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AKRF

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Phase 1A Archaeological Documentary Study

47 Grand Street Development

Block 227, Lots 20 and 22

New York, New York

Prepared for:

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A. PROJECT OVERVIEW

AKRF, Inc. has been retained by KANO Properties to prepare an Environmental Assessment Statement (EAS) in connection with the proposed development at 47 Grant Street in the SoHo neighborhood of Manhattan (see Figure 1). The development site is located on Block 227, Lots 19 (41 Grand Street), 20 (43 Grand Street), and 22 (47 Grand Street). In a preliminary review of the site, the New York City Landmarks Preservation Commission (LPC) determined that only Lots 20 and 22 possess archaeological potential. Therefore, only Lots 20 and 22 are included in this analysis as part of the archaeological area of potential effect (APE). Lots 20 and 22 are situated at the southwest corner of West Broadway and Grand Street (see Figure 2).

The proposed development would remove the three existing buildings on this site and replace them with a new 9-story office building. The project would require excavation of the site for the construction of a cellar. The proposed development requires the granting of a bulk variance from the New York City Board of Standards and Appeals (BSA), and it is anticipated that BSA will serve as lead agency for the project's environmental review.

B. RESEARCH GOALS AND METHODOLOGY

The goal of this Phase 1A Archaeological Documentary Study of the 47 Grand Street development APE is to determine the likelihood that potential archaeological resources have survived the destructive forces of time, including the construction of domestic and industrial structures in the area. The study has been designed to satisfy the requirements of the LPC and it follows the guidelines of the New York Archaeological Council (NYAC). The study documents the history of the proposed project site as well as its potential to yield archaeological resources including both precontact and historic cultural remains. In addition, it also documents the current conditions of the project site and previous cultural resource investigations which have taken place in the vicinity of the APE.

Research was completed to establish a chronology of the APE's development and to identify any individuals who may have owned, worked, and resided within it. Historic deeds were reviewed to identify the owners of the project site from the 17th century to the present (Appendix A). Census records dating between 1790 and 1930 were reviewed in an attempt to identify those individuals (Appendix B). Census records that pre-date 1871¹ do not include street addresses and most do not include street names. Therefore, one cannot identify with complete certainty the residents of any one particular property. Similarly, historic directories are valuable sources of information which can identify the residents of individual properties. However, most directories are organized by name and are not usually organized by address (with the exception of some street directories such as the 1851 Doggett directory, which has been transcribed in Appendix C). There are several historic directories which have been digitized and can therefore be searched by address rather than name. These directories, which date to 1827, 1829, 1834, 1839, 1852, 1857, 1859, 1867, 1869, and 1890, were reviewed as part of this documentary study. Finally, historic tax assessment ledgers were reviewed to identify the owners (and in some cases, the occupants) of the historic properties located within the APE (Appendix D). When possible, the names of the owners were cross-referenced with census records and historic directories.

¹ The 1870 census was taken twice in several areas, including New York City. The first enumeration of the census was completed in July 1870 and the second enumeration of the 1870 census was taken in January 1871 at the request of many individuals who feared that urban populations were under-represented in censuses. The second enumeration is the first census to include street addresses for each family and is therefore a more accurate reference in the search for the residents of a particular property.

In addition, as part of the background research for this Archaeological Documentary Study, various primary and secondary resources were analyzed including historic maps and atlases, historic photographs, newspaper articles, local histories, and building records. These published and unpublished resources were consulted at various repositories, including the Main Research Branch of the New York Public Library, the Manhattan office of the City Register, the New-York Historical Society, the Department of Environmental Protection Bureau of Water and Sewer Operations, and the New York City Department of Buildings website. On-line textual archives such as Google Books and the Internet Archive Open Access Texts were also accessed.

A. GEOLOGY AND TOPOGRAPHY

The island of Manhattan is found within a geographic bedrock region known as the Manhattan Prong of the New England (Upland) Physiographic Province. This region is composed of heavily metamorphic and sedimentary rock (including quartzite, dolomitic marble, marble, schist, and gneiss) that dates to the Cambrian and Ordovician ages (New York State Office for Technology [NYSOFT] 2004), 435 to 500 and 500 to 570 million years ago, respectively (Schubert 1968).

The vicinity of the project area is composed mostly of metamorphic rock known as Manhattan Schist (Reeds 1925). The bedrock below the "Manhattan Prong [was] tightly folded and metamorphosed primarily during the Taconian Orogeny...about 450 million years ago" (Isachsen, et al. 2000). The bedrock slopes downward from north to south, and is located approximately 100 feet below the project site (AKRF 2008a). There are a number of deposits which overlay the bedrock region, but nearly all of Manhattan island is covered by anywhere from 3 to 164 feet of glacial till (NYSOFT 2004). These deposits were left behind by massive glaciers of up to 1,000 feet thick that retreated from the area towards the end of the Pleistocene, which lasted from approximately 1.6 million to 10,000 years ago.

In addition to the layers of glacial sediments they left behind, the retreating glaciers also caused the creation of hundreds of sand hills, or kames, some of which were nearly one hundred feet tall. The 1865 Viele map depicting the topography of the island of Manhattan indicates that the APE was situated in a large, swampy marsh that bordered a small stream (discussed below). The swampy area is also present on the Ratzer map depicting New York in the mid 1760s (Figure 3). The swamp was later known as Lisenard's Meadows and was apparently a stagnant pool "covered with stunted bushes [and] filled with swamp rubbish and the 'rotten growth of ages'" (Gratacap 1909: 56). The marsh was bordered with tall hills, which were cut down and used to fill in the low, swampy areas (Keeney 1865).

A topographical map produced for the New York City Council of Hygiene and Public Health shows that the elevation at the intersection of Grand Street and West Broadway was approximately 7 feet above tide-level, while the elevation of the intersection of West Broadway and Canal Street was 7.8 feet above tide level. Similar elevations appear on historic maps through the early 20th century. Current Sanborn maps indicate that the elevations of those intersections at the present time are approximately 4 and 8 feet, respectively. This indicates that some grading may have occurred in the streets bordering the project site before 1922, at which time Sanborn maps begin to depict the present elevations. However, it does not appear that such grading would have affected the project site, as structures present within the APE before the elevation changes are still present after the street was graded.

B. HYDROLOGY

Glacial runoff also created many small streams, rivers, and lakes. As temperatures increased and this runoff ceased, many of these small water courses evolved into swamps and marshlands punctuated with brooks and streams while others, such as the Bronx River, continued to etch their way through the glacial bedrock. As previously mentioned, the project site is depicted on the 1865 Viele map as being situated within one of these marshy areas. The tidal swamp surrounded was drained by a small stream which connected the Hudson River with the Collect Pond, a large freshwater pond located to the southeast of the project site. A canal was later cut through this area to drain the pond and the marsh (and providing the name for Canal Street, the southern boundary of Block 227).

Groundwater most likely flows in a westerly direction toward the Hudson River, which is approximately 2,000 feet west of the study site. Groundwater at the site is expected to be located at approximately 7 to 11 feet below sidewalk grade (AKRF 2008b).

C. SOILS

Soils in this area are defined as urban land and are characterized by wet substratum, 0 to 5 percent slopes, and more than 80 percent covered by impervious pavement or buildings (New York City Soil Survey Staff 2005). These soils are generally found over filled swamp or marsh areas in urban centers (*ibid*). A Phase II Subsurface Investigation of 47-49 Grand Street was conducted by Warren & Panzer Engineers, P.C. in 2006. That analysis reported that the site is underlain by urban fill to a depth of about 2 to 8 feet below grade, the approximate depth to the water table was reported at 10.2-13.6 feet, and the depth to bedrock is greater than 100 feet.

Soil borings were completed as part of a Phase II environmental site investigation conducted by AKRF in 2008 (Appendix E). The soil borings show that fill (defined as light brown to black sand with traces of concrete, brick, gravel, coal, ash, glass, and silt) was identified at depths between 6 and 32 feet below grade. Brown sand with traces of gravel, silt, clay, and/or organic matter was identified beneath the fill levels (AKRF 2008b). These levels of fill are likely associated with the historic landfilling episodes that transformed Lispenard's Meadows into solid ground.

D. PALEOENVIRONMENT

Due to the extended glacial period that left the Northeast blanketed in thick ice sheets for thousands of years, the area was not inhabited by humans until approximately 11,000 years ago. As temperatures increased, a variety of flora and fauna spread through the region. At this time, large open forests of spruce, fir, pine, and other tree species expanded across the Northeast, interspersed with open meadows and marshland. A wide variety of animal life could also be found, including large mammals such as mammoth, mastodon, caribou, musk ox, moose, as well as smaller mammals such as fox, beaver, hare, and many kinds of marine animals.

Climate changes continued to re-shape the environment of the Northeast as time progressed. As the climate grew increasingly warmer, jack pine, fir, spruce, and birch trees were replaced with hardwood forests of red and white pine, oak, and beech (Ritchie 1980). Furthermore, a decrease in glacial runoff resulted in the creation of small bodies of water such as lakes as well as, later on, low-lying marshes and swampy areas. By the time of the Early Archaic period, beginning approximately 10,000 BP, there was "considerable environmental diversity, with a mosaic of wetlands, oak stands, and a variety of other plant resources...[making it]...an attractive and hospitable quarter for both human and animal populations" (Cantwell and Wall 2001: 53).

Warmer temperatures forced the herds of large mammals to travel north before eventually dying out. The new surroundings attracted other animals such as rabbit, turkey, waterfowl, bear, turtles, and white-tailed deer. The expanded water courses became home to a variety of marine life, including many varieties of fish, clams, oysters, scallops, seals, and porpoises, among others (Cantwell and Wall 2001).

By 5,000 BP, sea levels were only a few meters away from their current locations (Hunter Research 1996) and the modern climate in the northeast was established by approximately 2,000 BP (Louis Berger & Associates, Inc. 2001). By that time, the Native American population was flourishing in the area and had developed an intricate culture tied to the natural resources of the region (see Chapter 3).

E. CURRENT CONDITIONS

The area of potential effect is entirely covered with standing 1-story structures. The structure at 43-45 Grand Street (Lot 20) was until recently currently occupied by an iron and sheet metal contractor. The building features a cement floor with several drains connected to the municipal sewer line. The structure at 47-49 Grand Street was until recently used as an office and garage. A Phase I Environmental Site Assessment prepared for the site by AKRF in May 2008 noted that there were potential underground storage tanks in this southern portion of this building.

Two of the three project site buildings, 43 and 47 Grand Street, are located within the boundaries of the National Register of Historic Places-listed SoHo-Cast Iron Historic District. (The western boundary of the SoHo-Cast Iron New York City Historic District [NYCHD] and National Historic Landmark District [NHLD] ends at the east side of West Broadway, and thus these districts do not include the project site.) 47 Grand Street is noted in the National Register nomination form as an "intrusion" within the district, and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) has confirmed that 43 Grand Street is considered to be non-contributing to the district. The third project site building, 41 Grand Street, is not within the historic district's boundaries, and is not considered to be a potential historic resource.

A. INTRODUCTION

Archaeologists have divided the time between the arrival of the first humans in northeastern North America and the arrival of Europeans more than 10,000 years later into three periods: Paleo-Indian (11,000-10,000 BP), Archaic (10,000-2,700 BP), and Woodland (2,700 BP-AD 1500). These divisions are based on certain changes in environmental conditions, technological advancements, and cultural adaptations, which are observable in the archaeological record.

B. PALEO-INDIAN PERIOD (11,000-10,000 BP)

As mentioned in Chapter 2, human populations did not inhabit the Northeast until the glaciers retreated some 11,000 years ago. These new occupants included Native American populations referred to by archaeologists as Paleo-Indians, the forbearers of the Delaware—also called the Lenape Indians—who would inhabit the land in later years.

The Paleo-Indians most likely exploited all the different resources provided by their environment. It has been suggested that they not only actively hunted the large mammals that roamed about the region (mammoths, mastodons, etc.), but they also hunted and trapped smaller animals and supplemented their diet with fish and gathered plants (Cantwell and Wall 2001).

There was a very distinct Paleo-Indian style of lithic technology, typified by fluted points. These were elaborately detailed stone points that would have been used for a variety of functions, most notably for hunting. They were often made of high-quality imported chert, but were also known to have been crafted from local materials. Other stone tools manufactured at this time included knives, scrapers, drills, and graters. Wood, ivory, and other materials were also used for the manufacture of composite tools, such as hunting spears.

Archaeological evidence suggests that the Paleo-Indians were likely highly mobile hunters and gatherers. They appear to have lived in small groups of fewer than 50 individuals (Dincauze 2000) and did not maintain permanent campsites. In addition, most of the Paleo-Indian sites that have been investigated were located near water sources.

It is because of the close proximity of Paleo-Indian sites to the coastline that so few of them have been preserved in the New York City area. As the glaciers continued to melt, sea levels rose and much of what was once adjacent to the water line became submerged. In fact, only one Paleo-Indian site has been discovered in the entire New York City area—that of Port Mobil, on Staten Island. This location has yielded nothing more than a collection of fluted points and other stone tools characteristic of the period.

C. ARCHAIC PERIOD (10,000-2,700 BP)

The Archaic period has been sub-divided into three chronological segments, based on trends identified in the archaeological record which reflect not only the ecological transformations that occurred during this period, but the cultural changes as well. These have been termed the Early Archaic (10,000-8,000 BP), the Middle Archaic (8,000-6,000 BP) and the Late Archaic (6,000-2,700 BP) (Cantwell and Wall 2001). The Late Archaic is sometimes further divided to include the Terminal Archaic (3,000-2,700 BP).

The aforementioned environmental transformations included a continued post-glacial warming trend, the extension of hardwood forests, and a decrease in glacial runoff which resulted in the creation of lakes and other small bodies of water. There was a subsequent migration of new animal and plant species into the area, while the herds of large mammals traveled north, eventually dying out. The new surroundings attracted smaller animals, such as rabbit, turkey, waterfowl, and white-tailed deer.

As the Archaic period progressed and the number of plant and animal species inhabiting the area increased, the size of the human population did as well. In general, archaeological research has shown that Archaic Native American sites were most often located near water sources. The abundance of food resources which arose during this period allowed the Archaic Native Americans to occupy individual sites on a permanent or semi-permanent basis, unlike their nomadic Paleo-Indian predecessors. These individuals migrated on a seasonal basis within specific territories and consistently returned to and reoccupied the same sites.

The arrival of new food sources allowed the human population to expand their subsistence strategies and at the same time forced them to develop different technologies that would allow such resources to be exploited. Perhaps the most important of these developments was the advent of fishing technology, which occurred during the Middle Archaic in response to an increasing dependence on the area's marine resources. The new technology included hooks and stone net sinkers. In addition, the influx of nut- and seed-bearing foliage resulted in the development of stone mortars and pestles in addition to stone axes used to process plant material.

In order to successfully hunt the smaller game animals that had established themselves in the region, narrower spear points and knives were manufactured, along with weighted spear throwers. Domestic technology was advanced at the same time, with the development of a wider variety of hide scrapers and, later in the period, the introduction of bowls made from steatite or soapstone. Tools continued to be crafted in part from foreign lithic materials, indicating that there was consistent trade among Native American groups from various regions in North America throughout the Archaic period.

Rising sea levels coupled with the dominance of coniferous forests created a habitat that was ill-fitted to human habitation (Boesch 1994). Few Early Archaic sites have been identified in New York City. Most of those that have been identified are located on Staten Island; including Ward's Point, Richmond Hill, the H.F. Hollowell site, and the Old Place site. Sites such as Ward's Point—a domestic habitation location which due to lowered sea levels was originally inland—tend to be deep and stratified and have yielded stone tools related to cooking, woodworking, and hide processing. Many years of constant Native American occupation caused the artifacts to be deeply buried under more recent debris deposits (Cantwell and Wall 2001). However, at the Old Place Site, the only artifacts which were discovered—stone tool assemblages—were found at relatively shallow depths of around 42 inches (3½ feet) (Ritchie 1980).

There are also few Middle Archaic sites in the region. The majority of these tend to consist of large shell middens, which are often found near major water courses such as the Hudson River, although stone points have also been found in such locations. These sites were in great danger of obliteration because of their proximity to the shrinking coastlines.

Unlike the Early and Middle periods, several Late Archaic sites have been found in the New York City area. Two notable sites, Tubby Hook and Inwood, are located at the northern end of the island of Manhattan. Both sites contain large shell middens, while the Inwood site also features rock shelters that were inhabited by Archaic populations. Both sites were continuously occupied for several thousand years.

In addition, many Terminal Archaic sites from all across the city have provided examples of the Orient culture, which is characterized by its long fishtail stone points and soapstone bowls. Although there are extremely elaborate burial sites attributed to the Orient culture on eastern Long Island, none have been identified in the immediate vicinity of New York City.

D. WOODLAND PERIOD (2,700 BP-AD 1500)

The Woodland period represents a cultural revolution of sorts for the Northeast. During this time, Native Americans began to alter their way of life, focusing on a settled, agricultural lifestyle rather than one of nomadic hunting and gathering. Social rituals begin to become visible in the archaeological record at this time. Many elaborate human and canine burial sites have been identified from this period. The first evidence of smoking has also been found—stone pipes have been uncovered at Woodland sites—and it was at this time that pottery began to be produced.

In general, a greater emphasis was placed on composite tools during the Woodland period. While stone scrapers, knives, and hammerstones were still in use, there was an increased use of bone, shell, and wood in tool making. Furthermore, the development of bows and arrows revolutionized hunting practices. Many tools were still made

from imported materials, indicating that the trade networks established earlier were still being maintained (Cantwell and Wall 2001).

Pottery was introduced into Native American society early in the Woodland period and by the time of European contact in the 1500s, well-crafted and elaborately-decorated pottery was being manufactured. Like the Archaic period, the Woodland has been divided into Early, Middle, and Late sections, which differ mostly based on the style of pottery which was produced at that time. Woodland pottery had simple beginnings; the first examples were coil pots with pointed bases, which were made with grit temper. These were replaced during the Middle Woodland period by shell-tempered vessels bearing a variety of stamped and imprinted decorations. As the period drew to a close, the decorative aspect of the pottery was further augmented with the addition of intricate ornamental rims (Louis Berger Group 2004).

Woodland-era sites across North America indicate that there was an overall shift toward full-time agriculture and permanently settled villages. Archaic sites in New York City, however, suggest that the Native Americans there continued to hunt and forage on a part-time basis. This was most likely due to the incredibly diverse environmental niches that could be found across the region throughout the Woodland period (Cantwell and Wall 2001, Grumet 1995). Nevertheless, Woodland societies were considerably more sedentary than were their predecessors and there was some farming of maize, beans, squash, and tobacco. The development of pottery, increasingly complex burial sites, and the presence of domesticated dogs are all consistent with sedentary societies, which have a close association with a particular territory or piece of land.

E. CONTACT PERIOD (AD 1500-1700)

The Woodland period ended with the arrival of the first Europeans in the early 1500s. The Delaware Indians who occupied lower Manhattan at that time spoke a dialect now referred to as Munsee. They lived in villages consisting of multiple longhouses and practiced some farming, but subsisted mostly on food resources obtained by hunting, gathering, and fishing (Grumet 1995).

With the introduction of European culture into the indigenous society, the way of life once maintained by the Native Americans was thoroughly and rapidly altered. European guns, glass beads, copper kettles, and alcohol soon became incorporated into the Native American economy, while European diseases brought about the demise of huge portions of the population.

Native Americans at first maintained the village sites they had established near water sources and the two groups co-existed. As their trade with European settlers intensified, they became increasingly sedentary and as the European population grew and required more land, the relationship between the two groups turned sour. Fierce wars broke out between the Dutch and the Indians. Being armed with far more guns than the natives, the Dutch quickly forced the Indians out of the region.

According to Grumet (1981), most of the Native Americans left lower Manhattan soon after the island was famously sold to the Dutch in 1626 in exchange for \$24 worth of trade goods. Those who remained in the area (and who managed to survive the violent conflicts with the Dutch that occurred throughout the mid-17th century and the European diseases that ran rampant throughout the native population) had retreated from lower Manhattan before the end of the 18th century (Cantwell and Wall 2001).

F. PREVIOUSLY IDENTIFIED NATIVE AMERICAN ARCHAEOLOGICAL SITES

A review of the files of OPRHP, LPC, and the New York State Museum (NYSM) and cultural resource surveys of projects in the immediate vicinity indicated that there were at least two Native American archaeological sites, both villages, within one mile of the project area (Table 2, Figure 1).

One of the village sites, recorded as NYSM site #4059, was located north of City Hall Park. This was the former location of the Collect Pond, known to the Native Americans as the *Klock* (Bolton 1975) and to the Dutch as "Kolch," meaning small pond or pit-hole. It has also been referred to as *Werpoes*—possibly derived from the word *Wapu*, meaning "a hare"—or "Shell Point," a name derived from the many shell middens which characterized the site during the Contact Period (Ibid).

The other site, NYSM site #4060, was located at present-day Corlear's Hook. This site is most commonly referred to as *Nechtanc*, meaning "sandy place" (Grumet 1981), but is also known as *Rechtauck* or *Naghtogack* (Bolton 1975). This village was used as a refuge by Lower Hudson River Delaware Indians from other parts of the New York City area during the brutal wars with the Dutch which took place in the early 1640s. It was not a safe haven for them, however, and in February, 1643, the Dutch staged a nighttime attack on several Native American villages, including *Nechtanc*, at which time many Native Americans were killed in their sleep (Grumet 1981).

A series of Native American trails connected these locations with the villages discussed above as well as other Native American habitation sites further north. A major Native American thruway—known as *Wickquasgeck*—ran along the southern line of modern Broadway before splitting into two roads; one angling to the northeast and continuing northward along the approximate path of today's Bowery Road, and the other continuing east towards *Nechtanc*. West of the fork in the trail, two offshoots extended from the main road; one traveling northward towards *Warpoes* and the other heading south towards the East River shore in the vicinity of the Brooklyn Bridge (Grumet 1981, Bolton 1934, Homberger 1994). The latter appears on Bolton's 1922 map of Native American trails to follow the path of the southern outlet of the Collect Pond.

Table 2
Previously Identified Native American Archaeological Sites

Site Name	Site #	Approximate Distance from APE	Time Period	Site Type	Additional References
Werpoes (Shell Point)	NYSM: 4059	.38 miles (2,000 feet)	Precontact	Native American village and shell middens	Parker (1922) Bolton (1922)
Nechtanc	NYSM: 4060	.95 miles (5,000 feet)	Precontact/ Contact	Native American village used as a retreat during 17th century wars with the Dutch	Parker (1922) Bolton (1922)

A. THE GENERAL HISTORY OF THE PROJECT SITE AND VICINITY

COLONIAL OCCUPATION

In 1621, the States-General in the Netherlands chartered the Dutch West India Company (WIC) to consolidate Dutch activities in the Atlantic World. New Amsterdam was an ideal company town; a small, easily defensible outpost at the tip of Manhattan Island, situated at the confluence of the East and North (Hudson) Rivers, and with one of the finest harbors in all of North America. New Amsterdam functioned as the major center for commercial activity from Fort Orange in Albany on the upper Hudson River to the Delaware Bay in the south. Colonists benefitted from trading with the Old World as well as with the Native Americans they encountered in their new home. In exchange for furs, entrepreneurs and government officials supplied Native Americans with a wide range of goods. These included not only conventional adornments such as finger rings, glass beads and wampum, but utilitarian objects such as axes, kettles and cloth. Merchandise from around the world arrived in New Amsterdam destined for Europeans and Native Americans alike (Cantwell and Wall 2001). In 1626, the Dutch purchased the Island of Manhattan from the Munsee for the value of sixty guilders.

In an era of speculation and opportunity, private traders converged on Manhattan after 1640, motivated by personal gain. They became dissatisfied with the WIC's administration and sought more reliable local protections. On February 2, 1653, New Amsterdam's municipal charter was officially proclaimed, establishing a city government similar in form and function to that of Amsterdam in Holland. This municipal framework remained unchanged throughout the 17th century. After the English conquest of New Amsterdam in 1664, the colony was renamed New York.

