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CULTURAL RESOURCES ASSESSMENT REPORT

STUDIO CITY PROJECT
WEST 45TH STREET

MANHATTAN, NEW YORK

426



CULTURAL RESOURCES ASSESSMENT REPORT

STUDIO CITY PROJECT
WEST 45TH STREET

MANHATTAN, NEW YORK

Prepared For:

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

Prepared By:

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

Authors:

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

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I. INTRODUCTION AND METHODOLOGY

Historical Perspectives, Inc. was retained to complete a Phase IA archaeological assessment for the Studio City Project in Lot 1 located on the west half of Block 1073 in Manhattan (Figure 1). The project site is bounded to the north by West 45th Street, to the west by Eleventh Avenue, to the south by West 44th Street, and to the east by the eastern half of Block 1073 (Figure 2). The purpose of this "Cultural Resources Assessment Report," is to provide a sensitivity rating for the project site based on the evaluation of historic documentary materials, comparative archaeological literature, site file search results, and a site inspection. As part of the assessment, the following sources of documentary data were consulted in order to determine the site's topography over time and to compile an overall site history.

Primary and Secondary Source Review

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

Cartographic Analysis

In order to determine the original topography and compile a disturbance record for Block 1073, numerous cartographic resources were examined. Information collected included data on the site's land-use over time and building history. Historical maps were examined at the Map Division of the New York Public Library.

Site Files Review

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

Site Inspection

A site visit was conducted (4/27/2000) and a photographic record of current conditions was made (See Photographs A-E).

II. ENVIRONMENTAL SETTING

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

The project site is located near the Hudson River (or North River) on the west side of Manhattan (see Figure 1). The Hudson is defined as an estuary, which is a large body of water with a link to the open sea (Schuldenrein 1995: 39). While the lower Hudson River bordering Manhattan is influenced by tidal action, to the north the sea water is diluted by freshwater drainage. Soils in this location, are mostly glacial till, clay, and assorted debris (Kieran 1982: 24). The closest tidal creek to the project site was the Great Kill, which emptied into the Hudson at 42nd Street, over two blocks to the south of the project site (See Figure *). The Great Kill was formed by three small streams, each coming from different directions (north, east, and south). They came together at approximately Tenth Avenue and West 40th Street to form the kill that ran west through a marshy valley to the bay on the Hudson River (Stokes v. 6 1998: 131-132). The valley was historically called "Reed Valley" because of the presence of many reeds and water grasses along its marshy banks. One of the streams that formed the Great Kill traveled southward near the location of Ninth Street, over one block east of the project site. Some maps indicate that the area around the Great Kill was a marshland environment until the nineteenth century.

During the historic period the western coastline of Manhattan has been altered by land-filling. At the end of the late prehistoric era the coastline had been located west of Eleventh Avenue. The presence of the nearby bay encouraged the early historical settlers to build overlooking its banks. A small hill or outcrop was present on the western edge of the project block, perhaps preventing a view of the bay and making the area a less desirable location for constructing a house. Maps indicate that during the early historical period, portions of the coastal area were used as farmland or pastureland. The southern tip of Manhattan, on both the east and west sides was the location of most waterfront activity (wharves, slips, and warehouses). Throughout the historical period, the desire for new commercial, waterfront real estate spurred many politicians and businessmen to enthusiastically support landfilling activity along the shores of Manhattan. Nineteenth century maps show the filling of the land to the south and west of the site including the bay and the Great Kill. The hill formerly located on the west side of the project block was also cut down as the area

was developed in the mid-nineteenth century. As the city expanded and the population grew, the commercial waterfront extended up the Hudson River transforming the landscape from an agricultural to an urban setting.

The most recent U.S.G.S. topographical map shows the project area as a well defined urban setting at an elevation of 10-20 feet above sea level. During the site visit, photographs of the paved and fenced parking facilities were taken. At present, there are only two standing structures on the eastern edge of the project site. (see Figure 2, Photographs A-E).

III. PREHISTORIC OVERVIEW

Prehistoric Background

For this report, the word prehistory is used to describe the period prior to the use of formal written records. In the western hemisphere, the prehistoric period also refers to the time before European exploration and settlement of the New World. In general, archaeologists and historians gain their knowledge and understanding of Native Americans in the New York City area from three sources: ethnographic reports, Native American artifact collections, and archaeological investigations. The information from these sources has enabled researchers to devise a prehistoric cultural chronology for the New York City area. Archaeologists have divided North American prehistory into three main periods, the Paleo-Indian (c. 14,000-9,500 years ago), the Archaic (c. 9,500-3,000 years ago), and the Woodland (c. 3,000-500 years ago). The Archaic and Woodland periods are further divided into Early, Middle, and Late substages. Further, the period following the Woodland has been identified as the Contact Period (c. 500-300 years ago). Artifacts, settlement, subsistence, and cultural systems changed through time with each of these stages.

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

In order to complete the prehistoric overview for the present project and to fully evaluate the potential of recovering prehistoric cultural remains, each period will be examined separately with regard to 1) the characteristics illustrative of the phase, 2) the environment during the time period, and 3) any recovered archaeological sites within the region. This examination was completed in order to assess the potential that indigenous groups would have had for exploiting the project locale in general as well as the actual project site.

A. Prehistoric Cultural Chronology

Paleo-Indian Period (ca. 14,000-9,500 Years Before Present)

For some time there has been an active debate about the origin of the first human occupants of the Western Hemisphere. Although challenged by recent archaeological research, the current accepted chronology states that the PaleoIndian period began in the New World near the end of the Wisconsin glacial age when the first humans crossed from Siberia into Alaska via a narrow land bridge in the vicinity of the Bering Strait. These small groups of hunters were probably following the roaming herds of megafauna which were their chief prey. The distinctive weapon in their chipped stone tool kit was the fluted point, which has been found in association with mammoth, mastodon, bison and horse remains at various sites in the southwestern United States.

Three more recent, and less widely believed, theories suggest that:

1. People, possibly from Japan, may have migrated along the west coast by skin-covered boat and on foot, eventually reaching as far south as Monte Verde, a 12,500 year old site in Chile;
2. People from southeast Asia came to South America via Australia, an idea popularized by Thor Heyerdahl and backed by DNA testing;
3. The earliest inhabitants were Europeans who followed the calmer water along the ice on the shores of what are now Iceland and Greenland, landing on the east coast of North America and moving west and south (Wilford 1999:F1,4).

The lithic marker for the Paleo-Indian period is the Clovis Point, a finely made spear point with a flute removed from the central section. Preferred camp sites were either at the shore near swamps or river mouths, or on high bluffs or ridges where game could be more easily spotted. The rising sea level resulting from the melting glacier has obliterated the seaside sites, giving more importance to higher inland sites. Paleo-Indian sites are sparse in the Northeast, and there is much to be gained from their discovery, particularly since faunal remains from some sites have disputed the theory that these people relied only on large game for their subsistence. Sites that have been identified tend to be located in three specific geographic locales: on lowland waterside camps near coniferous swamps and near larger rivers; on upland bluffs and on ridge tops in areas dominated by deciduous trees (Ibid.:138). The closest recorded PaleoIndian site to the project area is Port Mobil, a small camp site, recovered in Staten Island (Ritchie 1980: 1,3,7).

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

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

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

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

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

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

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

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

During the Woodland Period the native tool kit expanded to include a larger variety of knives, drills, hammerstones, etc. More exotic lithics, indicating more sophisticated trade networks, were also being utilized. By the Late Woodland, the Levanna triangular projectile point had become a popular style in the New York coastal region (Ritchie and Funk 1973: 356). The recovery of

numerous shell middens dating to the Woodland also indicate an increased reliance on aquatic resources. Fish runs in the rivers and fish weirs in tributaries were utilized to catch large quantities of anadromous fish to feed the growing population (Brumbach 1986: 35).

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

Contact Period (500-300 Years Before Present)

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

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

Using all of the data he gathered, Grumet created a series of maps showing identified Native place names and trails within New York City (Figure 3). His research for Manhattan concluded that there was only one significant Native path or trade route on the western side of the island, roughly along the route of Broadway. In the project area this path would have been located east of Eighth Avenue. No evidence of other paths in the vicinity of the western shore was uncovered.

Instead, Grumet has identified lower Manhattan and the eastern side, along the East River, as more favorable locations for trails and villages. The more sheltered East River, with its warmer temperature, calmer water, and sandy beaches would have been preferable over the Hudson.

B. Known Prehistoric Sites In the Project Area

Research conducted at the New York State Museum (NYSM) found no inventoried prehistoric sites in the immediate project area. The closest recorded site is NYSM #4061, located approximately 2.3 miles to the northeast, near the East River in the vicinity of East 59th Street.

C. Prehistoric Sensitivity

An understanding of the natural environment of the area before European settlement is necessary to assess the probability of the existence of prehistoric archaeological resources on the project block; where a camp or settlement was located depended on a number of variables including the topographic conditions and accessibility of resources. The New York City Landmarks Preservation Commission (NYCLPC) developed a predictive model for likely locations of prehistoric sites based on an early topographic map. This model identifies the area to the east of the project site as a locus of possible high prehistoric sensitivity based on the proximity to fresh water streams. The project site, which was closer to the marshland adjacent to the Great Kill would have a lower sensitivity rating.

Although Grumet's research indicates that most of the recorded Native American settlement was far east of the project block, there is the possibility that a site could be recovered on a knoll with access to fresh water streams near the Hudson. The examination of historic maps indicates that entire project block was exposed land with a low hill on the west side during the prehistoric era. Further east, the surface level rose creating a well-drained "high ground." While the hill on the western side of the project site was cut down, the central portion of the project site remained relatively undisturbed during the historical period. Therefore, the project site is considered to have moderate sensitivity for prehistoric cultural materials.

IV. HISTORICAL OVERVIEW

A. Historical Cultural Chronology

In the early seventeenth century the Dutch West India Company, which was formed by a group of merchants, became a powerful and profitable commercial enterprise. The company focused most of its efforts settling New Amsterdam (later New York). Although the Company received a grant for all of the land rights on Manhattan Island in 1623, the majority of settlers were clustered in southern, or lower, Manhattan, with only a few venturing north to the area known as Harlem (Buttenwieser 1987: 25). Initially lots were set aside for Company use and to create the colony's fortifications. Land was then granted to individual settlers for private homes and gardens. The majority of these settlers were merchants and fur traders requiring access to the commercial shipping routes.

