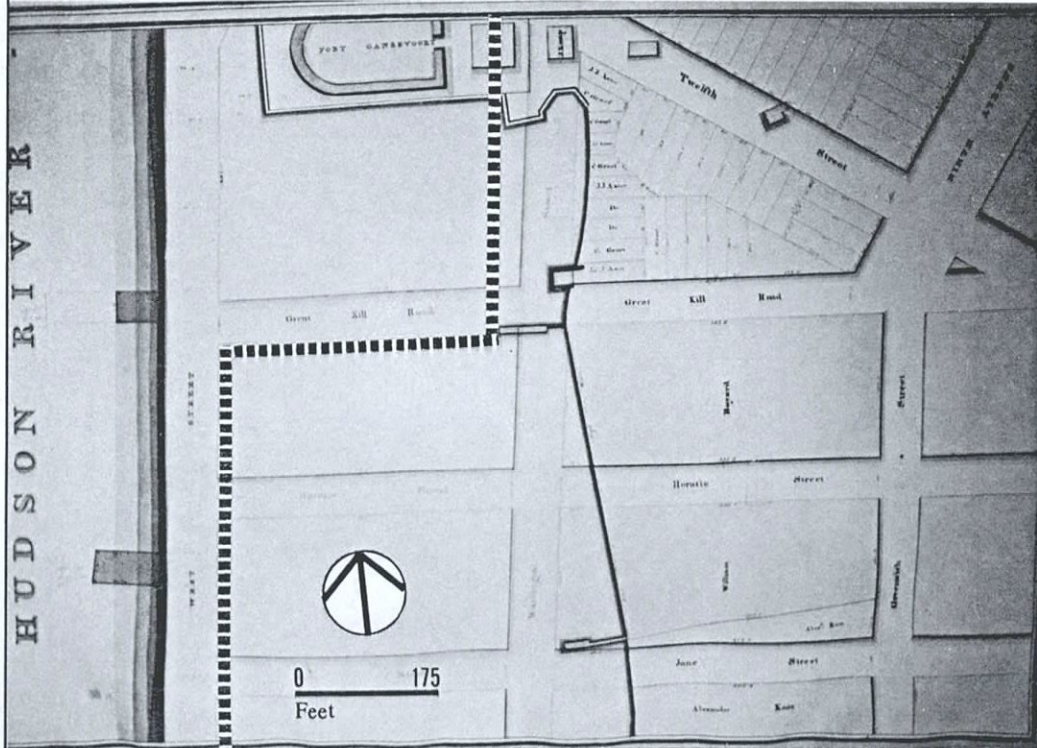
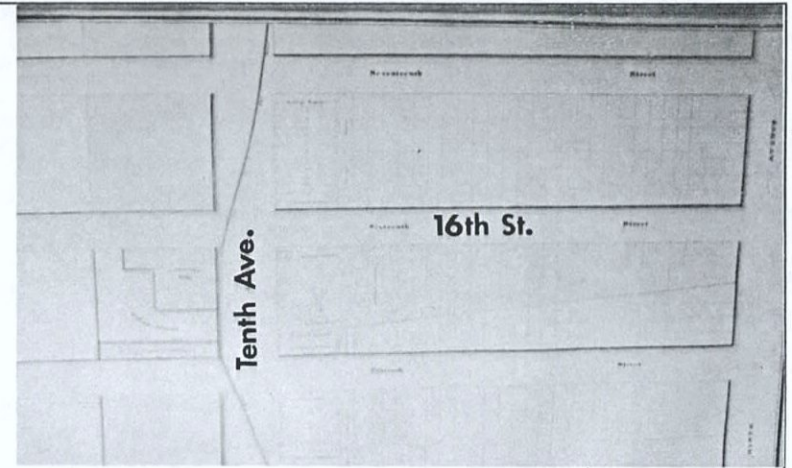
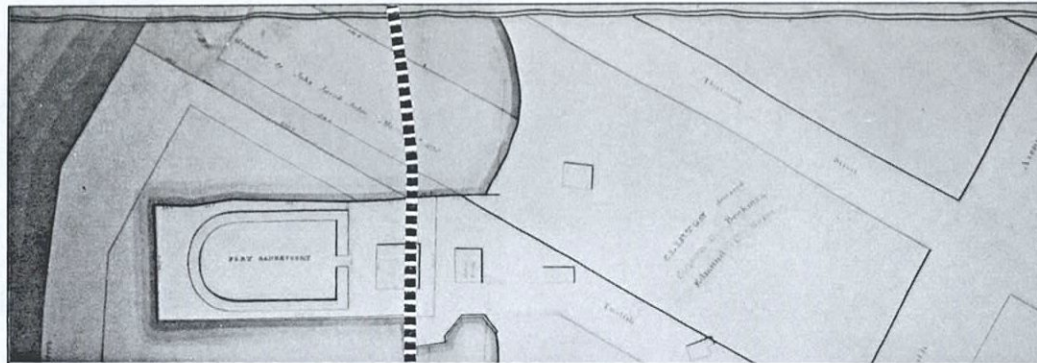
----- Approximate Eastern Boundary of Study Area

ROUTE 9A RECONSTRUCTION PROJECT

1827-1830 Ewen Maps and Surveys of the City of New York
Courtesy of the Manhattan Borough Presidents Office

Figure 6-6C

VI-154



ROUTE 9A RECONSTRUCTION PROJECT

Legend

■■■■■ Approximate Eastern Boundary of Study Area
(West of Shoreline from 13th to 18th Streets)

1827-1830 Ewen Maps and Surveys of the City of New York
Courtesy of the Manhattan Borough Presidents Office

Figure 6-6D

the Spike of the City Hall Bell, indicates Five in the 1st District, Two in the 2nd Do. Three in the 3rd Do. A continual ringing 5th Do. Hydrants. (Cisterns.)

Hookers
NEW POCKET PLAN OF THE CITY
 OF
NEW YORK.
 COMPILED & SURVEYED
 — BY —
WILLIAM HOOKER,
 Engraver.



NEW-YORK:

HOOKER & BENTON's Retail at the Nautical Store of
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1838.9. No. 76

Raynor's 1839

SOLD ALSO BY J. A. BULL, J. G. VAN ALLEN, J. R. JANSEN, M. BANCROFT, R. T. ANSTINE, D. FELT, G. W. POLSON, W. LEUGER, W. MINNIN'S & CO., A. D. CAMP & CO., M. ELLIOTT, P. H. HILL, J. M. CAKAVILL, J. STANLEY & CO., J. TOTTEN, H. BARRETT, RAYNOR, R. LOCKWOOD, J. TREL, G. LONG, E. BLISS, W. S. GEORGE, M. D. AT, J. E. SIBELL, J. E. LAVITT, W. COOLIDGE & CO., J. K. MOORE, J. DUFFLETON & CO., COLLINS, J. P. MESIER, E. S. MESIER, T. CROWEN, J. C. BROWN, J. D. BEHR, T. SCULF, G. R. LIVING, W. HINTON, COOLIDGE & LAMBERT, 57 Wall St. J. THY, C. SMALL, RICHES & LOUUREL, J. H. G. LANGLEY, HENDERSON GREENE, T. W. B. FRANCES, FRANCIS WINDSOR, S. VALENTINE, J. W. H. B. P. S. HEHEMAN & Co. York & Boston.

PLACES OF PUBLIC WORSHIP.
 Protestant Churches.
 Episcopalian.
 Congregational.
 Baptist.
 Methodist.
 Presbyterian.
 Lutheran.
 Catholic.
 Greek Catholic.
 Russian.
 Jewish.
 Moslem.
 Quaker.
 Unitarian.
 Universalist.
 Salvation Army.
 Spiritualist.
 Various other religious societies.



ROUTE 9A RECONSTRUCTION PROJECT

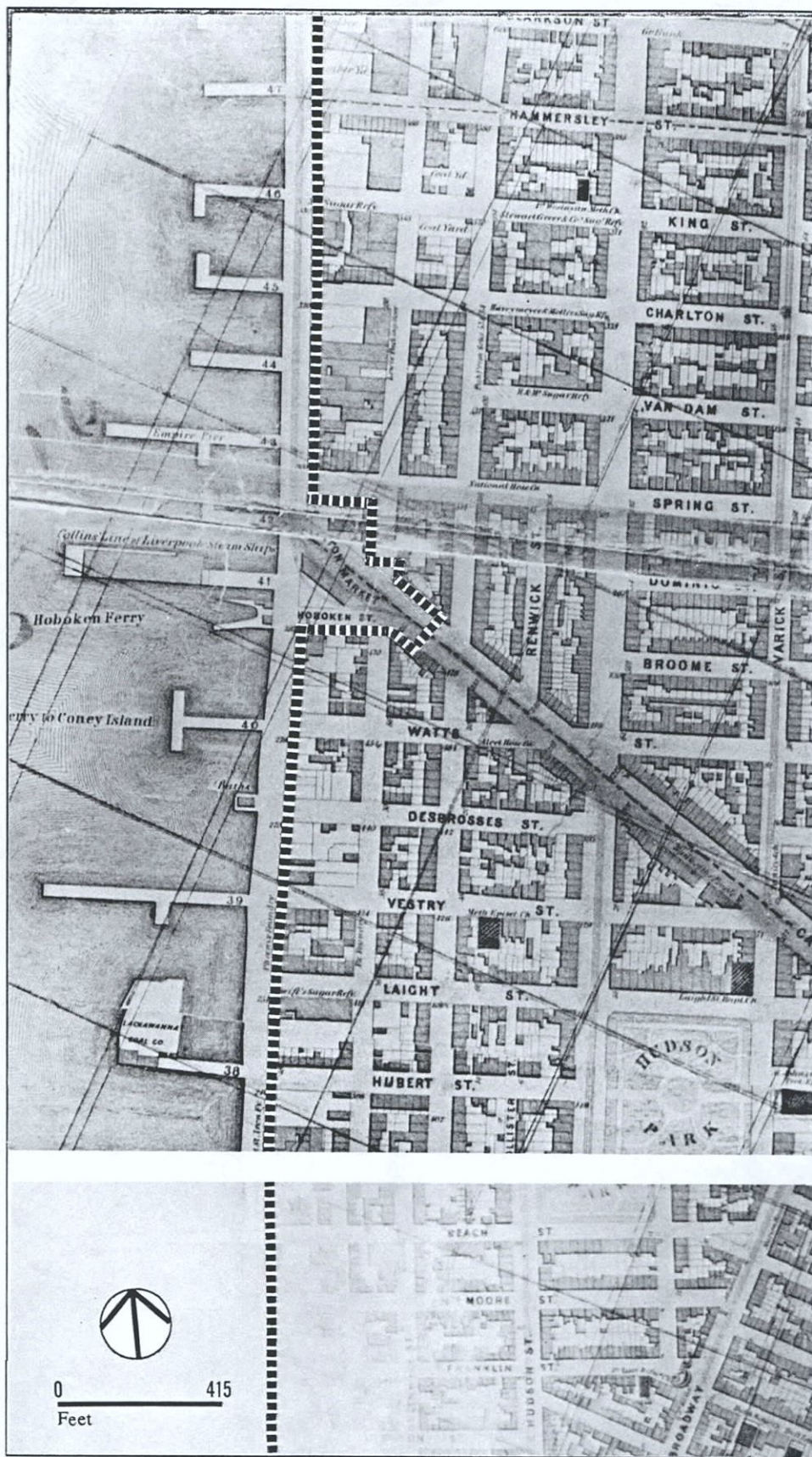
Legend

█ Approximate Eastern Boundary of Study Area
(No Scale)

1838-1839 Hooker Pocket Plan of the City of New York

VI-155

Figure 6-7



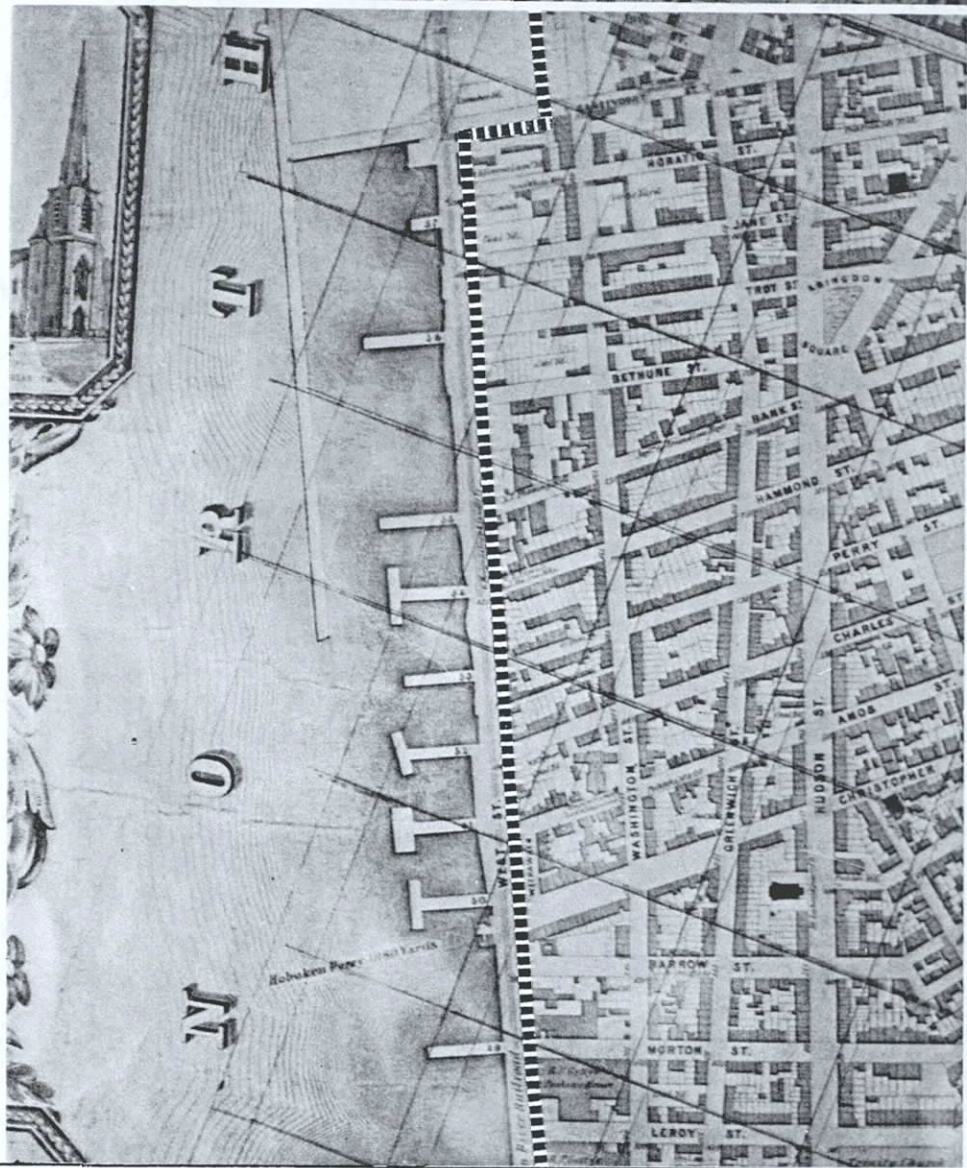
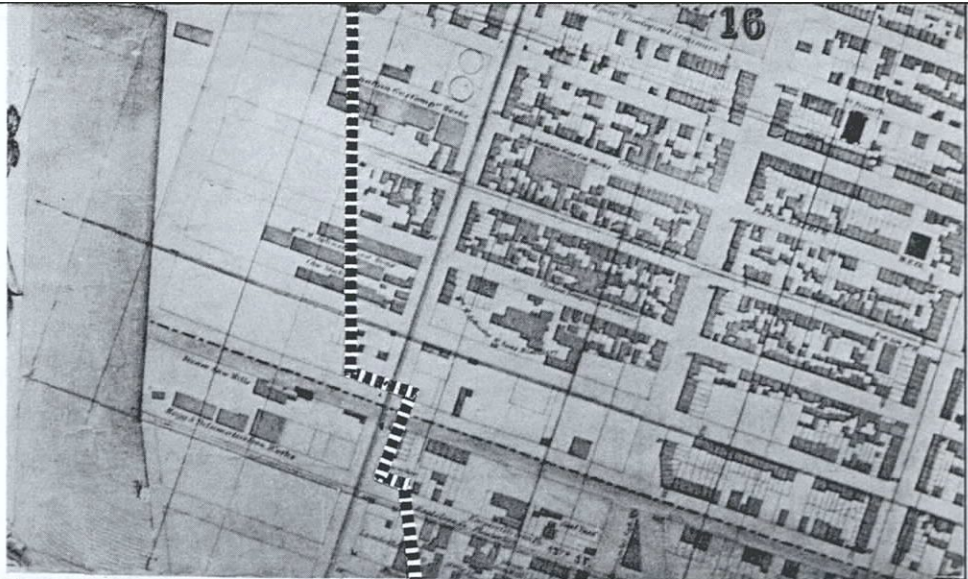
ROUTE 9A RECONSTRUCTION PROJECT