Throughout the early colonial period, the British and Dutch governments conveyed land to settlers in large parcels. Because the project site was included within a large tract of undeveloped swampland, it was not conveyed until the early 18th century. According to I.N.P. Stokes' *Iconography of Manhattan Island* (1967), the swamp was granted to Anthony Rutgers by King George II of England in 1731 and a formal Royal patent was issued two years later with the stipulation that the swamp be drained within one year. However, conveyance records show that Rutgers began purchasing land within Block 227 as early as 1726 (see Appendix A).

As part of his quest to drain the swampland, Rutgers cut down a significant amount of the brush occupying the meadow. In 1733, he was granted permission by the City's Common Council to construct a drain not more than 20 feet wide between the Collect Pond, approximately 2,500 feet southeast of the project site, and the Low Water Mark in the Hudson River (Minutes of the Common Council [MCC] 1675-1776 IV: 178). Rutgers agreed to fence in the drain to protect it from "the violence of the ice and storms" but asked for 50 feet of land (rather than the 20 offered by the council) on which to place "proper works and machines for the securing, amending, and repairing the...drain from time to time" (MCC 1675-1776 IV: 466). Rutgers was granted the additional space for a rent of six shillings a year.

The purpose of the drain was to funnel the waters of the Collect Pond out into the River so that it would not remain in the stagnant swamp. This was a popular idea, as the swamp was "filled constantly with standing water" (Stokes 1967 III: 560). It was also thought that the swamp contributed to the poor health of nearby residents and laborers from nearby farms, many of whom fell ill as a result of the "miasmas" produced by the stagnant water (Gratacap 1909). Local farmers were also in favor of removing the swamp, as cattle were frequently trapped and drowned in its waters (ibid).

EARLY DEVELOPMENT

After Rutgers' death in 1746, the property was transferred to his daughter, Elsie, and her husband, Leonard Lispenard (Stokes 1967). Lispenard's residence was to the south of the swamp on the shores of the Hudson River, and it is because of his association with it that the swamp and the surrounding area became known as "Lispenard's Meadows." Lispenard died in 1790, at which time the land was inherited by his son, Anthony.

The map published by Bernard Ratzer in 1776 that depicts the island of Manhattan ca. 1766 shows that Lispenard's Meadows remained swampland, although Rutgers' drain is visible. Several maps, including the Ratzer map and Stokes' "Map of Original Dutch Grants," suggest that the drain ran through or very near the project area, and an abnormal lot line seen on the Perris atlases of 1853 and 1857 (Figure 4) may reflect the drain's former location.¹ The drain and the surrounding swampland appear on maps through the end of the 18th century. The Taylor-Roberts plan of 1797 is the first to depict streets in the vicinity of the project area. The map shows that portions of Grand Street (then known as Meadow Street) and West Broadway (then an extension of Chapel Street) had been laid out, although as the marsh is still depicted, it does not appear that they had been constructed yet. As depicted on the map, the two streets did not fully intersect and the project area was still occupied by swampland and possibly the drain of the Collect Pond. The streets in the vicinity of the project area, then known as the Eighth Ward of Manhattan, were formally laid out by 1811, as depicted in Bridges' depiction of the *Commissioners' Plan*. The map reflects the change of the names of the streets bordering the project site to Grand Street and Laurens Street, today's West Broadway. Around the same year, the heirs and devisees of Anthony Lispenard, who had died ca. 1806, divided the land into lots in order to sell it.

Historic deeds show that the lots within the project area were owned by Robert M. Livingston in the late 1810s and early 1820s. He received the land from Leonard Lispenard after 1810 and before 1819, although no record of the transaction could be located (*New York Evening Post* 5/4/1819). Two conveyances dated 1818 and 1826 show that Livingston sold Lots 20 and 22 to Thomas and George Lovett along with other land. The deed recording the 1818 transaction suggests that buildings were already present on the property although it appears that much of the nearby land had not yet been fully transformed from a stagnant swamp into solid land. By 1819, sewer lines were constructed in certain streets in the neighborhood of the project site, including Thompson Street to the west (utility lines are discussed in greater detail below). The Manhattan Water Company had been digging wells in the area of Lispenard's Meadows since the late 18th century to supply the nearby areas with fresh water. This encouraged the occupation of the former swampland, and its population quickly grew.

The *Minutes of the Common Council of the City of New York* [MCC] show that in 1819, the MCC approved the construction of Grand Street between Laurens and Sullivan Streets (MCC 1784-1831 X: 674). In January of 1822, the Common Council was petitioned to fill up Laurens Street (now West Broadway) and the adjacent lots between Grand and Canal Streets (MCC 1784-1831 XII: 188). This was delayed, however, as it was determined that the land had not yet been formally conveyed and assessed (MCC XII: 253). Conveyance records for 1822 show that in June of that year, owners of property on the lot, including Thomas and George Lovett, George Lorillard, who owned property in the area and may have occupied the building at 43 Grand Street for a short time (see Appendix D), and Charles W. Sandford (who owned property to the south) signed a partition deed, possibly in response to the Common Council's earlier concerns.

The area does not appear to have been completely filled out with made land, however, and the MCC note that between 1821 and 1826, several lots owned by Thomas and/or George Lovett on Laurens Street (though not necessarily within the project site) were cited by the city for being public nuisances or for being sunken (MCC 1784-1831 XI: 639, XII: 188, 387, XV: 500, XIV: 119). After the block was filled in, 6 historic lots were situated partially or completely within the APE. These included the lots at 43 through 49 Grand Street, a portion of the lot formerly at 25 Laurens Street (now 330 West Broadway), and a rear lot which was situated behind 43 and 45 Grand Street and 25 Laurens Street.

¹ For the purposes of this study, the Ratzer map (Figure 3) was georeferenced using ArcGIS software to overlay the current street grid over the historic map. The drain is depicted on that map immediately northeast of the project site, although the georeferencing was completed with a margin of error of 66 feet.

The project site was developed with residential structures by the end of the 1820s. An historic directory dating to 1827 (Appendix C) shows that a wide range of individuals resided within the lots of the project site, including a merchant, a musician, a clerk, a baker, a shoemaker, and a confectioner. Census records (Appendix B) suggest that these individuals were all Caucasian. Charles W. Sandford had purchased much of the newly made land in the vicinity of the project site in the 1820s and in 1825 he constructed the Lafayette Theatre on the center of the block, south of Lots 20 and 22 (Henderson 2004). The theatre burned down in a spectacular fire that resulted in the destruction of many other buildings on the block. An article published in the Cooperstown, New York newspaper, *The Watchtower*, on April 20, 1829, noted that nearly all of the buildings on Canal Street between Laurens and Thompson Streets, a series of dry-goods shops, were completely destroyed. The article also mentions that the homes at 19 and 21 Laurens Street were destroyed and “the next adjoining [buildings] were also much injured.” This may suggest that the property at 25 Laurens, which was situated in the southern portions of Lots 20 and 22, may have experienced some damage as a result of the fire. Tax assessment records from that year show that building at 23 Laurens Street was “half damaged” by the fire, though it makes no mention of damage to the structure at 25 Laurens. The buildings lining Grand Street were not affected.

THE RISE OF PROSTITUTION

Beginning in the 1820s and 1830s, the neighborhood began to undergo a series of changes in its social and ethnic makeup which would continue for the rest of the 19th century. Prostitution grew substantially in New York City at the beginning of the 19th century (Burrows and Wallace 1998). Around that time, Laurens Street north of Canal Street became infamous for the large number of brothels lining both sides of the street (Gilfoyle 1992). Prostitution was not kept a secret, and the locations of brothels were widely known and in some cases publicized. Prominent citizens were associated with brothels, either for running or patronizing them. While it was by no means an ideal occupation, for impoverished women in the 19th century, prostitution offered them their “best chance of autonomy” (Burrows and Wallace 1998: 805).

Prostitutes openly waited for customers at the corner of Grand and Thompson Streets “like a flock of sheep throughout the day” (“Citizen from Hoboken” 1888, quoted in Gilfoyle 1992: 215). The Lafayette Theatre was situated several lots to the south of the project site from 1825 to 1829, and, as was typical of contemporary Manhattan theatres, the remainder of the block was littered with bordellos (ibid). Members of the Livingston and Lorillard families were widely known to be associated with the prostitution industry (ibid), and tax assessment records from the 1820s show that R.M. Livingston owned the entire western side of Laurens Street between Broome and Grand Streets, the heart of “Rotten Row.” While Broadway was certainly the most popular place for courtesans to meet their customers, the blocks on either side were soon filled with prostitutes living alongside the working poor, all of whom were at the mercy of greedy landlords (ibid).

Understandably, “Rotten Row” was not a pleasant place to live. Violence against prostitutes was common in the area in the 1820s and 1830s. In 1829, a prostitute was attacked at a brothel located at 21 Laurens Street, two houses south of the project area (Gilfoyle 1992). Interestingly, one of the attackers was named Mary Anne Carr. A man named Robert Carr was listed as a resident of 45 Grand Street in an historic directory published the same year, although it is not known if the two were related.

THE PREVALENCE OF DISEASE

Disease was also a significant problem for the neighborhood’s residents. In the 1830s, the area was particularly affected by outbreaks of disease, especially cholera. The *New York Medical Gazette and Journal of Health* reported in 1854 that the disease was most common in “houses [that] were filthy, small, and crowded...near filthy docks, slips, common sewers, and...made ground” (Reese 1854: 436). Localized endemics of disease were common in the neighborhood, likely the result of “the wretched and abandoned inmates” who lived there amidst deplorable conditions (ibid). Within a few days of each outbreak, as many as 200 people per block succumbed to the disease (ibid).

The most significant outbreak of cholera to affect the area occurred in 1832. A newspaper article published in the *Connecticut Courant* on July 17, 1832 mentioned the outbreak. According to the article, in one home on Laurens Street near Canal, 13 prostitutes fell ill with cholera, 10 of whom died from the illness. Several days earlier on July 2, 1832, an editorial was published in the *Journal of Commerce* and re-published in Portsmouth, New Hampshire’s *Portsmouth Journal and Rockingham Gazette* that suggested that the cholera was inflicted upon the women as

punishment for their action, as “what lightning accomplishes in the natural world, the cholera does in the moral... it is a judgment of God on unrestrained licentiousness.”

CHANGING ETHNIC MAKEUP

Around the same time, the area also became inhabited by freed slaves and other individuals of African descent. The African-American population rose exponentially during the early 18th century. Slavery was abolished in New York by 1827, and many former slaves from other parts of the country came to the city for its potential to provide both a new start and employment (White 2002). The overall rise in population caused a housing shortage, and African-Americans, whose housing options were already limited by racist landlords, especially after the Civil War (Berlin and Harris 2005), were often living in basement and cellar apartments in overcrowded tenements (White 2002). The 1820s saw an increase in the number of slumlords as well, which resulted in an increased number of individuals living on a property at any given time (ibid). In the early 1820s, individuals of African descent were often employed in low-wage jobs (Berlin and Harris 2005).

The neighborhood surrounding the project site did not improve throughout the mid- to late-19th century. During this time, the project site remained covered with overcrowded tenements whose residents were offered little light or fresh air. The area was plagued with “drunken mothers, dirty, foul-smelling rooms, narrow attics, where scores are crowded in places fit only for single persons, drinking, fighting, idleness, all around them” (*New York Times* [NYT] 4/19/1853: 2). Portions of some of the buildings in the area were run as boarding houses, where multiple people would rent beds in single apartments (NYT 3/31/1856).

HEALTH AND HYGIENE

The *Report of the Council of Hygiene and Public Health of the Citizens' Association of New York Upon the Sanitary Condition of the City*, published in 1865, noted that while the Eighth Ward had sewers, they were usually clogged or poorly drained. Furthermore, the ward was filled with “a great number of insalubrious quarters, and [was] the source of pestilential and infectious diseases” (Keeney 1865: 34). The report specifically mentions that Laurens Street was among the worst in the ward and there were increased incidents of typhus and typhoid fever near its intersection with Grand Street. Overcrowding and filth remained problems for the ward’s residents, which was not helped by the common practice of allowing privies to overflow and garbage to be thrown into rear yards and alleys.

Prostitution remained common throughout the area, and as a result, so did syphilitic diseases. However, prostitutes in the ward were no longer found only in brothels, and many had begun to live in tenements alongside working families, “assuming the guise of regular people by day and following their vocation at night” (Keeney 1865: 37). In addition, one-third of the Eighth Ward’s population worked as laborers and most were immigrants. A large portion of the African-American women in the ward were employed as washerwomen who “work[ed] hard for all they have” (ibid). Few buildings in the ward were dedicated only to commerce, and most were 2- to 4-story structures that doubled as both stores and residences. Many of those buildings were former single family homes that had been converted into tenements.

Between 1860 and 1865, the population of the Eighth Ward decreased by 25 percent (LPC 1973). As the century wore on, the ward began a slow transformation away from a residential slum into an industrial area. As part of the industrialization of the neighborhood, in 1868, Laurens Street was widened by 25 feet to the west (National Reporter System 1896). The widening resulted in the demolition of the property at 51 Grand Street, making 49 Grand Street the easternmost building on the block. An elevated railroad line was constructed along South Fifth Avenue in 1878 and a stop was situated at the intersection of Grand Street and South Fifth Avenue (ibid). The construction of the railroad had a negative effect on nearby businesses, which were forced to leave Laurens Street for nearby side streets and also caused a drop in rental values. This resulted in the deterioration of the neighborhood to an even greater extent by “prevent[ing] the street from becoming one of the principle business streets” of New York City (ibid: 751).

After Laurens Street was widened, its name was changed to South Fifth Avenue in a failed attempt to mask the area’s bad reputation (Crapsey 1872).¹ Despite the improvements to the area, however, it remained a slum. From the

¹ The 1852 Dripps map and several directories from the early 1850s refer to the portion of Laurens Street between Grand and Canal Streets as “West Broadway Place,” but this name does not appear to have been consistently used and does not appear in subsequent maps and directories.

mid- to the late-19th century, the tenements along South Fifth Avenue were especially known for the number of structures in which whites and non-whites cohabited and for the number of interracial marriages among them (*NYT* 3/31/1856, Crapsey 1896).

THE RISE OF INDUSTRY

During the late-19th century, residential structures in the SoHo area continued to be replaced by those used for commercial and industrial purposes. In the last few years of the 19th century, these changes began to affect the project site, when the homes at 47 and 49 Grand Street and 220 South Fifth Avenue (now the property that makes up Lot 22) were demolished and replaced with a 1-story building that contained several stores. Industrial structures were constructed in the rear of Lot 20 in the first decades of the 20th century and by 1951, no residential structures remained in the project area. The increase in industry in the early 20th century was coupled with the decline of prostitution. Several factors brought about the end of the sex trade, including government legislation on both state and federal levels,¹ prohibition, and the improvement of overall working conditions for women (Gilfoyle 1992).

In the 1960s, the SoHo neighborhood was again redefined with the influx of artists into the area (LPC 1973). Manufacturers and dry goods shops were replaced with boutiques and galleries (Kilgannon 2008). The project site, however, remained occupied by manufacturers or commercial or industrial institutions through the end of the 20th century.

B. HISTORY OF 43 GRAND STREET (NORTHWESTERN PORTION OF LOT 20)

The structure formerly at 43 Grand Street was originally located on historic Lot 20, which makes up the western half of modern Lot 20. Tax assessment records show that the structure at 43 Grand Street was developed with a house by 1823, although the property is listed as “not finished.” The tax records from that year list George Lorillard as the occupant, although no conveyance records suggest that he owned this property. Lorillard is listed as the occupant in tax assessments through 1834. However, conveyance records indicate that George Lovett or his heirs owned the property from 1818 to 1845. The home must have been finished by 1824, as the property value had increased by more than 50 percent. That year, however, the tax assessment begins referring to the property as three-quarters of a lot (some later assessments refer to it as a half lot), suggesting that a rear dwelling was situated in the southernmost quarter of the property. The rear structure appears to have been more closely associated with the property at 330 West Broadway, and is discussed in greater detail below.

An historic directory from 1827 shows that the Barnett family was one of the first to inhabit the property. Both Abraham Barnett, a merchant, and S.A. Barnett, a musician, resided in the home in addition to a clerk named Digby V. Bell. None of these men resided in the home in 1829. A directory from that year shows that the building was occupied by two masons, William Shepherd and Peter D. Wright, as well as George W. Summers, a “turner” (probably a woodworker who used a turning lathe). Only William Shepherd appeared as a resident of the Eighth Ward in the 1830 Federal Census, which showed that he was a white male aged 40 to 50 and he lived with his wife, a white female aged 30 to 40. None of these men appear to have lived on the property for a significant period of time, and by 1834, a directory shows that a mason named George Charlton and a man named William Stevenson lived there. Both men had moved on by 1839.

In 1845, the lot was sold to John and Friend Pitts, who also purchased 45 through 51 Grand Street. The men ran a grocery store at 51 Grand Street and resided on the lots to the west (see below). Neither man appears to have lived at 43 Grand Street. The deed recording their purchase of the property, which included the lot at 45 Grand Street in addition to 43 Grand Street, mentioned that the properties contained a total of 2 brick dwellings at the time of the sale. The 1853 and 1857 Perris atlases, however, depict a total of 4 buildings covering the two lots, two wood frame structures at the front of the lots (43 and 45 Grand Street) and two brick structures in the southern half of Lot 20. The two brick structures were behind the properties at 23 and 25 Laurens Street, and appear to have been accessed via a narrow alley between the structures at 25 and 27 Laurens Street. The Perris maps suggest that they were

¹ New York State formally banned prostitution in 1915, and in the 1910s and 1920s federal immigration reform resulted in fewer transient individuals soliciting or working as prostitutes (Gilfoyle 1992).

separate from the lot at 43 Grand Street, which was at that time developed with a wood frame building with a small addition to the rear and a small open rear yard.

By 1850, the property was occupied by an English widow named Mary Boniface. The 1850 Federal census shows that Mary lived with her grown children Charles, a confectioner, Frederick, a carpenter, and George, a merchant. A woman named Adeline Boniface and two young children, presumably Mary's daughter-in-law and grandchildren, also lived there along with two boarders, an English plumber named Edward Robinson and an Irish marble cutter named John Donnelly. Only Mary Boniface, listed as a maker of clothing, and a bookkeeper named William J. Amies were listed as residents of the building in the 1852 directory.

It is not clear who resided in the building between 1852 and 1867 as no census or historic directory entries could be located for this property. Tax assessment records during that time only list the owners, John and Friend Pitts, and not the residents. Only one resident from this period is known, a 3-year-old boy named Francis Dazet, who was fatally scalded in the building (*NYT* 6/8/1861). Dazet's father was John F. H. Dazet, a policeman, who was listed in an 1862 directory as a resident of the building.

An historic directory from 1867 shows that a woman named Catherine A. Miller ran a boardinghouse from the lot. While many individuals rented their homes out as boardinghouses as a way to make ends meet, many so-called boardinghouses were, in reality, brothels. In fact, "a house filled exclusively with prostitutes was outwardly indistinguishable from a female-run boardinghouse with a few tenants...[and]...the leading brothels occasionally camouflaged their establishments as simple boardinghouses" (Gilfoyle 1992: 166).

No census records for this property could be located for the 1870 Federal census, although the buildings at 41 and 45 Grand Street are both present. It is possible that the individuals residing at 43 Grand Street were recorded as residents of 45 Grand Street. An 1869 directory shows that a woman named Elizabeth Lombard ran a boarding house from 43 Grand Street. The 1870 census includes a woman named Eliza Lombard as a resident of 45 Grand Street. The census lists her occupation as "laundress." It is interesting to note that the same home was inhabited by four other unmarried women, two of whom also worked as laundresses and one of whom had a young child. Finally, the 1869 directory also shows that a man named Patrick Crosby ran an oyster business from 43 Grand Street. Census records from 1870 (of which there were two enumerations taken) list his occupation as either "saloon" or "oyster house." The presence of a saloon in addition to the number of unmarried women living on the property indicates that it is possible that the home was used as a brothel.

A similar group of individuals occupied the property at 43 Grand Street throughout the 1880s. A "low lodging house" was run from the basement of the home by a man named John Duple (*NYT* 11/8/1880). Duple was an African American (the 1880 census lists him as "mulatto") who was married to a white Irish emigrant. The 1880 Federal census shows that Duple's boarding house at that time was occupied by 4 boarders: two African-American seamen, a musician of mixed race, and a white woman who was also employed as a musician. The home at 43 Grand was also occupied by Cyrus Brown, an African-American musician, and Joseph and Anna Lee, an African-American couple who were a waiter and a housewife, respectively. Like the remainder of the ward in the late-19th century, the building at 43 Grand Street was inhabited by a number of unsavory or simply unfortunate characters. Another man who resided in the home the same year (but who was not included in the census) was Thomas Stanton, an insane man who was arrested for shooting a nun in broad daylight (*NYT* 11/8/1880). The following year, at least one resident of the building contracted smallpox (*NYT* 1/31/1881) and several years later a young German immigrant living on the property was beaten so severely that all his teeth were knocked out (*NYT* 8/27/1886).

In the 1890s, the reputation of the building appears to have taken a turn for the better. Before 1891, the two brick buildings to the rear of the building at 43 Grand Street appear to have been replaced with a single brick structure that covered a portion of the former rear yard area of 43 Grand Street. The wood frame building at the front of the lot had also been extended by approximately 10 to 15 feet, as depicted on the 1891 Bromley atlas. Subsequent maps identify this structure as a 3-story building without a basement. The heirs of John and Friend Pitts continued to own the lot through the end of the 1870s. After a foreclosure sale in 1878 (*NYT* 12/9/1878),¹ the lot was transferred to a

¹ The *New York Times* article that reported the sale refers to the wood frame dwellings on the lot as having 2 stories each. However, most maps indicate that the house had 3 stories. Therefore, the newspaper article may be wrong or a story may have been added in the late 19th century,

man named William H. Argall, whose heirs sold it to Frederick and Gottlieb Loebke, of the firm Loebke Brothers, in 1889.

The directory of 1890 lists the Loebke brothers as plumbers who worked at 65 Grand Street and resided in Brooklyn. That directory also includes William Jeunger, a cigar dealer who worked out of 43 Grand Street (his home address is not listed) and James Talbot, a laborer who lived at the property. In addition, an 1887 directory of raw and spun silk brokers shows that a man named George A. Telford also had a commercial business at 43 Grand Street. The influx of commercial tenants signifies the transition of the property from a brothel to an industrial or commercial site, a trend that reverberated throughout the rest of the Eighth Ward at the end of the 19th century. The large brick structure constructed at the rear of the lot is identified on the 1894 Sanborn map (Figure 5) as a second-class brick warehouse,¹ perhaps utilized by the developing industries in one of the neighboring lots.

In 1894, the Loebke Brothers leased the property—which by that time had been formally combined with the lot at 45 Grand Street to form modern Lot 20—to Nicholas Schneider. Schneider died in 1899 at age 44 (*NYT* 2/15/1899), but his family continued to reside on the property. His wife, Annie, was working as a tailor, and she lived with 5 of her children, ages 8 through 27, and two boarders. The family of a New York-born laborer, Michael Beek, also resided on the property. In 1910 and 1920, the lot was inhabited by a German widow named Frances Schoenlaub (or Schamhaus) and her two adult children. In 1910, the Schoenlaubs shared the home with an Italian family headed by a statue maker and in 1920 they lived alongside an unmarried woman named Margaret Regan who lived with her friend, Mary Caulfield. The 1930 census shows that Regan continued to live on the property alone, as did the family of Annie Egan. Regan was listed as a resident of 45 Grand Street in a *New York Times* article published on October 12, 1926, where she had lived earlier, according to the 1910 census. The article reported that her brother, John, had been carrying her entire life savings in a pocket that had a hole in it and the money was lost and not recovered. The article mentioned that Regan never married and earned money by washing clothes and scrubbing floors.