It was during the late seventeenth century that the lands in the project area were settled. Part of the reason for the lag between the settlement of lower and upper Manhattan was due to land disputes, Indian Wars, and the subsequent fight for possession of Manhattan Island with the British. By 1664, the British had gained control of the Island and just over twenty years later, the Dongon Charter was decreed, establishing the City of New York (Hoag 1905: 32). The section of Manhattan to the north of the original city, that encompasses the project area, was called Bloomingdale (vale of flowers) by the Dutch. It was first settled in the late seventeenth century by English and Dutch farmers. An attractive unnamed bay was located on the Hudson just southwest of the site between fortieth and forty-second streets. Three small streams came together at approximately Tenth Avenue and 40th Street to form the Great Kill, a creek that ran west through a marshy valley to the bay on the Hudson River (Stokes v. 6 1998: 131-132). The presence of many reeds and water grasses had early settlers calling it the "Reed Valley." The bay at the end of the Great Kill provided a protected area for the local farmers to import and export goods and produce. One of the streams that formed the Great Kill traveled north-south near the location of Ninth Street, over one block east of the project site.

The project block was once part of a very large land grant bestowed by Governor Richard Nicolls to Johannes Van Brugh, Thomas Hall, Jan Vigne, Egbert Wouters, and Jacob Leedersen in 1667 (Stokes v. 6 1998: 125). Van Brugh received the southern 150 acres that encompass the project block. Upon his death, his property was left to his daughter Maria, who in turn sold the southwestern section of the farm to Aernout Webber (Ibid: 126). Webber and his wife Jannette eventually sold the property to John Balme in 1713 (Ibid). The deed indicates that Balme purchased

Two house lots lying and being near the Great Kill, bounded southerly and northerly by the lands of Van Brugge, deceased, East along the path that goeth down to Sapocanica as far as to the turnouts, and West to Hudson's River or North River aforesaid (Ibid).

Just one year later Balme sold the property again to Mathias Hopper, a yeoman formerly from Hackensack, New Jersey. Although no record of the will of Mathias remains, the property was taken over by his sons Matthew and William Hopper and the land remained in the family for much of the eighteenth century.

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

Following the Revolutionary War the recovery of the city was swift. Central to this revitalization was the establishment of new trade routes to China which gave "fresh impulse and energy to American industry" (McKay 1969: 5). Mathew Webber, who by 1785 had become the sole owner of the family farm, sold the property to John Leake in 1786 (Stokes v. 6 1998: 126). Leake had purchased the other half of the Van Brugh property to the north of the site in 1757 from the Estate of Joseph Murray. Before Murray died, he had built a considerable estate that he named "The Hermitage." When he died in 1757, an obituary in the New York Post Boy stated that he was to be interred in the chancel of Trinity Church (Ibid).

Leake's undated will indicates that he left the farm to his niece Martha Norton for life with the proviso that it would be later divided between her sons, John Leake Norton and Robert Burrage Norton (Ibid). Leake also bequeathed Trinity Church "One thousand pounds lawful money . . . to be put out at lawful interest and the annual income to be laid out in six-penny wheaten loaves of bread distributed on every Sabath day in some part of said church ... to such poor as to them that should be the most deserving" (Ibid). The church continued this practice at St. Luke Chapel well into the Twentieth Century.

Following the death of Martha Norton in 1797, Robert Norton received the southwestern portion of the property containing the project site. His will, which was proved March 11, 1805, divided the property among his heirs. The will indicates that the main farm house was located southwest of the project site on a rocky knoll overlooking the bay and the mouth of the Great Kill (Ibid).

At the start of the nineteenth century, the continued growth of maritime trade made New York the most important port in the United States. Historical maps attest to the growth of the commercial activity, which eventually led to the break-up of farms into city blocks. This is most clearly evident in the Commissioner's Map of 1811. In addition, to the division of Manhattan into blocks, this map and several that were made over the next two decades, depict the westward expansion of the Hudson River shoreline. As nineteenth century New York continued to expand in both size and population, sources for landfill were abundant. Many of the low hills on the island, including those along the western shore, were cut down and the material deposited along the

shoreline. In addition, the construction of streets and new buildings, especially those with cellars, provided soil, sand, rocks, and other debris for fill. Another source of fill was the immense amount of garbage generated by the inhabitants of the island.

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

During the late nineteenth century the project site was considered to be in the area often called Hell's Kitchen. This "neighborhood" was located west of Seventh Avenue roughly between West 30th and West 60th Streets (White and Willensky 1978: 127, 138, 144). One of the city's most notorious crime areas, Hell's Kitchen encompassed an area filled with freight yards, factories, and tenements. The northern section of this neighborhood changed dramatically in the early Twentieth Century as the Theater District grew and Adolph Ochs established Times Square.

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

As transportation networks changed during the twentieth century, so did the West Side commercial district. During the 1930s and 40s, the continued increase in traffic resulted in the creation of the West Side Highway to the northwest of the site. The highway merges onto the at-grade Twelfth Avenue at about 59th Street. Twelfth Avenue continues south to Battery Park on the tip of Manhattan. Today, the area still serves the river transport lines, the Intrepid Sea, Air, and Space Museum, and a considerable amount of pedestrian and automobile traffic.

B. Cartographic Review

Most of the early maps of Manhattan concentrate solely on the lower portion of the island. The early maps that do depict the project area indicate that Reed Valley and the Great Kill were

once located south of the site near present-day 40th Street. The earliest map that gives sufficient detail to the project area is the 1807-11 Commissioners Map. This map shows the newly designed street system. While the map indicates that the project area was once the Norton farm, it is clear that Block 1073 was undeveloped. The bay and Great Kill are shown at about 42nd Street, two blocks south of the project site.

The 1817 Poppleton North River Shore Map also shows no development on the property. To the southwest, on Block 1091, a dwelling house is shown. This is likely the former Robert Norton House described in his will of 1805 (Stokes v. 6 1998: 126). The meandering Great Kill and the bay along the Hudson are still present near 42nd Street. The 1819 Randel Survey Map of the City of New York also shows the main Norton House and possibly a small outbuilding on the east side of Block 1073, outside of the project site (Figure 4).

The 1836 Colton Topographical Map depicts most of the project block as forested (Figure 5). Only one outcrop or hill is shown along the western edge of the block. The dwelling house on Block 1091 is depicted surrounded by gardens to the southwest of the project site. Again, the Great Kill and bay are shown as present south of 42nd Street. Ensign's 1845 Map of the City of New York (Figure 6), also shows no development within the project block.

Dripps' Map of the City of New York (1852) is the first map to depict any significant development of the project site. Five small adjoining structures are shown on the east side of the block fronting onto 44th Street, and one building is shown on the west side of the block fronting onto Eleventh Avenue (Figure 7). This small dwelling is located within the project site. The Dripps' map also depicts a cemetery directly north of the project site within Block 1074. While no information was found about the date, or size, of the burying ground the map depicts it on the opposite side of 45th Street outside of the project site. The Great Kill and Bay are not shown on this map. Egbert Viele's 1859 Topographical Atlas indicates that the bay had been filled and the Great Kill diminished by that date (Figure 8). This map also shows the small hill on the western end of the block which was likely being cut down at the time.

The 1857-62 Perris Atlas clearly shows the early development of the block (Figure 9). At least 10 dwellings are depicted on the western half of the block within the project bounds. Each of these structures have backyards in the center of the project block and appear to be used as both a dwelling and commercial building. Two of these structures have associated rear outbuildings. In addition, a "Slaughter House" is depicted within the project site fronting onto West 44th Street. The small outbuildings that are shown around this structure may be pens where the animals were fenced in. The Ward School, or Public School Number 51, had also been constructed on the east side of the block by that date.

By 1868, the slaughter house is no longer present (Figure 10). There are now 11 dwellings shown on the western end of the project block, with three rear yard outbuildings. The map misidentifies this area as once part of the "Robert B. Horton" farm (instead of Norton). The surrounding neighborhood has also grown considerably by that date. Numerous factories, mills,

markets, and dwellings characterize this area as a thriving urban locale. The 1874 Galt and Hoy Birds Eye View of Manhattan shows the continuing development of the neighborhood (Figure 11). While it is not completely accurate in its depiction of specific buildings, the view does indicate the complete urban development of the area by this date.

The examination of the 1885 Robinson Atlas of the City of New York indicates that most of the western portion of the block, within the project site, contained structures fronting onto the three surrounding roads (Figure 12). These buildings did not cover the entire lot, leaving large open backlots within the center of the block. Only 6 outbuildings are present. No specific businesses or buildings are identified on this side of the block. On the eastern side of the block, however, the school, an iron foundry and a cabinet works are shown. This map also indicates the presence of public utilities on all of the streets surrounding the block. According to Bromley's 1891 (Figure 13) and 1902 Atlases of the City of New York, little had changed in the block by those dates.

The Sanborn Fire Insurance Map from 1911 (Figure 14) indicates that most of the buildings on the west side of the block are 3 to 5-story dwellings containing basements. The street addresses for buildings listed below are different from those on the 1857-62 Perris Atlas. In 1911, a bakery (on the corner of West 45th and Eleventh), an office (546 West 45th), a junk shop (Eleventh), and two carpenter shops (548 West 45th and 549 West 44th) are depicted. Two of the outbuildings shown on earlier maps (555 and 557 44th Street) are now shown as dwellings. The central portion of the block is still undeveloped. By 1930 the configuration of buildings had not changed dramatically on the block and the street addresses remained the same as in 1911 (Figure 15). The only changes noted are that the two former outbuildings (555 and 557 West 44th Street) have been razed. The carpenter shops are vacant and the junk shop is now shown as the "R. R. Contractors Shop." The bakery and office are still present.

Major changes occurred toward the middle of the twentieth century, when the majority of the buildings on the west side of the block were razed reflecting the new use of the block for transportation and parking (Figure 16). Only five of the dwellings were left by 1951 (530, 532, 534 West 45th and 527, 529 West 44th). A new Metal Works building, with a concrete floor, now crossed the block at 522-528 West 45th and 531-533 West 44th Streets. At the western edge of the block a Taxi Terminal containing an office, rest room, and shop was now present. The rest of the open block was used for parking. During the third quarter of the twentieth century the remaining dwellings within the project site were removed (Figure 17). In addition, the older section of the public school had been razed (just east of the project site fronting onto West 44th Street). The former Metal Works building was enlarged onto the lots at 527-529 West 44th Street providing space for a one-story factory. The Taxi Terminal had been razed and the rest of the project site was designated parking. Today the former Metal Works is occupied by the New York City Fire Department's Investigation Bureau (see Figure 2). No other structural changes have occurred on the project site since 1976. The field visit concurred that the project site is still used for automobile parking (see Photographs A-E).