Legend

----- Approximate Eastern
Boundary of Study Area

1852 Dripps Map of the City of New York
Extending Northward to West 50th Street
VI-156

Figure 6-8A



0 530
Feet

ROUTE 9A RECONSTRUCTION PROJECT

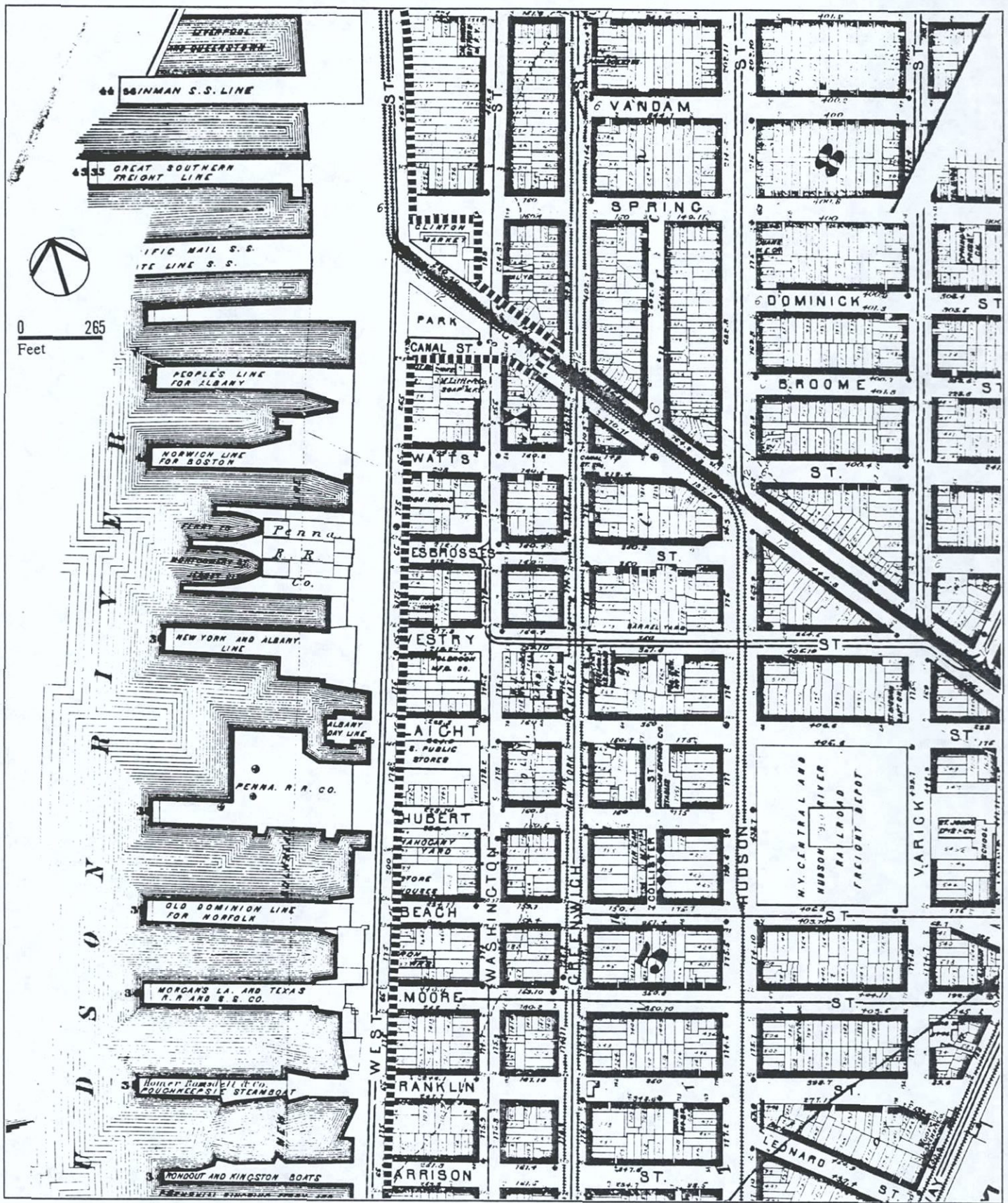
Legend

----- Approximate Eastern Boundary of Study Area

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

VI-157

Figure 6-8B



ROUTE 9A RECONSTRUCTION PROJECT

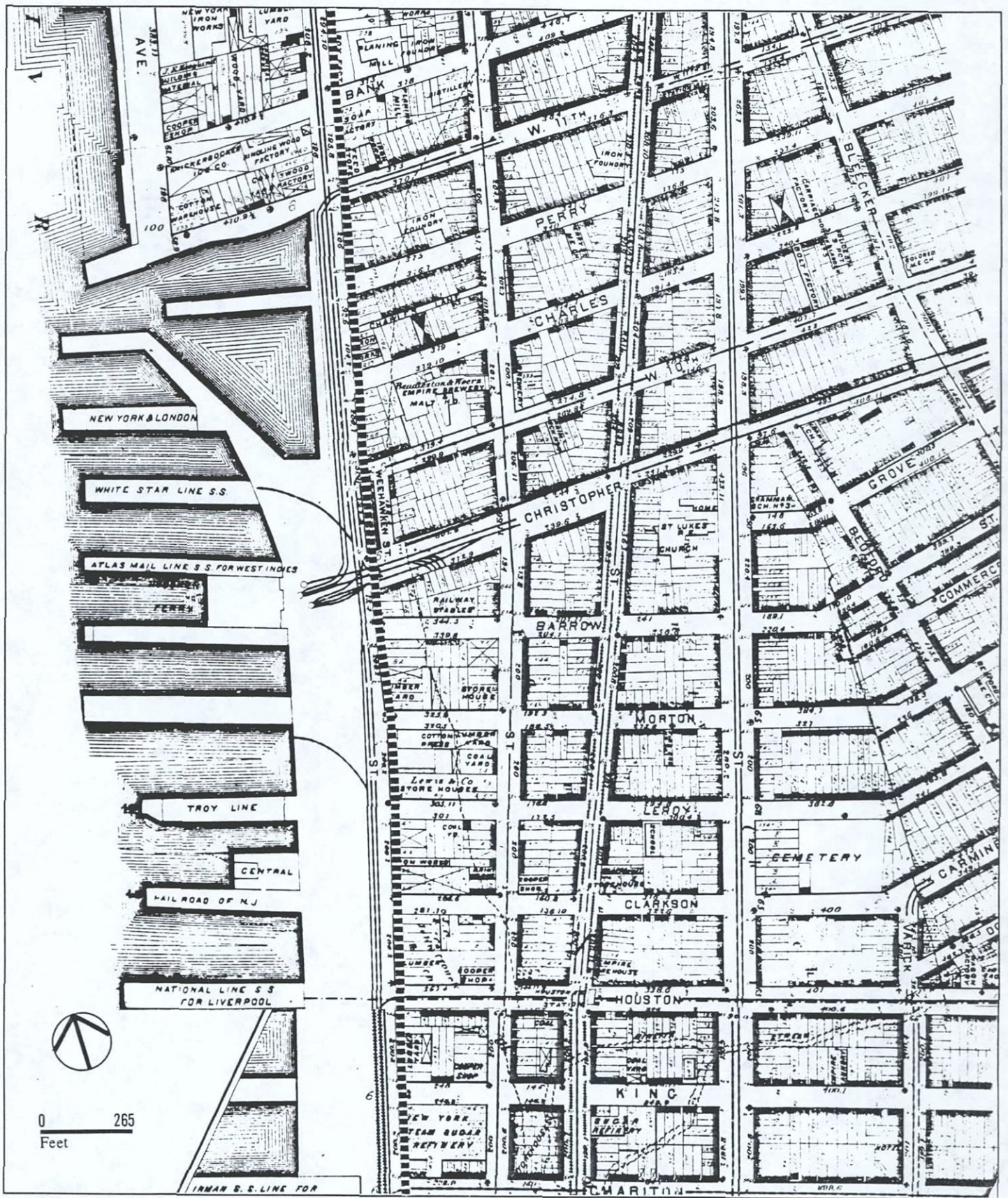
Legend

■■■■■■ Approximate Eastern Boundary of Study Area

1879 Bromley Atlas of the City of New York

VI-158

Figure 6-9A



ROUTE 9A RECONSTRUCTION PROJECT

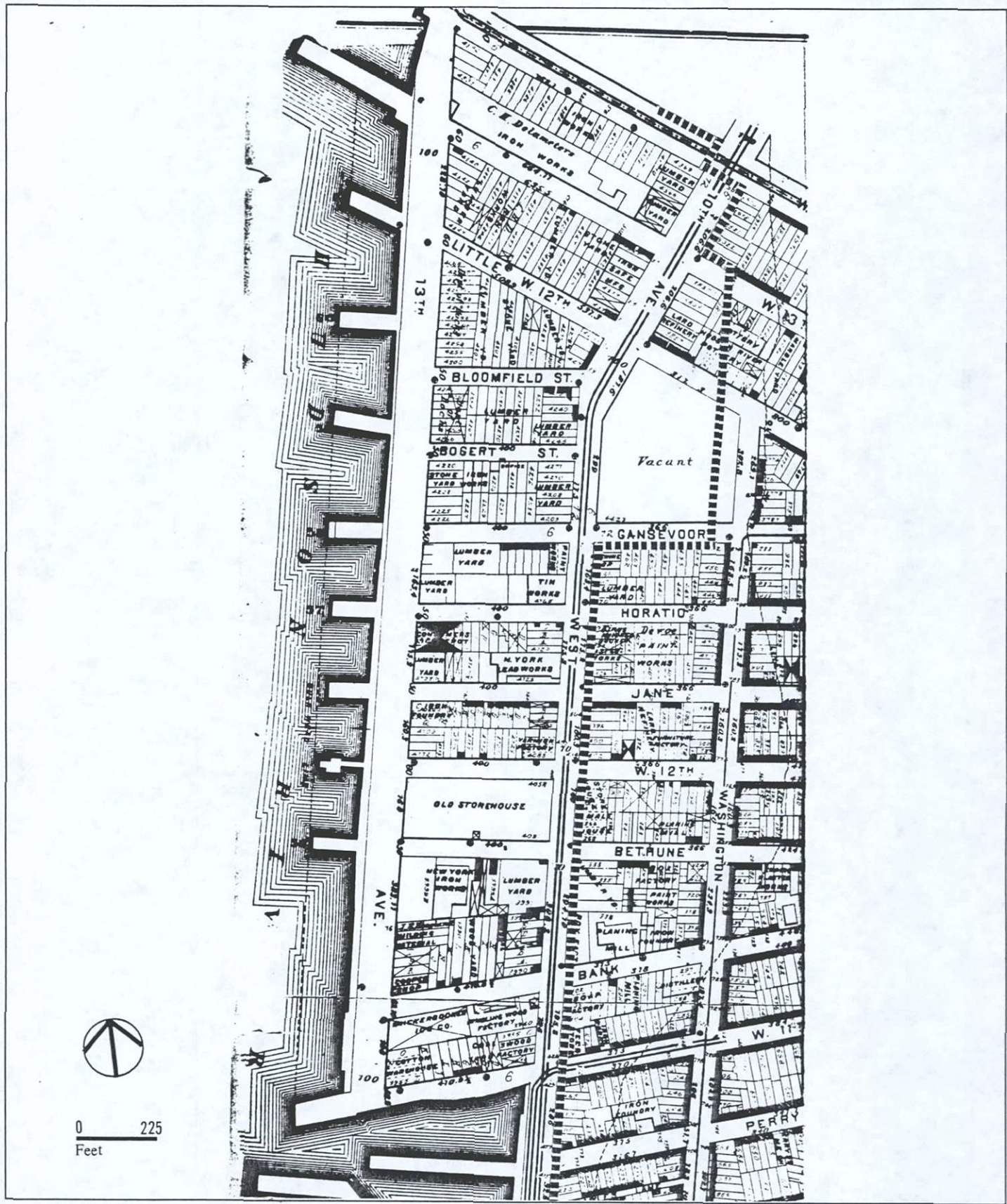
Legend

■■■■■ Approximate Eastern Boundary of Study Area

1879 Bromley Atlas of the City of New York

VI-159

Figure 6-9B



ROUTE 9A RECONSTRUCTION PROJECT

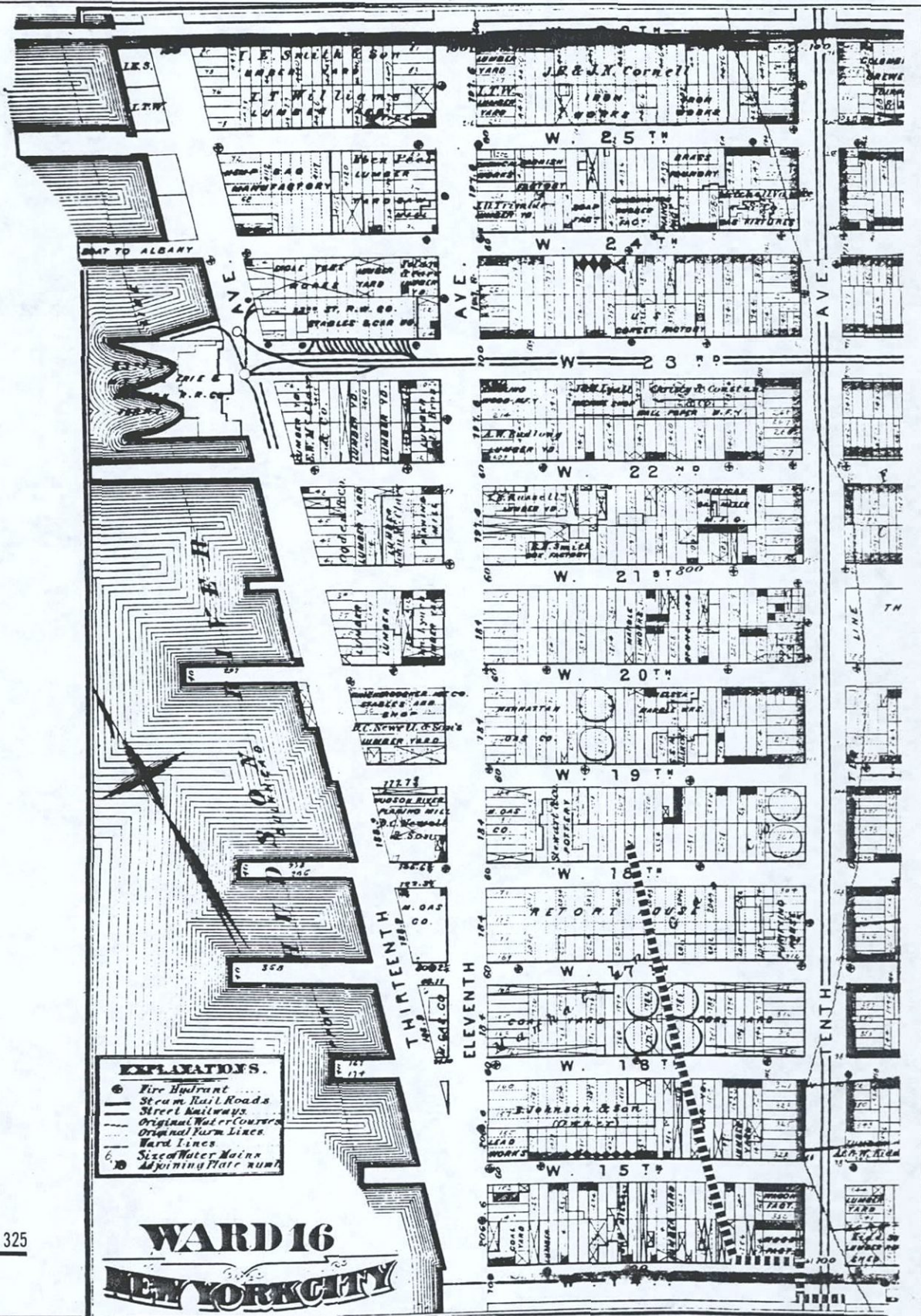
Legend

■■■■■ Approximate Eastern Boundary of Study Area

1879 Bromley Atlas of the City of New York

VI-160

Figure 6-9C



ROUTE 9A RECONSTRUCTION PROJECT

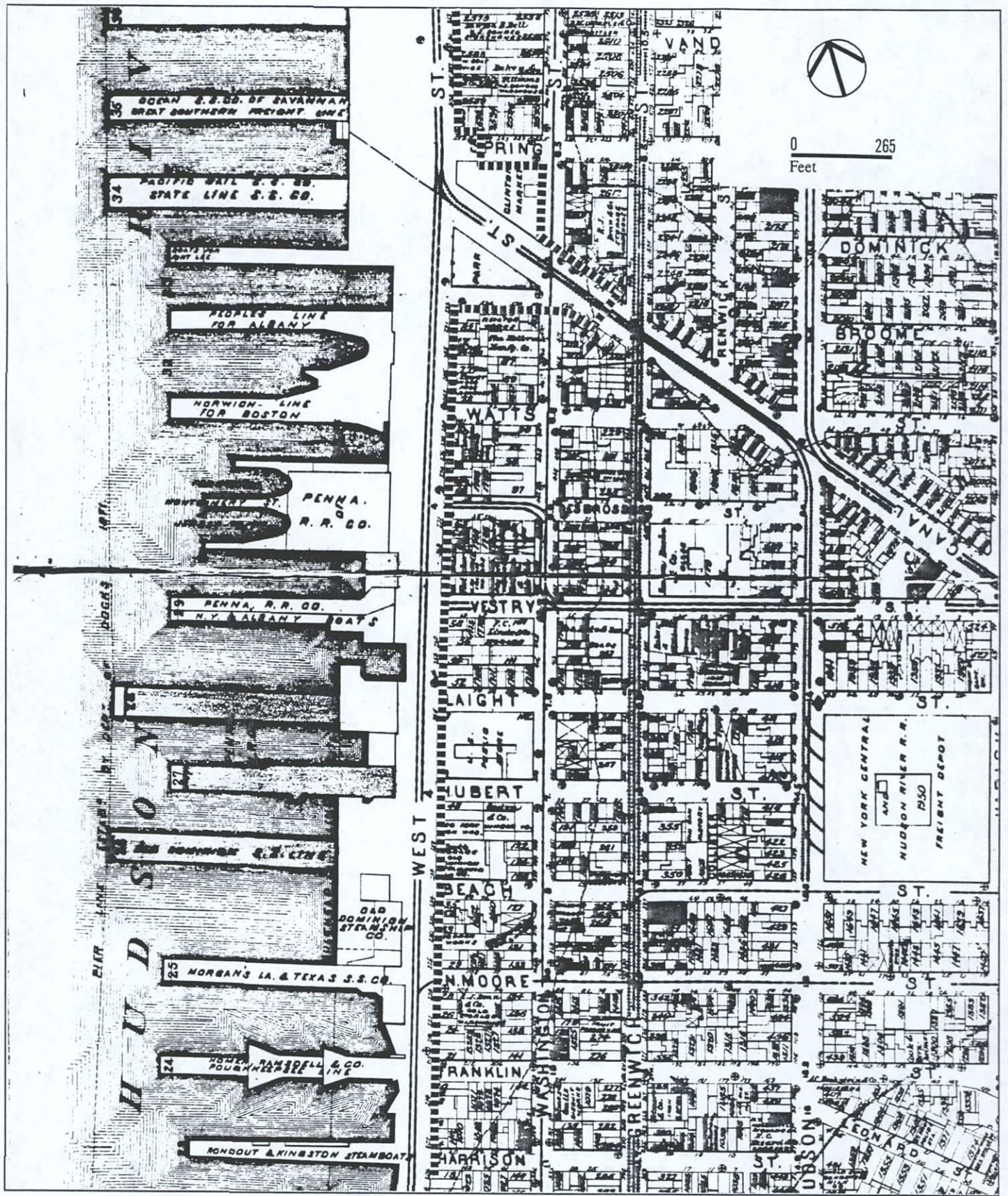
Legend

■■■■■■ Approximate Eastern Boundary of Study Area

1879 Bromley Atlas of the City of New York

VI-161

Figure 6-9D



ROUTE 9A RECONSTRUCTION PROJECT

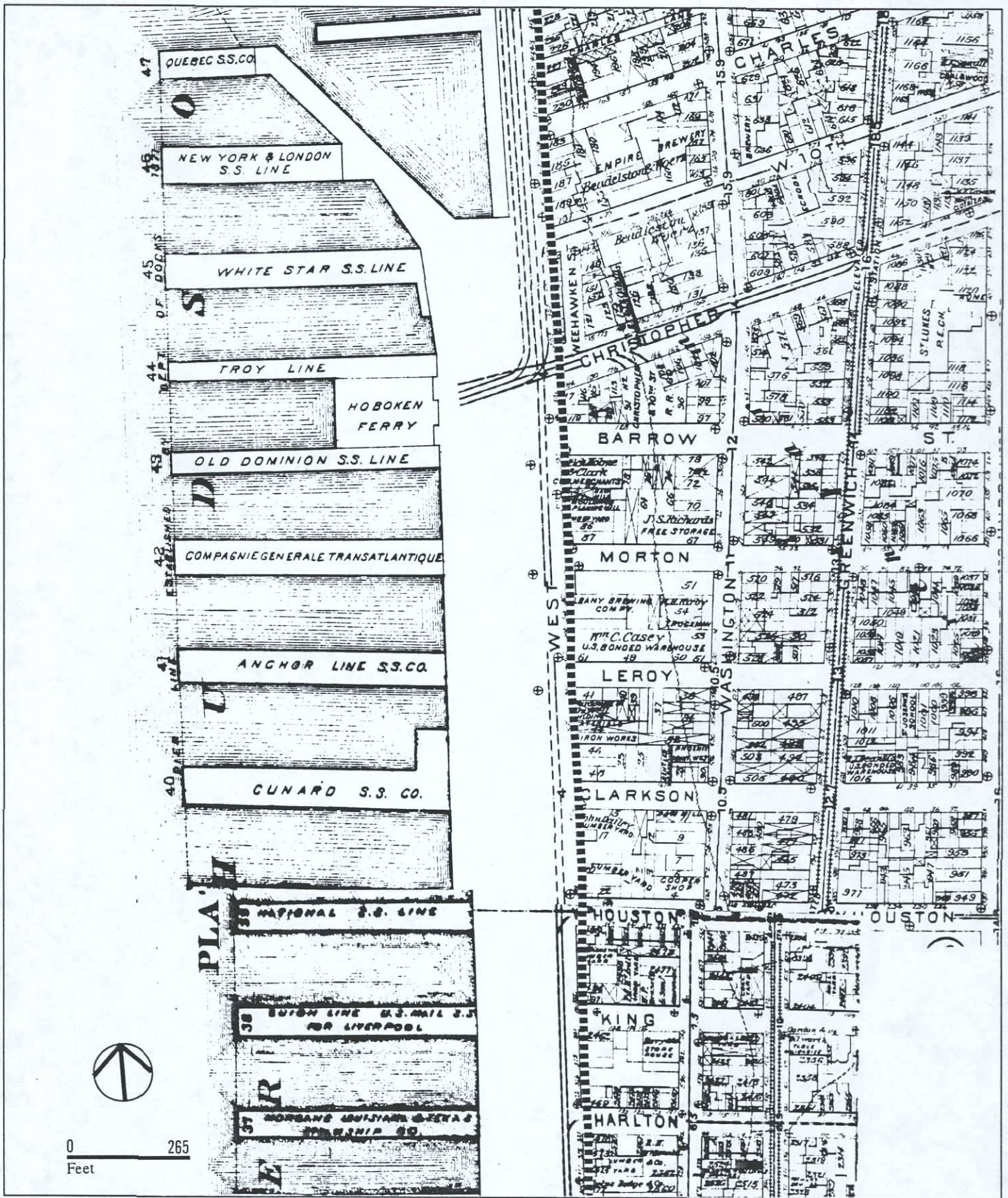
Legend

■■■■■ Approximate Eastern Boundary of Study Area

1885 Robinson Atlas of the City of New York

VI-162

Figure 6-10A



ROUTE 9A RECONSTRUCTION PROJECT

Legend

----- Approximate Eastern Boundary of Study Area

1885 Robinson Atlas of the City of New York

VI-163

Figure 6-10B

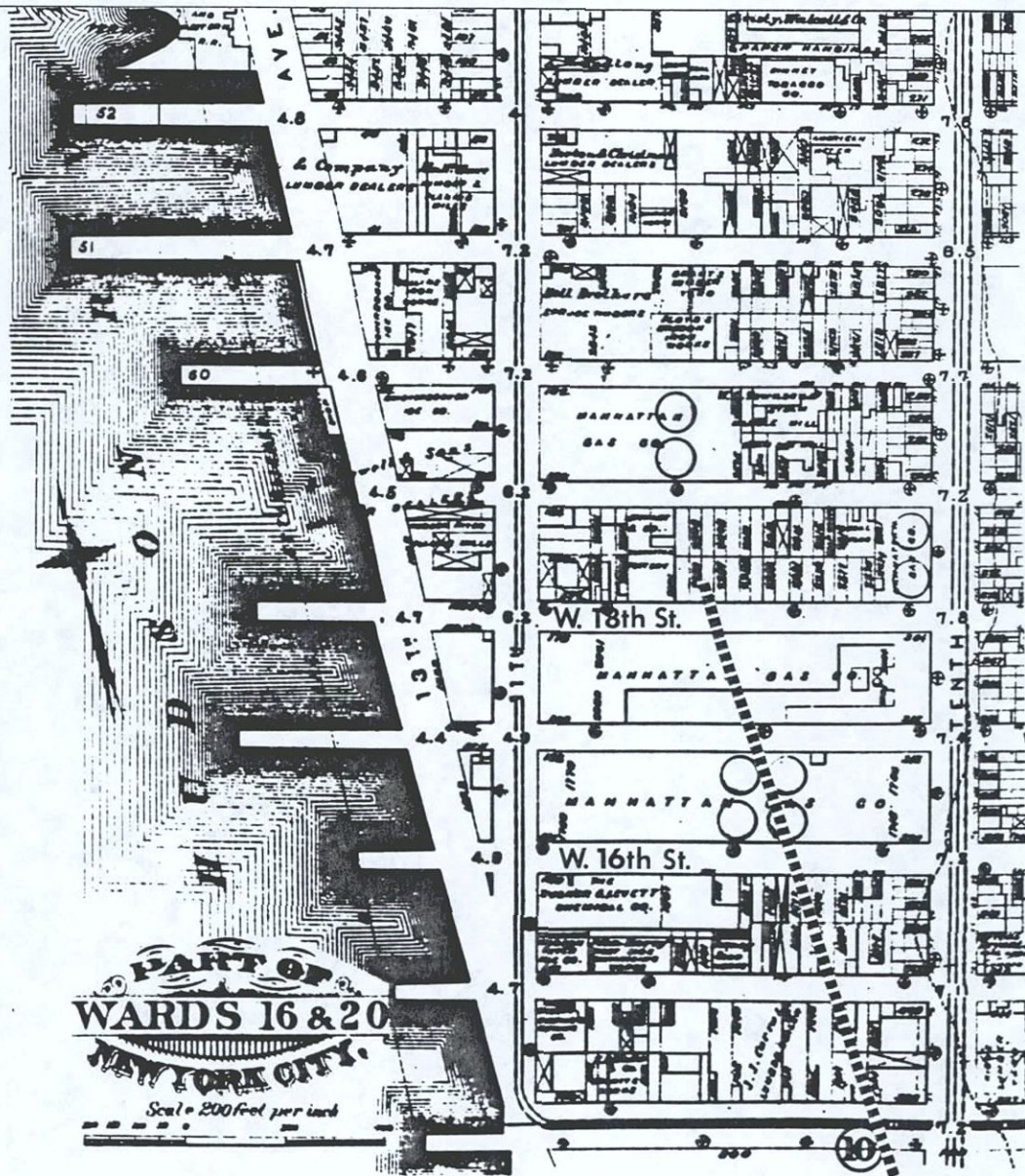


ROUTE 9A RECONSTRUCTION PROJECT

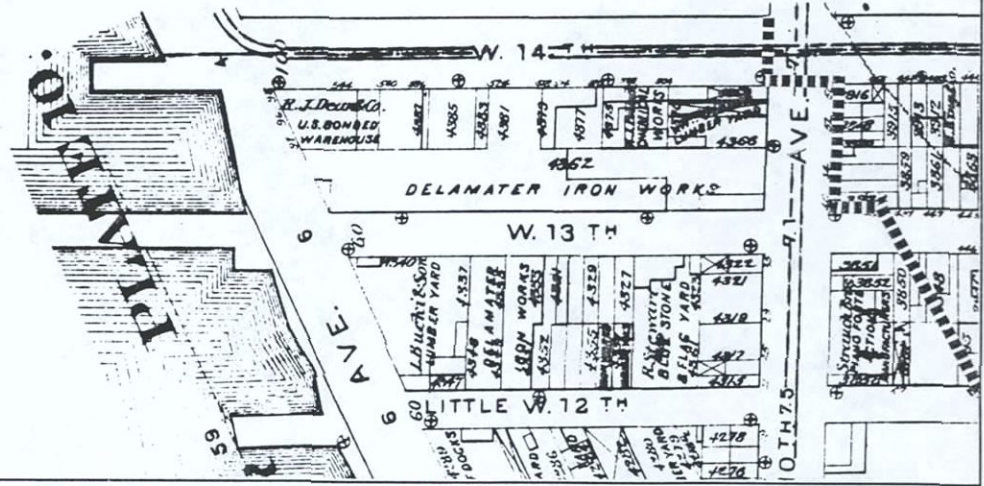
Legend

■■■■■ Approximate Eastern Boundary of Study Area

1885 Robinson Atlas of the City of New York



PART OF
WARDS 16 & 20
 NEW YORK CITY.
 Scale = 200 feet per inch



ROUTE 9A RECONSTRUCTION PROJECT

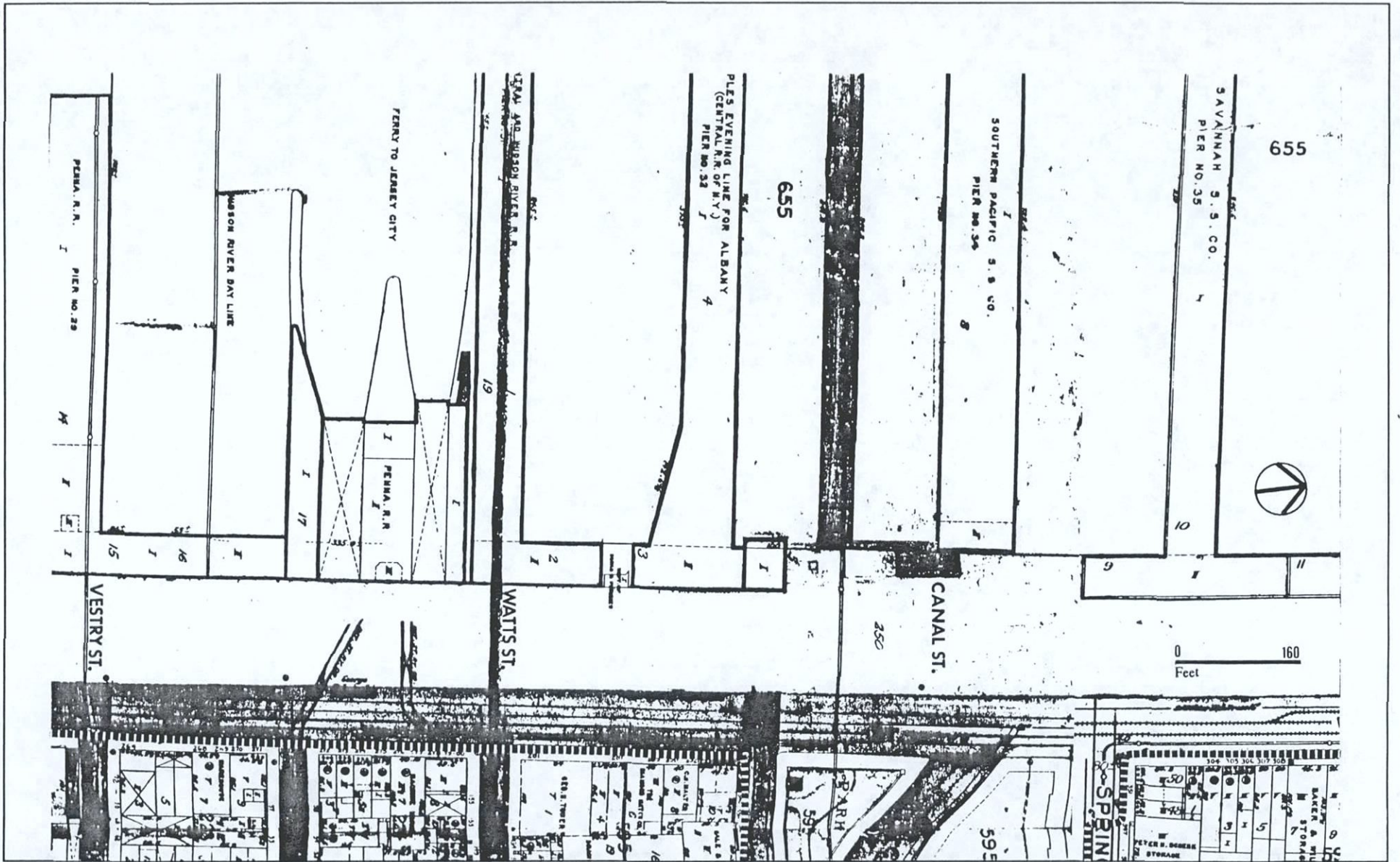
Legend

----- Approximate Eastern Boundary of Study Area

1885 Robinson Atlas of the City of New York

VI-165

Figure 6-10D



ROUTE 9A RECONSTRUCTION PROJECT

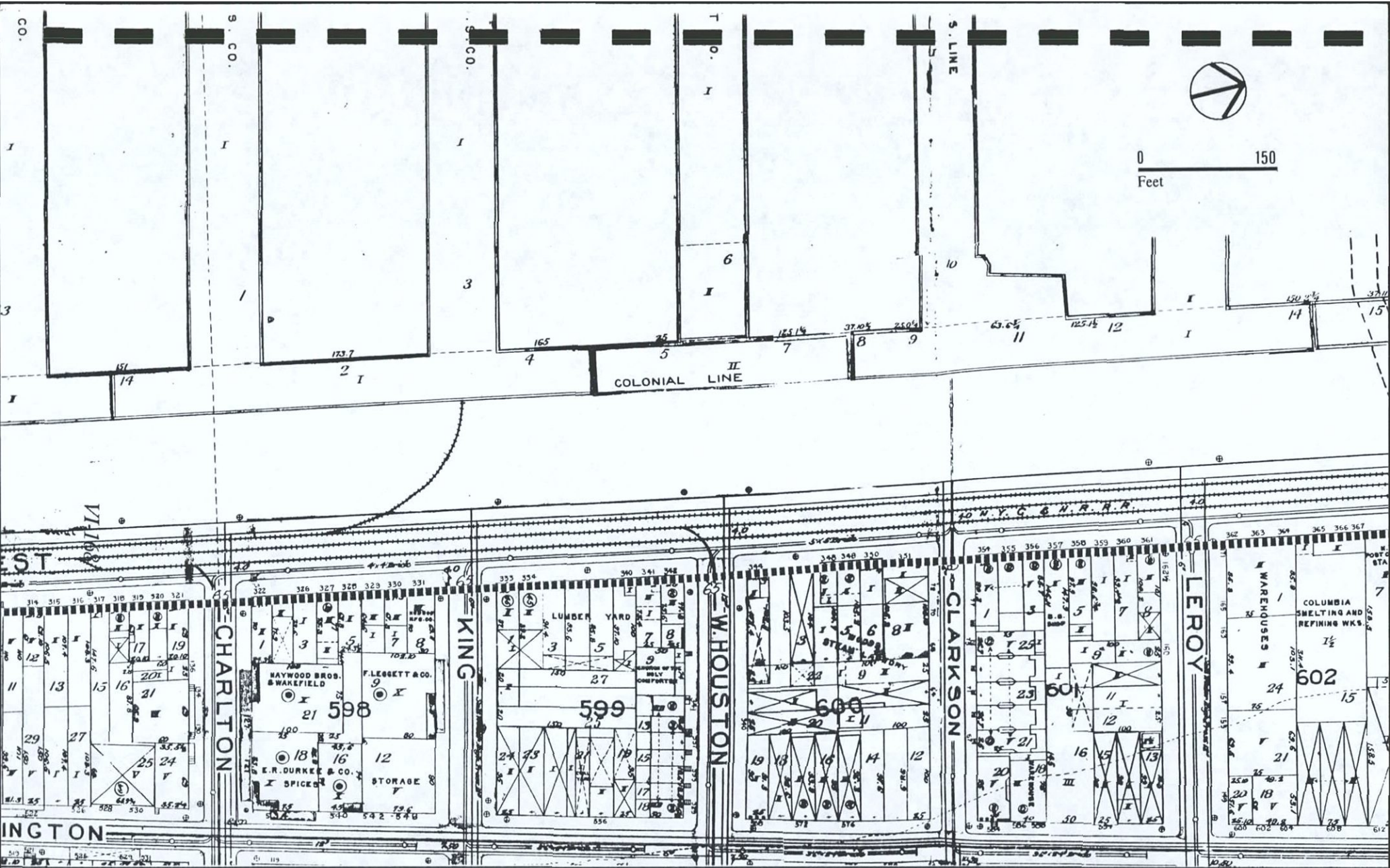
Legend

■■■■■■ Approximate Eastern Boundary of Study Area

1913 Hyde Atlas of the Borough of Manhattan