The property changed hands several times in the 1920s and 1930s, and in 1947, it was sold to a construction company and then to a realty corporation a year later. According to a Certificate of Occupancy filed with the DOB, in 1948 the lot was razed and a new 1-story structure was constructed covering both properties at 43 and 45 Grand Street. The 1951 Sanborn map shows that the building was used for electric motor repair. From 1977 to 2008, the building was used as a metalwork shop (Kilgannon 2008).

C. HISTORY OF 45 GRAND STREET (NORTHEASTERN PORTION OF LOT 20)

The property at 45 Grand Street has a very similar history to that of 43 Grand Street. The two properties, which make up Lot 20, were always sold as a pair and therefore they share the same ownership history. The 1853 and 1857 Perris atlases are the first to depict the property in detail. The maps depict the lot at 45 Grand Street as developed with an approximately 30-foot-long wood frame structure with a 20-foot open rear yard. Subsequent maps indicate that this structure was 3 stories tall. The 1894 Sanborn map shows that a 1-story brick building had been constructed adjacent to the rear of the building, covering most of the former open yard. The building and the brick addition stood on the site until ca. 1947.

Tax assessments suggest that this lot was “finished” before 43 Grand Street, however. By 1823 the property, owned by Thomas and George Lovett, contained a house and half a lot (the rear structure was separate from the property in that assessment). However, many, but not all, early tax assessments for this property appear to refer to both the

¹ Second class commercial structures are defined by the Sanborn map as any of the following: “bleaching works, bookbinderies, brass and iron foundries, coppersmiths, cotton presses, fulling mills, junk shops, letter press printers, lithographers, livery and cartman’s stables, machine shops, manufactories of agricultural implements, artificial flowers, brooms, brushes, carriages, cedar-ware, floor-cloth, grates, guns, hoop-skirts, jewelry, lamps, musical instruments, oil-cloths, paper boxes, paper collars, paper patterns, patent medicines, plated ware, rope and cordage, safes, silverware, starch, stoves, tin cans, upholstery, oil stores (petroleum and products), print works, rag stores, slaughter houses, snuff mills, type and stereotype foundries, and generally buildings not occupied by workers of light wood.”

structures at the front of the lot and in the rear at “45 Grand Street” and no distinction is made.¹ Occasionally, one of the buildings, the property on half a lot, is referred to as “45½ Grand Street” and it is likely that this is the rear building (discussed in greater detail below).

Like 43 Grand Street, most tax assessments from 1824 to 1835 list George Lorillard as the occupant of the property although conveyance records suggest that George Lovett actually owned the property. The 1824 tax assessment lists two occupants of the property: George Rikeham and Beckman Winant. An 1827 directory lists John Doubleday as an occupant of 45 Grand Street, although a later directory lists his address as 45½ Grand Street, so it is possible that he lived in the rear structure. The 1827 directory also shows that the widow of Samuel C. Wessels resided at 45 Grand Street. A directory from 1829 shows that several people used the property for commercial purposes but does not explicitly note if anyone resided there. A brassfounder named Robert Carr listed 45 Grand as his business address (he lived in the rear building of 25 Laurens), Thaddeus Dean ran a restaurant (a “porterhouse”) from the property and lived at 8 Laurens Street, and Henry S. Haydon listed his address as 45 Grand Street and did not specify if it was his home address. The 1830 census lists both Dean and Carr as residents of Grand Street in the Eighth Ward.

Although they would not own the property until 1845, John and Friend Pitts were residing at 45 Grand Street by 1834. A directory from that year shows that the two men were operating a grocery store at 51 Grand Street (now within the streetbed of West Broadway). The 1834 directory also shows that a merchant named James Ripley lived on the property.

By the early 1850s, a dry goods clerk named Thomas D. Earle was residing on the property. The 1850 census shows that Earle lived in the Eighth Ward with his family and two boarders, one of whom was a 9-year-old African-American girl. An 1852 directory also shows that Friend Pitts continued to live on the property while John Pitts had moved to 47 Grand Street. Friend Pitts continued to live on the property until at least 1857, but he was not included as a resident of the Eighth Ward in the 1860 Federal census.

An historic directory shows that in 1867 a man named William Baltaser worked at 45 Grand Street, but it does not specify if he also resided there. His occupation is listed as “beer,” which indicates that he may have run a saloon on the property. An historic directory published two years later suggested that Christian Wahler was now selling beer from the property. A Belgian tinsmith named Michael Ratincx also listed 45 Grand Street as his address. Ratincx was listed as a resident of the building in the 1870 census, although his name is listed as “Morris Ratrix.” As mentioned previously, it appears that the two buildings at 43 and 45 Grand Street were both listed under the latter address in that census. The 1880 census includes one household occupied by the family of August Rongaglia, an Italian confectioner, and another household occupied by three unmarried immigrants from Ireland, England and Jamaica who were employed as waiters. All of those tenants were white.

Like the building at 43 Grand Street, the residents of 45 Grand Street in the 1870s and 1880s appear to have been poor working-class individuals. There are also indications that 45 Grand Street may have been a brothel. In 1883, the *New York Times* referred to the building as a “low resort,” a synonym for brothel (Harttrampf 1947), run by a woman named Mary Costello. The article mentions that a man assaulted one of the “inmates,” and Costello retaliated by stabbing him in the eye, arm, and shoulder (*NYT* 1/22/1883). Several years after that incident, two of the buildings residents, an African-American woman named Lydia A. Hall and a white woman named Mary Mulligan, had a fight which ended when Hall fractured Mulligan’s skull with a “stovelid” (*NYT* 7/19/1886). Finally, in 1887, at least one resident of the building was infected with smallpox (*NYT* 5/27/1887).

By 1890, the industrialization of the neighborhood appears to have reached the building at 45 Grand Street. A directory from that year does not include any individuals who lived on the property (although it did include many who lived in the rear building). The address was one of two business locations used by the Mallon Brothers masonry company. It is possible that the small brick addition constructed in the property’s rear yard, first seen on the 1894 Sanborn map, was used by the Mallon Brothers and later businesses that occupied the site. A patent plaiting company was operating from the lot in 1894 when a small fire caused some damage to the building (*NYT* 3/10/1894).

¹ One lot, at 45 Grand Street, is often referred to as being on half a lot and the other, 45½ Grand Street, as three-quarters of a lot, but this is not consistent from year to year.

In 1900, census records show that only a single family headed by an Italian laborer resided in the building. By 1910, Margaret Regan, previously a tenant at 43 Grand Street, had moved next door to 45 Grand Street. In addition to Regan, an elderly German wheelwright and his wife also lived there. The 1920 census included two households, one headed by a woman named Catherine Weiss who lived on the property with two boarders and the other containing a married couple. Weiss was listed in the 1930 census as well, with two different boarders, and another married couple with a small child also lived in the home.

The property changed hands several times in the 1920s and 1930s, and in 1947, it was sold to a construction company and then to a realty corporation a year later. According to a Certificate of Occupancy filed with the DOB, in 1948 the lot was razed and a new 1-story structure was constructed covering both properties at 43 and 45 Grand Street. The 1951 Sanborn map shows that the building was used for electric motor repair. From 1977 to 2008, the building was used as a metalwork shop (Kilgannon 2008).

D. HISTORY OF 47 GRAND STREET (NORTHWESTERN PORTION OF LOT 22)

Tax assessment records show that the property at 47 Grand Street was developed with a house by 1823. The home on the property was first depicted on the 1852 Dripps map and is shown in greater detail on the 1853 and 1857 Perris maps. The Perris maps depict an approximately 30 by 17 foot wood frame building at the front of the lot with an open rear yard. Subsequent maps and atlases show that the building had 2 stories and a brick front. No maps depict any new development within the property until the 1890s.

When the lot was first developed, it was owned by Thomas and George Lovett and occupied in 1823 and 1824 by Alexander Reid (Reed) and John Runlen. Reid, a tailor, was listed as a resident of the property until 1826, but had moved by 1827, when an historic directory lists his address as 23 Morton Street. That same directory shows that a man named James Gibson, a mason, was living at 47 Grand Street. Two years later, the property was inhabited by a widow named Sarah Davies. Neither Gibson nor Davies appeared as residents of the Eighth Ward in the 1830 Federal Census. By 1834, directories show that a man named William McElwain resided at 47 Grand Street. This may be the same man as William Mucklewain, who is listed in tax assessment records as the owner of 25 Laurens Street between 1827 and 1837.

In 1838, the properties at 47, 49, and 51 Grand Street were first conveyed by George Lovett to John Pitts. Pitts lived on the property at 47 Grand Street for some time and is listed at the address in directories dating to 1839 and 1852. The 1850 census suggests that Pitts continued to reside at 47 Grand Street, along with his wife, Mary Ann, his son, also named Friend, son John, and daughter Mary. Several others lived with the family at that time, including Robert Newbury, a painter from New Hampshire, and his wife, Alice, Margaret Dennin, an Irish immigrant, Edward Meyers, a servant, and Catherine Scott, a Scottish immigrant. It is not clear if these individuals were boarders or if they were employed by Pitts to work in his home. The census also shows that Pitts' real estate holdings were valued at approximately \$20,000.

Although he continued to operate a grocery store at 51 Grand Street, Pitts had moved his residence to West 29th Street by 1857. It is unknown who lived on the property for the ten years that followed, but by 1867, the lot was occupied by a laborer named Peter Crave. Crave was also listed at that address in an 1869 directory, along with Claude Crave, a chocolatier, Aaron Cohn, a tailor (who in 1867 appears to have lived next door at 49 Grand Street) and William Storms, a carman. As mentioned previously, the 1870 census records for 47 and 49 Grand Street both appear to have been listed under the address 47 Grand Street. Cohn was included among these individuals (although his name was listed as "Abram Cohen"). Cohn and his wife had been born in Germany and lived on the property with their three children, who were between the ages of 6 and 16.

Throughout the 1870s and 1880s, many conveyances and leases were recorded indicating that the land at 47 Grand Street changed hands several times but for the most part remained under the ownership of John or Friend Pitts or their heirs. In 1875, the property was conveyed to Laura L. Warriner, who had previously leased the lot from John Pitts, who sold it in 1876 to Maturin Livingston.¹ Livingston was a wealthy member of the social elite and therefore

¹ Lovett's heirs may have retained some interest in the property, however, several conveyance records for Lots 20 and 22 as well as adjacent lots were recorded in the 1860s, 1870s, and 1880s. Those records indicate that various members of the Kingsland family, most notably Ambrose C. Kingsland, the former Mayor of New York, and

did not live on the property. The 1880 census shows that the building was inhabited by three families, all Caucasian. The residents included a pair of French brothers, John and Francisco Glof, who worked as waiters in a hotel, a Prussian tailor named Marcus Moses, and Edward and Catherin Page, a married Irish couple who worked as a tailor and fruit peddler, respectively. The presence of many tailors in the building over the years suggests that a clothing shop may have been located on the ground floor of this building, and an 1890 directory shows that Rachel Cohen made "men's furnishings" on the property.

The 1894 Sanborn map appears to depict the properties at 47 and 49 Grand Street as one lot. A small 1-story outbuilding had been constructed along the rear of the lot behind 47 Grand Street which extended partially into the property at 49 Grand Street. However, by the time of the publication of the Bromley atlas of 1899, the entire area making up modern Lot 22 (including the buildings at 47 and 49 Grand Street and those along West Broadway to the south) had been razed and replaced with a large 1-story brick structure that covered almost the entire lot. The 1905 Sanborn map (Figure 6) shows that this new structure was divided into approximately 7 storefronts, three along Grand Street and the rest along West Broadway. A photo taken of the building by P.L. Sperr in 1939 shows that the storefronts included cigar stores, barber shops, and printers. The Sanborn map of 1951 (Figure 7) shows that the building was at that time used for metal works and the Sanborn of 1977, which depicts the building as covering the entire lot, shows that it was used for manufacturing. The building continues to stand on the lot to this day.

E. HISTORY OF 49 GRAND STREET (NORTHEASTERN PORTION OF LOT 22)

The ownership and development history of 49 Grand Street is nearly identical to that of 47 Grand Street. The lot was developed with a residential structure by 1823. The property is first depicted in detail on the 1852 Dripps and 1853 and 1857 Perris maps. The Perris map shows that the lot was developed with a wood frame building identical to that at 47 Grand Street and with an open rear yard. Subsequent maps show that this building was two stories tall and had a brick front.

The first recorded inhabitant of the building was Robert Carr, the brassfounder who would later reside at 45 Grand Street. Tax assessments recorded between 1823 and 1826 and an 1827 directory all list Carr as the occupant of the building, which was owned by Thomas and George Lovett at the time. Carr had vacated the property by 1829 at which time a directory shows it was inhabited by a baker named Alexander Dunn. Carr was recorded as a resident of Grand Street in the 1830 Federal Census (at which time he was living down the street at 45 Grand Street), but Dunn was not.

A directory from 1834 shows that a man named Benjamin Hyatt ran a boarding house from the property, which was also inhabited by Matthias Matthews, a confectioner. None of the building's residents could be identified for the period between 1834 and 1850. By 1850, the building was inhabited by William Kaylor, a manufacturer and stone-cutter. Kaylor was listed as a resident of the building in the 1850 census and in several historic directories dating to the early 1850s. Kaylor was no longer living on the property in 1857.

During the 1860s and 1870s, the building at 49 Grand Street experienced the same social changes that were occurring throughout the rest of the neighborhood: an increasing number of individuals were living in the building, most of whom worked unskilled jobs. An 1867 directory notes that the building was occupied by a tailor named Antonio Cohen (possibly the same man as Aaron Cohn and Abram Cohen mentioned previously), a shoemaker named Charles Thevenet, and a junk dealer named William McConlonge, who ran his business from 49 Grand Street but lived elsewhere. An 1869 directory shows that McConlonge had since moved his residence into the building and his business elsewhere and that Thevenet continued to live there as well, except now his occupation was listed as "books." The 1870 census, which combines 47 and 49 Grand Street, lists McConlonge, an Irish immigrant, and his family as residents. The building at that time also included William Bayer, an Irish china packager, and Jose Gaters, a cigar maker from Cuba, and his family.

George Lovett Kingsland, who may have been an heir of George Lovett, owned an interest in the land at this time. Various members of the Kingsland family leased property on Lot 22 and in the area now occupied by West Broadway to John Pitts in the mid-1860s. Many conveyances were also recorded transferring the land among members of the Kingsland family or setting up trusts for their heirs. The Kingslands also conveyed land to Matruin Livingston in 1885 and Livingston appears to have acquired all the interests in the property by 1888.

The 1880 census demonstrates the continued change in the makeup of the neighborhood. The residents of the building in that census included Nathan Morris, a cigar dealer, and the family of Bridget Williams, an Irish washerwoman. Williams' husband, Peter, who died in the 1860s, was an African-American and therefore, their children were of mixed race. Among the members of Williams' household were her two sons and son-in-law, all three of whom were unemployed hotel waiters. The 1860 census and an 1867 directory showed that the Williams family resided at 25 Laurens Street and the 1870 census (which lists the family's last name as "Whalen") suggests that they lived in the rear building behind 25 Laurens Street.

The 1880 census was the last available census taken before the property was redeveloped with a commercial structure. An 1890 directory showed a man named Paul J. Moran ran a liquor store from the property, but he lived elsewhere. The 1894 Sanborn map appears to depict the properties at 47 and 49 Grand Street as one lot. A small 1-story outbuilding had been constructed along the rear of the lot behind 47 Grand Street which extended partially into the property at 49 Grand Street. The map also depicts a small 1-story addition that had been constructed at the rear of the home. The 1897 Bromley map depicts neither the addition nor the outbuilding, but shows that a brick shed or stable was situated along the rear lot line of the property.

In 1896, a lawsuit initiated by Ruth Livingston, who had inherited the land from Maturin Livingston, against Manhattan Railway, the company that had constructed the elevated rail line along West Broadway in 1878, was heard before Appellate Division of the New York State Supreme Court (National Reporter System 1896). Livingston had sued the railway company for damages to both property and rental values as well as loss of easements of light and air. Livingston attempted to receive damages for the properties at 47 and 49 Grand Street as well as the adjacent land to the south, 220 South Fifth Avenue. She won the case and it was upheld in the appeals court, although she was not granted damages for 47 Grand Street, which was determined to have been unaffected by the construction of the railroad.

By the time of the publication of the Bromley atlas of 1899, the entire area making up modern Lot 22 (including the buildings at 47 and 49 Grand Street and those along West Broadway to the south) had been razed and replaced with a large 1-story brick structure that covered almost the entire lot. The 1905 Sanborn map shows that this new structure was divided into approximately 7 storefronts, three along Grand Street and the rest along West Broadway. A photo taken of the building by P.L. Sperr in 1939 shows that the storefronts included the Garcia Grande cigar store and barber shop and a print shop. The Sanborn map of 1951 shows that the building was at that time used for metal works and the Sanborn of 1977, which depicts the building as covering the entire lot, shows that it was used for manufacturing. The building continues to stand on the lot to this day.

F. HISTORY OF 25 LAURENS STREET (330 WEST BROADWAY—PART OF LOT 22)

The property at 25 Laurens Street was developed before 1824. That year, Nathaniel Carpenter, a carter who lived at 25 Laurens, was made a fireman (MCC 1784-1831 XIII:524). No tax assessment records identify the occupants of the property, nor do any refer to the lot by address until 1827. In 1827, William Mucklewain (possibly the William McElwain mentioned previously) was listed as the owner or occupant of the home. Tax assessments continue to list Mucklewain as the owner of the property until 1836.

In 1827, an historic directory shows that a shoemaker named Joseph Marley was occupying the home. A subsequent directory shows that by 1829, a victualler (likely meaning a restaurant owner or innkeeper) named Charles R. Stiles was living there. Stiles was recorded as a resident of Laurens Street in the 1830 census. His household included 5 males and 1 female between the ages of 30 and 40, as well as 1 male between the ages of 5 and 10 and 1 female between the ages of 15 and 20; all of the household members were white.

The individuals who resided in the building between 1830 and 1850 are unknown. Directories show that in 1850, a porterhouse (restaurant) owner named James Porter and a liquor dealer named Patrick Farley worked at 25 Laurens and that Farley lived there as well. Farley, an Irish immigrant, lived on the property until after 1852 and before 1859. He was among the building's residents in the 1850 census, which listed his occupation as laborer. Farley's household included several boarders, and the other households in the building were made up of African-Americans or individuals of mixed race. Several heads of those households were unemployed widows while others worked as a porter, a whitewasher, and a cook. All the residents had been born in the United States; most were from New York but several others were from New York, Massachusetts, Virginia, or North Carolina.

A map drawn by Gardner A. Sage in 1853 in advance of the construction of a sewer in Laurens Street (discussed below) shows the lot at 25 Laurens Street and labels it “J+F Pitts (empty).” It is not clear if this is implying that the building was vacant at that time, but the lot was certainly developed with structures, as depicted on the 1852 Dripps map. The structure is shown in greater detail on the 1853 and 1857 Perris maps, which depict the former lot as being approximately 55 feet by 25 feet (the aforementioned sewer map gives the lot’s dimensions as 60 feet by 26 feet). The front of the lot was developed with an approximately 40 by 25 foot brick dwelling with a store beneath it. After the widening of Laurens Street, the rear 40 feet of this original lot and the rear 15 feet of the structure’s former footprint remained within the APE. The map also depicts the two rear buildings which were accessed via a small alley situated between the buildings at 25 and 27 Laurens Street.

Unlike the neighboring buildings along Grand Street, the property at 25 Laurens Street appears to have become more racially diverse beginning in the early 1850s. Because of the number of interracial couples residing in the building and in the rear dwelling behind it, an article published in the *New York Times* in 1856 referred to the 4-story home as the “Abode of Amalgamation,” and mentioned that the living conditions within were, “bad, but not the worst of the tenant houses” (*NYT* 3/10/1856: 1). The article noted that 48 individuals in 15 families resided there and that the typical apartment included just a kitchen and bedroom. At least one of the families “had the means of living comfortably” and artistic prints decorated the walls of their apartment. Most of the African-American men who resided in the building worked as waiters in hotels and many of the white women they had married had formerly worked alongside them.

In addition to the number of interracial couples residing at 25 Laurens Street, this building is unique because it appears that individuals resided in the building for longer periods of time. The 1860 census includes many individuals who continued to live in the building through the late 1860s or who appear at the same address in the 1870 census. The 1860 census shows that the building was occupied by 16 households, most of which were made up by individuals of mixed race or of African descent. Most of the employed occupants of the home worked as waiters, although there were also several laborers and porters as well as a coachman, a cook, a seaman, a dressmaker, a washerwoman, and one woman who did a “day’s work.” Most of the individuals had been born in the United States (including New York, Maryland, New Jersey, Virginia, Connecticut, and Pennsylvania) although several had emigrated from the West Indies and Ireland. Nearly all of the residents who were listed at this address in historic directories from the late 1860s were African-American. Several of those individuals were widows, and several were seamen, waiters, or coachmen.

In 1868, when Laurens Street was widened and renamed South Fifth Avenue, the property formerly located at 25 Laurens Street was reduced significantly. As depicted on the 1894 Sanborn map, after the street widening, the property, at that time known as 220 South Fifth Avenue, was developed with a 5-story brick structure measuring approximately 30 feet by 30 feet. The 1891 Bromley atlas depicts a 10-foot long open rear yard behind the building, although the 1894 Sanborn map shows that two 1-story additions had been constructed adjacent to the rear of the home.

As a result of the replacement of the building with a smaller one, fewer individuals were listed as residents of the property in the 1870 census. Several families were represented in that census, many of which were headed by African-American men married to Irish or English women. Among the employed residents were two laundresses, a caterer, a porter, an oyster man, and a waiter. Many of the residents were born in Ireland and New York and two individuals had been born in the West Indies. A similar ethnic makeup was present among the residents recorded in the 1880 census. The majority of the tenants were of mixed race and of the five households listed in the census, four were headed by interracial married couples. The majority of the employed individuals worked as laborers, several were waiters, and there was also a caterer, washerwoman, cook, wagon driver, and servant among the residents. Most of the tenants were born in the United States (New York, New Jersey, or Virginia), several had emigrated from Ireland, and one resident was German.

Two families were listed at the address in both the 1870 and 1880 censuses; those of George A. Morris, an African-American caterer, and Thomas Sturgis, a New York-born laborer of mixed race. Both men were married to white Irish emigrants and both continued to reside on the property through at least 1890, according to an historic directory published that year. Other residents included in that directory were Mary Hazel, a widow who had also appeared at this address in the 1880 census, Thomas Ryan, a printer, and Everet Vandusen, a cook. These are the last known individuals to have inhabited this property.

As mentioned previously, the 1894 Sanborn map depicts two small, 1-story outbuildings had been constructed along the rear of the lot formerly at 220 South Fifth Avenue. No changes to the property were depicted in Bromley's 1897 atlas with the exception of the reassignment of street numbers. Around that time, 220 South Fifth Avenue had been renamed 330 West Broadway, as it remains today.

By the time of the publication of the Bromley atlas of 1899, the entire area making up modern Lot 22 (including the buildings at 47 and 49 Grand Street) had been razed and replaced with a large 1-story brick structure that covered almost the entire lot. The 1905 Sanborn map shows that this new structure was divided into approximately 7 storefronts, three along Grand Street and the rest along West Broadway. A photo taken of the building by P.L. Sperr in 1939 shows that the storefronts included the Garcia Grande cigar store and barber shop and a print shop. The Sanborn map of 1951 shows that the building was at that time used for metal works and the Sanborn of 1977, which depicts the building as covering the entire lot, shows that it was used for manufacturing. The building continues to stand on the lot to this day.

G. HISTORY OF THE REAR DWELLING OF 25 LAURENS STREET AND 43-45 GRAND STREET (PART OF LOTS 20 AND 22)

As described above, it is somewhat difficult to identify documentary evidence pertaining to the rear building¹ within the APE as it is often combined with the front buildings at either 25 Laurens Street or 43 or 45 Grand Street. The first map to depict a rear building in this area is the 1852 Dripps map, which shows a small structure in the rear of the lot behind the building at 25 Laurens Street. The 1853 and 1857 Perris maps depict the rear lot more clearly and show that two brick dwellings were located there. Each dwelling measured approximately 20 by 25 feet. They were aligned vertically in the southern portion of Lot 20, behind 43 and 45 Grand Street. However, the buildings were accessed by a narrow alley between 25 and 27 Laurens Street. It is perhaps for this reason that the buildings are referred to as the rear dwellings of 25 Laurens in directories and census records from the mid-19th century.