C. Historical Sensitivity

Unlike Lower Manhattan, the West Side was not densely settled during the colonial period. It was not until the early nineteenth century, with the breakup of the large farms into city blocks, that the area changed. The subsequent development of the project area was reflected on Block 1073. Beginning sometime prior to 1852, dwellings, typically with first floor shops, were constructed on the project block. The cartographic review indicates that while the entire outer block was developed, the back lots of the dwellings within the project site remained open. Only a few scattered outbuildings were constructed in this location. The earliest dwellings on the site were constructed prior to the introduction of public utilities in this location (see Figures 7, 9, and 10). Research indicates that public sewers were installed on West 44th Street in June 1854 (Croton Aqueduct Report 1856). Sewers were not installed on West 45th Street and Eleventh Avenue until sometime after 1866, although the exact dates were not found in the records. In 1863 six-inch public water pipes were installed on West 45th Street. While sewer pipes were installed early along West 44th Street, it is clear that most of the block did not have access to public utilities when many of the buildings were constructed on the western side of the project block.

Therefore, features that once existed, or activities that once took place in these back lots may have left behind a significant archaeological footprint. Traditionally, the back lots of dwellings and tenements were used for the placement of shaft features, and/or trash receptacles. Shaft features include wells, cisterns, and privies (outhouses). These facilities would have provided much-needed utilities to the residents of the site prior to their connection to public water and sewer lines. In addition, once these features outlived their usefulness, residents had a tendency to fill them with domestic and commercial trash and have them capped. Because cartographic research indicates that the rear yards have seen little disturbance, these back lot features may still be present on the site.

Commercial enterprises may have also left an archaeological imprint on the site. Most of the location of the mid-nineteenth century slaughter house and grounds in the back lot of 345-349 West 44th Street (1911 street address) appears to have remained undisturbed by any construction during the later historical period. The location of the two early-twentieth century carpenter shops (548 West 45th and 549 West 44th; see Figure 14), also appear to have remained undisturbed by any subsequent construction.

V. CONCLUSIONS AND RECOMMENDATIONS

Prehistoric Period

Research indicates that the project site was just north of the marshland surrounding the Great Kill and just blocks west of the well-drained high ground surrounding a stream, an area considered to have high potential for prehistoric activity (NYCLPC). The land encompassed by the project site was open land with a small hill on the west side during the prehistoric period. Two factors support the conclusion that there is currently moderate potential for prehistoric archaeological resources to exist on the project site:

- 1) there is evidence of landforms conducive to Native American exploitation within the vicinity of the project block, and
- 2) according to the research presented above, significant disturbance and/or historical era development to what are usually shallowly deposited resources has not occurred in the central portion of the project site.

Recommendations include completing a series of continuous tube soil borings to establish the depth of fill, if any, and soil stratigraphy throughout the project site. This will identify any distinctive soil layers and the possible presence of shell. It is highly unlikely that the project site was actually used as a habitation area prehistorically, but there is the possibility that it was utilized to harvest resources and/or deposit refuse. If shell middens were created near the shoreline then clear shell lenses would be visible in the soil borings. If soil borings do not reveal a prehistoric surface, shell, and/or other definitive signs of a Native American presence, this would suggest that little or no prehistoric potential remains. In that case, no separate testing activity for prehistoric resources would be warranted, but archaeologists conducting testing for historic era artifacts and features would be alert to the possibility of encountering prehistoric material.

If results of soil borings do indicate a probability of the existence of intact prehistoric material, subsurface testing for the presence/absence of those resources could be conducted in conjunction with testing for historical era resources.

Historical Period

Historical research indicates that the western portion of Block 1073 was developed during the mid-nineteenth century. Domestic structures were present on the site prior to the introduction of public utilities, and the residents would likely have used their back lots for shaft features and refuse disposal (see Figures 7, 9, and 10). The discovery of intact shaft features in New York City provides a unique opportunity to examine the lifeways of the nineteenth century residents of the neighborhood. In addition, the early commercial use of the portions of the site has been documented (the slaughter house and two carpenter shops; see Figures 9 and 14). The results of

testing could aid in answering questions about the ethnicity, occupation, gender, social status, and consumer choices of the residents and workers. The fact that there has been little documented disturbance to the back lots within the project site during the historical era indicates that portions of the project site warrant further consideration for residential and commercial historical resources as shown on Figure 18.

Following the review and acceptance of this report by the review agency, recommended research should entail completing a topic-intensive documentary study and Stage 1B archaeological field testing. Stage 1B excavation, which is designed to ascertain the presence/absence of historical archaeological resources, together with intensive documentary research (Census Records, Tax Records, and City Directories), has the potential to provide a wealth of data about the residential and commercial components of this emerging urban neighborhood.

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FIGURES



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

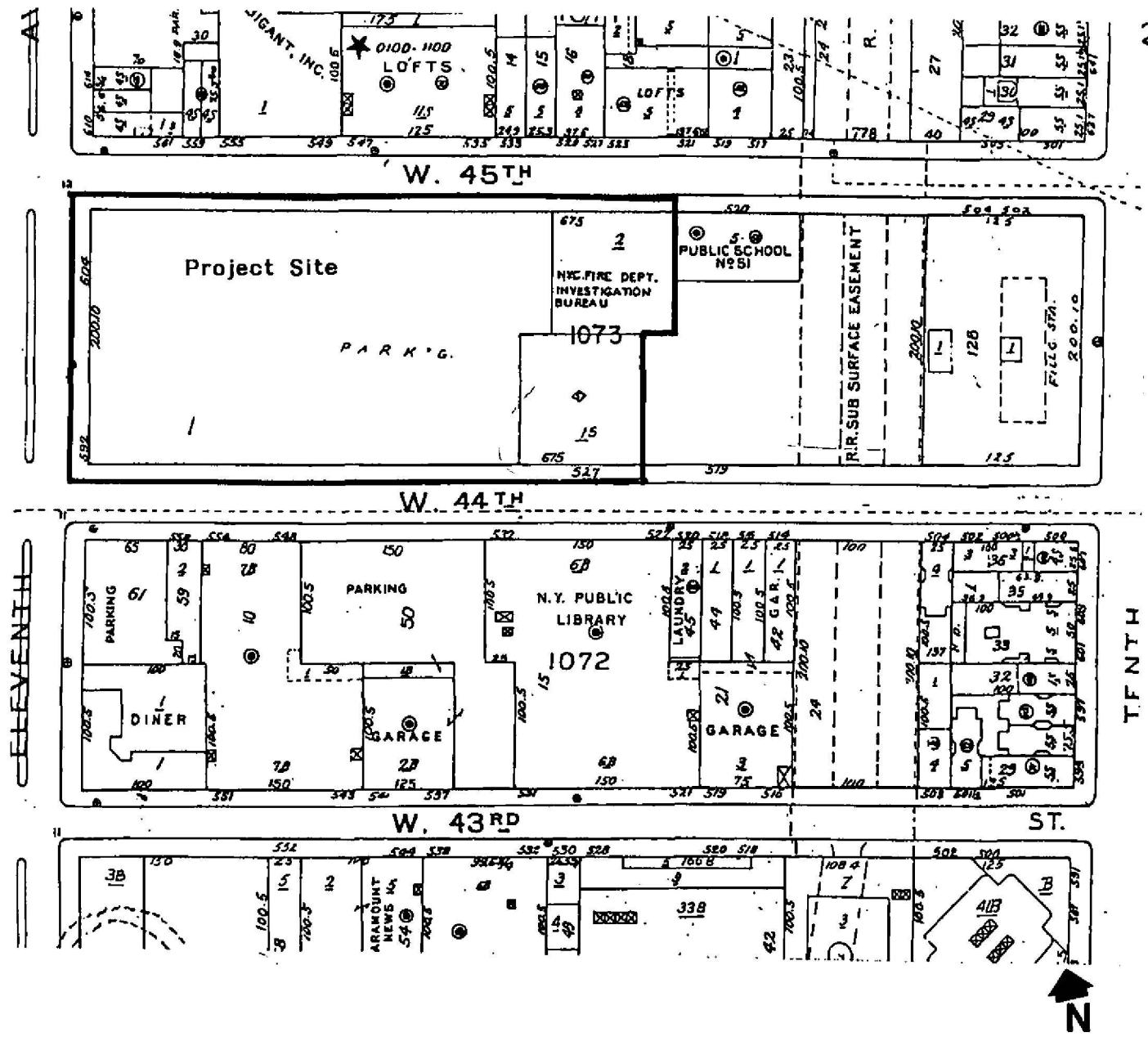


Figure 2. Sanborn, Block 1073, Project Site Location, 1999. Not To Scale.

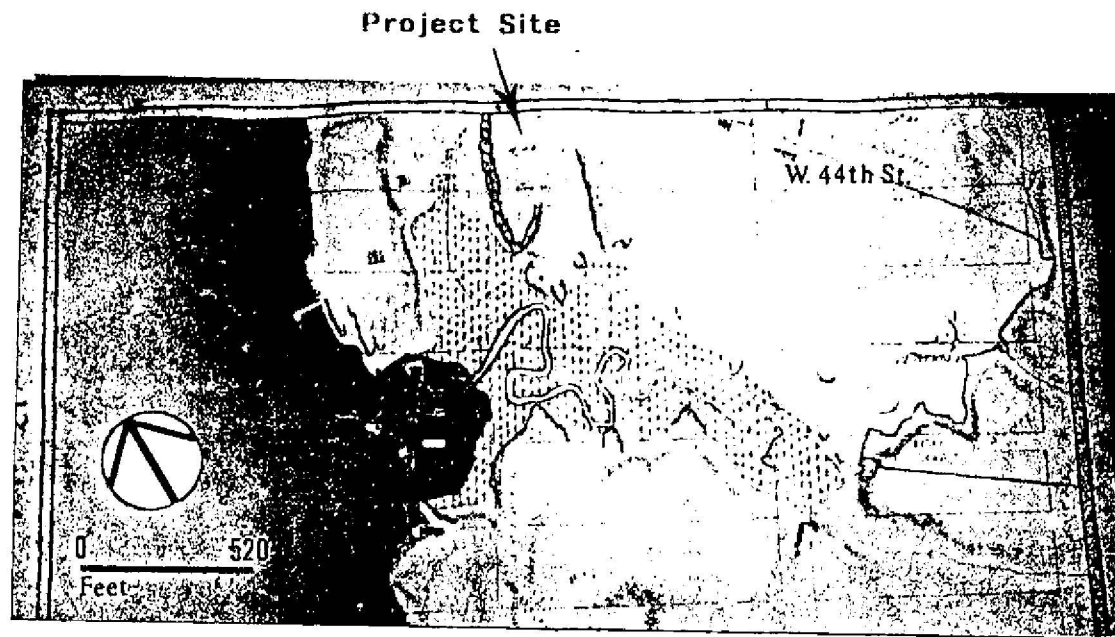


Figure 4. Randel, Survey Map of the Sity of New York, 1819-20.