Figure 6-11B

VI-167



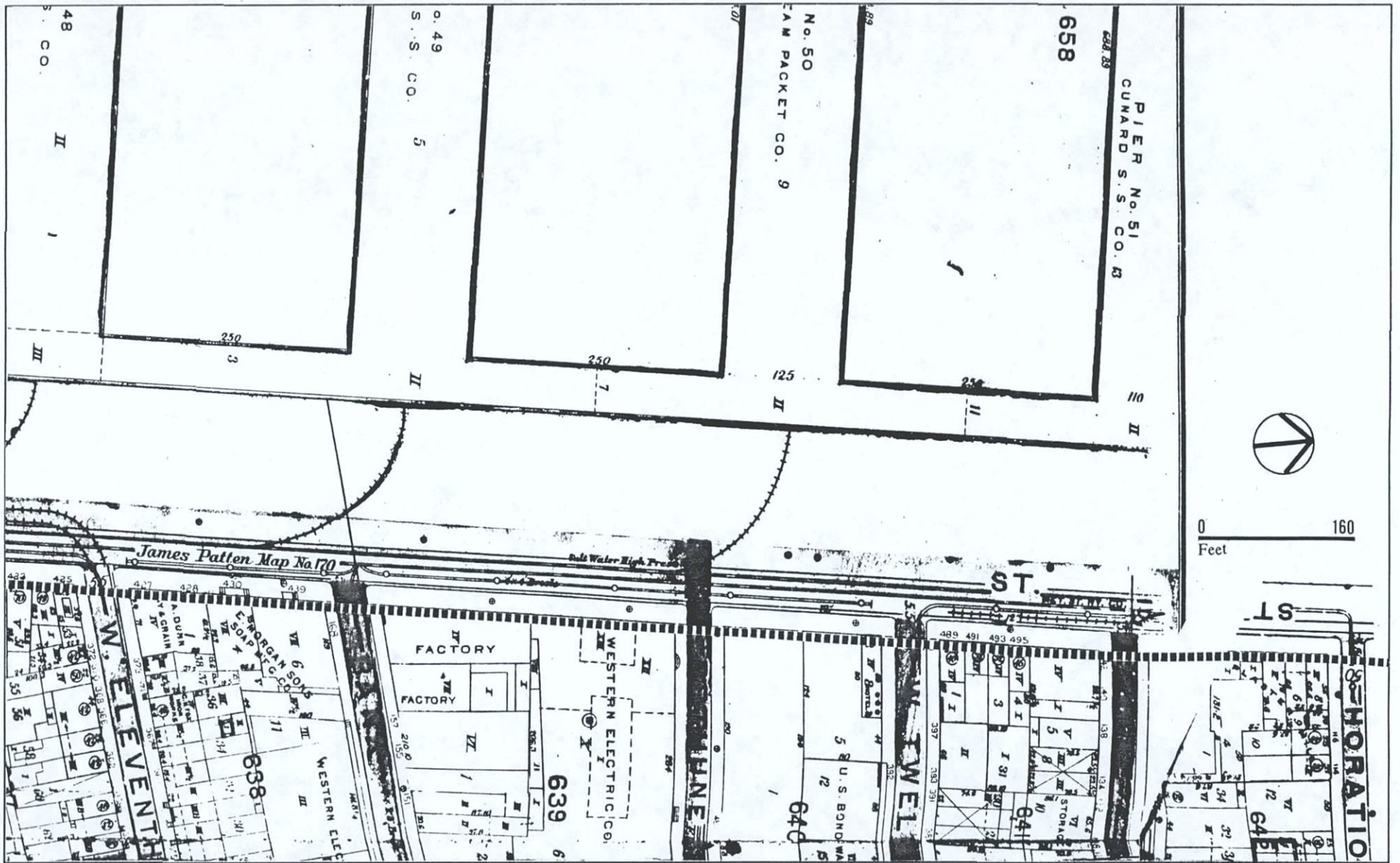
ROUTE 9A RECONSTRUCTION PROJECT

Legend

■■■■■ Approximate Eastern Boundary of Study Area

1913 Hyde Atlas of the Borough of Manhattan

Figure 6-11C



VI-170

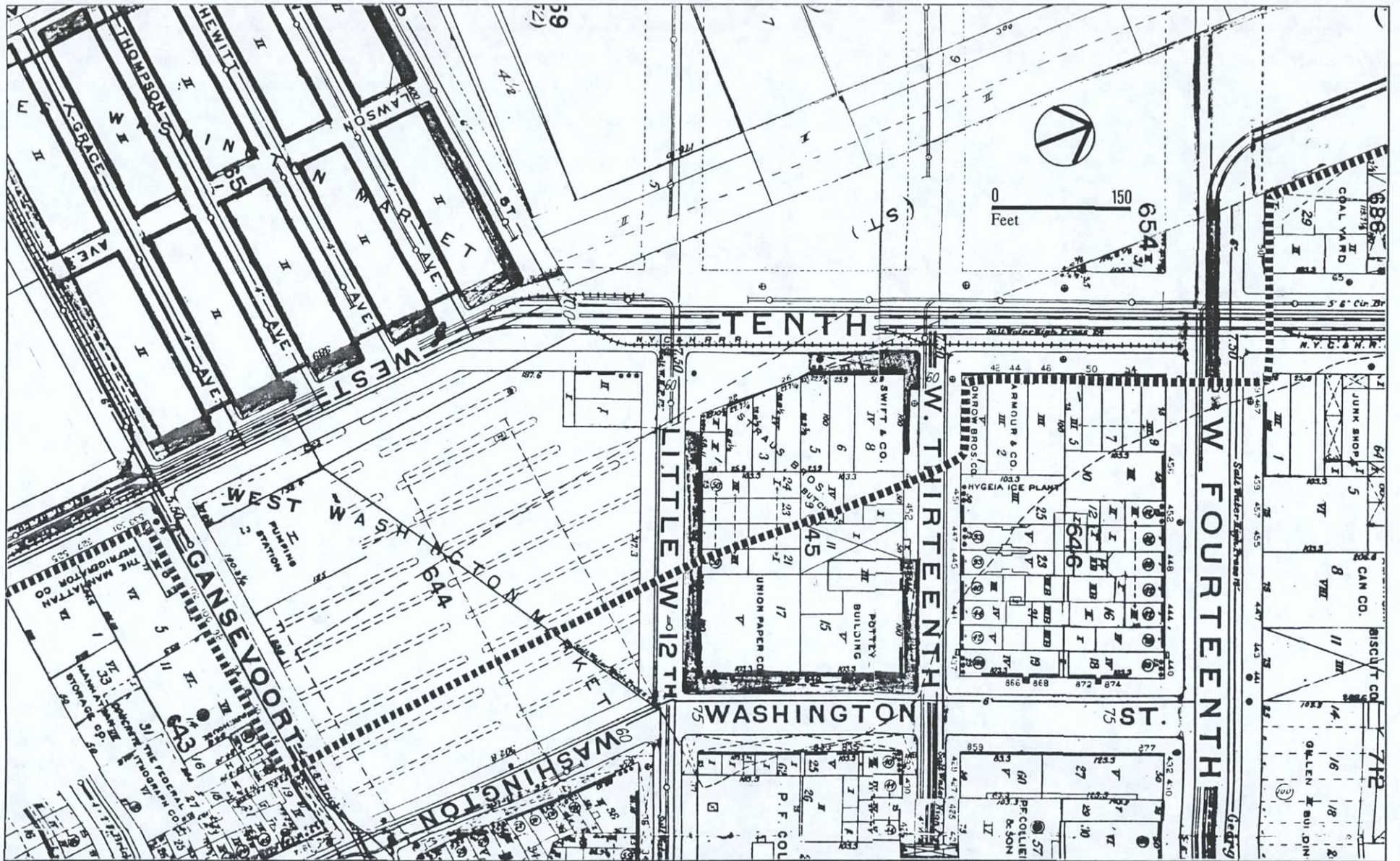
ROUTE 9A RECONSTRUCTION PROJECT

Legend
 ■■■■■ Approximate Eastern Boundary of Study Area

1913 Hyde Atlas of the Borough of Manhattan

Figure 6-11E

VI-171



ROUTE 9A RECONSTRUCTION PROJECT

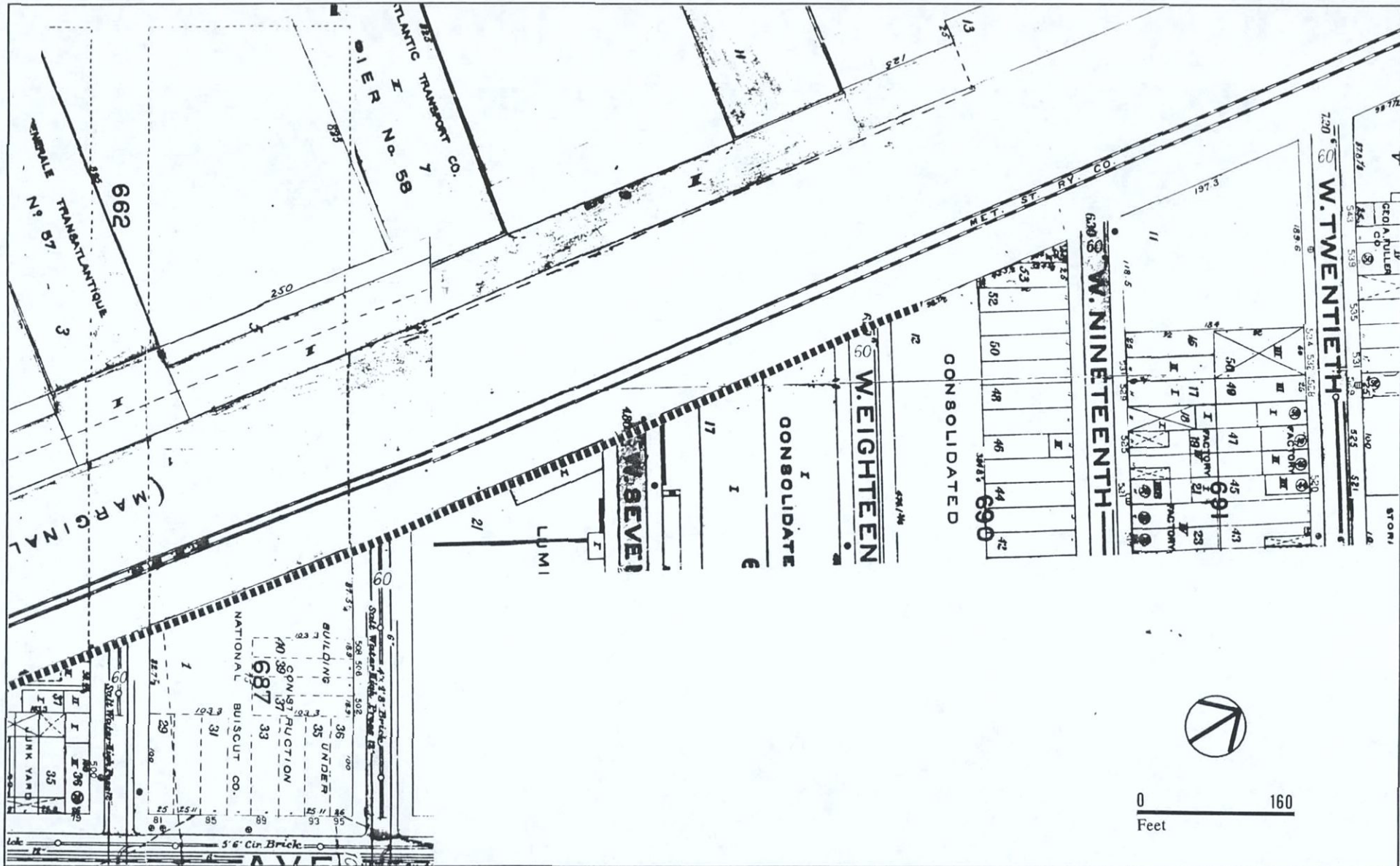
Legend

----- Approximate Eastern Boundary of Study Area

1913 Hyde Atlas of the Borough of Manhattan

Figure 6-11F

VI-172



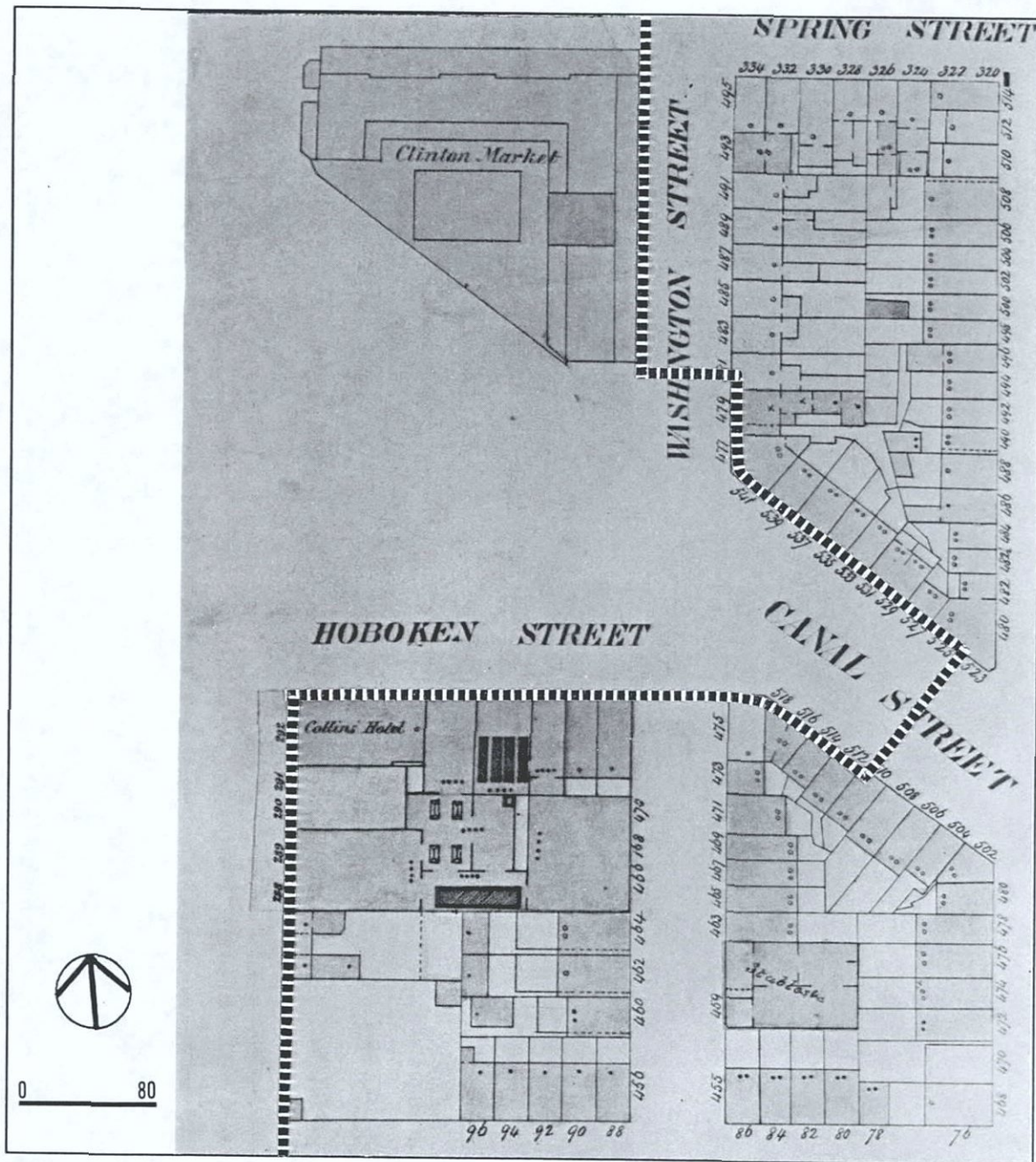
Legend

----- Approximate Eastern Boundary of Study Area

ROUTE 9A RECONSTRUCTION PROJECT

1913 Hyde Atlas of the Borough of Manhattan

Figure 6-11G

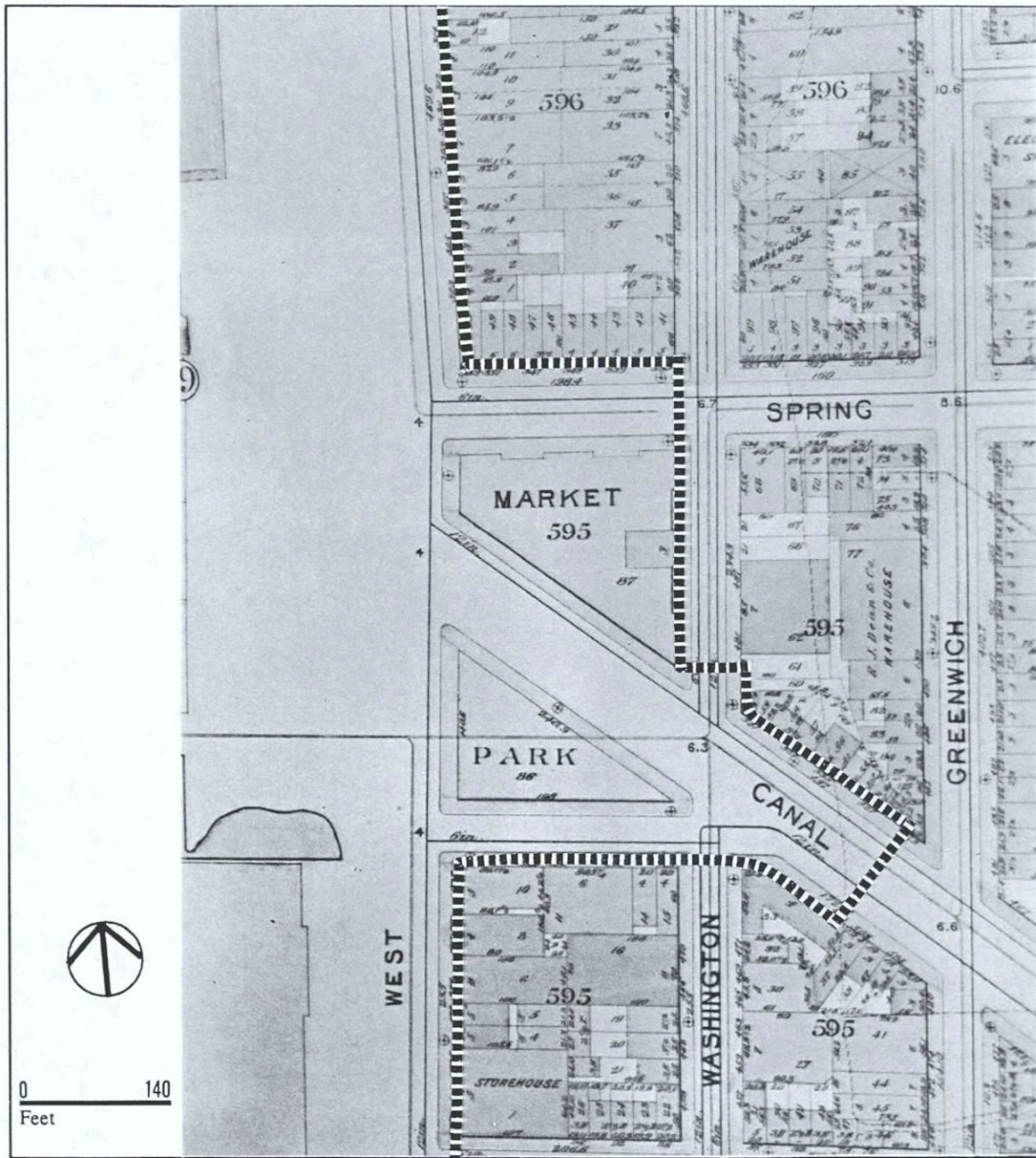


ROUTE 9A RECONSTRUCTION PROJECT

Legend

----- Approximate Eastern Boundary of Study Area

1859 Perris Map of the City of New York
Detail of Canal Street Section



ROUTE 9A RECONSTRUCTION PROJECT

Legend

1902 Bromley Atlas of the City of New York
Detail of Canal Street Section

----- Approximate Eastern Boundary of Study Area

Project	Landfill Dates*	Number of Blocks From Original Shore	Types of Waterfront Constructions	Year Tested/Excavated	Sources	Remarks
64 Pearl Street	Late 17th C.	1	Stone foundation walls	1980	Rothschild 1986; Personal Communication	First east-side fill site excavated. Basement excavations. Landfill structures similar in time and type to those at Hanover Sq. (see below).
7 Hanover Square	Late 17th C.*	1	Stone foundation walls	1971	Rothschild 1982	Stone foundations similar to those at 64 Pearl (see above).
Old Slip and Cruger's Wharf	1690-1800	3	Massive timber wharves (undressed logs)	1969	Huey 1984	Episodic wharf-building and landfilling. Observed wharves appear analogous to 175 Water St.
Telco Block	c. 1740-1775*	2	Cobb-crib (log) wharves; planked bulkhead	1981	Rockman et al. 1983; Wall 1986	Dates apply to episodic wharf construction. Possible that block and bridge construction was used, but speculative at present.