After Laurens Street was widened and the building at 25 Laurens Street replaced, the two rear dwellings appear to have been replaced with a larger brick structure with a basement. This structure is first depicted on the 1891 Bromley map and is shown in greater detail on the 1894 Sanborn map. That map identified that building as a second-class warehouse (as defined earlier). The 1894 map also shows that a 2-story dwelling had been constructed in the location of the former alley leading between the rear dwellings and Laurens Street, behind 47 and 49 Grand Street. This building was identified on that Sanborn map as 218 South Fifth Avenue, but no census or directory entries could be located which would indicate who might have resided there. Because of this new development, the rear dwelling was now accessed through an alley extending through the southeastern portion of the building at 45 Grand Street. The new method of access appears to be the reason that the rear building is identified in late-19th century directories as the rear building of 45 Grand Street.

As shown in the appendices, the residents of the rear dwelling(s) were similar to those who had resided in the building at 25 Laurens Street: many were of African descent, many interracial couples were among the occupants, and most worked unskilled jobs such as waiter, washerwoman, and laborer. However, because of the construction of a new rear building with a basement in the late-19th century, it is not likely that archaeological resources associated with the individuals who resided in the rear structures could have survived.

H. UTILITIES IN THE PROJECT AREA

Utilities were installed in the streets surrounding the project site fairly early as part of the effort to drain the swampland. Between 1792 and 1803 a massive canal/sewer was constructed along the line of modern Canal Street (Stokes 1967). In the late 1790s, the Manhattan Company dug wells in Lispenard's Meadows to provide one of the first fresh water sources to other areas of New York City (Hubbard 1995). By 1819, a sewer connecting to the Canal Street sewer was constructed in Thompson Street, along the western side of the block on which the project site is situated. In 1820, the common council was petitioned to construct a sewer in Laurens Street (now West Broadway) between Broome and Canal Streets (MCC 1784-1831 XI: 71). The next year, the council resolved to build the

¹ The 1857 Perris atlas depicts two separate structures in this area, while all subsequent maps depict them as a single structure. The original rear buildings were replaced with a single structure at a later date.

Laurens Street sewer at some point in the future when the road was regulated (MCC 1784-1831 XI: 740). That same year, the council was again petitioned to build a sewer on Grand Street between Thompson and Wooster Streets, which would have resulted in potential sewer connections for the homes in the project area (MCC 1784-1831 XI: 673). In 1823, Thomas and George Lovett petitioned the council for permission to lay drains from three lots in Wooster Street and Laurens Street to the Canal Street sewer (MCC 1784-1831 XIII: 27). As tax assessment records show, not all of the lots within the project area were “finished” in the early 1820s, and it is likely that these sewers and drains were installed for the purposes of draining the swampland and they may not have been used for sanitary use upon the construction of the houses within the project site in the early to mid-1820s.

Endicott’s 1842 *Map of the Croton Water Pipes with the Stop Cocks* shows that Croton water pipes were installed in both Grand and Laurens Streets by that time. However, many landlords did not have their properties connected to water lines to avoid connection and service fees (Burrows and Wallace 1999). Furthermore, the Common Council did not require all homes to be connected to a sewer until 1854 (ibid). There are indications that many homes within the vicinity of the project site were not connected to municipal water and sewer networks until after this time. A *New York Times* article reporting on the poor living conditions of the Eighth Ward, with emphasis on “Rotten Row,” one block to the north, mentioned that “water should be introduced” to clean the homes and improve the way of life of the Ward’s residents (NYT 4/19/1853: 2).

The annual report of the Croton Aqueduct Department for the year 1852 (published 1853) suggests that receiving basins and culverts for storm water and other drainage along Laurens Street 250 feet north of Canal Street (this would not have been as far north as the project site) were connected to the Canal Street sewer by 1852. A map of the “Assessment for building a sewer in Laurens Street from the sewer in Canal Street, to a point about 300’ north,”¹ produced by Gardner A. Sage in 1853, shows that the buildings along Laurens Street as far north as number 25, within the APE, were not connected to sewers until that time. The *Documents of the Board of Aldermen of the City of New York* for 1854 show that the Laurens Street sewer had been constructed from Canal Street to a point 300 feet to the north (approximately at 25 Laurens Street). Sage’s 1853 sewer assessment map indicates that a sewer was already present in Grand Street but it does not provide information on which houses were connected to it.

A report summarizing a sanitary inspection of the Eighth Ward in 1865 noted that 19 of the Ward’s 33 blocks were “in a bad sanitary condition,” mostly due to a deficiency of water and sewer connections in streets without sewers (Keeney 1865: 36). A map accompanying the report shows that both Grand Street and West Broadway had sewers by that time. Many of the tenement buildings in the ward were connected to neither water nor sewer lines and most utilized privies. However, the report mentions that not all privies in use in the Ward were connected to sewer lines and mentions that 66 Grand Street, one block to the east of the project site, was one such building. Newly constructed buildings were more likely to be built with sewer and water connections while the older buildings were not. The earliest water connection records on file at the Department of Environmental Protection’s (DEP) Manhattan office of the Bureau of Water and Sewer Operations for the property at 47-49 Grand Street (330-336 West Broadway) date to 1933 and the earliest records for 43-45 Grand Street date to 1946. According to an employee at DEP, the cards documenting the dates of sewer connections have been lost and only data from the last 25 years remain on file. In addition, maps on file at the DEP office which depict the dates of sewer line installations were illegible for this portion of Manhattan and the dates could not be interpreted.

Therefore, it is possible that the residents of the buildings within the project site would have relied on the use of domestic shaft features such as privies, cisterns, and wells for water gathering and sanitary purposes as late as the 1850s. In general, privies were located at a distance from both the house and the street, for the purposes of privacy and sanitation (Wheeler 2000). In New York City, privies have been found at depths of up to 13 feet (Cantwell and Wall 2001). For convenience, cisterns and wells would have been located closer to the home than privies. Cisterns are usually located up to 10 feet below the ground surface while wells would be dug to the water table (Cantwell and Wall 2001). However, given the small size of the rear yards of the lots within the project area, if shaft features were utilized, they may have been much closer to the houses on the lots.

¹ On file at the New-York Historical Society.

A. SENSITIVITY ASSESSMENT

As part of the background research for this Phase 1A Archaeological Documentary Study, various primary and secondary resources were analyzed, including historic maps and atlases, historic deeds, historic photographs, newspaper articles, local histories, census records, and historic directories. The information provided by these sources was analyzed to reach the following conclusions.

DISTURBANCE ASSESSMENT

Lots 20 and 22 were originally situated within a large swamp known as Lispenard's Meadows. In the first half of the 18th century, Anthony Rutgers laid a drain from the Collect Pond through the meadows to the Hudson River in an attempt to transform the swamp into solid land. However, the transformation of the swamp was not completed until the early 1820s. Soon after, the lots were developed with residential structures. The buildings on the property are first depicted in detail on the 1853 and 1857 Perris maps. The maps show that Lot 20 was divided into three sections: the northern 50 feet was divided into two front lots (43 and 45 Grand Street) while the southern portion of the lot contained rear dwellings. Two 3-story wood frame structures with open rear yards were located at 43 and 45 Grand Street and two brick rear dwellings were to the south. Subsequent maps show that various outbuildings and extensions were constructed in the rear yard areas of the homes in the front lots, however, no maps suggest that any of those developments contained basements. By 1891, the rear lot had been redeveloped with a slightly larger, 4-story brick structure with a basement. In 1947, the entire area making up Lot 20 was razed and redeveloped with a 1-story brick structure. Again, there is no evidence that this building was constructed with a basement.

The Perris maps show that Lot 22 was also divided into three sections: two front lots at 47 and 49 Grand Street and the rear yard and western end of a building that was originally located at 25 Laurens Street (now 330 West Broadway), but which was demolished after the widening of West Broadway in 1868. Each of the front lots was developed with a 2-story wood frame dwelling with open rear yards, although subsequent maps show that various small outbuildings were constructed in those rear yards during the late 19th century. After West Broadway was widened, the structure formerly at 25 Laurens Street was replaced with a smaller, 5-story brick structure, and a small 2-story dwelling was constructed immediately to the north. There are no maps which indicate that these buildings had basements. By 1899, all of the structures on modern Lot 22 were replaced by a 1-story brick structure. There are no indications that this building was constructed with a basement. However, the construction and demolition of the various structures that have been situated on the project area throughout time would most likely have resulted in the disturbance of a few feet below street grade.

PRECONTACT SENSITIVITY ASSESSMENT

The precontact sensitivity of project sites in the New York City are generally evaluated by their presence of high ground (but not exceeding 30 percent slopes), vicinity to fresh water courses, presence of well-drained soils, and proximity to previously identified precontact archaeological sites. Because the project site is situated in an area that was formerly occupied by a large expanse of swampland, it is unlikely that Native American habitation, hunting, or camping sites would have been located there as such sites would be expected along the shores of marshy areas, but not within them. Therefore, the project site is determined to have low sensitivity for precontact archaeological resources.

HISTORIC SENSITIVITY ASSESSMENT

Because of the lack of substantial excavation within the APE—only one structure within Lots 20 and 22 was built with a basement—there is a good chance that archaeological resources may be preserved intact beneath the structures that are currently situated at 43 and 47 Grand Street. Soil borings show that the project site is composed of

6 to 32 feet of fill materials which were likely placed there in the 18th and 19th centuries as part of the transformation of the former swamp. A drain was installed in the 18th century in the vicinity of the project site which allowed for the drainage of both the swamp and the infamous Collect Pond to the southeast. Remnants of this drain may therefore be present within the project site. In addition, the project site was developed with residential structures by the early 1820s. It is unclear if these homes were immediately connected to municipal water and sewer networks, although it appears that some of all of the dwellings formerly situated within the APE may not have been connected to such utilities until the 1840s or 1850s. Before such connections were made, the residents of these homes would have relied on domestic shaft features such as privies, cisterns, and wells, for water gathering and sanitation purposes. Intact shaft features associated with the project site's early 19th century dwellings may be intact beneath the buildings which currently stand on the site.

The construction of a building with a basement in the southern half of Lot 20 would have disturbed intact archaeological resources which may have been located in that area. However, no substantial disturbance has been documented in the northern 50 feet of Lot 20, and intact archaeological resources may be present in that area. Therefore, the northern portion of Lot 20 (extending 50 feet from the lot's frontage on Grand Street) and all of Lot 22 are determined to have moderate to high sensitivity for historic period archaeological resources, including 18th century drainage technology and 19th century domestic shaft features.

B. RECOMMENDATIONS

As described above, the project site is considered to have low potential for precontact period archaeological deposits. No further study, research, or testing is recommended to evaluate the potential for precontact period archaeological resources within the project site.

A moderate to high potential for the existence of subsurface historic period archaeological resources on the project site has been identified, however, for the northern section of Lot 20 and all of Lot 22. The resources which may exist within the APE could include 18th century drainage technology and 19th century domestic shaft features. Domestic shaft features were often used for the disposal of household waste and are often found to contain historic artifacts that can provide information about a household's consumption patterns. Such artifacts could provide new information about the early residents of this section of Manhattan. The households that occupied the project site included individuals born in several states and various countries, and the ethnic makeup of the project site's residents was extremely diverse. Their professions ranged from laborers, waiters, laundresses, grocers, tailors, and, perhaps, even prostitutes.

Artifacts recovered from shaft features can provide insight into consumption patterns, which are strongly influenced by socioeconomic status, occupation, household composition, and ethnicity. What a person buys and/or uses on a routine basis is behavior that reflects the multiple components of that individual's life. Archaeological evidence from the former house lots may provide information on how socioeconomic status has influenced consumer choice behavior. Furthermore, if one or more of the properties formerly located within the project site were, in fact, brothels, any archaeological resources associated with those properties could provide insight not only into the lives and living conditions of the women who worked there, but also the men who patronized such places. This information could be compared and contrasted with data associated with similar populations elsewhere in the city, such as the Five Points site.

Further investigation in the form of Phase 1B archaeological testing is recommended the northern section of Lot 20 and all of Lot 22 in order to further assess the site's potential to yield such resources. A sensitivity map has been prepared to indicate those areas for which further investigation is recommended (see Figure 8). It is recommended that testing be completed after the demolition of the buildings currently standing on the site and before the start of construction of the proposed project. In advance of testing, an archaeological testing protocol should be prepared in consultation with LPC.

References

- AKRF, Inc.
2008a *43-45 and 47-49 Grand Street; Tax Block 227, Lots 20 and 22, New York, New York; Phase I Environmental Site Assessment.* For Kano Properties, New York, NY.
2008b *43-45 and 47-49 Grand Street; New York, New York; Subsurface (Phase II) Investigation.* For Kano Properties, New York, NY.
- Berlin, Ira, and Leslie M. Harris, editors
2005 *Slavery in New York.* New York and London: The New York Press, published in conjunction with the New-York Historical Society.
- Bien, J.R. and C.C. Vermule
1891 *Atlas of the Metropolitan District and Adjacent County comprising the Counties of New York, Kings, Richmond, Westchester, and part of Queens in the State of New York.* New York: Julius Bien & Co.
- Board of Aldermen of the City of New York
1854 *Documents of the Board of Aldermen of the City of New York.* Volume XXI, Part 1. New York: McSpedon & Baker, Printers to the Common Council.
- Boesch, Eugene
1994 *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York.* For: LPC.
- Bolton, Reginald Pelham
1922 "Indian Paths in the Great Metropolis." In *Indian Notes and Monographs.* Miscellaneous #22. New York: Museum of the American Indian, Heye Foundation.
1934 *Indian life of long ago in the city of New York.* New York: J. Graham.
1975 *New York City in Indian Possession.* Museum of the American Indian, Heye Foundation, New York.
- Bridges, William
1811 *Map of the city of New York and island of Manhattan, as laid out by the commissioners appointed by the legislature, April 3d, 1807.* New York: unknown.
- Bromley, G.W. and Company
1879 *Atlas of the City of New York, Complete in One Volume.* New York: George W. Bromley and E. Robinson.
1891 *Atlas of the City of New York, Manhattan Island, From Actual Surveys and Official Plans.* Philadelphia: G.W. Bromley & Co.
1897 *Atlas of the City of New York, Manhattan Island, From Actual Surveys and Official Plans.* Philadelphia: G.W. Bromley & Co.
1911 *Atlas of the City of New York, Borough of Manhattan, From Actual Surveys and Official Plans.* Philadelphia: G.W. Bromley & Co.
1920 *Atlas of the City of New York, Borough of Manhattan, From Actual Surveys and Official Plans.* Philadelphia: G.W. Bromley & Co.
1924 *Atlas of the Borough of Manhattan, City of New York: Desk and Library Edition.* Philadelphia: G.W. Bromley & Co.
1930 *Land Book of the Borough of Manhattan, City of New York: Desk and Library Edition.* New York: G.W. Bromley & Co.

- Burrows, Edwin G. and Mike Wallace
1999 *Gotham*. New York: Oxford University Press.
- Cantwell, Anne-Marie and Diana diZerega Wall
2001 *Unearthing Gotham: The Archaeology of New York City*. New Haven: Yale University Press.
- The Connecticut Courant*
7/17/1832 "Epidemic Cholera," p. 3, Hartford, Connecticut.
- Crapsey, Edward
1872 *The Nether Side of New York, or, Vice, Crime, and Poverty of the Great Metropolis*. New York: Sheldon & Company.
- Croton Aqueduct Department
1853 *Annual Report of the Croton Aqueduct Department made to the Common Council of the City of New York*. New York: McSpedon & Baker, Printers.
- Dincauze, Dena F.
2000 "The Earliest Americans: The Northeast." *Common Ground: Archaeology and Ethnography in Public Interest*. Washington, D.C.: National Park Service (NPS).
- Dripps, Matthew
1852 *Map of the City of New York Extending Northward to Fiftieth St Surveyed and Drawn by John F. Harrison*. New York: M. Dripps.
1867 *Plan of New York City from the Battery to Spuyten Duyvil Creek*. New York: Matthew Dripps.
- Endicott
1842 "Map of the Croton Water Pipes With the Stop Cocks." In *Manhattan in Maps*, by Paul E. Cohen and Robert T. Augustyn (1997). New York: Rizzoli.
- Gilfoyle, Timothy J.
1992 *City of Eros: New York City, Prostitution, and the Commercialization of Sex, 1790-1920*. New York and London: W.W. Norton & Company.
- Gratacap, Louis P.
1909 *Geology of the City of New York*. New York: Henry Holt & Co.
- Grumet, Robert S.
1981 *Native American Place Names in New York City*. New York: Museum of the City of New York.
1995 *Historic Contact*. Norman, OK: University of Oklahoma Press.
- Hartrampf, Gustavus
1947 *Hartrampf's Vocabulary Builder*. New York: Grosset & Dunlap.
- Henderson, Mary C.
2004 *The City and the Theatre: The History of New York Playhouses, a 250-Year Journey from Bowling Green to Times Square*. New York: Back Stage Books.
- Homberger, Eric
1994 *The Historical Atlas of New York City*. New York: An Owl Book, Henry Holt and Company.
- Hubbard, J.T.W.
1995 *For Each, the Strength of All*. New York: NYU Press.

- Hunter Research
1996 *A Phase 1B Archaeological Survey of the Arthur Kill Factory Outlet Center, Staten Island, Borough of Richmond, County of Richmond, New York City, New York [CEQR 95-DCP-058R].* For Bellemead Development Corporation, Roseland, New Jersey.
- Isachsen, Y.W., E. Landing, J.M. Lauber, L.V. Rickard, W.B. Rogers, editors.
2000 *Geology of New York: A Simplified Account.* Second Edition. New York: New York State Museum Educational Leaflet 28.
- Journal of Commerce*
7/21/1832 "Cholera in New York," reprinted in the *Portsmouth Journal and Rockingham Gazette*, p. 3. Portsmouth, New Hampshire.
- Keeney, M.
1865 "Report of the Third Sanitary District [Section B]." In, Report of the Council of Hygiene and Public Health of the Citizens' Association of New York upon the Sanitary Condition of the City. New York: D. Appleton and Co.
- Kilgannon, Corey
2008 "From Metalwork to Luxury Condos: Century-Old SoHo Shop Ends Its Run." *New York Times*, May 16, 2008: accessed through the online archive, July 1, 2008.
- Louis Berger and Associates, Inc.
2001 *Cultural Resource Assessment: Proposed NYCT Department of Buses Storage and Maintenance Facility: Arthur Kill Road, Staten Island, New York.* For: New York City Transit, New York, New York.
- Louis Berger Group, Inc.
2004 *Proposed Fulton Street Transit Center.* Prepared for New York City Transit, New York, New York.
- Landmarks Preservation Commission, City of New York (LPC)
1973 *SoHo Cast Iron Historic District Designation Report.* New York: Landmarks Preservation Commission.
- The Common Council of the City of New York
1905 *Minutes of the Common Council of the City of New York 1674-1776.* In Eight Volumes. New York: Dodd, Mead and Company published under the authority of the City of New York.
1917 *Minutes of the Common Council of the City of New York 1784-1831.* In Nineteen Volumes. New York: The City of New York.
- National Reporter System
1896 *The New York Supplement, Volume 38, Containing the Decisions of the Supreme and Lower Courts of Record of New York State, Permanent Edition, April 16-May 28, 1896.* St. Paul: West Publishing Co.
- New York City Soil Survey Staff
2005 *New York City Reconnaissance Soil Survey.* United States Department of Agriculture, Natural Resources Conservation Service, Staten Island, New York.

New York State Office for Technology [NYSOFT]

2004 *Draft Generic Environmental Impact Statement (DGEIS) New York Statewide Wireless Network (SWN)*. Prepared by Deorsetz Stinziano Gilberti Heintz and Smith, P.C., Spectra Environmental Group, Inc., and CASmith, LLC., New York.

New York Evening Post

5/14/1819 "Corporation Notice," p. 4.

New York Times [NYT]

4/19/1853 "Walks Among the Poor," p. 2.

6/2/1855 "The Ulcers of the City," p. 2.

3/10/1856

3/31/1856 "Tenant Houses; Practical Amalgamation, "Rotten Row" and "Soap Fat Alley," Conclusion of the Investigation," p. 1.

6/8/1861 "General City News," p. 5.

12/19/1878 "The Real Estate Market," p. 7.

11/8/1880 "A Crazy Fellow's Crime," p. 5.

1/3/1881 "City and Suburban News," p. 8.

1/22/1883 "City and Suburban News," p. 8.

7/19/1886 "Fractured Skull," p. 8.

8/27/1886 "Strikers Return to Work," p. 1.

5/27/1887 "Cases of Smallpox,"

3/10/1894 "Yesterday's Fires," p. 5.

2/15/1899 "Obituaries," p. 7.

10/12/1926 "Hole in His Pocket Lost Savings of Years," p. 5.

Perris, William

1853 *Maps of the City of New York Surveyed Under Directions of Insurance Companies of Said City*. New York: Perris and Browne.

1857 *Maps of the City of New York: Third Edition*. New York: Perris and Browne.

Ratzer, Bernard

1776s *Plan of the city of New York in North America : surveyed in the years 1766 & 1767 / B. Ratzer, lieutt. in His Majestys 60th or Royal American Regt. ; Thos. Kitchin, sculpt., engraver to His Late Royal Highness, the Duke of York, &c.* London: Jeffrys and Faden.

Reeds, Chester A.

1925 *The Geology of New York City and Vicinity*. New York: The American Museum of Natural History Guide Leaflet Series No. 56.

Reese, David M., editor

1854 "Original Department on the News of Prevention of Cholera." *New York Medical Gazette and Journal of Health* 5 (10): 433-445.

Ritchie, William A.

1980 *The Archaeology of New York State: Revised Edition*. Harrison, New York: Harbor Hill Books.

Sage, Gardner A.

Ca. 1853 "Map of the area later bounded by Grand Street and Prince Street along West Broadway, Manhattan, New York." On file at the New York Historical Society.