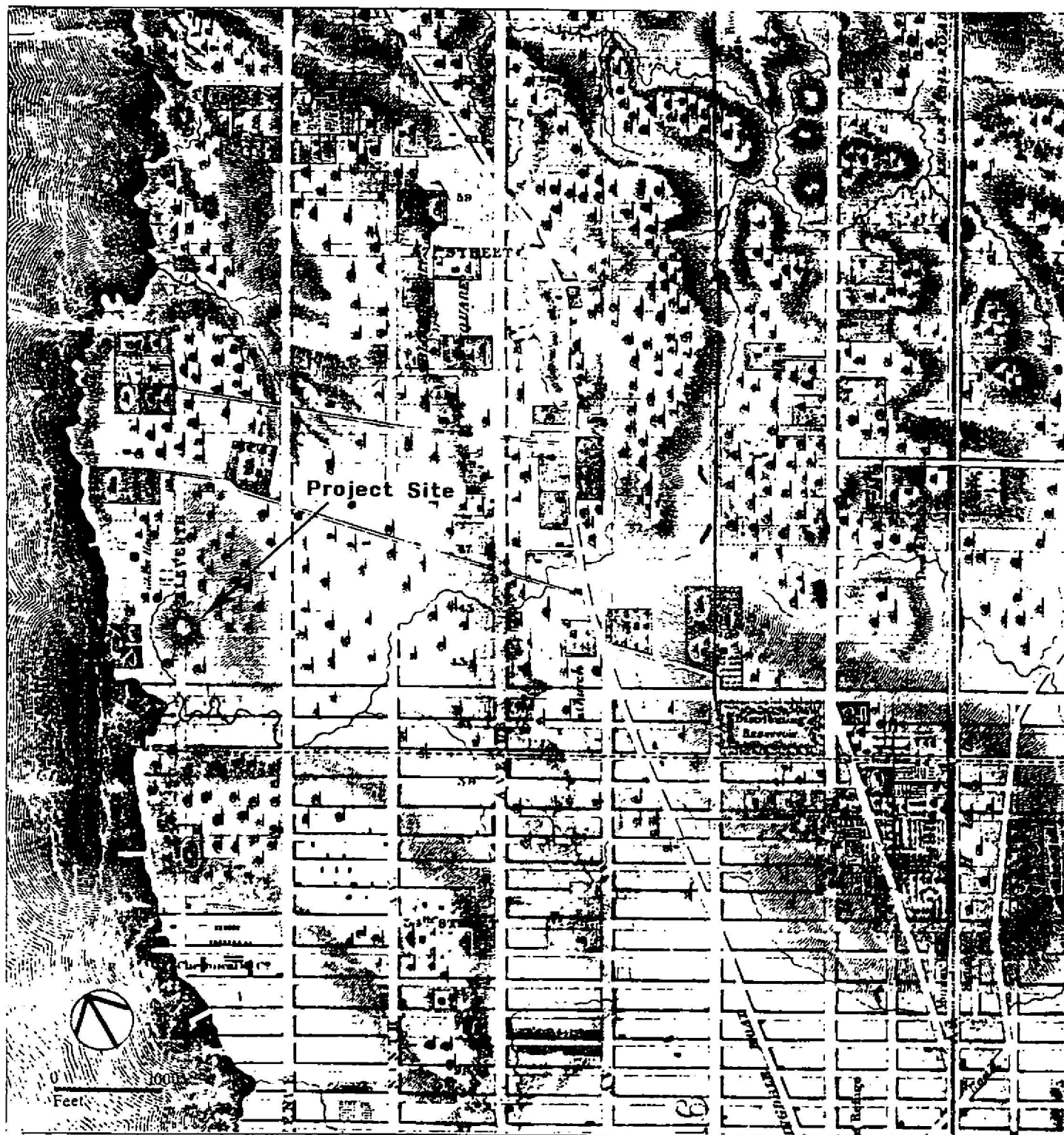


Figure 5. Colton, Topographical Map of the City and County of New York, 1836.

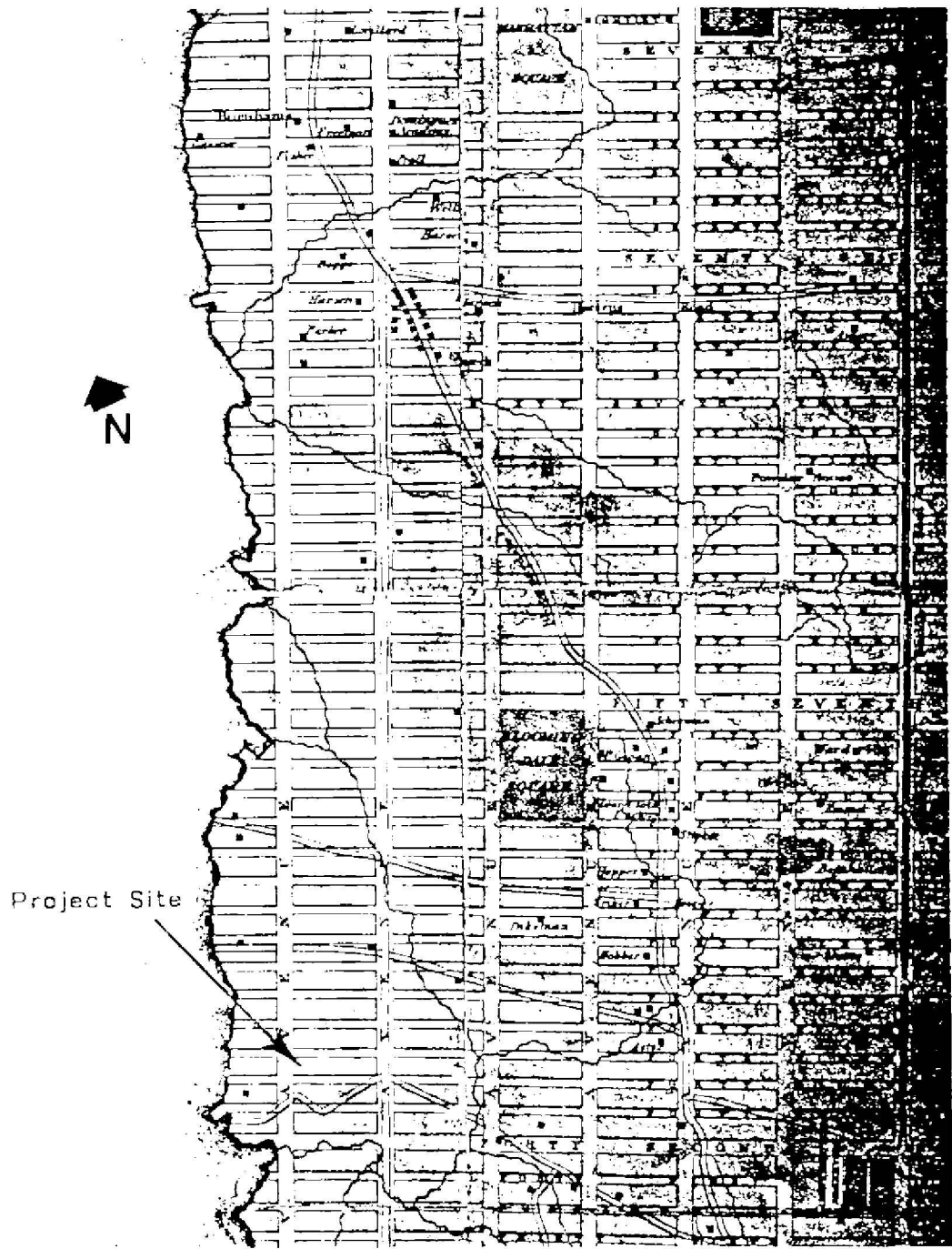


Figure 6. Ensign, Map of the City of New York, 1845. Not to Scale

Project Site



Figure 7. Dripps, Map of the City of New York, 1852. Not to Scale.