175 Water Street	c. 1740-1780	2	Wharf/grillage**; ship tied into planked bulkhead and stabilized with pilings	1981-1982	Geismar 1983: 672-712	Block structured c. 1754 when ship incorporated, but landfill process continued as late as 1780 or, with secondary filling, 1795.
209 Water Street	between 1775 and 1800(?)	2	Partially excavated ship	1978	Henn et al. N.D.; Brouwer 1980	Ship side and deck beams excavated. Landfill in and around hull.
Assay Site	1780s-1790s* (wharf and pier only)	3	Cobb wharf, block and bridge pier	1984	Wall and Henn 1986; Personal Communication	Time span of full fill maneuver presently unknown. Data currently being analyzed (Louis Berger & Associates, Inc.)
Barclays Bank	1694-1702*	1	Stone foundations and log cobb wharf.	1983-1984	Klein and Cohen 1986; Personal Communication	Stone foundations similar to 64 Pearl St. and 7 Hanover Sq.; Cobb wharf part of Rotten Row (Water St.)
Schermerhorn Row	1780-1810*	3	Log crib works	1977	Kardas and Larrabee 1979, 1980	Basement excavations, therefore dimensions of constructions unknown.
Site 1, Washington St. Urban Renewal Area	1797-1801 1807-1817	1 2	Log block and bridge (?) probably a pier	1984	Geismar 1985	First west side fill site investigated. Relatively rapid filling; no major fill-retaining features (large bulkhead, ship, etc located in site).

* Fill dates based mainly on historical documentation.

** Wharf/grillage is a term used to define wharfing later used as block foundations (Geismar 1983:672-712).

ROUTE 9A RECONSTRUCTION PROJECT

Landfill Sites Excavated in Manhattan

Source: Geismar 1987:Table 1

VI-175

Figure 6-14

A. SUBSURFACE DISTURBANCE

The research has identified several areas potentially sensitive for archeological remains. In order to determine the degree of potential for recovering such resources, it is necessary to reconstruct prior disturbance to these areas. Prior disturbance may have resulted from road construction and reconstruction, utility line installation, and demolition activities. The known disturbances are reported here to assess potential survivability of cultural resources.

In the 1940s a report by the Works Progress Administration stated that the WPA was recurbng sidewalks and doing road adjustments slong Marginal Street at that time (Works Progress Administration 1940:4). At that time, there were 14.14 miles of sewers in New York, and 98 sewers discharged into the Hudson (Ibid.:58).