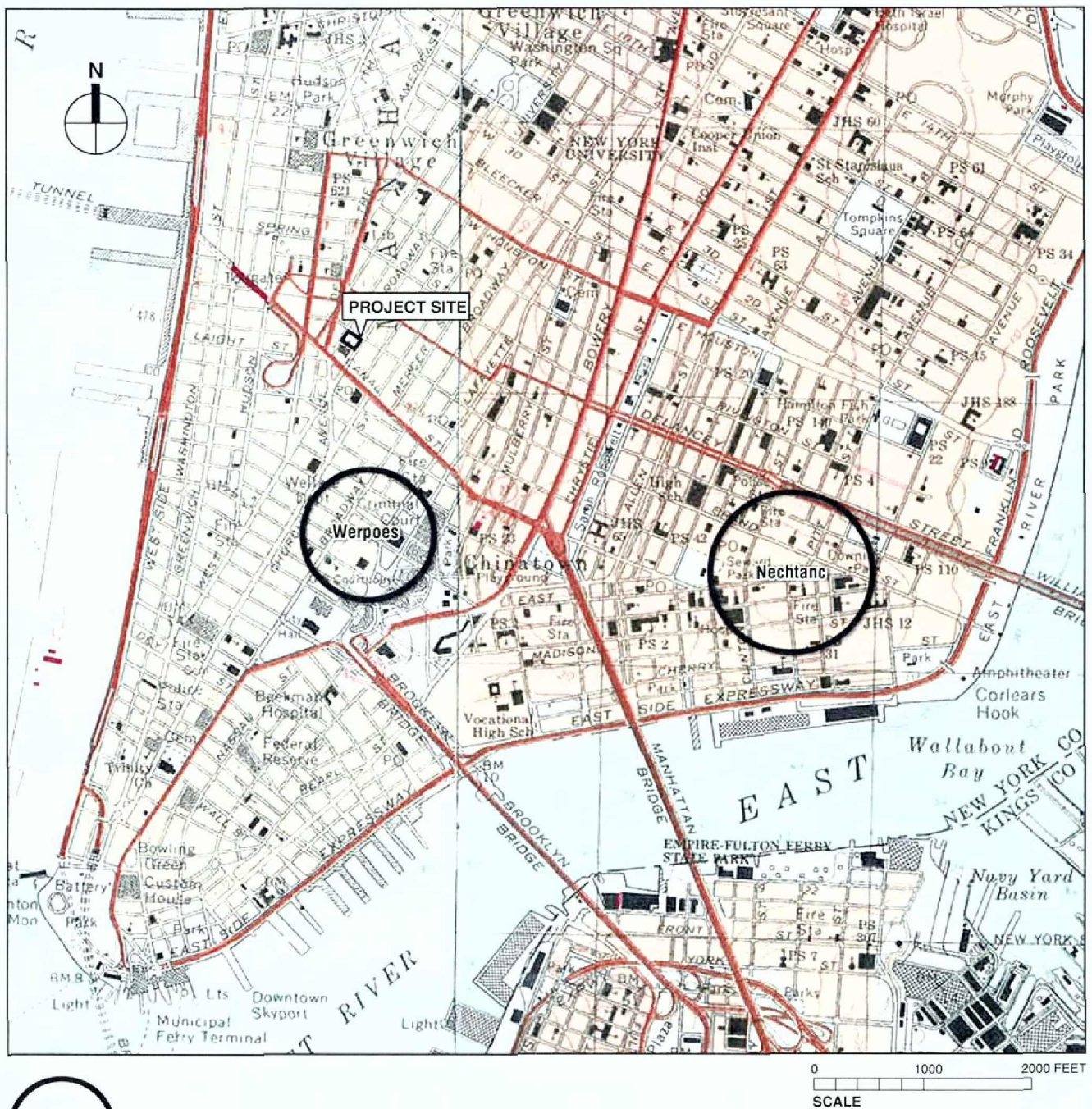
Sanborn Map Company

1894 *Insurance Maps of the City of New York*. New York: Sanborn-Perris Map Co.

1905 *Insurance Maps of the City of New York*. New York: Sanborn-Perris Map Co.

- 1922 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1951 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1968 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1977 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1987 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
1994 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
2006 *Insurance Maps of the City of New York*. New York: Sanborn Map Co.
- Schuberth, Christopher J.
1968 *The Geology of New York City and Environs*. Garden City, New York: The American Museum of Natural History, The Natural History Press.
- Sperr, Percy L.
1939 "Manhattan: West Broadway-Grand Street." In the *Photographic Views of New York City, 1870's-1970's* collection in the New York Public Library Digital Gallery. Digital ID#724401F.
- Stokes, I.N. Phelps.
1967 (reprint) *The Iconography of Manhattan Island, 1498-1909* Volumes I-VI. New York: Robert Dodd.
- Taylor, Benjamin and John Roberts
1797 "The Taylor-Roberts Plan." In *Manhattan in Maps*, by Paul E. Cohen and Robert T. Augustyn (1997). New York: Rizzoli.
- United States of America, Bureau of the Census
1790-1930 United States Federal Census. Washington, D.C.: National Archives and Records Administration. Database on-line at <http://www.ancestry.com>
- United States Geological Survey
1979a USGS Digital Raster Graphic (DRG) Quadrangle: Jersey City.
1979b USGS Digital Raster Graphic (DRG) Quadrangle: Brooklyn.
- Viele, Egbert Ludovicus
1865 *Sanitary & Topographical Map of the City and Island of New York*. New York: Ferd. Mayer & Co.
- The Watchtower*
4/20/1829 "Great Fire," page 2. Cooperstown, New York.
- Wheeler, Kathleen
2000 "Theoretical and Methodological Considerations for Excavating Privies." *Historical Archaeology* 34 (1): 3-19.
- White, Shane
2002 *Stories of Freedom in Black New York*. Cambridge, MA: Harvard University Press.

Figures



Location of Project Site and Previously Identified Precontact Archaeological Sites
Figure 1



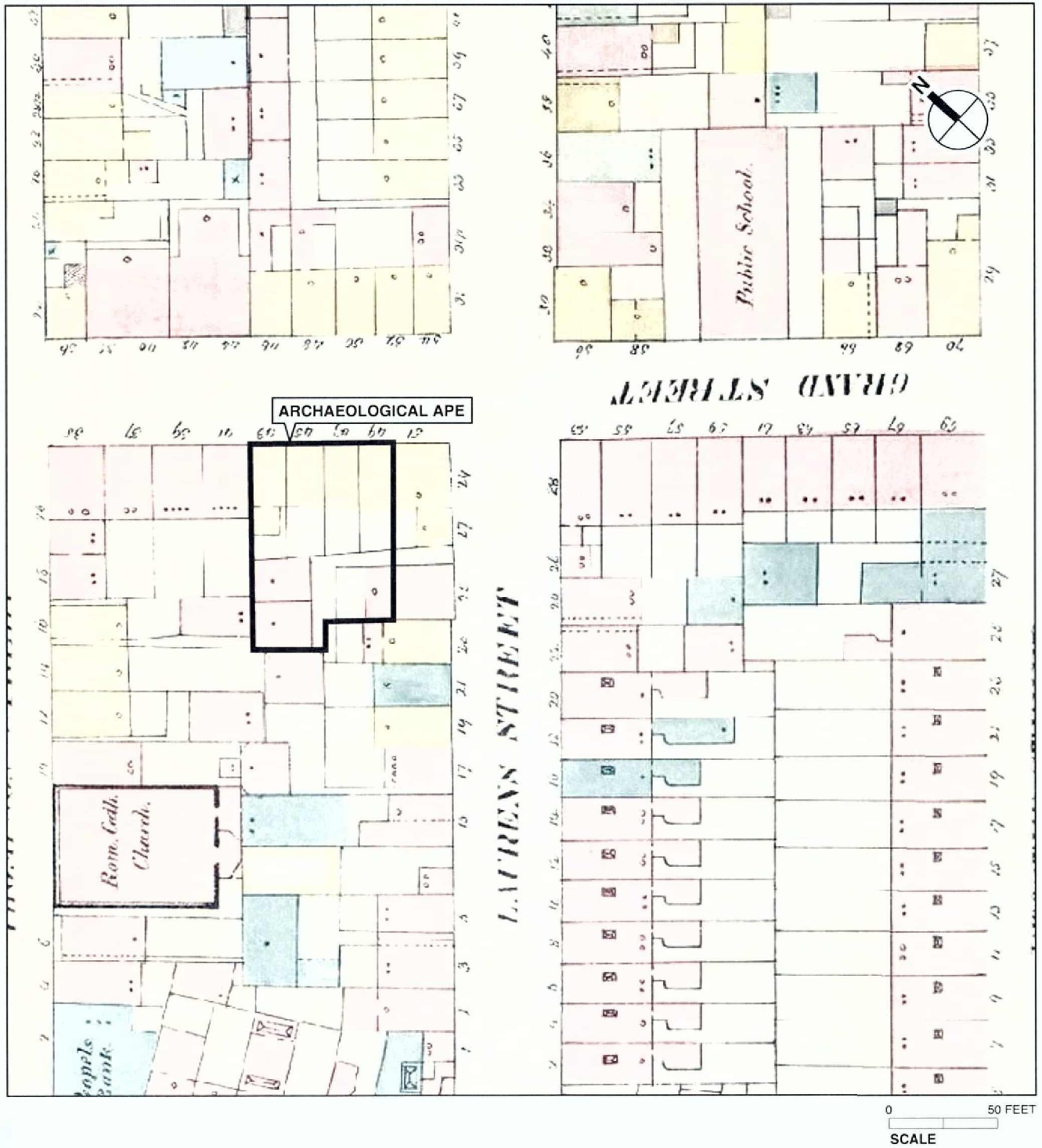
- Project Site Boundary
- ▨ Area of Potential Effect (APE)
- ① Photograph View Direction and Reference Number

NOTE: Lot 19 is within the project site, but it is not included within the archaeological area of potential effect (APE).

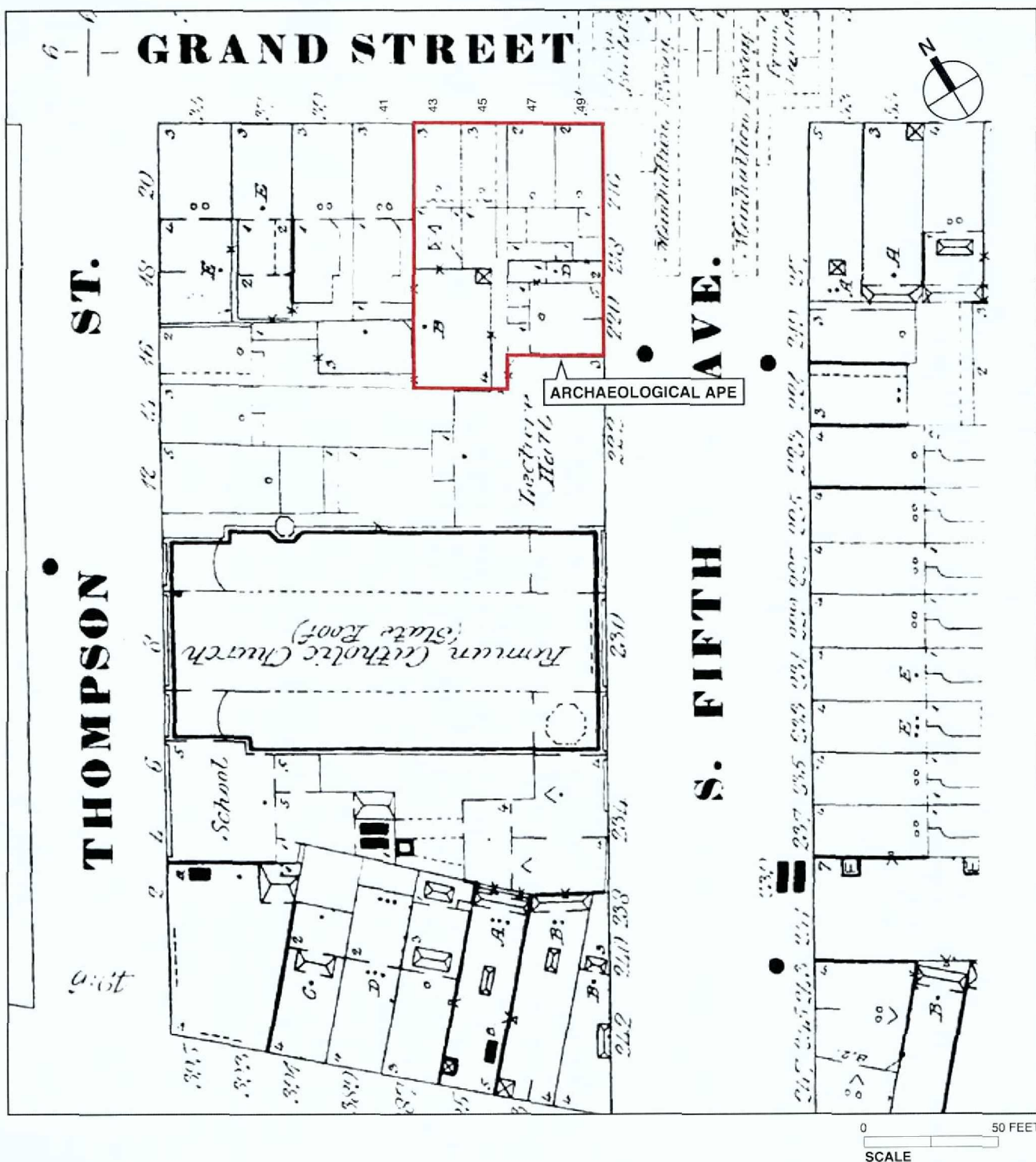


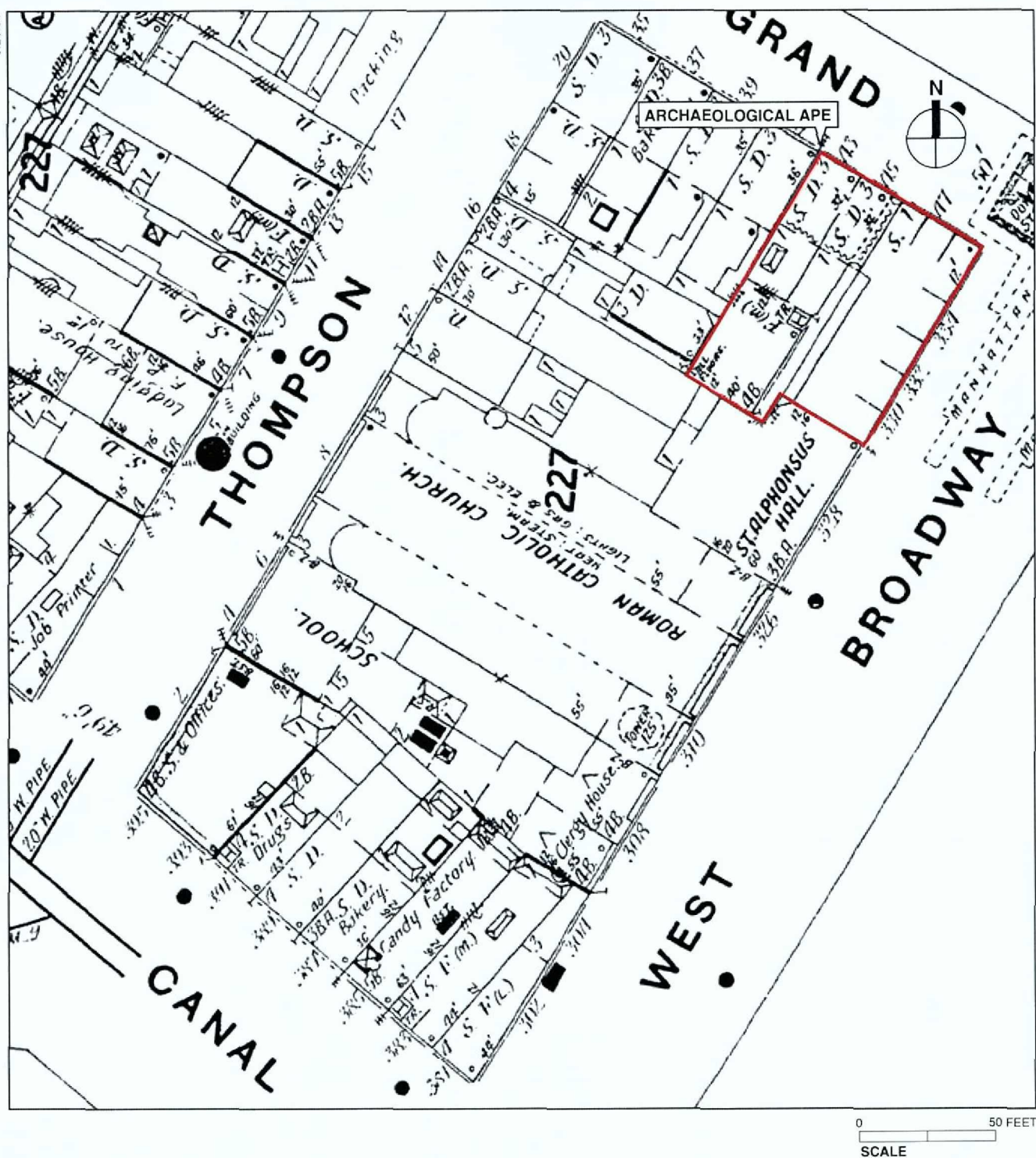
NOTE: This map has been georeferenced using ArcGIS software and may have a margin of error of approximately 66 feet.

Plan of the City of New York Surveyed in the Years 1766 and 1767
B. Ratzer, 1776
Figure 3

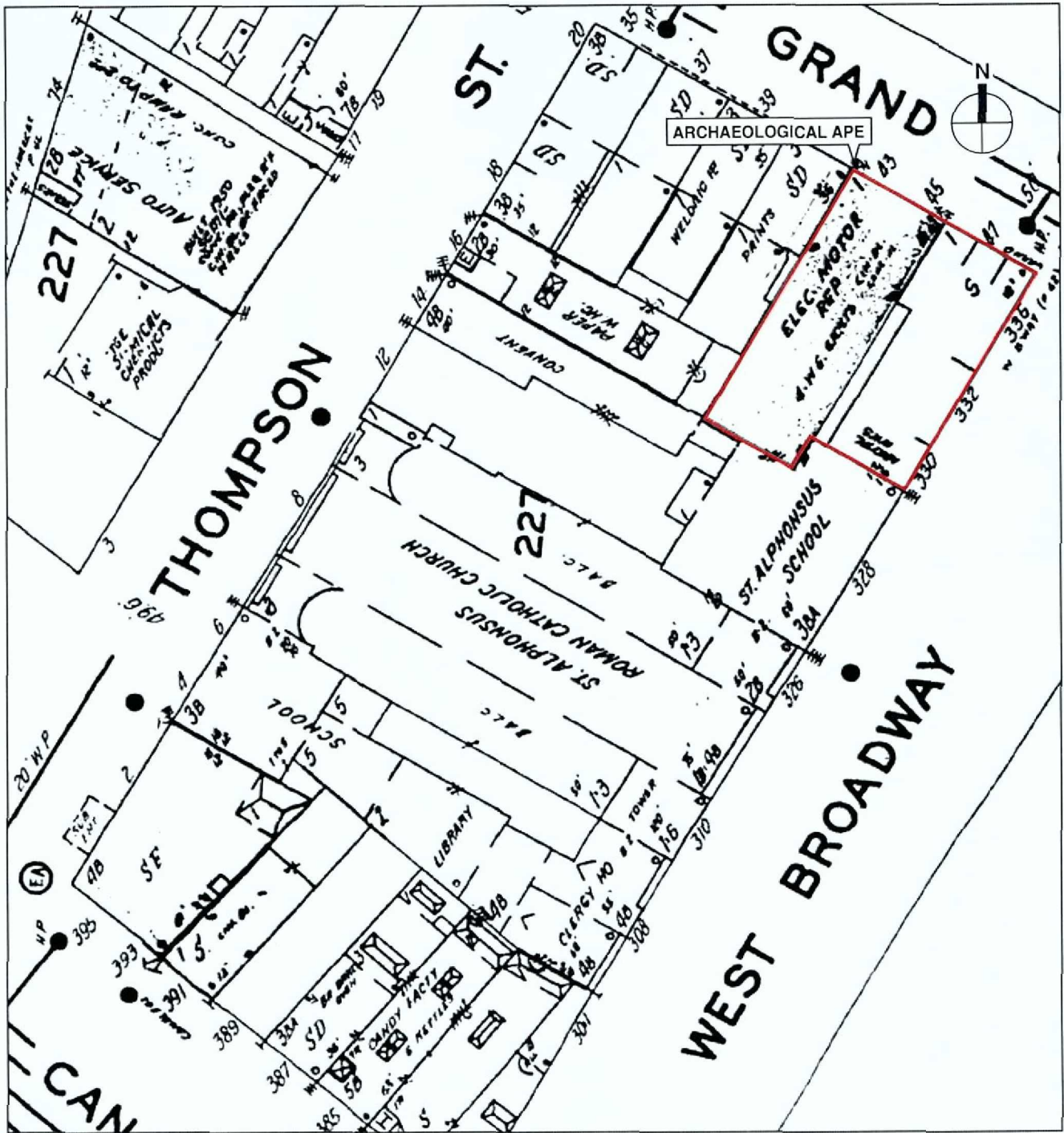


Maps of the City of New York
W. Perris, 1857
Figure 4

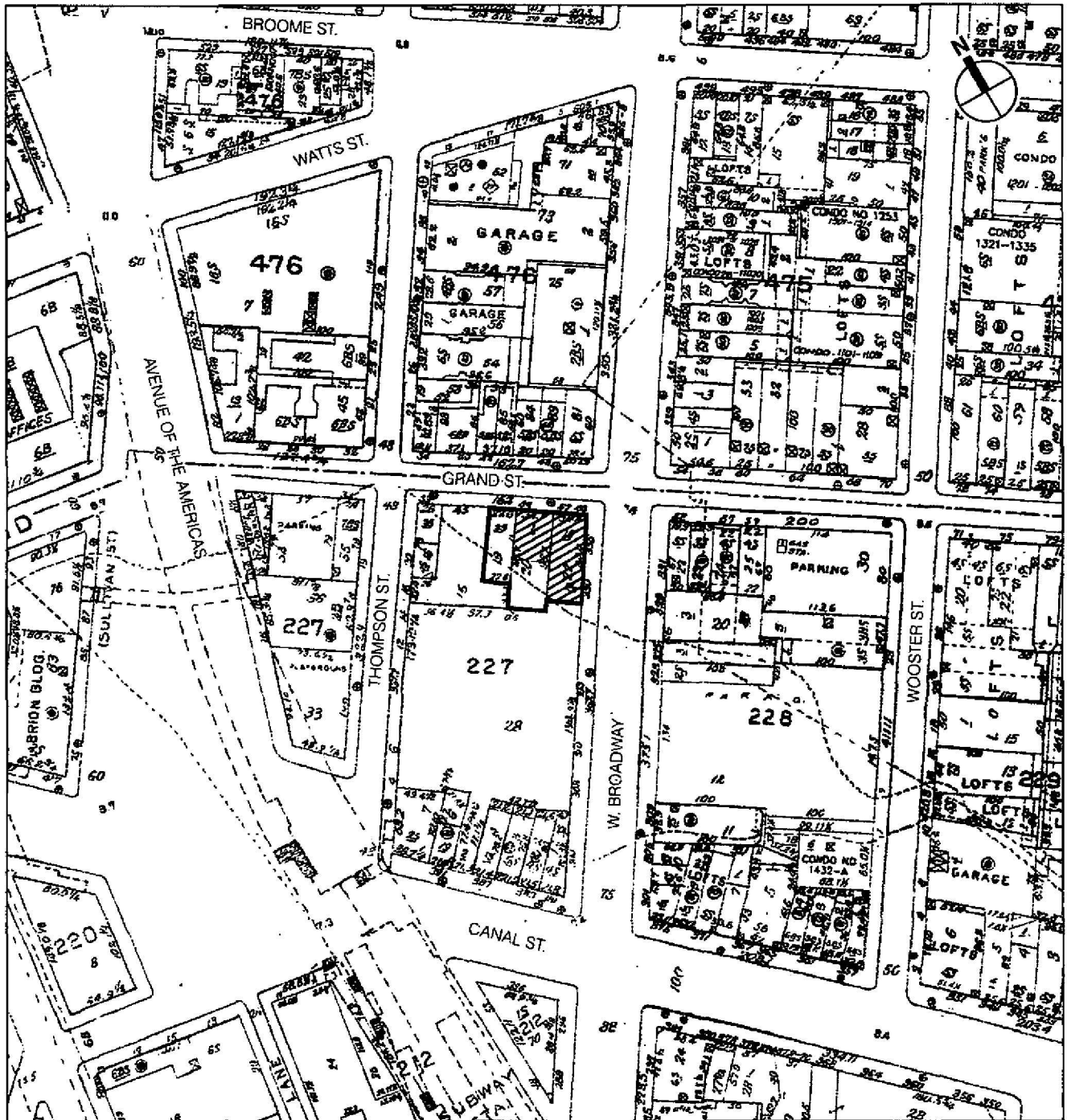




Sanborn Map, 1905
Figure 6



0 50 FEET
SCALE

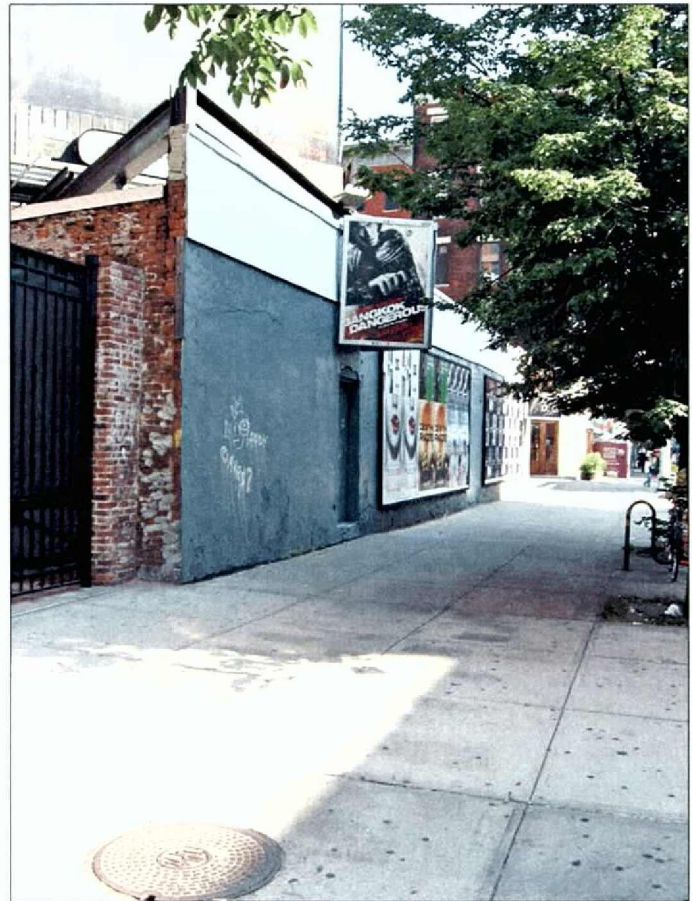


- Project Site Boundary
- Areas where Phase 1B testing is recommended

NOTE: Lot 19 is within the project site, but it is not included within the archaeological area of potential effect (APE).