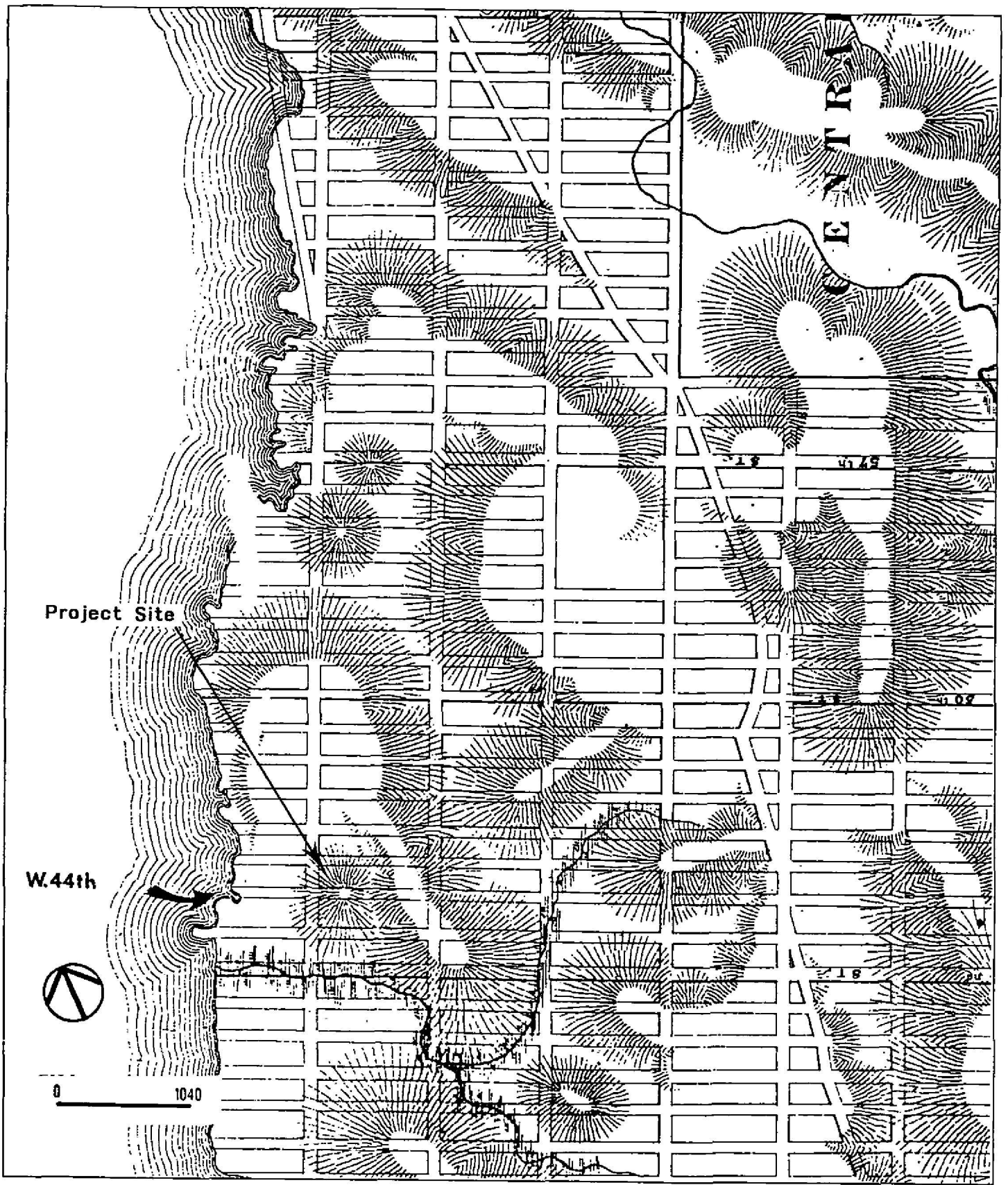


Figure 8. Viele, Topographic Map of the City of New York, 1859.

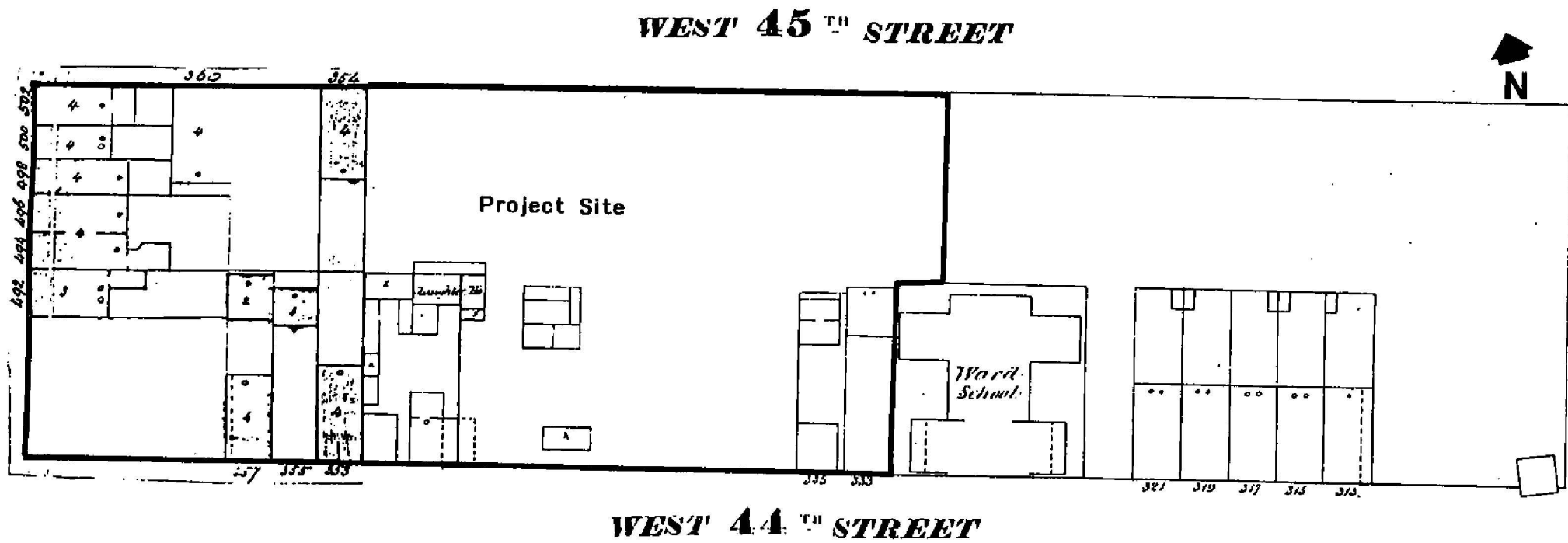


Figure 9. Perris, Maps Of The City Of New York, 1857-62. Not To Scale.

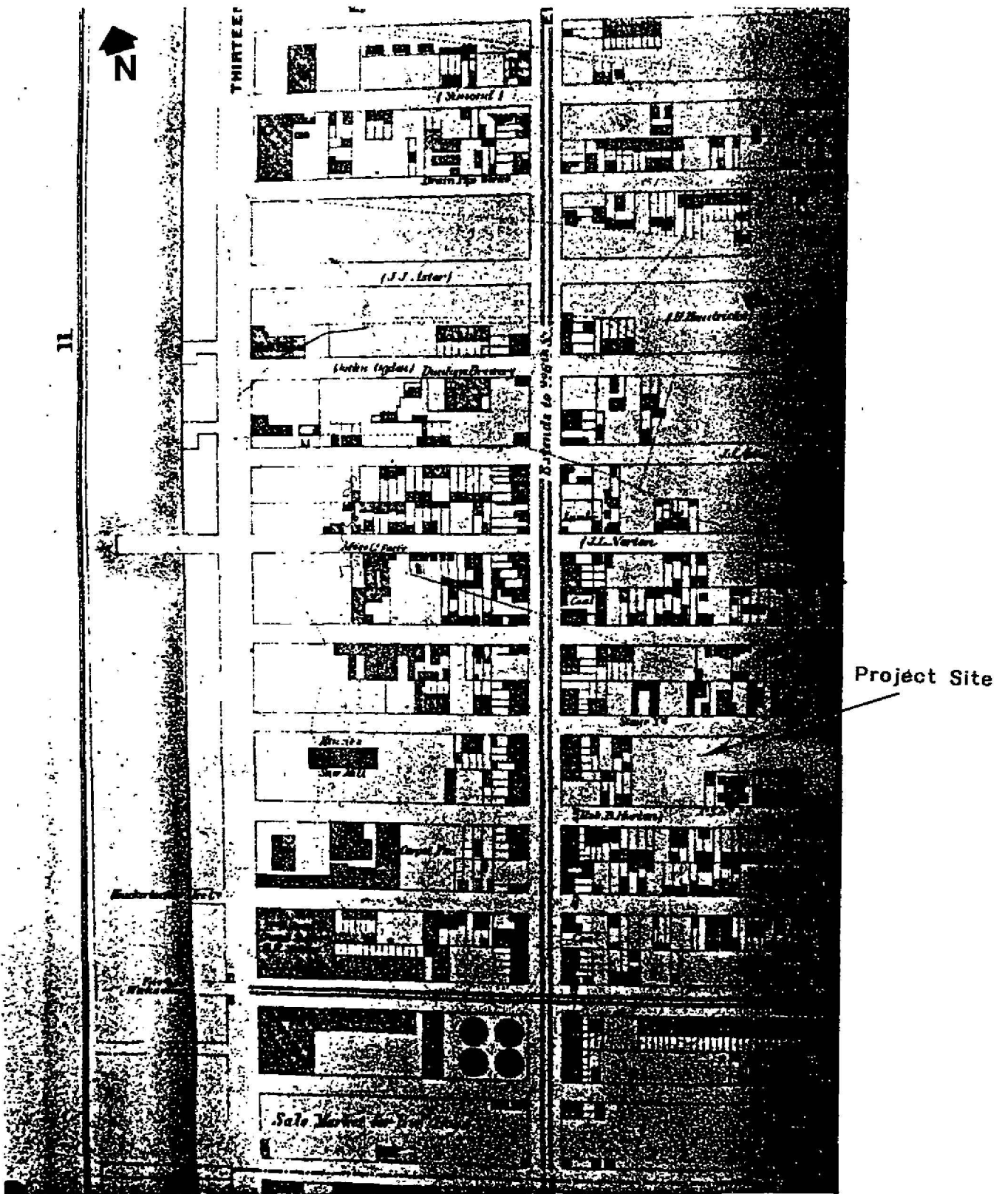


Figure 10. Dripps, Map of the City of New York, 1868. Not to Scale.



Figure 11. Galt and Hoy, Birds-Eye-View of New York City, 1879. Not to Scale.