There are two tunnels running through the project area. A PATH tube between New York and New Jersey is present at Morton Street. Popularly called "the Tubes" when work began on it in the 1880s, this rail line was first officially the Hudson & Manhattan Railroad Tunnel (Port Authority 1983:2). As originally planned and subsequently built, at Morton Street there are two tubes next to one another, separated, each tube having an 19 to 22 feet inside diameter (Gilbert 1912:162). The major construction caisson sunk at Morton Street, 69 feet east of the bulkhead wall and evidently impacting the West Street/Marginal Street roadbed, extends to approximately 62 feet beneath the ground surface (Burr 1885:56-57). Tunneling to the west, under the Hudson River, started from the interior of the caisson. As each section of the iron tube was completed it was cleaned out and the brick lining laid. However, the funding for the tubes was suspended and the north and south tracks were truncated at 147 feet and 23 feet respectively. The caisson, measuring roughly 48 feet x 27 feet x 25 feet high and situated in the Route 9A project corridor, became unnecessary and the "shaft allowed to fill up, the top was covered and it was completely abandoned" (The Engineering Record 1903:96). Impacts to the project area also included the tube construction's supporting power plant, located mid-block between Morton and Leroy Streets, and the subterranean connections between the caisson and the plant. In 1902 work on the tubes began again at the Morton Street location, next to the French Line dock. A second power plant was erected over the abandoned shaft and a second closed caisson was sunk nearby, with access through a small steel, air-locked shaft (Ibid:98). Therefore, although the PATH tubes were tunneled deep below the river and city, "without ever disturbing streets or buildings," the sinking of caissons and the power plant connections with those caissons severely impacted the Route 9A project corridor at Morton Street and the block between Morton and Leroy Streets (Davies 1909:II,545).