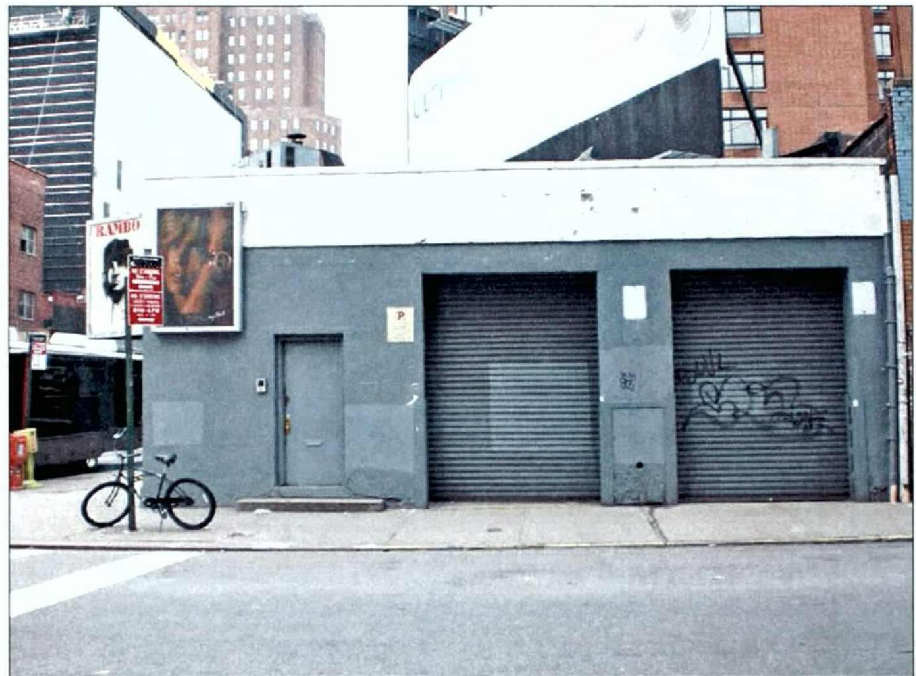
Areas of Archaeological Sensitivity
Figure 8

Photographs



Eastern wall of 47 Grand Street,
along West Broadway

1



47 Grand Street

2



43 Grand Street 3



47 and 43 Grand Street, looking west down Grand Street from West Broadway

4

Appendices

Appendix A:

Deeds (Block 227, Lots 20 and 22)

Lot #	Date	Grantor	Grantee	Liber	Page	Remarks
Not Lotted	3/29/1703	William and Sarah Huddleston	Richard Hill	25	114	
Not Lotted	2/14/1726	Richard and Hannah Hill	Anthony Rutgers	31	115	
Not Lotted	2/14/1726	Richard and Hannah Hill	Anthony Rutgers	31	116	Release
Not Lotted	2/14/1726	Jesse and Jacoba Krested and Francina Lewis, heirs of Thomas Lewis, Jr.	Anthony Rutgers	31	118	
Not Lotted	2/15/1726	Leonard Lewis	Anthony Rutgers	31	121	
Not Lotted	2/24/1726	Anthony Lewis, heirs of Thomas Lewis	Anthony Rutgers	31	123	
Not Lotted	2/26/1726	Thomas Lawrence, heir of Katherine Lewis	Anthony Rutgers	31	125	
Not Lotted	12/11/1767	Dirck Lefferts	Anthony Rutgers	38	105	
Not Lotted	12/14/1767	Dirck and Elsie Lefferts	Anthony Rutgers	38	110	Release
Not Lotted	8/20/1807	Anthony and Sarah Lispenard	Thomas Miller and Stephen Baker	77	261	
Not Lotted	3/13/1810	Leonard and Ann Dorothy Lispenard	Charles McEvers, James Bleecker, and Alexander L. Stewart	86	238	Trust Deed
Not Lotted	6/12/1810	Thomas and Sarah Miller and Stephen and Jane Baker	John Shepherd Jr. and William Westerfield	87	512	
Not Lotted	5/18/1811	Charles and Margaret McEvers, James and Sarah Bleecker, Alexander L. and Sarah Stewart	Leonard Lispenard	93	372	Quit Claim
Not Lotted	8/21/1817	James Campbell, Master in Chancery, Leonard Lispenard, Defendant	George Lorillard	122	502	
Not Lotted	9/24/1817	Thomas and Sarah Miller	Charles Debevoise	121	562	
20, 22, 26	2/25/1818	Robert M. and Sarah B. Livingston	Thomas and George Lovett	127	67	See will of George Lovett, 452 Wp 205
Not Lotted	6/26/1822	Thomas, Louisa, George, and Augusta Lovett, George Lorillard, Stephen and Jane Baker, and Charles W. Sandford	Partition Deed	162	29	
Not Lotted	11/14/1825	George Lovett	John Pool	198	180	Lease
Not Lotted	11/14/1825	John Pool	Abraham Martling	198	183	Assignment of Lease
20-22, 26	1/28/1826	Robert M. and Sarah B. Livingston	George Lovett	198	434	See will of George Lovett, 452 Wp 205
West Broadway	3/6/1827	Charles W. and Mary S. Sandford	Jane Nixon	216	82	Release of Mortgage

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Lot #	Date	Grantor	Grantee	Liber	Page	Remarks
West Broadway	2/5/1829	Thomas Bolton, Master in Chancery, Charles W. and Mary Sandford et al, defendants	Henry Yates	243	501	
22	1/29/1838	George and Augusta Lovett	John Pitts	385	82	
20	5/16/1845	Charles and Louisa Fletcher and Thomas R. Lovett	John and Friend Pitts	459	527	
20	5/16/1845	Thomas R. Lovett, Francis S. and Louisa Cochran, Edmund B. and Charlotte Bostwick, Emma, Anna M., and George S. Lovett	John and Friend Pitts	459	528	
20	8/13/1845	Eurotas P. Hastings, assignee of Edmund B. Bostwick	Thomas R. Lovett	466	279	
West Broadway	12/6/1852	George Lovett	John and Friend Pitts	617	391	Lease
West Broadway	12/6/1852	George Lovett	John and Friend Pitts	617	393	Lease
22	10/22/1861	John Kelly (Sheriff), John Pitts (interest of)	John Pitts	843	474	Assignment of Lease
20	8/23/1864	Samuel Jones (Ref), John Pitts et al, defendants	John Pitts	904	672	
West Broadway	1/14/1865	Daniel C., Cornelius F., Albert A. Walter F. Kingsland, Helene Gillender, George L. Ambrose C. Jr, Henry P. Augusta L., and Mary H. Kingsland	John Pitts (admr of)	920	325	Lease
22	5/3/1866	Daniel C. (admr of), Cornelius F., Albert A. Walter F. (gdn of) Kingsland, Helene Gillender (gdn of), George L. Ambrose C. Jr, Henry P. Augusta L., and Mary H. Kingsland	John Pitts (admr of)	977	178	Lease
22	5/13/1866	Lemuel Pitts	John Pitts	977	180	Assignment of Lease
20-22	2/23/1870	John Pitts	William H. Wilson	1127	471	
20-22	7/13/1870	John C. Bushnell, Ref. Mary Anne Pitts, et al, defendants	Friend Pitts	1139	485	
20-22	2/25/1871	William H. Wilson	Friend Pitts	1155	678	
20-22	2/9/1872	Friend and Mary Jane Pitts	Laura L. Warriner	1201	356	
20-22	2/9/1872	Friend and Mary Jane Pitts	Mary B. Langdon	1201	359	
22	2/9/1872	John Pitts (admr of)	Friend Pitts	1201	362	Assignment of Lease
22	2/9/1872	John Pitts (admr of)	Laura L. Warriner	1201	364	Assignment of Lease
22	2/9/1872	John Pitts (admr of)	Mary A. Pitts	1201	365	Assignment of Lease
22, 26	7/11/1874	Helena, L. Gillene, and Roberto Asinary	Trustees for Henry P. Kingsland, Augusta L. Jones, and Mary H. Tompkins	1283	672	
22, 26	12/13/1874	Augusta L. and Herman LeRoy Jones	Ambrose C. Kingsland	1315	31	Trust Deed
22, 26	1/11/1875	Henry P. Kingsland	Ambrose C. Kingsland	1305	329	Trust Deed
22	2/11/1875	Friend and Mary J. Pitts and Mary B. Pitts (nee Langdon)	Laura L. Warriner	1310	287	
20-22	2/13/1875	Friend and Mary Jane Pitts, Laura L. and Daniel C. Warriner	Mary B. Pitts	1318	156	

Appendix A: Deeds (Block 227, Lots 20 and 22)

Lot #	Date	Grantor	Grantee	Liber	Page	Remarks
22	2/16/1875	Mary Ann Pitts, widow of John	Laura L. Warriner	1326	14	Release of Dower
22	3/6/1875	Friend Pitts	Mary B. Pitts	1307	433	Assignment of Lease
22	8/31/1872	John Pitts (admr of)	John Pitts	1349	140	Assignment of Lease
22	9/13/1875	John Pitts	Mary B. Pitts	1340	165	Assignment of Lease
22	9/25/1875	Laura L. Warriner	Mary B. Pitts	1340	232	Assignment of Lease
20	10/22/1875	Mary B. Pitts (nee Langdon)	Charles Stewart Schermer	1338	430	
22	10/22/1875	Mary A. Pitts	Mary B. Pitts	1340	233	Assignment of Lease
22	10/30/1875	Mary B. Pitts (nee Langdon)	Charles S. Schermer	1334	406	
20	11/17/1875	Charles Stewart Schermer	Lydia H. Plume	1338	488	
22	3/20/1876	Laura L. and Daniel C. Warriner	Maturin Livingston	1374	453	
20	5/18/1876	Lydia H. Plume	George W. Dean	1380	113	
22	8/17/1877	Charles S. Schermer	Pedro Montello	1371	336	Assignment of Lease
22	4/1/1878	J. Grant Sinclair (Ref), Mary B. Pitts et al, defendants	George Washington Dean	1454	57	Assignment of Lease
20-22, 26 and 28	11/9/1878	Albert A. and Florence E. Kingsland	George L. and Ambrose C. Kingsland	1466	296	
20-22, 26 and 28	1/3/1879	George L. and Ambrose C. Kingsland, trustees Augusta L. Jones	Augusta L. and Herman LeRoy Jones	1465	409	Trust Deed, see L1315 Cp 31
22, 26	1/3/1879	George L. and Ambrose C. Kingsland, trustees Mary H. Tompkins	Mary H. and William Tompkins	1465	403	
22	4/29/1879	George W. Dean	Estelle Dean	1488	323	Assignment of Lease
20-22, 26 and 28	12/9/1879	Augusta L. Jones	Ambrose C. and George L. Kingsland	1523	176	Release from Trust
20-22, 26 and 28	12/9/1879	Mary H. Tompkins	Ambrose C. and George L. Kingsland	1523	181	Release from Trust
20	12/19/1878	Daniel A. Casserly (Ref), Friend Pitts, et al, defendants	William H. Argall	1467	386	
22	6/22/41881	Estelle Dean	George W. Dean	1597	482	Assignment of Lease
20-22, 26 and 28	5/18/1882	Albert A. Kingsland	George L. and Ambrose C. Kingsland, trustees	1652	374	
20-22, 26 and 28	5/23/1882	Albert A. and Florence E. Kingsland	George L. and Ambrose C. Kingsland, trustees of Albert A. Kingsland,	1655	480	
20-22, 26 and 28	4/12/1883	Albert A. and Florence E. Kingsland	George L. and Ambrose C. Kingsland, trustees of Henry P. Kingsland, Cornelius F. Kingsland, Augusta L. Jones, Mary H. Tompkins, and Walter F. Kingsland	1710	305	
20-22, 26 and 28	4/12/1883	George L. and Ambrose C. Kingsland, trustees	Albert A. and Florence E. Kingsland	1710	308	
22, 26	2/26/1885	Henry P. and Harriet Kingsland	George L., Ambrose C., Cornelius F., and Walter F. Kingsland and Augusta L. Jones	1847	447	

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Lot #	Date	Grantor	Grantee	Liber	Page	Remarks
22	4/15/1885	George L., Ambrose C., Cornelius F., and Walter F. Kingsland and Augusta L. Jones	Maturin Livingston	1869	324	Assignment of Lease
22	4/17/1885	George L., Ambrose C., Cornelius F., and Walter F. Kingsland and Augusta L. Jones	Maturin Livingston	1864	33	Assignment of Lease
West Broadway	4/17/1885	George L., Ambrose C., Cornelius F., and Walter F. Kingsland and Augusta L. Jones	Maturin Livingston	1864	358	Assignment of Lease
20-28	4/21/1885	George L. and Ambrose C. Kingsland, Henry P. and Albert A. Kingsland, Augusta L. Jones (nee Kingsland), Mary H. Tompkins (nee Kingsland), Cornelius F., Walter F., and Maturin Kingsland, and George W. and Estelle Dean	Agreement	1867	211	Assignment of Lease
22, 26	4/21/1885	William N. Evarts, Charles H. Glover, Ira H. Tuthill, Horace F. Ruggles, firm of Starr and Ruggles, Christian N. Bovee, firm of Bovee, Hollbrook, and Harris	Francis Tillou, exr of	1867	308	Release of Lien for Services
20-28	5/13/1885	Albert A., Florence E., George L., and Ambrose C. Kingsland	Revocation of Trust	1869	406	
22	12/3/1887	George W. and Estelle Dean	Matruin Livingston	2107	132	
22	12/29/1888	Maturin Livingston; Devised to Elizabeth Bentwick for life	Matruin Livingston (testator)	2172	300	
20	6/27/1889	Nancy H., Florence N., and Josephine D. (gdn of) Argall, Martha H. and Nancy H. Argall	Frederick C. and Gottlieb E. Loebie	2224	415	Lease
20	1/6/1894	Firm: Loebie Brothers	Nicholas Schneider	19	451	Lease
22	6/7/1895	Ruth Livingston	Thomas Sheridan	30	458	Lease
20	3/15/1917	William H. Browning	Tillie D. Harmon, wife of Edward T. Harmon	3012	122	Release of Dower
20	3/15/1917	William H. Browning	John O'Brien, Ref.	3012	123	Foreclosure
22	3/4/1919	Devised to Samuel Cary, Ogden Mills, Edmund Bayles, trustees under will	Ruth Livingston (testatrix)	W12	72	
20	5/14/1923	Gottlieb E. Loebie	William H. Browning	3342	310	
20	10/19/1925	Rudolph C., Phillipina G., and Alice M. Becker	Gottlieb E. Loebie	3500	449	
22	10/11/1946	Bank of New York as sole successor and trustee of trust created by Ruth Livingston for her granddaughter Evelyn Burns, aka Ruth Evelyn Burns wife of Walter Burns	DeWitt Junior Corp	4468	231	Mtge
22	10/17/1946	DeWitt Junior Corp	Jane G. Prince	4469	371	Survey Mtge
20	8/24/1947	Rudolph C., Phillipina G., and Alice M. Becker	Mesaba Construction Co. Inc.	4528	506	
20	6/9/1948	Mesaba Construction Co. Inc.	43 Grand Street Realty Corp.	4574	289	
22	12/4/1950	Jane G. Prince	Bernard Rothman	4703	357	PM Mtge
22	12/12/1955	Bernard Rothman	Tucson Realty Corp	4945	76	1st Mtge
22	1/11/1956	Tucson Realty Corp	Moe Miller	4949	300	1st Mtge

Appendix A: Deeds (Block 227, Lots 20 and 22)

Lot #	Date	Grantor	Grantee	Liber	Page	Remarks
22	3/25/1960	Bernard Rothman and Moe Miller	Realty Surplus Corp	5110	376	Mtge
22	3/25/1960	Realty Surplus Corp	Alfred Horowitz	5110	378	
20	6/14/1967	43 Grand Street Realty Corp.	Anthony Ermolino	191	116	
20	2/8/1968	Anthony Ermolino	45 Grand Corporation	274	468	
22	10/3/1969	Lillian Greenberg Horowitz	John H. Moore, Anna Fay Sillin, and Jeanne A. May	152	1680	
22	10/3/1969	Alfred Horwitz, dec'd.	n/a	152	1686	
22	10/3/1969	Alfred Horwitz, dec'd.	n/a	152	1686	Release of New York Estate Tax Lien
22	10/3/1969	Lillian G. Horowitz	Jeanne A. May	152	1680	
22	8/6/1970	Jeanne A. May	Heleen Enterprises, Inc.	180	1677	
22	9/5/1973	Heleen Enterprises, Inc.	Kenneth Brand	290	309	
22	4/11/1974	Kenneth Brand	Kenneth Brand	310	714	
20	6/29/1977	45 Grand Corporation	Rose DeLorenzo	404	5	
20	6/24/1982	Rose DeLorenzo	Thomas DeLorenzo	628	1	
22	5/20/1988	Kathleen Brand	Andrew Brand	1405	1100	
22	5/30/2006	Michael Brand	West Broadway 330 LLC	n/a	n/a	
Notes: Block 227 was not divided into lots until the early 19th century, and therefore conveyance records marked, "not lotted," may not specifically refer to the lots within the project site. Sources: Conveyance records and Liber books on file at the Manhattan office of the City Register, New York City Department of Finance.						

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Appendix B:
Summary of Census Research

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1830	Grand Street, Ward 8	Home of Robert Carr: 2 Males 2 Males 1 Female 2 Females 1 Female 1 Female	30<40 60<70 10<15 20<30 60<70 70<80	W W W W W W	Not given	1 individual foreign and not naturalized	
	Grand Street, Ward 8	Home of Thaddeus Dean: 1 Male 4 Males 1 Males 2 Females 2 Females 2 Females	5<10 20<30 30<40 0<5 15<20 20<30	W W W W W W	Not given	Not given	
	Grand Street, Ward 8	Home of John Doubleday: 1 Male 1 Male 1 Male 1 Male 2 Females 1 Female 1 Female	5<10 10<15 15<20 40<50 0<5 15<20 30<40	W W W W W W W	Not given	Not given	
	Grand Street, Ward 8	Home of William Shepperd: 1 Male 1 Female	40<50 30<40	W W	Not given	Not given	
	Laurens Street, Ward 8	Home of John Pool: 1 Male 1 Female	20<30 20<30	W W	Not given	Not given	
	Laurens Street, Ward 8	Home of Charles Stiles: 1 Male 5 Males 1 Female 1 Female	5<10 30<40 15<20 30<40	W W W W	Not given	Not given	
	Ward 8	Home of Jno Pitts: 1 Male 1 Male 1 Female 2 Females 1 Female	0<5 40<50 15<20 20<30 40<50	W W W W W	1 member of household employed in manufacture and trade.	Not given	
1850	Ward 8 (43 Grand Street)	Mary Boniface Charles J. Boniface Frederick Boniface George C. Boniface Adelia Boniface Mary Boniface Henry C. Boniface Edward Robinson John Donnelly	53 30 25 20 25 4 1m 49 20		Confectioner Carpenter Merchant Plumber Marble Cutter	England England England New York New York New York New York England Ireland	
	Ward 8 (45 Grand Street)	Thomas D. Earle Ann E. Earle John P. Earle Frances Westert Amelia Dyer	31 28 22 28 9		Clerk Clerk	New Jersey New York New Jersey New York New York	

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1850 (ctd)	Ward 8 (47 Grand Street)	John Pitts	54		Grocer	Massachusetts	Real Estate Value \$20,000
		Mary A. Pitts	50			New York	
		Friend Pitts	17		Clerk	New York	
		John Pitts	12			New York	
		Mary Pitts	6			New York	
		Robert Newbury	28		Painter	New Hampshire	
		Alice Newbury	27			Maine	
		Margaret Dennin	20			Ireland	
		Edward Meyers	40		Servant	New York	
		Catherine Scott	23			Scotland	
	Ward 8 (49 Grand Street)	William Kaylor	28		Stone Cutter	New York	
		Warren Kaylor	20		Stone Cutter	New York	
		Margaret Kaylor	22			New York	
		Anna M. Kaylor	3			New York	
		Anne Kaylor	30			New York	
	Ward 8 (25 Laurens Street)	Margaret H. Kaylor	17			New York	
		Patrick Farley	41		Laborer	Ireland	
		Mary Farley	39			Ireland	
		Margaret Farley	22			Ireland	
		William Farley	20		Laborer	Ireland	
		Catherine McDermott	17			Ireland	
		John Nealy	26		Laborer	Ireland	
		Barclay Carty	48		Piper	Ireland	
		William Tillman	50	B	Porter	Massachusetts	
		Adaline Tillman	49	B		New York	
		Hester Jackson	47	B		New York	
		Sally Jackson	21	B		New York	
		John Jackson	16	B	Waiter	New York	
		Samuel Jackson	11	B		New York	
		Eliza Varsall	40	M		Virginia	
		Richard Varsall	13	M		New York	
		Charles Varsall	9	M		New York	
		Amy Caffy	21	M		New York	
		Lord Stearns	43	B	White Washer	Massachusetts	
		Flora Stearns	41	B		New York	
		Lloyd Stearns	15	B		New York	
		Ansa C. Stearns	12	B		New York	
		Alice Stearns	11	B		New York	
		John Vanhausen	34	B	Cook	New York	
		Elizabeth Vanhausen	22	M		North Carolina	
		Lavinia Jordan	20	B		North Carolina	
		William Barber	5	M		New York	
		Catherine Porter	27	B		North Carolina	
1860	25 Laurens Street	James Spencer	28	M	Waiter	West Indies	Personal Estate = \$200
		Anna Spencer	26			Ireland	
		James Spencer	1	M		New York	
		James Higeby	40	B	Laborer	Virginia	
		Sarah Higeby	31	B		Virginia	
		James Smith	50	B	Coachman	New Jersey	
		Sarah Smith	39			Ireland	
		Mary Smith	9			New York	
		Sarah Smith	7			New York	
		William Smith	4			New York	
		Martin Ball	29	B	Porter	Maryland	
		Ann Ball	29	B		Maryland	
		Virginia Ball	4	B		New York	
		George Ball	1	B		New York	
		William Smith	30	M	Waiter	Pennsylvania	
		Margaret Smith	22			Ireland	
		Mary Smith	1	M		New York	
		James Crawford	38	B	Waiter	New York	
		Nancy Crawford	30	B		Maryland	
		Jane Crawford	7	B		New York	