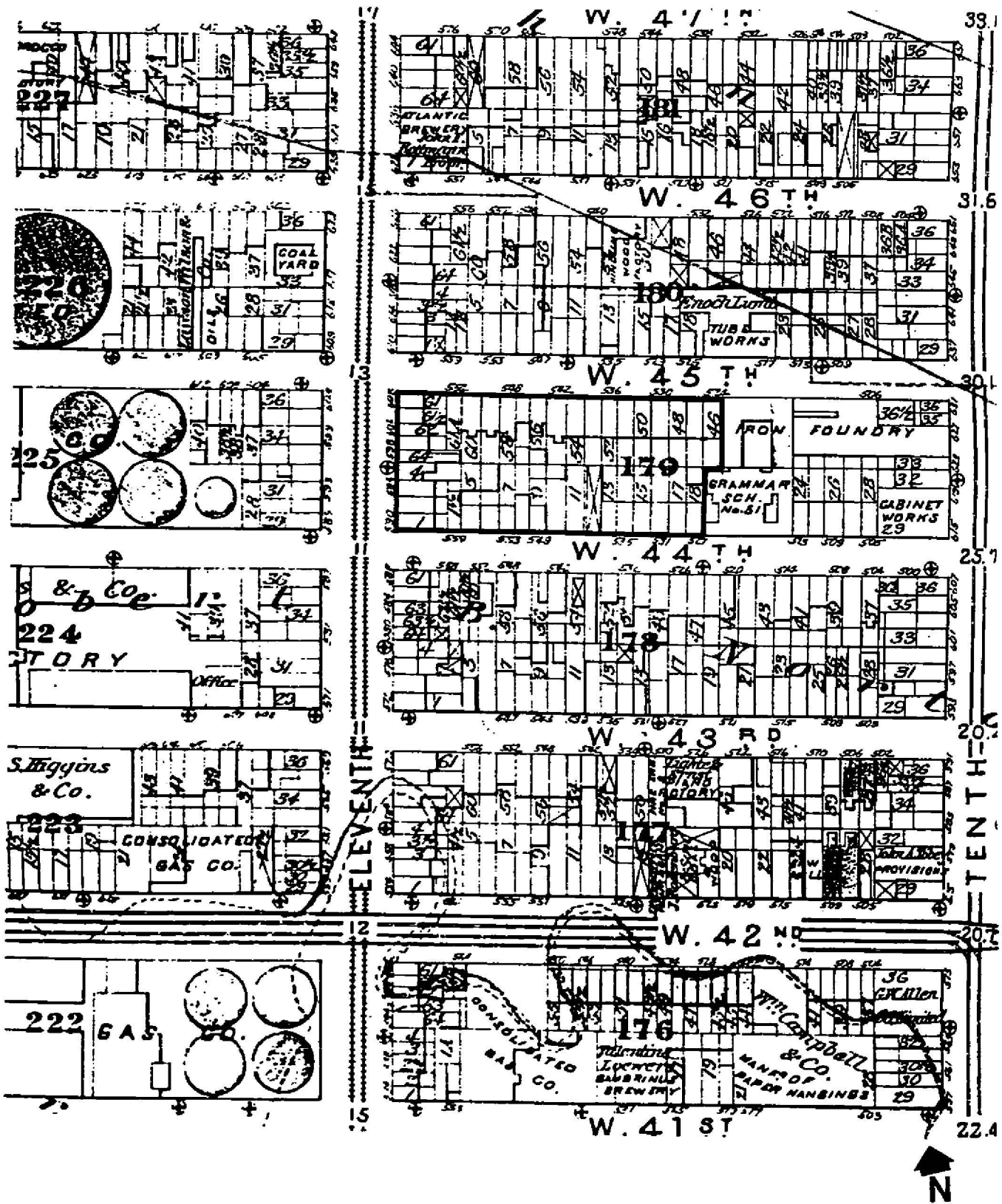


Figure 12. Robinson, Atlas of the City of New York, 1885. Not to Scale.

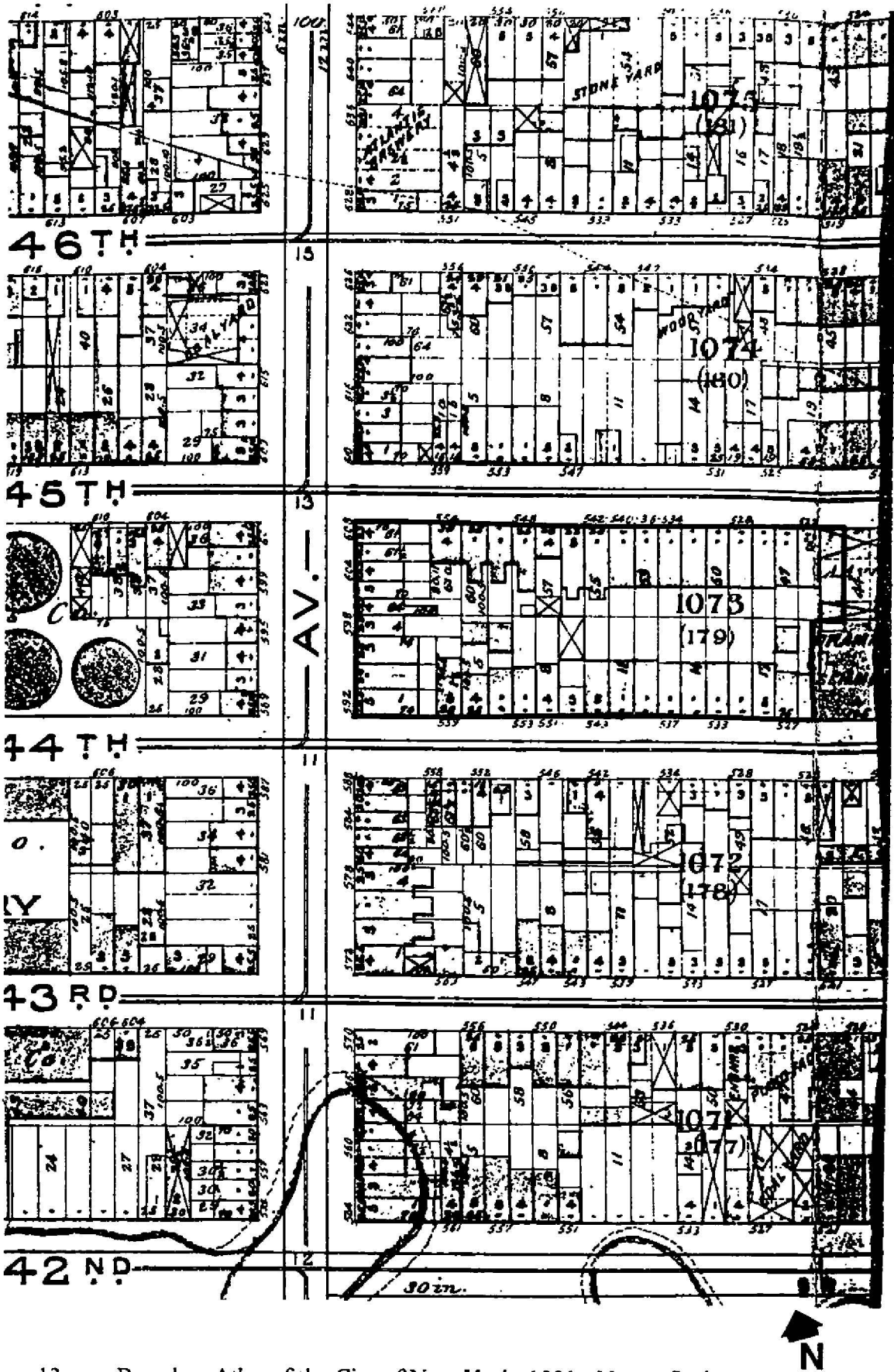


Figure 13. Bromley, Atlas of the City of New York, 1891. Not to Scale.

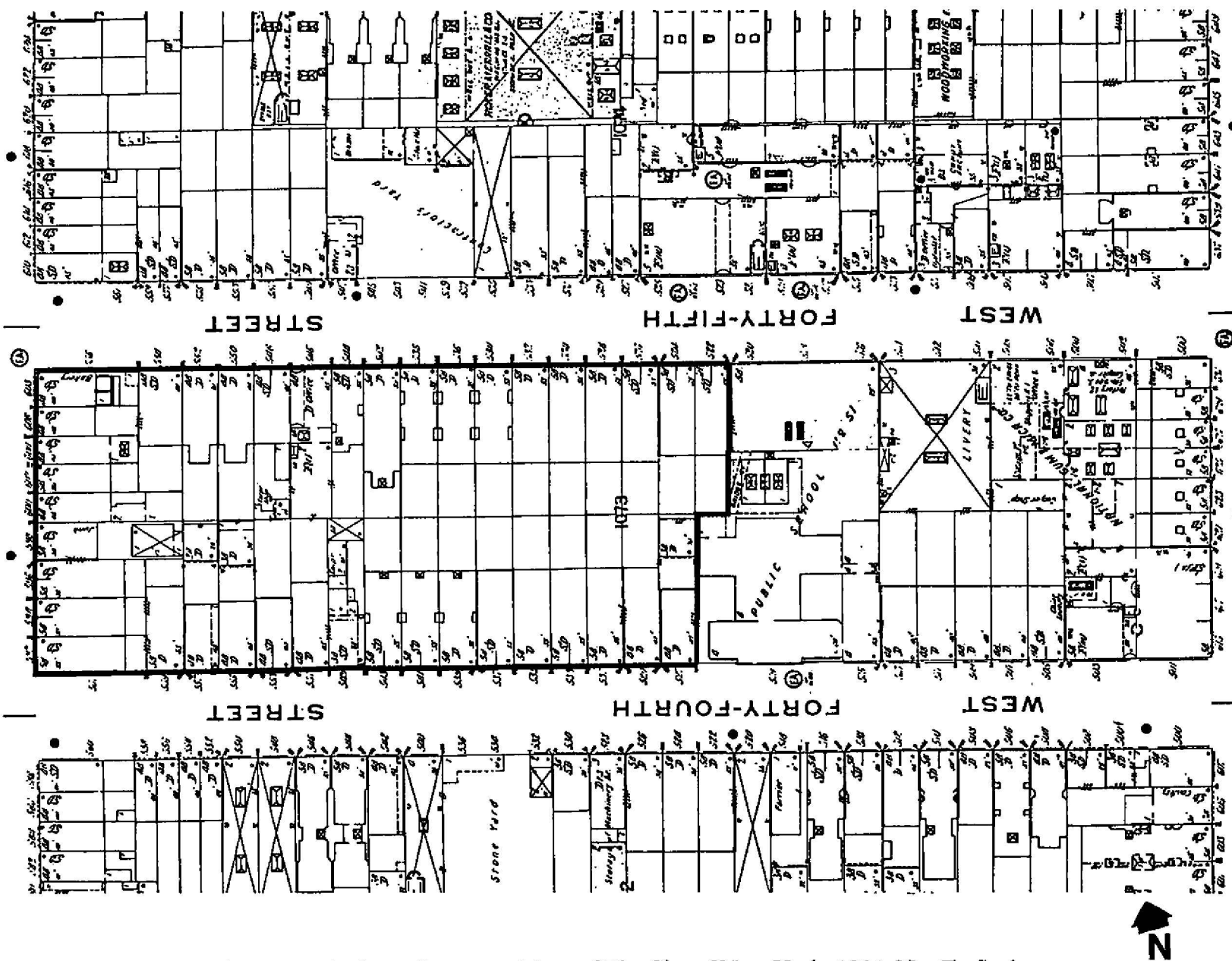


Figure 14. Sanborn, Insurance Maps of The City of New York, 1911. Not To Scale.