The Holland Tunnel runs beneath Canal Street, also joining New York and New Jersey. The entrance to the tunnel is several blocks east of the project corridor. Contract documents for the construction of the Holland Tunnel specify the sinking of two caissons (steel walls filled with concrete) in the vicinity of Spring and Washington Streets and Canal and Washington Streets. These caissons, east of the

Route 9A Reconstruction Project

Route 9A project corridor formed the permanent-ventilating shafts for the vehicular tunnel (New York State Bridge and Tunnel Commission 1920:35). Open cut excavations for this tunnel were not allowed west of the east building line of Hudson Street (New York State Bridge and Tunnel Commission 1923:61). Soil borings taken at Canal Street in 1980 indicate that there is at least nine to 20 feet of fill beneath the surface of the road (Rutch et al. 1983:172). At Marginal and Canal Streets and Holland Tunnel is well below the junction of introduced fill and natural soils. The construction of the tunnel was sufficiently deep to not have disturbed shallow historical remains in the fill or historical resources resting on the river bottom. However, the construction of the blower house for the tunnel, on Block 595 between Canal and Spring Street, and the connections between the tunnel and the blower house may have caused a significant amount of disturbance to the surrounding cross streets.

Numerous utility lines exist in West Street, Tenth Avenue, and Marginal Street. These include water, gas, electric, and telephone lines, as well as private facilities installed for other purposes. A report on utilities in the Final Environmental Impact Statement for the West Side Highway Project stated the following:

Water main systems...are located near the surface of the City's streets. The sizes of the mains vary from six to 30 inches in diameter. Gas mains, including manholes, regulators, drip traps and pumping standpipes are located near the east property line in West Street. The size of gas mains in the Corridor are four to six inches in diameter. Steam lines coming from Rector Street, King Street and 15th Street terminate in West Street. Electric power lines are located throughout the Study Corridor. Telephone lines, including splice chambers and terminal boxes are located throughout the Study Corridor (Federal Highway Administration 1975:135).

Plans, compiled by the Environmental Protection Administration, Department of Water Resources (EPA) dating to 1968, show some of the subsurface conditions in the route of the project area (Figure 7-1). Old and new utility lines are shown in relation to the present configuration of West Street, Tenth Avenue, and Marginal Street. The detailed maps also include the locations of the 1857 bulkhead, some of the piers built prior to filling Marginal Street, old cribs, West Side Highway footings, electric, telephone, gas, water, and sewer lines. The majority of utility lines run through the center of the 70 foot width of West Street and Tenth Avenue, and at cross roads branch off to run through the center of those as well. Sewer and utility lines are generally less than five feet below the surface, with the exception of the interceptor sewer line which is 10 to 20 feet below the paved surface. The majority of old cribs and piers shown on the 1968 EPA map appear in the route of Marginal Street beneath the West Side Highway and have been bisected by few utility lines.

Chapter VII:

Several features considered to be of historical interest were shown on the 1968 EPA map. The placement of utilities and footings for the West Side Highway has deemed some of these more disturbed than others. In some cases several footings for the Highway, together with numerous utility lines, traversed potentially sensitive features rendering them sufficiently disturbed as to not warrant subsurface investigations. The following features were shown in outline on the map, labeled simply as old piers. The degree of disturbance to these features caused by utility lines and West Side Highway construction was assessed based on the map locations and specifications and the known disturbances caused by utility line installations described in Section 6-B.

Each potentially sensitive area was evaluated as to the amount of disturbance the area had received. Five categories were used:

- o Very disturbed - 100% of the area appears to have been disturbed.
- o Disturbed - 75-100% of the area appears to have been disturbed.
- o Somewhat disturbed - 50-75% of the area appears to have been disturbed.
- o Fairly undisturbed - 25-50% of the area appears to be disturbed.
- o Undisturbed - 0-25% of the area appears to be disturbed.

Although the archeological potential of an area may not be totally destroyed by prior disturbances, sites that appear to be over 50% disturbed have not been recommended for additional investigation.

Pier 34 at Harrison Street deemed fairly undisturbed.

Steamship landing between Harrison and Franklin Streets deemed fairly undisturbed.

Pier 35 at Franklin Street deemed fairly undisturbed.

Pier 36 at North Moore Street deemed fairly undisturbed.

Pier 37 at Beach Street deemed somewhat disturbed.

Pier 38 at Hubert Street deemed somewhat disturbed.

Laight Street pier deemed fairly undisturbed.

Pier 39 at Vestry Street deemed very disturbed.

Desbrosses Street pier deemed fairly undisturbed.

Route 9A Reconstruction Project

Pier 40 at Watts Street deemed fairly undisturbed.

Pier 48 at Clarkson Street deemed very disturbed.

Gansevoort Street pier deemed disturbed.

The following piers were known to exist in the route of Twelfth Avenue and Marginal Street, as presented in the Historic Sensitivity section, and did not appear on the utilities map. Thus the location of these piers has been correlated with the utilities present and the potential sensitivity assessment is based on prior impacts.

Old Pier 30 at Desbrosses Street deemed disturbed.

Jersey City Ferry complex between Desbrosses and Watts Streets deemed disturbed.

Hoboken Ferry Complex between Watts and Hoboken Streets deemed very disturbed.

Pier 41 at Watts Street deemed very disturbed.

Hoboken Street pier deemed very disturbed.

Hoboken Ferry landing at Hoboken Street deemed very disturbed.

New Pier 32 at Hoboken Street deemed very disturbed.

New Pier 33 between Hoboken and Canal Streets deemed very disturbed.

Canal Street basin pier between Canal and Spring Streets deemed disturbed.

Pier 42 at Canal Street deemed disturbed.

Pier 43 between Spring and Vandam Streets deemed fairly undisturbed.

Pier 44 at Vandam Street deemed somewhat disturbed.

Pier 45 at Charlton Street deemed somewhat disturbed.

Pier 46 at King Street deemed somewhat disturbed.

Pier 47 at West Houston Street deemed somewhat disturbed.

Pier 49 at LeRoy Street deemed fairly undisturbed.

Pier 50 at Morton Street deemed somewhat disturbed.

Chapter VII:

Hoboken Ferry landing between Barrow and Christopher Streets deemed disturbed.

Old Pier 50 between Christopher and West 10th Streets deemed disturbed.

Ferry landing at Christopher Street deemed disturbed.

Pier 51 between West 10th and Charles Streets deemed disturbed.

Pier 53 at Perry Street deemed fairly undisturbed.

Pier 54 at West 11th Street deemed disturbed.

Pier 56 at West 12th Street deemed disturbed.

Pier 57 between Jane and Horatio Streets deemed disturbed.

In addition to the piers, several buildings were identified on blocks between Harrison and West 18th Streets. Their location, which did not appear on the utility map, has also been correlated with the utilities present and the potential sensitivity has been assessed.

Hoboken Street to Canal Street

Block 595, Lot 86 building fronting Canal Street deemed disturbed.

Block 595, Lot 86 building on southwest corner of lot deemed disturbed.

West 11th Street to Bank Street

Block 647, Lot 3955 kindling wood factory building deemed disturbed.

Block 647, Lots 3955 D and E kindling wood factory shed deemed disturbed.

Block 647, Lots 3955 F, G, and H building deemed disturbed.

Bank Street to Bethune Street

Block 648, Lot 3990 buildings deemed disturbed.

Block 648, Lot 3990 C building deemed disturbed.

Block 648, Lots 3990 C and D building shed deemed disturbed.

Block 648, Lot 3990 D building deemed disturbed.

Block 648, Lot 3990 F iron works building deemed disturbed.

Route 9A Reconstruction Project

Block 648, Lot 3990 G chemical works shed deemed disturbed.

Block 648, Lot 3990 I lumber yard building deemed somewhat disturbed.

Block 648, Lot 3990 K lumber yard sheds deemed fairly undisturbed.

Block 648, Lot 3999 southeast corner building deemed somewhat disturbed.

Block 648, Lot 3999 southwest corner lumber yard building deemed fairly undisturbed.

Block 648, Lot 3999 northeast corner building deemed disturbed.

Block 648, Lot 3999 northwest corner lumber yard shed deemed fairly undisturbed.

Block 648, Lot 3999 eastern shed deemed disturbed.

Block 648, Lot 3999 A, two buildings and two sheds of salamander works deemed fairly undisturbed.

Bethune Street to West 12th Street

Block 649, Lot 4030 Cragin and Company storage building deemed disturbed.

West 12th Street to Jane Street

Block 649, Lot 4089 B buildings deemed disturbed.

Block 649, Lots 4085 through 4088 varnish factory deemed disturbed.

Block 649, Lots 4120 through 4124 extension of varnish factory deemed fairly undisturbed.

Block 649, Lot 4189 shed deemed disturbed.

Block 649, Lots 4089 C through H sheds, C deemed disturbed, D through H deemed fairly undisturbed.

Jane Street to Horatio Street

Block 650, Lot 4125 buildings deemed very disturbed.

Block 650, Lots 4129 and 4129 A through C building deemed disturbed.

Block 650, Lots 4129 D through F shed, D deemed disturbed, E and F deemed fairly undisturbed.

Chapter VII:

Block 650, Lot 4129 F building on south half of lot deemed fairly undisturbed.

Horatio Street to Gansevoort Street

Block 650, Lot 4165 wrought iron works building deemed disturbed.

Block 650, Lot 4169 paint building deemed disturbed.

Block 650, Lot 4169 sheds deemed fairly undisturbed.

Gansevoort Street to Bogert Street

Block 651, at intersection of Gansevoort and West Streets deemed fairly undisturbed.

Bloomfield Street to Little West 12th Street

Block 652, building fronting Tenth Avenue deemed disturbed.

Block 652, Adams House hotel deemed disturbed.

Gansevoort Street to Little West 12th Street

Block 644, Lot 1 market building on northwest corner of lot deemed disturbed.

Block 644, Lot 1 pump station/meat market - extant.

Little West 12th Street to West 13th Street

Block 653, Lot 4323 building deemed disturbed.

Block 653, Lot 4316 shed deemed disturbed.

Block 653, Lots 4324 and 4325 building deemed disturbed.

Block 653, Lots 4315 through 4322 building deemed disturbed.

Block 653, Lot 4326 building deemed fairly undisturbed.

West 13th Street to West 14th Street

Block 654, Lot 4362 lumber yard office building deemed fairly undisturbed.

Block 654, Lot 4362 north two-story building deemed fairly undisturbed.

Block 654, Lot 4362 northwest shed deemed fairly undisturbed.

Route 9A Reconstruction Project

Block 654, Lot 4362 southeast shed deemed disturbed.

Block 654, Lot 4362 south building deemed disturbed.

Block 654, Lot 4362 shed north of office building deemed fairly undisturbed.

Block 654, Lot 4362 north building deemed disturbed.

Block 654, Lots 4368 through 4371 building deemed disturbed.

Block 654, Lots 4370 and 4371 buildings deemed disturbed.

Block 654, Lot 4369 two buildings, western half deemed undisturbed, eastern half deemed disturbed.

Block 654, Lots 4372 and 4373 building deemed disturbed.

Block 654, Lots 4375 and 4376 building and shed, Lot 4375 deemed disturbed, Lot 4376 deemed fairly undisturbed.

Block 654, Lot 4377 two sheds deemed fairly undisturbed.

Block 654, Lot 4378 building deemed disturbed.

West 14th Street to West 15th Street

Block 686, Lot 1204 building deemed fairly undisturbed.

Block 686, Lot 1205 shed deemed fairly undisturbed.

Block 686, Lot 1206 building deemed disturbed.

Block 686, Lot 1207 shed deemed disturbed.

Block 686, Lot 1208 shed deemed disturbed.

Block 686, Lot 1209 shed deemed disturbed.

Block 686, Lot 1210 shed deemed fairly undisturbed.

Block 686, Lot 1211 lumber yard shed deemed fairly undisturbed.

Block 686, Lots 1212 through 1214 shed deemed fairly undisturbed.

Block 686, Lot 1212 shed deemed fairly undisturbed.

Block 686, Lot 1215 sheds deemed fairly undisturbed.

Chapter VII:

Block 686, Lots 1216 and 1239 shed deemed fairly undisturbed.

Block 686, Lot 1246 shed deemed disturbed.

Block 686, Lot 1247 shed deemed disturbed.

Block 686, Lot 1248 building deemed disturbed.

Block 686, Lot 1249 brick building deemed fairly undisturbed.

West 15th Street to West 16th Street

Block 687, Lots 1482 and 1483 cow stables on north part of lots deemed disturbed.

Block 687, Lots 1514 through 1518 cow stables on south ends, Lots 1514 through 1516 deemed disturbed, Lots 1517 and 1518 deemed fairly undisturbed.

Block 687, Lots 1517 and 1518 cow stables on north ends deemed fairly undisturbed.

Block 687, Lot 1481 shed deemed fairly undisturbed.

Block 687, Lot 1482 shed deemed fairly undisturbed.

Block 687, Lots 1482 and 1483 shed deemed fairly undisturbed.

Block 687, Lot 1483 shed deemed disturbed.

Block 687, Lot 1484 shed deemed disturbed.

Block 687, Lot 1485 shed deemed disturbed.

Block 687, Lot 1486 shed in northwest corner deemed disturbed.

Block 687, Lot 1486 office building deemed fairly undisturbed.

Block 687, Lots 1487 through 1492 storage building deemed fairly undisturbed.

Block 687, Lots 1488 through 1492, 1508 through 1511 and 1513 coopeage building, Lots 1488 through 1492 deemed fairly undisturbed, Lots 1508 through 1511 and 1513 deemed disturbed.

Block 687, Lot 1512 three-story building deemed disturbed.

Block 687, Lot 1513 shed deemed fairly undisturbed.

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Block 687, Lot 1514 shed deemed disturbed.

Block 687, Lot 1515 shed deemed fairly undisturbed.

West 16th Street to West 17th Street

Block 688, Lots 1754 through 1759 and 1780 through 1783 storage tanks deemed disturbed.

Block 688, Lot 1776 shed deemed disturbed.

Block 688, Lots 1777 and 1778 building deemed disturbed.

West 17th Street to West 18th Street

Block 689, Lots 2026 through 2033 and 173 through 176 coal house, Lots 2029 through 2031 and 173 through 176, together with the north halves of 2032 and 2033, deemed fairly undisturbed, Lots 2026, 2027, 2028, and the south halves of Lots 2032 and 2033 deemed disturbed.

Block 689, Lots 2034 through 2041 and 2019 through 2027 retort house, the north halves of all lots are fairly undisturbed and the south halves of the lots are disturbed except Lots 2041, 2039, and 2022 which are entirely disturbed.

The following structures stood on Block 645 between Little West 12th and West 13th Streets and Washington and West Streets. Since this block has remained in its original configuration, there are no utility lines traversing it. Therefore, the only disturbance to buildings identified during the cartographic review would have been caused by subsequent developments on the block. The following were identified as potentially sensitive and undisturbed.

Little West 12th to West 13th Street

Block 645, Lot 3791 buildings.

Block 645, Lots 3792 and 3794 building.

Block 645, Lots 3849 and 3850 building.

Block 645, Lots 3849 and 3850 north end of lots building.

Block 645, Lots 3851 and 3852 building.