Appendix B: Summary of Census Research

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1860 (ctd)	25 Laurens Street (ctd)	Peter Williams	34	B	Cook	New York	
		Martha Williams	29	B		New York	
		Mary Williams	7	B		New York	
		Amelia Williams	5	B		New York	
		Catherine Williams	3	B		New York	
		Pater Williams	1	B		New York	
		Samuel Brown	40	B	Porter	Maryland	Illiterate
		Eugenia Brown	35	B		West Indies	
		William Brown	13	B		New York	
		George Brown	3	B		New York	
		Charles Newby	35	M	Waiter	Massachusetts	
		Margaret Newby	29			Ireland	
		George Jennings	25	B	Seaman	West Indies	
		Mary Jennings	20	B		New York	
		Nelson Reade	26	M	Waiter	New York	
		Susan Reade	26	M		West Indies	
		Joseph Reade	4	M		New York	
		Margaret Simmons	45	M		West Indies	
		Henry Annin	25	B	Porter	Connecticut	
		Mary Annin	28	B		Connecticut	
		Helen Annin	4	B		New York	
		Lydia Brown	38	B	Days Work	New York	
		Alexander Brown	35	B	Waiter	Connecticut	
		Byron Brown	14	B		New York	
		Catherine Dawson	28		Washing	Ireland	Illiterate
		Frederic Simmons	28	M	Waiter	Connecticut	
		William Owens	28	B	Waiter	New York	
		Lucy Owens	26	B		New York	
		James Peterson	29	B	Laborer	Maryland	
		Sallie Peterson	28	B		Maryland	
		Henry Diliworth	24	B	Dress Maker	New York	
		Sophia Diliworth	26	B		New York	
		John Hall	24	B		Connecticut	
		John Meade	21	M		Maryland	
	25 Laurens, Rear	Charles Nahn	25	M	Waiter	RI	
		Jane Nahn	27			England	
		Jane Otterhout	32		Tailoress	England	
		Peter Otterhout	38		Waiter	New York	
		Peter Jewell	40	B	Waiter	New York	
		Jane Jewell	38	B		New York	
		Sarah Jewell	1	B		New York	
		Jane Valiant	22		Seamstress	Ireland	
		Emma Griffin	30	M	Seamstress	Maryland	
		James Griffin	40	M	Seaman	Pennsylvania	
		Antoine Valiant	38	B	Porter	South America	
		Peter Mundy	30	B	Waiter	New Jersey	
		Rose Mundy	28	B		New York	
		Jane Mundy	6	B		New York	
		Lewis Mundy	4	B		New York	
		John Burns	30	B	Waiter	Maryland	
		Mary Jackson	29	B	Washing	New York	
		John Cisco	40	B	Porter	New York	
		Mary Cisco	31	B		New York	
		Cornelia Cisco	14	B		New York	
		Larinda Cisco	11	B		New York	
		Sarah Cisco	5	B		New York	
		Henry Russell	37	B	Porter	New York	
		Sophia Russell	30	B		Maryland	
		Julia Jackson	50	B		West Indies	
		Ann Morgan	40	B		West Indies	
		Charles Johnson	43	B	Steward	Virginia	
		Mary Johnson	30	B		New York	
		Mary Driscoll	54	B		New York	
		James Johnson	4	B		Maine	
		Edgar Cisco	7	B		Maine	

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Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1860 (ctd)	25 Laurens, Rear (ctd)	James Mulby	26	B		Maine	
		Emma Mulby	26	B		Delaware	
		Ann Brown	29	B	Service	Louisiana	
		John Moore	33	B	Barber	Pennsylvania	
		Rosa Moore	24	B		New York	
		James Clarke	33	M	Barber	New York	
1870 (2nd)	25 Laurens Street	Hester Clarke	24	B	Washing	New York	
		Eliza Nicholas	25		Laundress	West Indies	
		Charles Nicholas	17			West Indies	
		William Owens	22	B		New York	
		Mine Owens	26			Ireland	
		May Owens	5			New York	
		George Morris	44	B	Caterer	New York	
		Margaret Morris	43			Ireland	
		William Morris	20			Ireland	
		Margaret Morris	10			Ireland	
		Mary Morris	7			Ireland	
		Charles DeBoise	45	B	Porter	New York	
		Kate DeBoise	35			England	
		Thomas Sturgis	30		Oyster Man	Ireland	
		Kate Dorey	36			Ireland	
		Thomas Francis	38	B	Waiter	New York	
		Mary Francis	27			Ireland	
		Anne Cashaw	23			Ireland	
		John Cashaw	1			New York	
		Martha Thomas	42		Laundress	[illegible]	
		George Thomas	17			New York	
		Mary Thomas	12			New York	
		Kate Thom as	7			New York	
		John Thomas	5			New York	
	25 Laurens Street, rear	Rose Edgar	48	B	Laundress	New York	
		Nancy Cooper	24	B		New York	
		Brutis Cooper	22	B		New York	
		Charles Cooper	8	B		New York	
		Peter Fergusen	29	B	Waiter	New York	
		Daniel Burvis	51	B	Waiter	New York	
		John Lockwood	36	B		New York	
		Mary Berols	2	B		New York	
		Hannah Hayser	35	B	Laundress	New York	
		Samuel Hayser	38	B	Painter	New York	
		George Delmar	25	B	Waiter	New York	
		William Graham	30	B	Poster	New York	
		Katie Nelson	40	B	Laundress	New York	
		Ann Morgan	50	B	Laundress	New York	
		Rachel Ramsey	30	B		New York	
		Bridget Whalen	38			Ireland	
		Amelia Whalen	15			New York	
		Kate Whalen	13			New York	
		Peter Whalen	12			New York	
		John Whalen	10			New York	
		John Robinson	27	B	Waiter	New York	
		Squire Sanders	22	B	Waiter	New York	
		Kate Wright	25			Ireland	
		Mary Wright	2			New York	
		John Miller	30	B	Waiter	New York	
		Ann Miller	20	B		New York	
		Jacob Wright	30	B	Waiter	New York	
		James Hart	27	B	Waiter	New York	
		Anne Hart	23	B		Ireland	
		John Brown	40	B	W. Washer	New York	
		George Small	28	B	Laborer	New York	
		Martin Johnson	52	B	W. Washer	New York	
		Eliza Johnson	20	B		New York	
		Thomas Green	22	B	Waiter	New York	
		Margaret Green	22	B		New York	
		Sarah Corbin	32	B	Laundry	New York	

Appendix B: Summary of Census Research

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1870 (2nd) (ctd)	25 Laurens Street, rear (cont'd)	Andrew Hunter	32	B	Waiter	New York	
		Andrew Little	35	B	Waiter	New York	
		Susan Little	30	B		New York	
		Agnes Little	7	B		New York	
	47 Grand Street	Abram Cohen	40		Tailor	Germany	
		Rachel Cohen	39			Germany	
		Mary Cohen	16			New York	
		Alex Cohen	13			New York	
		Jacob Cohen	6			New York	
		W. McConlonge	43			Ireland	
		Margaret McConlonge	40		Junk Store	Ireland	
		Anne McConlonge	16			New York	
		James McConlonge	6			New York	
		Mary McConlonge	3			New York	
		William Bayer	30		Packer - China	Ireland	
		Jose Gaters	47		Cigar Maker	Cuba	
		Debora Gaters	29			Cuba	
		[Illegible] Gaters	14			Cuba	
	45 Grand Street	Conrad Klute	40			Germany	
		Kate Klute	21			Germany	
		August Klute	14			New York	
		Morris Ratrix	70		Tin Smith	Belgium	
		Marie Ratrix	43			Belgium	
		Eliza Lombard	32		Laundress	England	
		Mary Lombard	10			United States	
		Law McCabe	19		Waiter	United States	
		Mary McCabe	21			Scotland	
		Margaret McCabe	1			New York	
		Eliza Wilson	45		Laundress	New York	
		James Martin	27			New York	
		Mary Martin	30			Ireland	
		Mary Flaney	19			Ireland	
		Margaret Carter	30		Laundress	Ireland	
		Kate Harris	19			New York	
		John Harris	1			New York	
1880	43 Grand Street	Cyrus Brown	40	B	Musician	New York	
		John Duble	59	M	Keeps Boarding House	Virginia	
		Susan Duble	39	W	Keeps House	Ireland	
		Susan Duble	15	M		New York	
		David McKenny	23	B	Seaman	Cuba	Brder
		William Bell	28	B	Seaman	Virginia	Brder; Illiterate
		Louis Benjamin	27	M	Musician	New York	Brder; Illiterate
		Carrie Milligan	40	W	Musician	Germany	Brder; Can't Write
		Joseph Lee	38	B	Waiter in Hotel	New York	
		Anna Lee	26	B	Keeps House	New York	
	45 Grand St.	August Roncaglia	35	W	Confectioner	Italy	
		Margaret Roncaglia	33	W	Sewing Machine	Italy	
		Michael Roncaglia	9	W	Operator	New York	
		Americus Roncaglia	5	W		New York	
		Owen McLaughlin	27	W	Waiter in Restaurant	Ireland	
		George Powell	18	W	Waiter in Hotel	England	
		Joseph W. Medfort	25	W	Waiter in Hotel	Jamaica	
		Joseph Church	37	B	Seaman	Maryland	
		Sarah Church	31	B	Keeps House	New York	
		Elizabeth A. Church	1m	B		New York	
		Nancy A. Bell Church	17	B	Servant	New York	
		Harriet Jackson	64	B	Laundress	New York	
		Emeline Jackson	27	B	Laundress	New York	
		Ann A. Jackson	25	B	Laundress	New York	
		Henry Foster	25	B	Meat Carver	Maryland	Illiterate; Unemp.
		Martha Foster	31	B	Keeps House	New York	Couldn't Write
		Eliza Foster	9	B		New York	
		William E. Foster	7	B		New York	
		Henry L. Foster	9m	B		New York	

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Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1880 (ctd)	45 Grand St. (cont'd)	Priam Van Riper	55	B	Laborer	New Jersey	Brder; Illiterate
		Samuel Harris	28	B	Laborer	New Jersey	Brder; Can't Write
		George A. Presty	23	B	Servant	Virginia	Boarder
		Maria Francis	24	B	Laundress	Maryland	Brder
		Turner Benjamin	46	B	Washerwoman	Virginia	Widow; Can't Write
		Dominick Alexander	30	B	Laborer	New York	Illiterate
		Eliza Alexander	14	B	Washerwoman	New York	
		Ulysses Alexander	9	B		New York	
		Jacob Alexander	4	B		New York	
		Dominick Alexander	2	B		New York	
		Mary A. Alexander	30	B		South Carolina	Illiterate
		Charles Morris	25	B	Waiter in Hotel	Pennsylvania	Illiterate
		Martha E. Morris	20	B	Keeps House	Pennsylvania	
		George Skinner	50	B	Laborer	North Carolina	Illiterate
		Lilson Skinner	2	B		New York	Rheumatism Boarder
		Amy Smith	35	B	Keeps House	New York	
		John H. Ferguson	14	B	At School	New York	
		Sarah Cook	36	B	Laundress	New York	
		William Gaines	42	M	Waiter in Hotel	Maryland	Unemp./Can't Write Boarder Widower
		Mary Gaines	37	W	Keeps House	New York	
		Drucella Gaines	7	M		New York	
		Joseph Gaines	8m	M		New York	
		Joseph Tyler	27	M	Waiter in Hotel	Maryland	
		Charles Blair	55	B	Waiter in Hotel	New Jersey	
		William Blair	12	M	At School	New York	
		Thomas Blair	9	M		New York	
		Margaret Thompson	35	W	Washerwoman	Ireland	
		Mary J. Thompson	12	M	At School	New York	
		William Thompson	14	M	At School	New York	Illiterate Widow
		Charles Brown	55	B	Whitewasher	New Jersey	Illiterate Widower Consumption Boarder
		Catherine Wright	40	W	Keeps House	Ireland	
		Benjamin Wright	9	M		New York	
		John Aricks	34	W	Auctioneer	New York	Boarder Boarder Boarder
		Carrie Aricks	24	W	Keeps House	New York	
		David Bolles	58	B	Waiter in Hotel	Rhode Island	
		Bridget Connelly	38	W	Keeps House	Ireland	
		Mary Davis	11	M	At School	New York	
		Sarah Smith	10	M	At School	New York	
	47 Grand St.	John Glof	31	W	Waiter in Hotel	France	Brother
		Francisco Glof	33	W	Waiter in Hotel	France	
		Marcus Moses	20	W	Tailor	Prussia	
		Edward Page	67	W	Tailor	Ireland	
	49 Grand St.	Catherine Page	63	W	Fruit Peddler	Ireland	
		Nathan Morris	27	W	Retail Cigar Dealer	New York	
		Bridget Williams	48	W	Washerwoman	Ireland	Illiterate Widow Disabled/Unemp. Unemployed Unemployed
		Peter Williams	21	M	Waiter in Hotel	New York	
		John Williams	18	M	Waiter in Hotel	New York	
		Edward Undley	26	M	Waiter in Hotel	Conn.	
		Catherine Undley	22	M	Keeps House	New York	
		Julia Undley	7	M		New York	
		Peter undley	5	M		New York	
		Edward Undley	1	M		New York	
	220 South Fifth Avenue	George A. Morris	53	M	Caterer	Virginia	Couldn't Write Widowed Mother
		Margaret Morris	53	W	Keeps House	Ireland	
		Addie Morris	16	M		New York	
		Adeline Morris	75	M		Virginia	
		Mary McGill	20	M		New York	
		Addie McGill	3	M		New York	Boarder Boarder
		William Spence	20	W	Laborer	New York	
		Thomas Haley	19	W	Laborer	Ireland	
		William Drury	30	W	Laborer	Ireland	

Appendix B: Summary of Census Research

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other		
1880 (ctd)	220 South Fifth Avenue (cont'd)	Thomas Sturgis	39	M	Laborer	New York			
		Catherine Sturgis	45	W	Keeps House	Ireland			
		Squire Sansom	30	B	Waiter in Hotel	New York	Unemployed Has Consumption Widow		
		Mary Sansom	29	M	Keeps House	New York			
		Mary Rice	49	W	Washerwoman	Ireland			
		Geolt Hazel	40	B	Cook	New York			
		Mary Hazel	38	W	Keeps House	Ireland			
		George A. Hazel	9	M		New York			
		Margaret Hazel	5	M		New York			
		Mary Hazel	5	M		New York			
		Alfred Dirling	40	M	Waiter in Hotel	New Jersey	Illiterate Unemployed		
		Bridget Dirling	44	W	Keeps House	Ireland			
		James Dirling	18	M	Wagon Driver	New York			
		George Dirling	13	M	At School	New York			
		Joseph Dirling	9	M		New York			
		John Dirling	8	M		New York			
		Joseph Schmid	35	W	Servant	Wurtenberg			
1900	43 Grand St.	Annie Schnider	44	W	Tailor Business	Germany	Widow; Renter		
		Joseph Schnider	27	W	Book Keeper	New York			
		Annie Schnider	20	W	House Work	New York			
		Benn (sic) Schnider	17	W	Clerk	New York			
		John Schnider	13	W	At School	New York			
		Peter Schnider	8	W	At School	New York	Boarder Boarder		
		George Frederick	41	W	Clerk	New York			
		George Smith	27	W	Laborer	New York			
		Michael Beek	38	W	Laborer	New York	Renter		
		Josephine Beek	40	W		New York			
		Andrew Beek	12	W	At School	New Jersey			
	45 Grand St.	James Bella	19	W	Laborer	Italy	Renter		
		Mareal Bella	19	W	House Work	New York			
		Angela Bella	2	W		New York			
		Phillipp Bella	1	W		New York			
		Maria Bella	2	W		New York			
		Joseph Arbissino	13	W	Bootblack	Italy	Illiterate		
1910	43 Grand St.	Frances Schamhaus	63	W	None	Germany	Renter		
		John Schamhaus	27	W	Truck Driver-Box Fcty	New York			
		Emma Schamhaus	25	W	Operator for Neckware	New York			
		Achille Comastri	56	W	Statue Maker-Statuary	Italy	Renter		
		Lateccia Comastri	49	W	None	Italy			
		John Comastri	23	W	Driver for Express Co.	Italy			
		Charles Comastri	22	W	Statue Maker-Statuary	Italy			
	Anna Comastri	9	W	None	New York				
	45 Grand St.	Margaret Regan	45	W	None	Ireland	Renter		
		Michael Weiss	67	W	Wheelwright-Wagon Fcty	Germany	Renter		
Katherine Weiss		62	W	None	Germany				
1920	43 Grand St.	Frances Schoenlaub	73	W	None	Germany	Renter		
		John Schoenlaub	37	W	[illegible] Box	New York			
		Emma Schoenlaub	35	W	Operator [illegible]	New York			
		Margaret Regan	55	W	None	Ireland	Renter		
		Mary Caulfield	55	W	None	Ireland	"Friend"		
	45 Grand St.	James R. McCabe	64	W	[illegible]	New York	Renter		
		Catherine M. McCabe	38	W	None	New York			
		Catherine Weiss	71	W	None	Switzerland	Renter		
		George Galilman	38	W	Helper in Bakery	Germany	Boarder		
		Joe Maroni	50	W	Operator - Clocks	Italy			
		1930	43 Grand St.	Annie Egan	50	W	None	New York	Renter \$26/month
				Irene Egan	23	W	File Clerk in Surety	New York	
John Egan	22			W	Stock Clk/Cosmetic Fcty	New York			
Harold Egan	19			W	Multigraph Op., Printing	New York			
Margaret Regan	70			W	None	Ireland	Renter \$22/month		

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Year	Address*	Name	Age	Race**	Occupation	Place of Birth	Other
1930 (ctd)	45 Grand St.	Catherine Weiss	81	W	None	Switzerland	Renter \$22/month
		Frieda Kininder	60	W	Examiner-Tie Factory	Switzerland	
		Fred Sharringham	50	W	Mechanic-Machine Fcty	Germany	Roomer
		Alvin Borro	44	W	Painter of Buildings	New York	Unemployed Vet.
		Eveline Borro	33	W	None	New York	Renter \$26/month
		Alvin Borro, Jr.	5	W	None	New York	

Notes:

*Census records that predate 1870 (2nd enumeration) do not list street addresses, although some do include street names. Addresses in italics are estimated based on position in original census ledgers and comparison with other historic documents.

** Some censuses appear to only record race for non-whites. Only 3 racial classifications were used in the original census records; they are as follows: B = Black, M = Mulatto, and W = White.

Sources: Federal census ledgers accessed through Ancestry.com.

*

Appendix C:

Historic Directories

Directory Year	Name	Occupation	Business or Primary Address	Home Address (if specified)
1827	Abraham Barnett	Merchant	43 Grand	
	S.A. Barnett	Musician	43 Grand	
	Digby V. Bell	Clerk	43 Grand	
	Robert Carr	Brassfounder	49 Grand	
	John Doubleday	Baker	45 Grand	
	James Gibson	Mason	47 Grand	
	George Lovett	Lumber Yard	Goerck	709 Broadway
	Joseph Marley	Shoemaker	25 Laurens	
	Catherine Martin, widow Alex.	Grocer	Grand c. Laurens	
	William M'Ilwain		Laurens n. Grand	
	Widow of Samuel C. Wessels		45 Grand	
1829	Robert Carr	Brassfounder	45 Grand	25 Laurens, rear
	Widow Sarah Davies		47 Grand	
	Thaddeus Dean	Porterhouse	45 Grand	8 Laurens
	John Doubleday	Baker	45½ Grand	
	Alexander Dunn	Baker	49 Grand	
	Henry S. Haydon		45 Grand	
	Jacob Imely		Laurens c. Grand	
	George Lovett	Lumberyard	709 Broadway	
	Louisa Lovett	Widow, Thomas	122 Bleecker	
	H. Meigs	Just. Court	Laurens c. Grand	
	John Pool	Sashmaker	65 Laurens	
	Charles W. Sandford	Attorney and Counselor	5 Thompson	
	William Shepherd	Mason	43 Grand	
	Charles R. Stiles	Victualler	25 Laurens	
	George W. Summers	Turner	43 Grand	
	Peter D. Wright	Mason	43 Grand	
	William H. W. Wyckoff	Shoemaker	Grand c. Laurens	
1834	George Charlton	Mason	43 Grand	
	Benjamin Hyatt	Boardinghouse	49 Grand	
	William McElwain		47 Grand	
	Matthias Matthews	Confectioner	49 Grand	
	Friend Pitts	Grocer	51 Grand	45 Grand
	John Pitts	Grocer	51 Grand	45 Grand
	James Ripley	Merchant	149 Maiden Lane	45 Grand
	William Stevenson		43 Grand	
1839	George Lovett		709 Broadway	
	Friend Pitts	Grocer	51 Grand	
	John Pitts	Grocer	51 Grand	47 Grand
	J&F Pitts	Grocers	51 Grand c. Laurens	
1850-1851a	Mary Boniface, widow Henry	Clothing		43 Grand
	William Kaylor	Manufacturer of grindstones from 2 to 24 inches and iron boxes from 6 to 14 inches	49 Grand	49 Grand
1850-1851b	William Keylor	Grindstone and plaster dealer	49 Grand	
	James Porter	Porterhouses	25 Laurens	

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Directory Year	Name	Occupation	Business or Primary Address	Home Address (if specified)
1851*	Mary Boniface	Clothing	43 Grand	
	T.D. Earle	Clerk	45 Grand	
	John Pitts		47 Grand	
	William Kaylor	Stones	49 Grand	
	Patrick Farley	Liquors	25 West Broadway Place	
	J&F Pitts	Grocers	29 West Broadway Place	
1852	William J. Amies	Bookkeeper	43 Grand	
	Mary Boniface, widow of Henry	Clothing	43 Grand	
	Thomas D. Earle	Dry Goods	57 Catherine	45 Grand
	Patrick Farley	Liquor	25 Laurens	25 Laurens
	William Kaylor	Manufacturer	49 Grand	49 Grand
	Friend Pitts	Grocer	51 Grand	45 Grand
	John Pitts	Grocer	51 Grand	47 Grand
1857	John Cisco (col'd)	Laborer		r. 25 Laurens
	Anne Morgan (col'd), Widow John	Washing		r. 25 Laurens
	Lot Mundy	Seaman		r. 25 Laurens
	Friend Pitts	Grocer	51 Grand	45 Grand
	John Pitts	Grocer	51 Grand	62 W. 29th
	J&F Pitts	Grocers	51 Grand	
	Frances H. Riley (col'd), Widow Louis	Washing		r. 25 Laurens
	William H. Wharton (col'd)	Coachman	25 Laurens	
	John F.H. Dazet	Police		43 Grand
	William Baltaser	Beer	45 Grand	
1862	David Bowles (col'd)	Waiter		r. 25 Laurens
	Samuel Brown (col'd)	Exchange	25 Laurens	
	Henry Clark (col'd)	Waiter		r. 25 Laurens
	Antonio Cohen	Tailor	49 Grand	
	Peter Crave	Laborer		47 Grand
	Francis Dill (col'd)	Waiter		r. 25 Laurens
	Andrew Duncan (col'd)	Cook		r. 25 Laurens
	Rosanna Edger (col'd)	Widow John		r. 25 Laurens
	Simon Engleman (col'd)	Musician		r. 25 Laurens
	Timothy Jarvis (col'd)	Musician		r. 25 Laurens
	Walter Johnson (col'd)	Waiter		r. 25 Laurens
	Anthony Mason (col'd)	Laborer		r. 25 Laurens
	William McConlogne	Junk	49 Grand	31 Marion
	Catherine A. Miller	Boardinghouse	43 Grand	
	Mary Ryers (col'd)	Widow Henry		r. 25 Laurens
	William Smith (col'd)	Waiter		25 Laurens
	Charles Thevenet	Shoemaker		49 Grand
	Arthur Anthony (col'd)	Laborer		r. 25 Laurens
	Eugenia Brown (col'd)	Widow Samuel		25 Laurens
1869	Aaron Cohn	Tailor	47 Grand	
	John Connor	Porter		29 Laurens
	Clande Crave	Chocolate	27 Grand	47 Grand
	Peter Crave			47 Grand
	Patrick Crosby	Oysters	43 Grand	48 Laurens
	Georgianna Dominge (col'd), Widow Henry	Washing		r. 25 Laurens
	Catherine Dorsay	Widow Charles H.		25 Laurens
	James Duncan (col'd)	Seaman		25 Laurens
	Alford Durling (col'd)	Waiter		25 Laurens
	James Dyer (col'd)	Laborer		25 Laurens
	Thomas G. Green (col'd)	Waiter		r. 25 Laurens
	Henry Halliday (col'd)	Cook		r. 25 Laurens
	Samuel Harper (col'd)	Waiter		r. 25 Laurens

Appendix C: Historic Directories

Directory Year	Name	Occupation	Business or Primary Address	Home Address (if specified)
	Romeo Hunter (col'd)	Seaman		25 Laurens
	William Hurden (col'd)	Waiter		25 Laurens
	John W. Lee (col'd)	Laborer		r. 25 Laurens
	Elizabeth Lumbard	Boardinghouse	43 Grand	
	William McConlogue	Junk	26 Thompson	49 Grand
	Ann Mitchell (col'd)	Widow John		r. 25 Laurens
	Ann Morgan (col'd)	Widow John		r. 25 Laurens
	James H. Osterhoudt	Carman		25 Laurens
	Michael Ratinkx	Tin	45 Grand	
	William Storms	Carman		47 Grand
	Charles Thevenet	Books	49 Grand	
	Theodore VanDyk (col'd)	Coachman		25 Laurens
	Bridget Williams	Widow peter		25 Laurens
1887	George A. Telford	Raw and Spun Silk Broker	43 Grand	
1890	Frances Carri	Widow Frank		r. 45 Grand
	Rachel Cohen	Men's Furng.	47 Grand	
	Anton Fishel	Laborer		r. 45 Grand
	Mary Hazel	Widow, George H.		220 S. 5th av
	William Jeunger	Cigars	43 Grand	
	Louis Lafelli	Laborer		r. 45 Grand
	Gottlob C. Loebke	Plumber	65 Grand	600 Quincy, Bklyn
	Nicholas Lorenzi	Laborer		r. 45 Grand
	Charles J. Mallon	Mason	45 Grand and 516 W. 51st	
	John J. Mallon	Mason	45 Grand and 516 W. 51st	
	Thomas J. Mallon	Mason	45 Grand and 516 W. 51st	
	Mallon Brothers	Masons	45 Grand and 516 W. 51st	
	Paul J. Moran	Liquors	49 Grand	12 Thompson
	George A. Morris	Caterer	220 S. 5th av	
	Thomas Ryan	Printer		220 S. 5th av
	Thomas H. Sturgis	Laborer		220 S. 5th av
	James Talbot	Laborer		43 Grand
	Joseph Willom	Laborer		r. 45 Grand
	Everet Vandusen	Cook		220 S. 5th av

Notes:

*This directory is one of the few reverse directories produced, meaning that the directory is arranged by address and not alphabetically by last name. However, the copy on file at the New York Historical Society is a reproduction and as a result, the house numbers were omitted. Therefore, the house numbers in italics have been estimated based on cross-referencing with other historic documents.