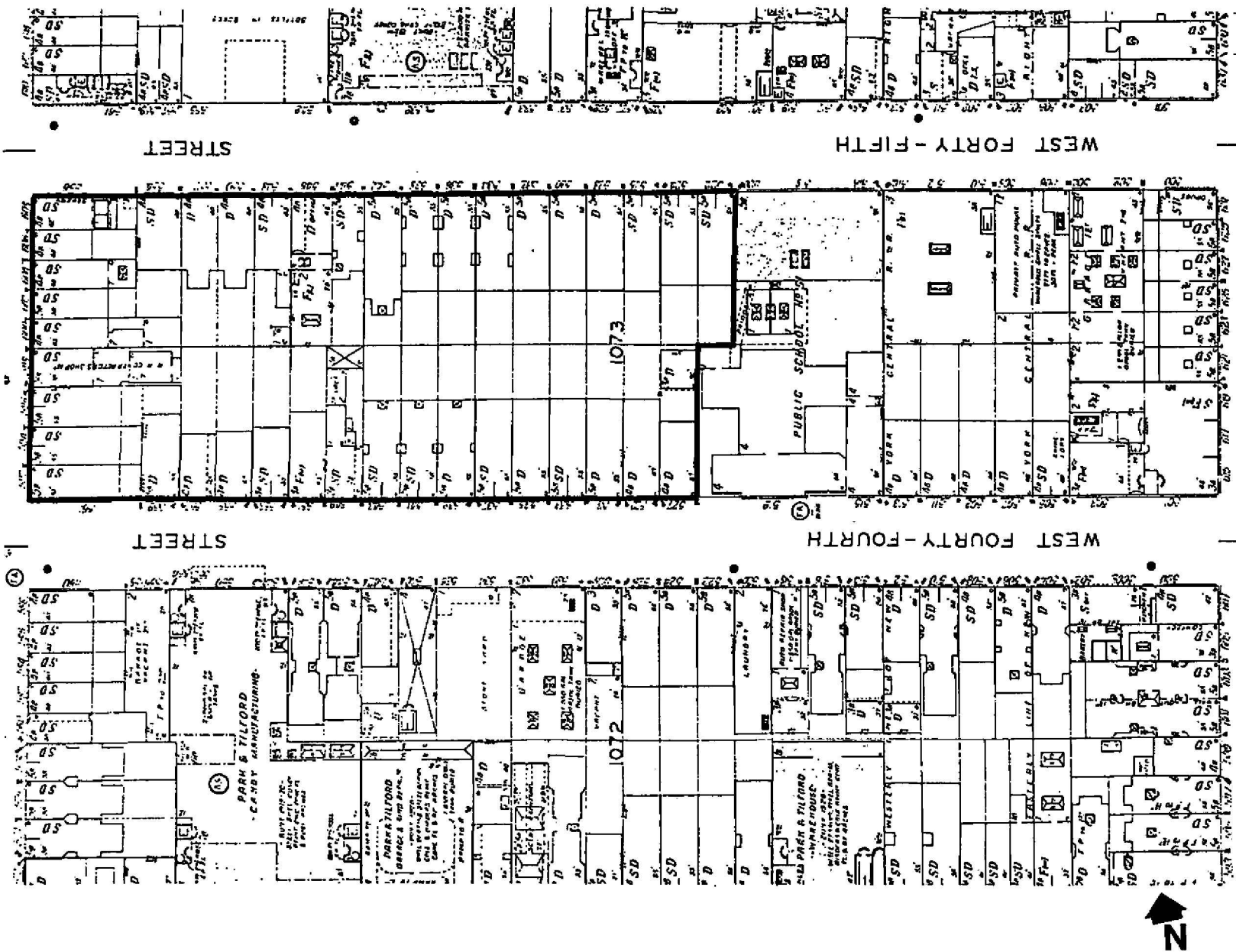


Figure 15. Sanborn, Insurance Maps of The City of New York, 1930. Not To Scale.

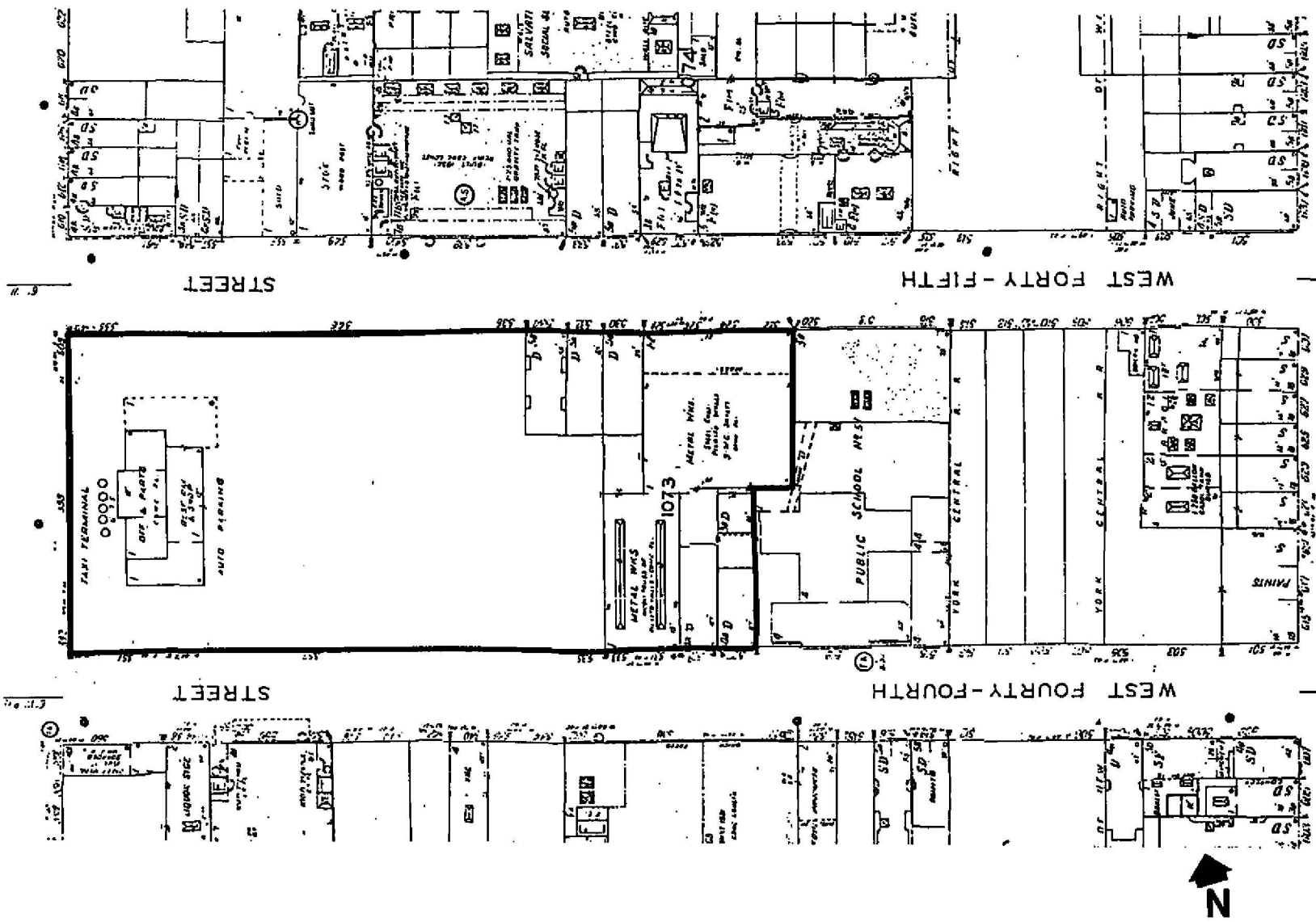


Figure 16. Sanborn, Insurance Maps of The City of New York, 1951. Not To Scale.

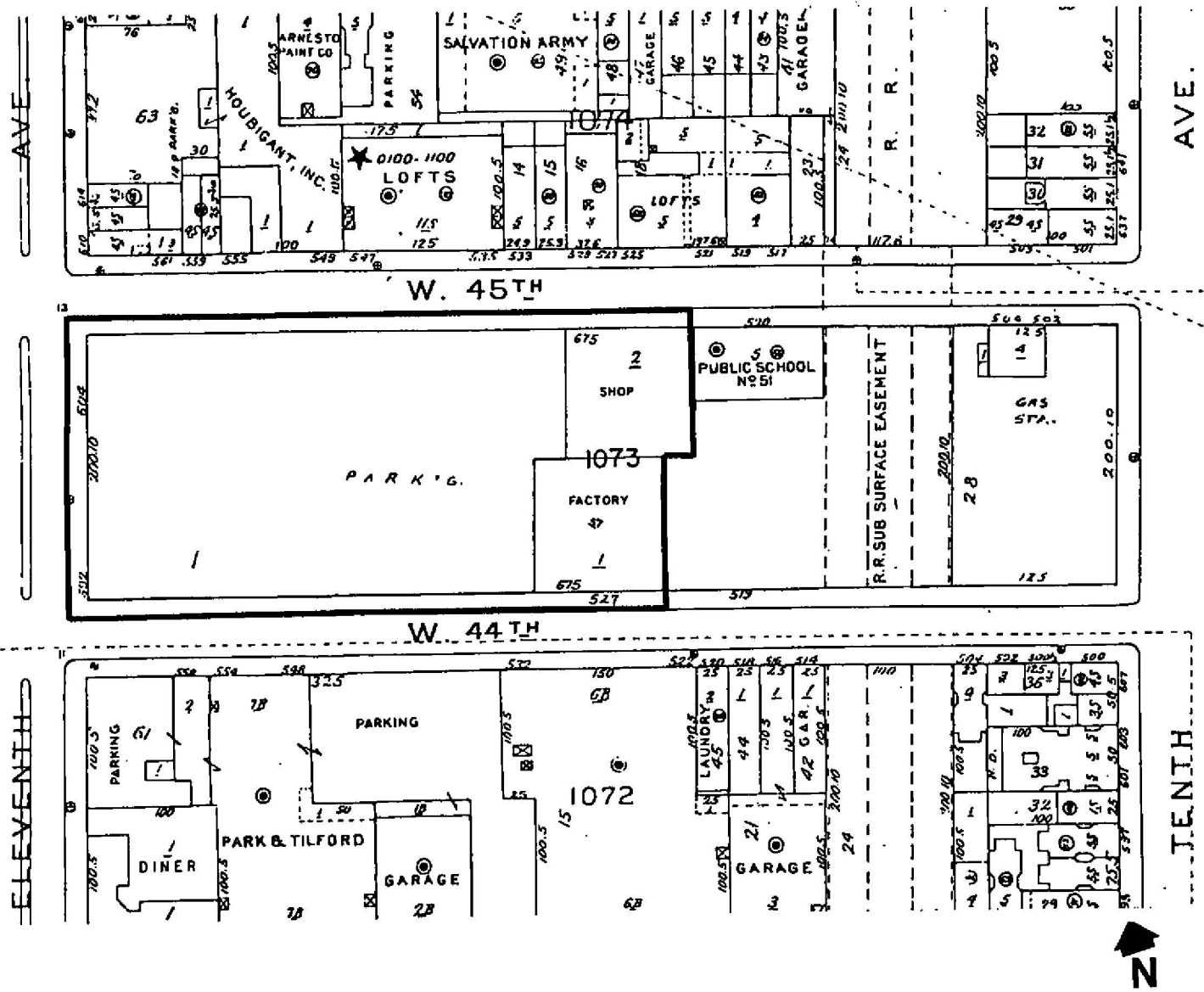


Figure 17. Sanborn, Insurance Maps of The City of New York, 1976. Not To Scale.