Block 645, Lots 3853 and 3854 piano forte building.

Block 645, Lots 3855 through 3857 building.

Chapter VII:

Block 645, Lot 3858 two-story building.

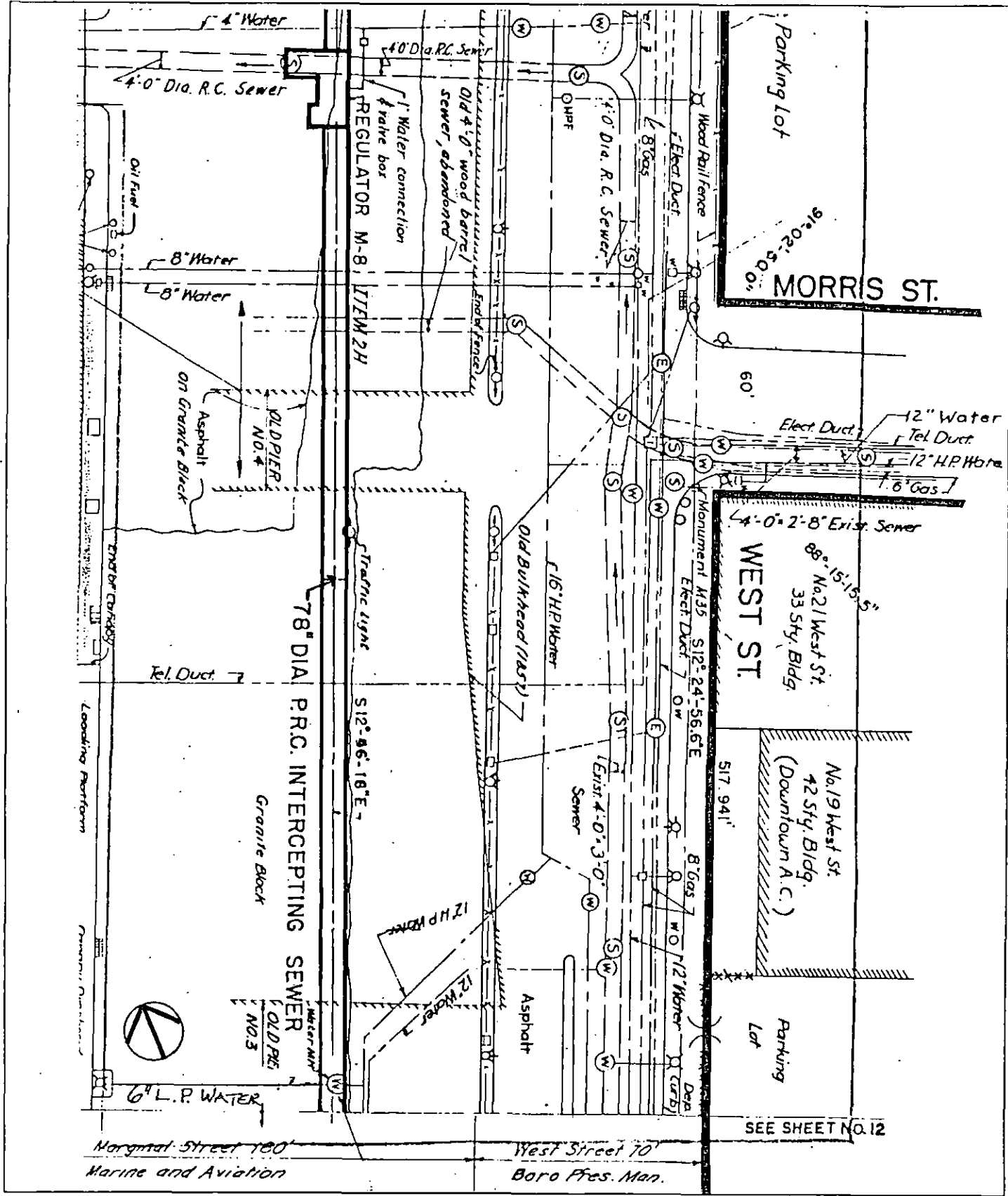
Only two non-structural features were observed between Harrison and West 18th Streets. The locations of these features has been correlated with the utilities maps and sensitivity has been assessed.

Canal Street to Spring Street

Possible sunken ship in West Street deemed fairly undisturbed.

West 15th Street to West 16th Street

Block 687, Lots 1486 and 1515 cistern and well, well on Lot 1486 deemed disturbed, cistern on Lot 1515 deemed fairly undisturbed.



ROUTE 9A RECONSTRUCTION PROJECT

Legend

Archeological Study Area Boundaries

Example of Utilities in Archeological Study Area

Figure 7-1

A. SUMMATION OF POTENTIALLY SENSITIVE AREAS

The following categories were utilized for classifying potentially sensitive archeological remains:

- A) PREHISTORIC REMAINS**
- B) HISTORIC REMAINS**
 - 1) Dwellings and associated outbuildings**
 - 2) Industrial buildings/complexes**
 - 3) Piers and wharves**
 - 4) Landfill**
 - 5) Other**

A list of sensitive resources within each category is provided below. Location of each resource is referenced in relation to the corresponding cross streets. The following list of areas includes potential sensitivity for West Street and Tenth Avenue bordering the block to the west, and the cross road forming the southern border. For example, West Street between Clarkson and LeRoy Streets would include potential sensitivity for West Street and the 50 foot span on Clarkson Street, the southern of the two cross streets.

Much of the subsurface disturbance record has been documented, therefore some areas identified as sensitive in the prehistoric and historical sensitivity sections have subsequently been excluded due to prior disturbance. Features considered either somewhat disturbed or disturbed were not considered to have the potential to yield intact resources and were therefore excluded from this list. Figure 8-1 shows the sensitive areas within this portion of the project area, as listed below.

PREHISTORIC SENSITIVITY

Areas 7, 9, 17, and 20 were identified during the Westway survey between Harrison Street and West 18th Street. These areas are now 30 to 50 feet below the current sea level. We consider it impractical to attempt the recovery of such resources, since the construction of docks, piers, and wharves, and constant dredging of the river bottom may have disturbed these potential resources. The depth also hinders the ability to excavate such resources. Therefore, it is considered untenable to consider the recovery of deeply buried prehistoric resources.

HISTORIC SENSITIVITY

1. Dwellings

NONE.

2. Industrial Buildings and Complexes

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Block 648 Between Bank and Bethune Streets

- o Lot 3990 two sheds of Cosgraff's lumber yard between c.1885 and c.1902.
- o Lot 3999 building associated with lumber yard on southwest part of lot between c.1879 and c.1902.
- o Lot 3999 shed associated with lumber yard on northwest part of lot between c.1885 and c.1902.
- o Lot 3999 A two buildings and two sheds housing a salamander works between c.1879 and c.1902.

Block 649 Between West 12th and Jane Streets

- o Lots 4120 through 4124, extension of C. Brooks and Company varnish factory between c.1885 and c.1902.
- o Lots 4089 D through H sheds between c.1885 and c.1902. Block 650

Between Jane and Horatio Streets

- o Lot 4129 E and the north half of 4129 F shed between c.1879 and c.1902.
- o Lot 4129 F building on the south half of the lot between c.1885 and c.1902.

Block 650 Between Horatio and Gansevoort Streets

- o Lot 4169 sheds between c.1879 and c.1902.

Block 651 Between Gansevoort and Bogart Streets

- o Building at intersection of Gansevoort and West Streets between c.1859 and c.1879.

Block 644 Between Gansevoort and Little West 12th Streets

- o Lot 1 pump-house/meat market between c.1900 and 1989.

Block 653 Between Little West 12th and West 13th Streets

- o Lot 4326 one-story building between c.1902 and c.1913.

Block 645 Between Little West 12th and West 13th Streets

- o Lot 3791 buildings from c.1902 to 1989.
- o Lots 3792 through 3794 pottery from c.1852 to 1989.
- o Lots 3849 and 3850 building on north ends of lots from c.1950 to 1989.
- o Lots 3849 and 3850 butcher shop building between c.1902 and 1989.
- o Lots 3851 and 3852 meat market building from c.1902 to 1989.
- o Lots 3853 and 3854 meat market/dance hall building from c.1885 to 1989.
- o Lots 3855 through 3857 meat storage building between c.1885 and 1964.
- o Lot 3858 two-story building on east end of lot c.1906 to 1989.

Block 654 Between West 13th and West 14th Streets

- o Lot 4362 office building associated with lumber yard on south part of lot between c.1859 and c.1913.
- o Lot 4362 two-story building associated with lumber yard on north part of lot between c.1859 and c.1879.

Chapter VIII:

- o Lot 4362 shed associated with lumber yard on northwest part of lot between c.1859 and c.1879.
- o Lot 4362 shed north of office building between c.1902 and c.1913.
- o Lot 4369 building on west half of lot between c.1885 and c.1902.
- o Lot 4376 building and shed between c.1902 and c.1913.
- o Lot 4377 two sheds between c.1902 and c.1913.

Block 686 Between West 14th and West 15th Streets

- o Lot 1204 building between c.1859 and c.1879.
- o Lot 1205 shed between c.1879 and c.1885.
- o Lot 1210 shed between c.1879 and c.1885.
- o Lot 1211 shed of J.J. Carrol Lumber Company between c.1879 and c.1902.
- o Lots 1212 through 1214 shed on southern part of lots between c.1879 and c.1913.
- o Lot 1212 shed on middle of lot between c.1879 and c.1885.
- o Lot 1215 brick shed on southern end of lot between c.1879 and c.1913.
- o Wood shed on rest of lot between c.1902 and c.1913.
- o Lots 1216 and 1239 shed between c.1879 and c.1885.
- o Lot 1249 brick building between c.1902 and c.1913.

Block 687 Between West 15th and West 16th Streets

- o Lot 1481 shed between c.1879 and c.1885.
- o Lot 1482 shed between c.1879 and c.1902.
- o Lots 1482 and 1483 shed on middle of lots between c.1859 and c.1879.
- o Lot 1486 office building between c.1859 and c.1902.
- o Lots 1487 through 1492 storage building on south ends of lots between c.1859 and c.1902.
- o Lots 1488 through 1492 cooperage on north ends of lots between c.1859 and c.1902.
- o Lot 1513 shed between c.1879 and c.1885.
- o Lot 1515 shed on north half of lot between c.1879 and c.1885.
- o Lots 1517 and 1518 cow stables on south ends of lots between c.1852 and c.1859.
- o Lots 1517 and 1518 cow stables on north ends of lots between c.1852 and c.1859.

Block 689 Between West 17th and West 18th Streets

- o Lots 173 through 176, 2029 through 2031, and the north halves of Lots 2032 and 2033 coal house of Manhattan Gas Company between c.1859 and c.1913.
- o The north halves of Lots 2019 through 2021, 2023 through 2027, 2034 through 2038, and 2040 retort house of Manhattan Gas Company between c.1859 and c.1913.

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3. Piers and Wharves

- o Pier 34 at Harrison Street, Rondout and Kingston Boats, c.1836-1902, part of landfill between 1897-1902.
- o Harrison to Franklin Street steamship landing, c.1879-1902, part of landfill between 1897-1902.
- o Pier 35 at Franklin Street, Poughkeepsie Steamboats, c.1827-1902, part of landfill between 1897-1902.
- o Pier 36 at North Moore Street, Morgan's Los Angeles and Texas Railroad and Steamship Company, c.1827-1885, part of landfill between 1879-1885.
- o Laight Street Pier, Albany Day Line, c.1854-1902, part of landfill 1897-1902.
- o Desbrosses Street pier, public baths, c.1826-1902, part of landfill 1897-1902.
- o Pier 40 at Watts Street, Coney Island and Norwich Line for Boston, c.1827-1902, part of landfill between 1897-1902.
- o Pier 43 between Spring and Vandam Streets, Empire pier, c.1824-1879, part of landfill between 1859-1879.
- o Pier 49 at LeRoy Street, c.1854-1879, part of landfill between 1859-1879.
- o Pier 53 at Perry Street, c.1852-1902, part of landfill between 1897-1902.

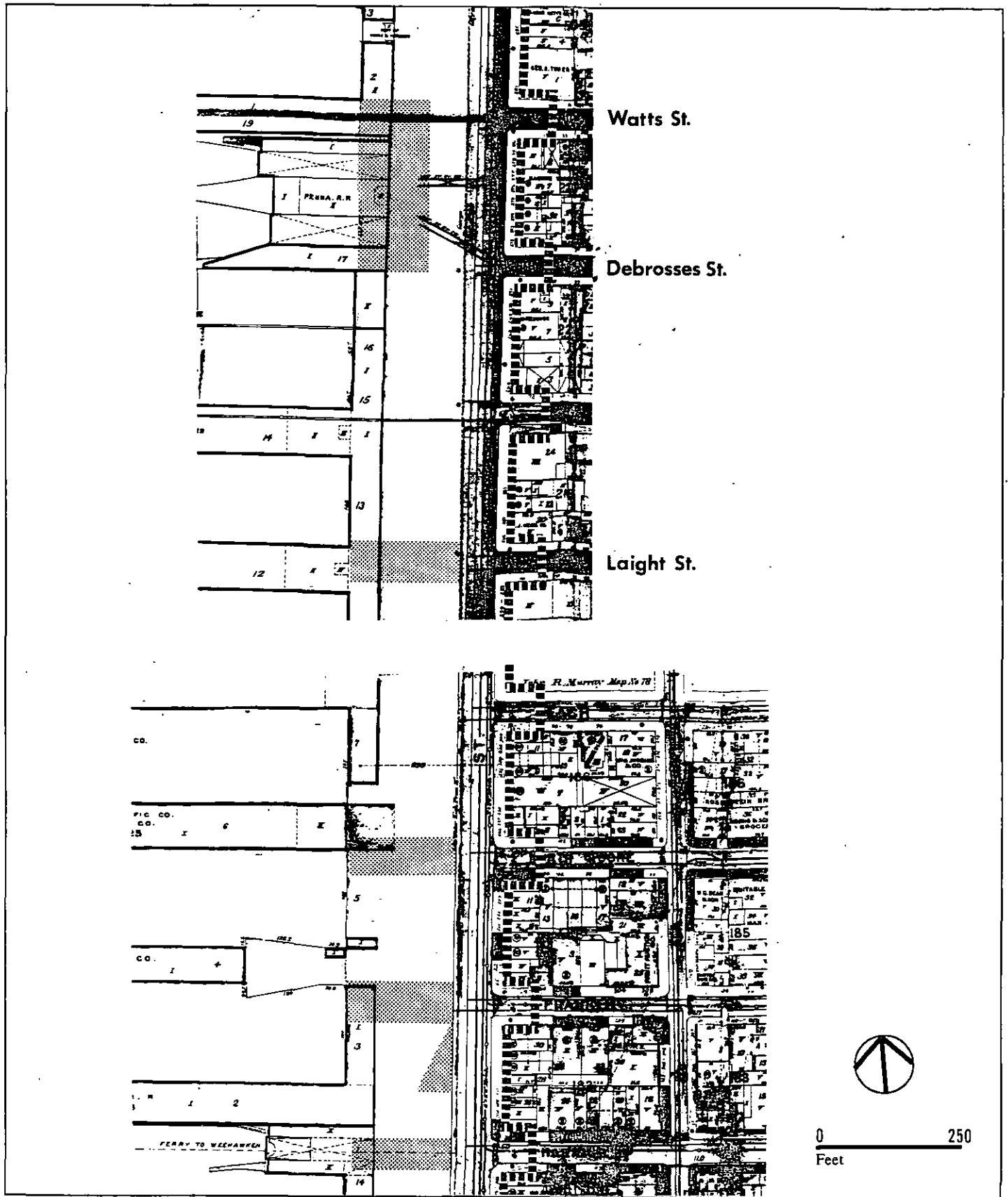
4. Landfill

- o Possible sunken ship, Canal and West Streets.
- o Possible fill retaining devices.

5. Other



Block 687 Between West 15th and West 16th Streets

- o Lot 1515 cistern associated with cow stables c.1859.

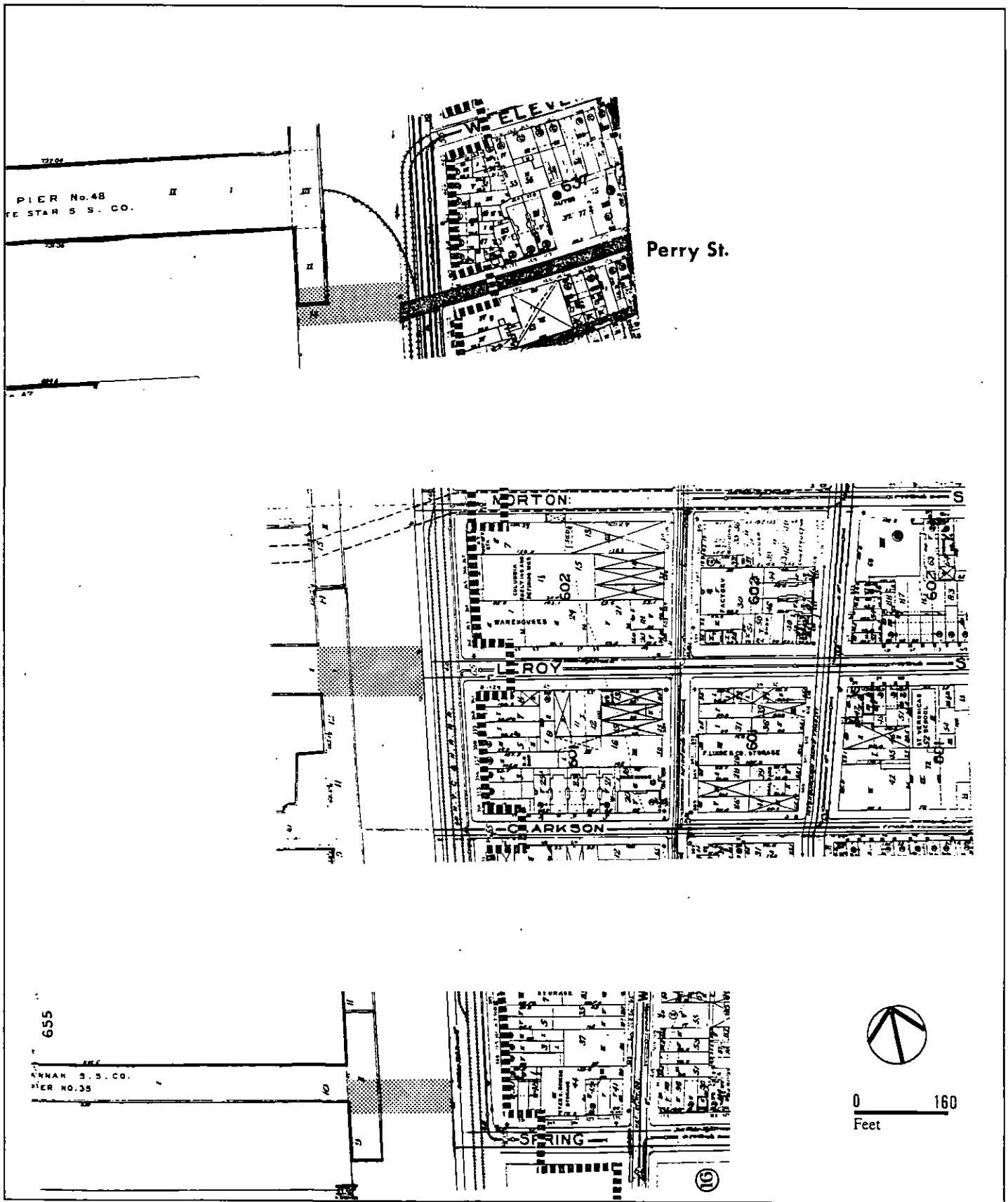


ROUTE 9A RECONSTRUCTION PROJECT

Legend



-  *Historic Sensitivity*
-  *Approximate Eastern Boundary of Study Area*
- Base map contained depiction of original shore line*

Areas of Potential Sensitivity - Harrison to West 18th Streets
 Superimposed on the 1913 Hyde Atlas of the Borough of Manhattan

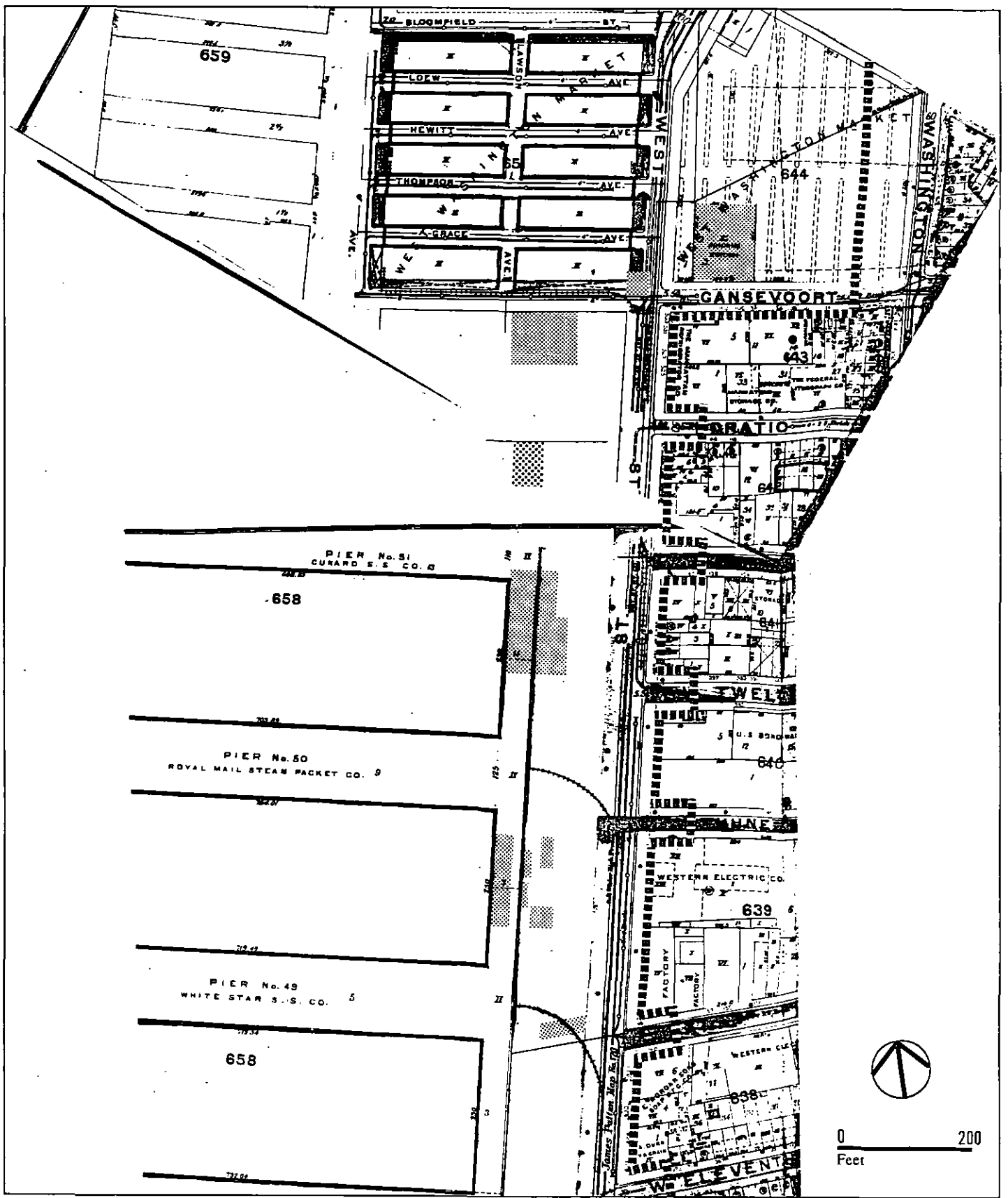


ROUTE 9A RECONSTRUCTION PROJECT

Legend




-  *Historic Sensitivity*
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Areas of Potential Sensitivity - Harrison to West 18th Streets
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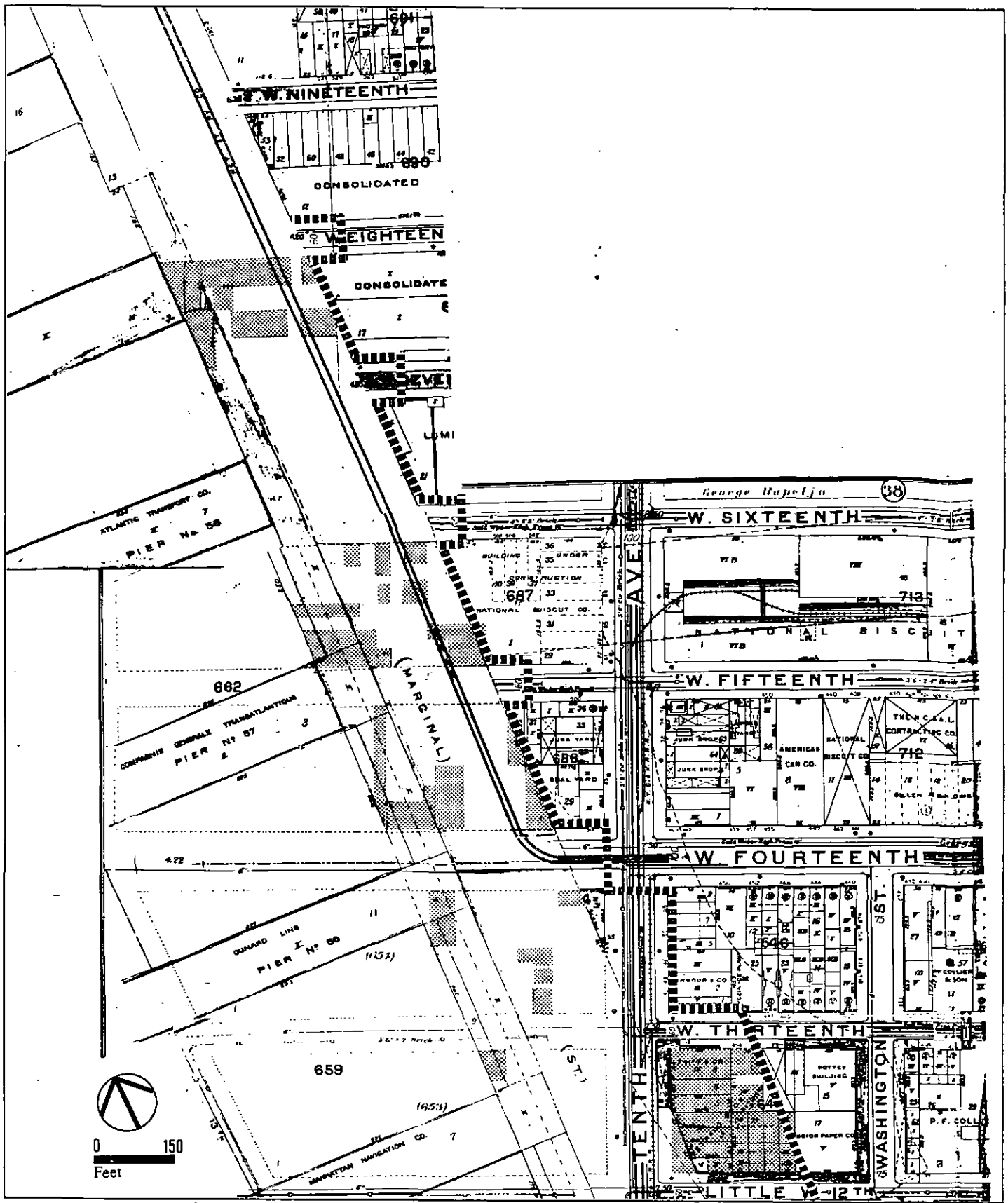


ROUTE 9A RECONSTRUCTION PROJECT

Legend



- 
 Historic Sensitivity
- 
 Approximate Eastern Boundary of Study Area
- 
 Base map contained depiction of original shore line

Areas of Potential Sensitivity - Harrison to West 18th Streets
 Superimposed on the 1913 Hyde Atlas of the Borough of Manhattan



ROUTE 9A RECONSTRUCTION PROJECT

Legend

-  *Historic Sensitivity*
-  *Approximate Eastern Boundary of Study Area*
- Base map contained depiction of original shore line*

Areas of Potential Sensitivity - Harrison to West 18th Streets
 Superimposed on the 1913 Hyde Atlas of the Borough of Manhattan

SUMMARY AND RECOMMENDATIONS

The extensive documentary and cartographic research to date of the project area between Harrison and West 18th Streets has revealed the location of several areas potentially sensitive for historical cultural remains. Potential remains were initially identified in the prehistoric and historical sensitivity sections. Prior impacts were assessed and a final list of areas deemed to be potentially sensitive was presented in Chapter VIII (See Figure 8-1). Each of the categories is discussed below and a preliminary evaluation of significance is made here. It should be noted, however, the conclusions presented in this preliminary evaluation may be altered when research on the entire project area is completed and a final list of potentially sensitive areas is compiled.

Numerous piers dating to the nineteenth century were in the route of West Street, Tenth Avenue, and Marginal Street and may have become part of the landfill. Construction techniques varied through time and with individual owners. It would be impractical to attempt either excavation or avoidance of all of these features. However the importance of such resources cannot be denied. The sample chosen and presented here for further consideration is preliminary and was based on age of construction and the potential for answering specific questions regarding shoreline development. The following list of shoreline features represents different periods of construction.

Pier 35-Franklin Street, Poughkeepsie Steamboats, 1827-1902, part of Marginal Street landfill between 1897-1902.

Pier 43-Between Spring and Vandam Streets, Empire pier, 1824-1879, part of Marginal Street landfill between 1859-1879.

Pier 53-Perry Street, 1852-1902, part of Marginal Street landfill between 1897-1902.

Landfill features identified which may warrant archeological investigations include a possible sunken ship at the intersection of Canal and West Streets, dating to c.1812. Ships and their associated artifacts found in this context are often well preserved and can provide tremendous information of historical value. The possibility of recovering a ship from the landfill at Canal Street is plausible. West Street at this location was filled by 1824 and the ship may have been left in situ to contribute to this process. The depth of fill is generally 10 and 20 feet below the current land surface and utility lines in West Street and Marginal Street are generally less than 10 feet deep. The Holland Tunnel is below the 10 to 20 feet of landfill and has probably not disturbed this potential resource. Further documentary research may assist in determining whether the ship is still potentially archeologically sensitive.

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It is quite possible that during excavations for the Route 9A Reconstruction project, that undocumented piers, wharves, quays, and fill retaining devices may be found. Cartographic references to cribbing have not been encountered, although it is highly probable that these features were constructed during the land reclamation process. Since a diverse number of methods of shoreline expansion were used in Manhattan, varying with age of construction and individualistic techniques, these resources are considered an important research issue toward documenting the development of the city.

Other features which may warrant archeological investigations are the buildings which were either once present or are extant on Blocks 644, 645, 648, 649, 650, 651, 653, 654, 686, 687, and 689 between Bank Street and West 18th Street. The individual structures are listed in Chapter VIII. These buildings were occupied by industries integral to the composition of the middle-west side development. Further investigations may work toward understanding their potential to contribute to the knowledge of historical development in this area.

In addition, a cistern was located on Block 687, Lot 1515 between West 15th and West 16th Streets. The cistern was present in 1859 and was associated with cow stables present at that time. Often trash was dumped into cisterns when they were no longer in use, providing a time-capsule for potential exploration. Further in-depth research may help determine when the cistern was filled and sealed, and if there are any later associations with this feature.

As stated above, this is a preliminary evaluation and the conclusions presented in this chapter may be altered when research on the entire project area is completed.

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