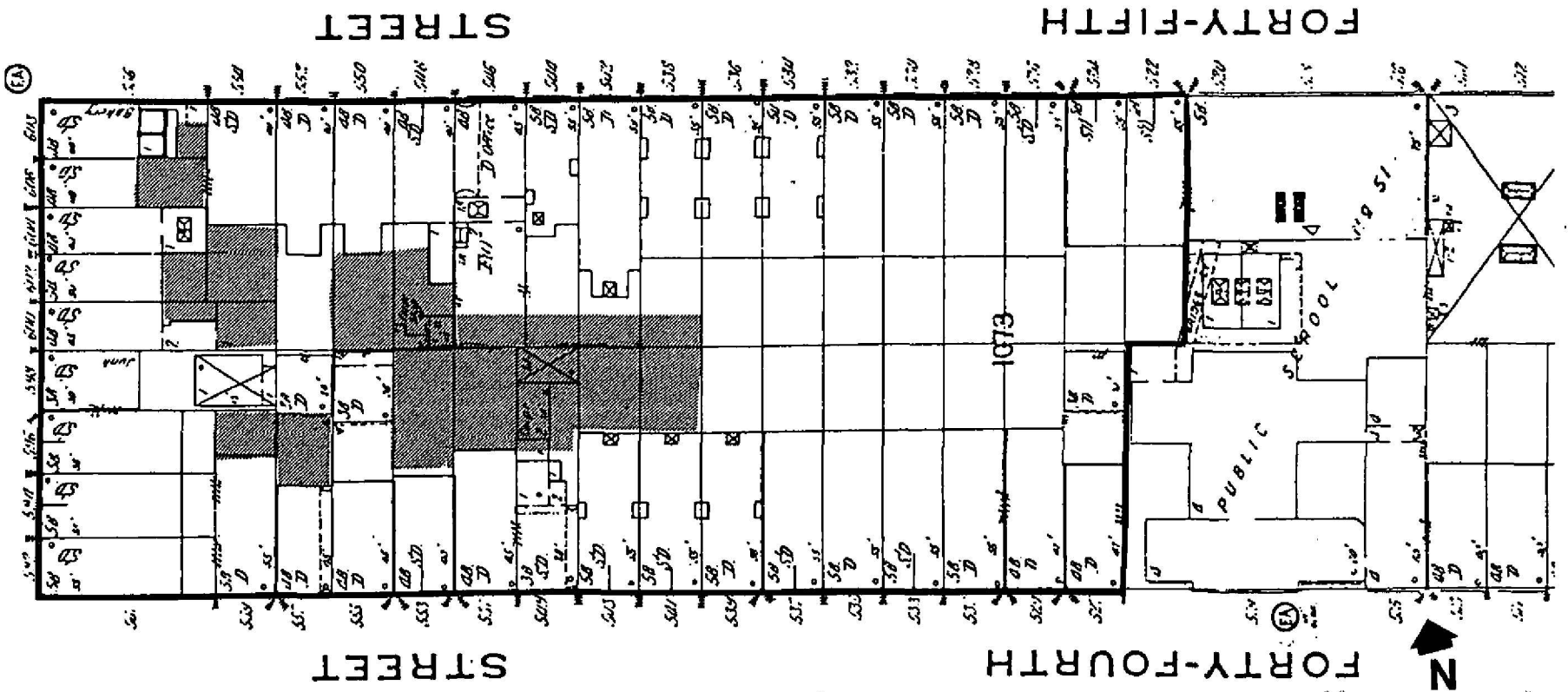


Figure 18. Archaeological Sensitivity Map. Base Map: 1911 Sanborn.

PHOTOGRAPHS



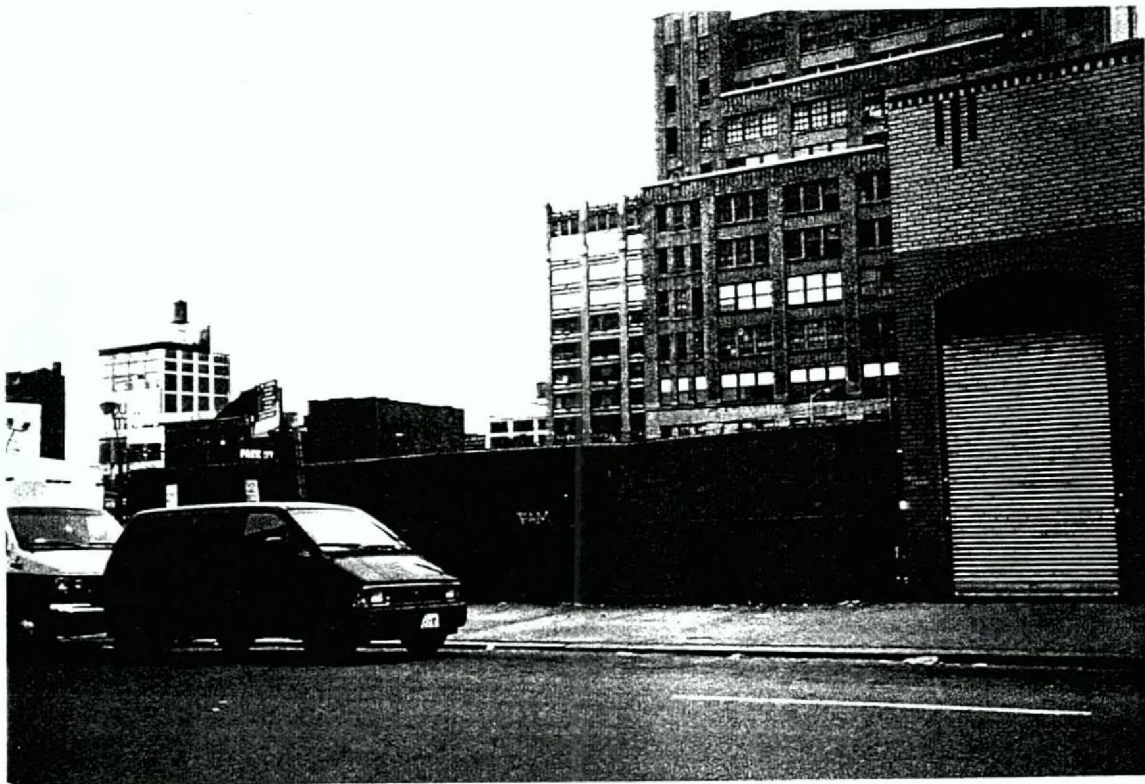
Photograph A. Studio City Project Site. Standing Structure on West 45th Street.



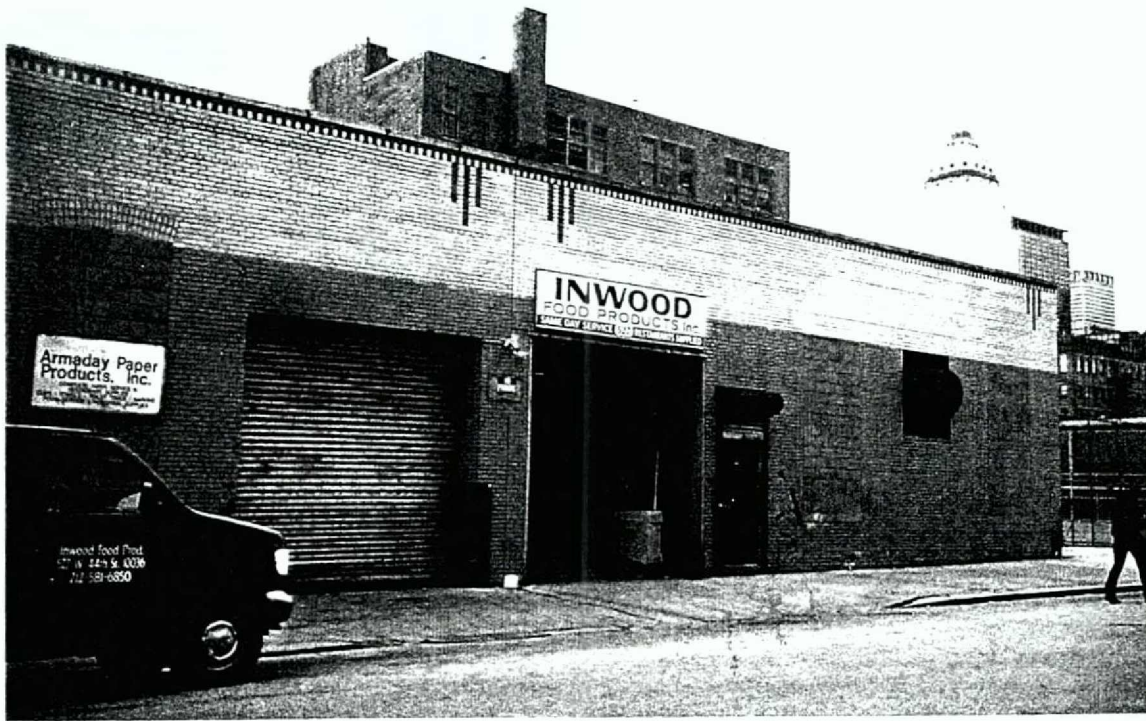
Photograph B. Studio City Project Site. Parking Lot, Facing West on West 45th Street.



Photograph C. Studio City Project Site. Parking Lot, Facing South on 11th Avenue.



Photograph D. Studio City Project Site. Fenced Parking Lot on West 44th Street.



Photograph E. Studio City Project Site. Standing Structure on West 44th Street.