Sources:

- 1827: *Longworth's American Almanac, New York Register, and City Directory*. New York: T. Longworth.
- 1829: *Longworth's American Almanac, New York Register, and City Directory*. New York: T. Longworth.
- 1834: *Longworth's American Almanac, New York Register, and City Directory*. New York: T. Longworth.
- 1839: *Longworth's American Almanac, New York Register, and City Directory*. New York: T. Longworth.
- 1850-51a: *Dogget's New York City Directory for 1850-1851*. New York: John Doggett, Jr.
- 1850-51b: *New York State Mercantile Union Business Directory*. New York: S. French, L.C. and H.L. Pratt.
- 1851: *Dogget's New York City Street Directory for 1850-1851*. New York: John Doggett, Jr.
- 1852: *New York City Directory for 1851-1852*. New York: Doggett and Rode
- 1857: *Trow's New York City Directory*, compiled by H. Wilson. New York: John F. Trow.
- 1862: *Trow's New York City Directory*, compiled by H. Wilson. New York: John F. Trow.
- 1867: *Trow's New York City Directory*, compiled by H. Wilson. New York: John F. Trow.
- 1869: *Ancestry.com (1998) New York City Directory, 1869* [database on-line]. Provo, UT, USA: The Generations Network, Inc.
- 1887: *American Silk Manufacture* by William C. Wyckoff. New York: Under the Auspices of the Silk Association of America.
- 1890: *Ancestry.com (1999) New York City Directory, 1890* [database on-line]. Provo, UT, USA: The Generations Network, Inc.

Appendix D:
Tax Assessments, 1815-1865

Year	Address	Owner/ Occupant	Property Description	Value of Real Estate	Remarks
1815	West side of Laurens Street	Robert M. Livingston	45 Lots	\$19,000	
1816	West side of Laurens Street	Robert M. Livingston	45 Lots	\$22,500	
1817	West side of Laurens Street	Robert M. Livingston	45 Lots	\$15,750	
1818	West side of Laurens Street	Thomas and George Lovett	1 Lot	\$400	
1819	West side of Laurens Street	Thomas and George Lovett	1 Lot	\$500	
1820- 1821	West side of Laurens Street, Corner of Grand Street	Thomas and George Lovett	House and Lot	\$1,000	Not Finished
	Grand Street, at corner of Laurens Street	W.W. Wickoff	House and Lot	\$1,000	Not Finished
	Grand between Thompson and Laurens Streets	Thomas and George Lovett	1 Lot	\$400	
1822	West side of Laurens Street, at the corner of Grand	Thomas and George Lovett	½ Lot	\$400	
	Grand Street, south side, corner of Laurens	W.W. Wicoff	House and ¾ Lot	\$1,200	
		Edward Lambert	Occupant		Personal Estate \$100
	Grand Street, south side, between Laurens and Thompson	T&G Lovett	House and ½ Lot	\$1,200	
1823	Laurens Street, west side, between Grand and Canal Streets	T&G Lovett	¾ Lot	\$300	
	49 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
		Robert Carr	Occupant		Personal Estate \$200
	47 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
		Alexander Reed	Occupant		Personal Estate \$100
		John Runlen	Occupant		Personal Estate \$100
	45 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
	43 Grand Street	George Lorillard	House and Lot	\$1,000	Not Finished

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Year	Address	Owner/ Occupant	Property Description	Value of Real Estate	Remarks
1824	Laurens Street, west side, corner of Grand Street	T&G Lovett	¼ Lot	\$300	
	49 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
		Robert Carr	Occupant		Personal Estate \$200
	47 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
		Alexander Reed	Occupant		Personal Estate \$100
		John Runlen	Occupant		Personal Estate \$100
	45 Grand Street	T&G Lovett	House and ½ Lot	\$1,000	
		John Doubleday	Occupant		Personal Estate \$100
		George Lorillard	House and ¾ Lot	\$1,600	New
		George Rikham	Occupant		Personal Estate \$100
		Beckman Winant	Occupant		Personal Estate \$100
	43 Grand Street	George Lorillard	House and ¾ Lot	\$1,600	
1825	Laurens Street, west side, corner of Grand Street	George Lovett	¼ Lot	\$900	
	Laurens Street, west side, between Grand and Canal Streets	John Pool	House and ¾ Lot	\$1,200	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		Robert Carr	Tenant in above house		Personal estate: \$200
	47 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		Alexander Reid	Tenant in above house		Personal estate: \$200
	45 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		John Doubleday	Tenant in above house		Personal estate: \$300
		George Lorillard	House and ¾ Lot	\$2,000	
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,000	
1826	Laurens Street, west side, corner of Grand Street	George Lovett	House and Shop; 30 foot lot	\$800	
	Laurens Street, west side, between Grand and Canal Streets	William Martin	House and ¾ Lot	\$1,500	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		Robert Carr	Tenant in above house		Personal estate: \$200
	47 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		Alexander Reid	Tenant in above house		Personal estate: \$200

Appendix D: Tax Assessments, 1815-1865

Year	Address	Owner/ Occupant	Property Description	Value of Real Estate	Remarks
1826 (ct'd)	45 Grand Street	George Lovett	House and ½ Lot	\$1,200	
		John Doubleday	Tenant in above house		Personal estate: \$300
		George Lorillard	House and ¼ Lot	\$2,000	
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,000	
1827	25 Laurens	William Mucklewain	House and 30 foot lot	\$1,800	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,800	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,800	
	45 Grand Street	George Lovett	House and ½ Lot	\$1,800	
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,500	
1828	25 Laurens	William Mucklewain	House and 30 foot lot	\$1,800	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,800	
	47 Grand Street	George Lovett	House and ¾ Lot	\$1,800	
	45 Grand Street	George Lorillard	House and ½ Lot	\$2,500	
		Jacob Field	Occupant	\$300	
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,500	
1829	25 Laurens	William Mucklewain	House and 30 foot lot	\$1,600	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	45 Grand Street	George Lorillard	House and ¾ Lot	\$2,300	
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,300	
1830- 1831	25 Laurens	William Mucklewain	House and 30 foot lot	\$1,600	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	45 Grand Street	George Lovett	House and ½ Lot	\$1,700	
		George Lorillard	House and ¾ Lot	\$2,300	
		Robert Carr	Occupant		Personal Estate \$500
	43 Grand Street	George Lorillard	House and ¾ Lot	\$2,300	
1832- 1833	25 Laurens	William Mucklewain	House and ¾ Lot	\$1,600	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	45 ½ Grand Street	George Lovett	House and ¾ Lot	\$1,700	

47 Grand Street Development—Phase 1A Archaeological Documentary Study

Year	Address	Owner/ Occupant	Property Description	Value of Real Estate	Remarks
1832- 1833 (ct'd)	45 Grand Street	George Lorillard	House and ¼ Lot	\$2,300	
	43 Grand Street	George Lorillard	House and ¼ Lot	\$2,300	
1834	25 Laurens	William Mucklewain	House and ¼ Lot	\$1,900	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,900	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,900	
	45 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	45 Grand Street	George Lorillard	House and ½ Lot	\$2,300	
		F&J Pitts	Occupants		Personal Estate \$2,000
	43 Grand Street	George Lorillard	House and ¼ Lot	\$1,900	
1835	25 Laurens	William Mucklewain	House and ¼ Lot	\$1,900	
	49 Grand Street	George Lovett	House and ½ Lot	\$1,900	
	47 Grand Street	George Lovett	House and ½ Lot	\$1,900	
	45 Grand Street	George Lovett	House and ½ Lot	\$1,700	
	45 Grand Street	George Lorillard	House and ½ Lot	\$2,300	
		F&J Pitts	Occupants		Personal Estate \$2,000
	43 Grand Street	Estate of George Lovett	House and ½ Lot	\$1,900	
		John Pitts	Occupant		Personal Estate \$2,000
1836	25 Laurens	William Mucklewain	House and ¼ Lot	\$2,300	
	49 Grand Street	Widow Lovett	House and ¼ Lot	\$4,200	
	47 Grand Street	Widow Lovett	House and ¼ Lot	\$4,200	
	45 Grand Street	George Lovett	House and ¼ Lot	\$4,200	
	43 Grand Street	George Lovett	House and ¼ Lot	\$4,200	
1837	25 Laurens	Lawyer Burr	House and ½ Lot	\$2,200	Office Napan Street
	49 Grand Street	John Lovett	House and ¼ Lot	\$2,600	
	47 Grand Street	John Lovett	House and ¼ Lot	\$2,600	
	45 Grand Street	John Lovett	House and ¼ Lot	\$2,600	
	43 Grand Street	John Lovett	House and ¼ Lot	\$2,600	
1838- 1839	25 Laurens	Lawyer Burr	House and ½ Lot	\$2,100	Edwin Burr
	49 Grand Street	John Pitts	House and ¼ Lot	\$2,400	
	47 Grand Street	John Pitts	House and ¼ Lot	\$2,300	
	45 Grand Street	John Lovett	House and ¼ Lot	\$2,400	

Appendix D: Tax Assessments, 1815-1865

Year	Address	Owner/ Occupant	Property Description	Value of Real Estate	Remarks
1838- 1839 (ct'd)	43 Grand Street	John Lovett	House and ¼ Lot	\$2,500	
1840	25 Laurens	Edwin Burr	House and ½ Lot	\$2,000	
	49 Grand Street	John Pitts	House and ½ Lot	\$2,200	
	47 Grand Street	John Pitts	House and ½ Lot	\$2,300	
	45 Grand Street	John Lovett	House and ¼ Lot	\$2,400	
	43 Grand Street	John Lovett	House and Lot	\$2,500	
1845	25 Laurens Street	Edwin Burr	House and ½ Lot	\$1,800	
	49 Grand Street	John Pitts	House and ¾ Lot	\$1,800	
	47 Grand Street	John Pitts	House and ¾ Lot	\$1,800	
	45 Grand Street	J&F Pitts	House and ¼ Lot	\$2,000	
	43 Grand Street	J&F Pitts	House and ¼ Lot	\$2,600	
1850	25 Laurens Street	Edwin Burr	House and ½ Lot	\$1,800	
	49 Grand Street	John Pitts	House and ½ Lot	\$1,800	
	47 Grand Street	John Pitts	House and ½ Lot	\$1,800	
	45 Grand Street	J&F Pitts	House and ½ Lot	\$2,000	
	43 Grand Street	J&F Pitts	House and ½ Lot	\$2,500	
1855	25 Laurens Street	J&F Pitts	House and Lot	\$4,000	
	49 Grand Street	J&F Pitts	House and Lot	\$2,000	
	47 Grand Street	J&F Pitts	House and Lot	\$2,000	
	45 Grand Street	J&F Pitts	House and Lot	\$3,300	
	43 Grand Street	J&F Pitts	House and Lot	\$3,300	
1860- 1865	25 Laurens Street	J.F. Pitts	Lot: 25'x60' 5-story House: 25'x41'	\$4,500	
	49 Grand Street	J.F. Pitts	Lot: 17.1'x62.8' 2-Story House: 17.1'x32'	\$2,000	
	47 Grand Street	J.F. Pitts	Lot: 17.4'x62.5' 2-Story House: 17.4'x32'	\$2,000	
	45 Grand Street	J.F. Pitts	Lot: 17.6'x96.7' One and a half 2 to 4-Story Houses: 17.6'x	\$4,500	
	43 Grand Street	J.F. Pitts	Lot: 17.1'x96.7' Two 2- to 4- Story Houses: 17.1'x73'	\$4,800	

Notes: Handwritten ledgers do not always appear to be accurately updated from year to year and therefore contain many inconsistencies. Because the ledgers are handwritten, there may also be transcription inaccuracies in the above table.

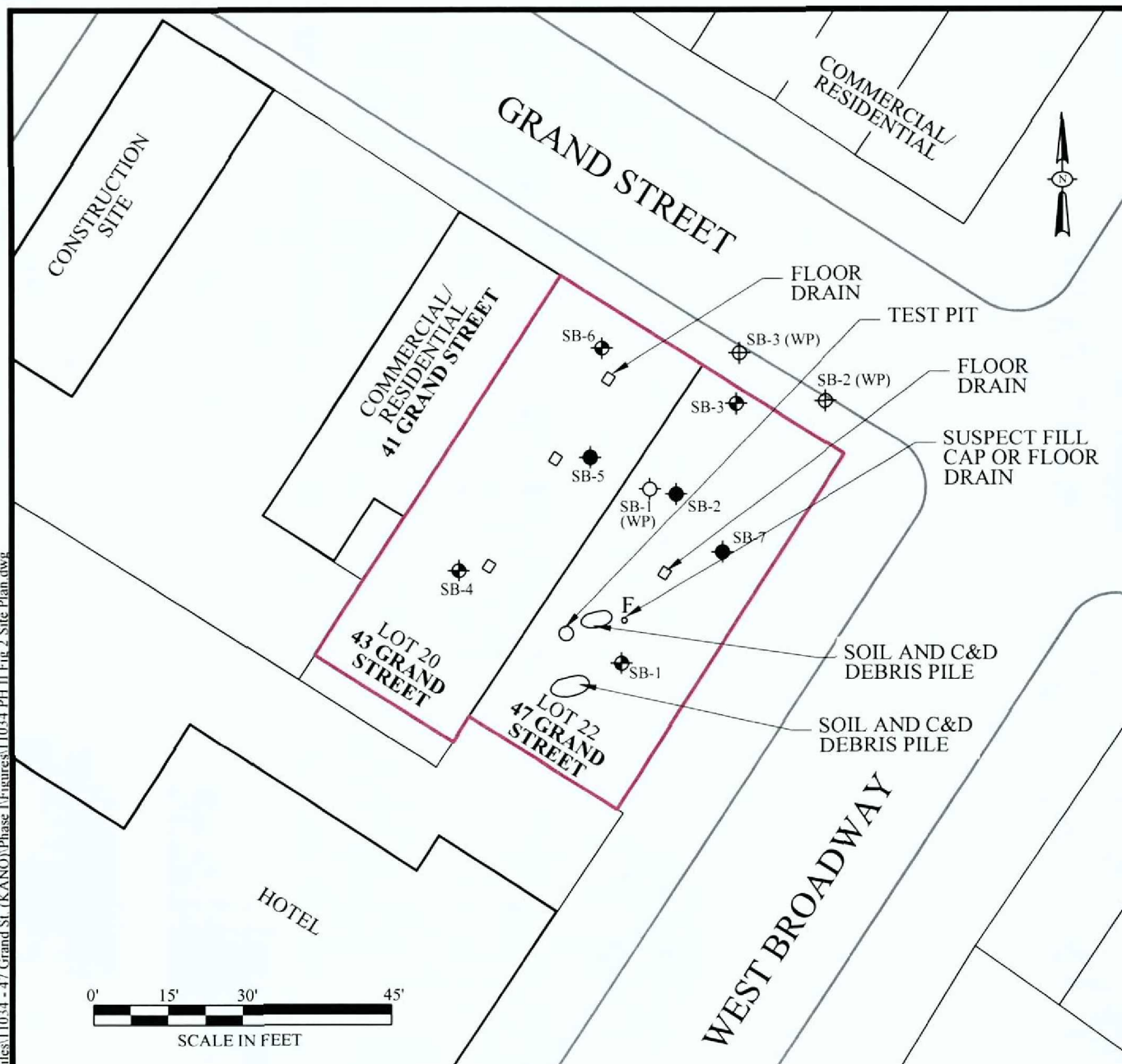
Sources: Tax assessment rolls on file at the New York City Municipal Archives.

Appendix E: Soil Borings

Compiled from *43-45 and 47-49 Grand Street; New York, New York; Subsurface (Phase II) Investigation*. Prepared for Kano Properties by AKRF (2008).




Borings marked with (WP) on the following indicator map are not included in this appendix.

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LEGEND:

- PROJECT SITE BOUNDARY
- SB-3  SOIL/GROUNDWATER SAMPLING LOCATION
- SB-5  SOIL BORING SAMPLING LOCATION

- SB-1 (WP) 
- SB-3 (WP) 
- C&D 

SOIL BORING FOR JULY 2006
PHASE II BY WARREN &
PANZER

SOIL BORING/GROUNDWATER FOR
JULY 2006 PHASE II BY WARREN &
PANZER

CONSTRUCTION AND DEMOLITION

43 and 47 GRAND STREET
NEW YORK, NEW YORK

SITE PLAN DETAIL

AKRF

Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
4.08.08

PROJECT No.
11034

SCALE
as shown

FIGURE
2

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-1			
		AKRF Project Number : 11034		Sheet 1 of 1			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start			
		Driller : Zebra		Time: 0820			
		Weather: Clear, 45 °F		Time: 0950			
		Sampler: AKRF/ Asya Kleyn, Mark Accetturi		Date: 3/3/08			
				Date: 3/3/08			
Depth (feet)	Recovery (inches)	Surface Condition:	Concrete, about 2 feet above street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	30	Top 4": CONCRETE (FILL).		1.1	slight sweet	dry	SB-1 (1'-3')
2		Bottom 26": Brown SAND, trace Brick, Glass, Wood, fine Gravel (FILL).					
3							
4							
5	30	Top 1": Brown medium to fine SAND, trace Brick (FILL).		1.6	none	dry	
6		Middle 6": Gray medium SAND, trace Concrete (FILL).					
7		Bottom 23": Brown medium to fine SAND, trace Concrete, Brick (FILL).					
8							
9	30	Top 12": Brown SAND, trace Silt, Brick, fine Gravel (FILL).		1.1	slight organic	Top 12" - moist Bottom 18" - wet	SB-1 (GW)
10		Middle 6": Brown SAND, trace fine Gravel (FILL).					
11		Bottom 12": Brown coarse SAND, trace fine Gravel (FILL).					
12							
13	48	Top 18": Brown coarse Sand, trace fine Gravel (FILL).		1	organic	wet	SB-1 (13'-15')
14		Middle 12": Black fine SAND and WOOD (FILL).					
15		Bottom 18": Brown fine SAND, trace Silt, Clay.					
16							
17	6	Brown medium to fine SAND, trace Silt, Clay.		1	slight organic	wet	
18							
19							
20							
21	36	Brown coarse SAND, trace Silt.		0.8	organic	wet	
22							
23							
24							
25	30	Brown coarse SAND, trace Silt, fine Gravel.		1.1	slight organic	wet	
26							
27							
28							
29	30	Brown coarse SAND, trace Silt, fine Gravel.		1	none	wet	
30							
31							
32							
		End of boring at 32 feet.					
Notes: PID - Photoionization detector Groundwater encountered at approximately 9 feet below floor grade (about 7 feet below surface grade). Boring ended at 32 feet. Installed temporary one-inch well screen at 10'-20" below surface. Soil and groundwater samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals.							

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-2			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		AKRF Project Number : 11034		Sheet 1 of 1			
		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start			
		Driller : Zebra		Time: 1020			
		Weather: Clear, 45 °F		Time: 1130			
		Sampler: AKRF/ Asya Kleyn, Mark Accetturi		Date: 3/3/08			
Depth (feet)	Recovery (inches)	Surface Condition:	Concrete, about 2 feet above street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	24	Top 2": CONCRETE (FILL).		ND	slight tar-like	dry	SB-2 (0.5'-3.5')
2		Bottom 22": Brown SAND, trace Brick, fine Gravel, Ash, Silt (FILL).					
3							
4							
5	30	Top 3": Brown medium to fine SAND, trace Brick, Silt, Concrete (FILL).		ND	none	dry	
6		Middle 3": Black SAND and fine GRAVEL.					
7		Bottom 24": Brown coarse SAND, trace Silt, fine Gravel.					
8							
9	48	Top 12": Brown SAND, trace fine Gravel, Silt, Brick, Concrete (FILL).		ND	none	Top 42" - moist Bottom 6" - wet	
10		Bottom 36": Brown medium to fine SAND, trace Silt (FILL).					
11							
12							
13	42	Brown coarse SAND, trace fine Gravel, Silt (FILL).		ND	slight organic	wet	
14							
15							
16							
17	18	Brown coarse SAND, trace fine Gravel, Silt (FILL).		ND	none	wet	
18							
19							
20							
21	24	Brown coarse SAND, trace fine Gravel, Silt, Coal (FILL).		0.5	slight tar-like	wet	
22							
23							
24							
25	24	Top 12": Brown coarse SAND, trace fine Gravel, Silt, Brick, Ash (FILL).		1	slight organic	wet	
26		Bottom 12" - Brown SAND, trace fine Gravel, Silt, Clay (FILL).					
27							
28							
29	8	Brown coarse SAND, trace fine Gravel, Silt, Ash (FILL).		ND	none	wet	SB-2 (27'-29')
30							
31							
32							
Notes: PID - Photoionization detector ND - Not Detected Groundwater encountered at approximately 11.5 feet below floor grade (about 9.5 feet below surface grade). Boring ended at 32 feet. Soil samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals.							

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-3		
		AKRF Project Number : 11034		Sheet 1 of 1		
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling		
		Sampling Method: 4-foot Macrocore		Start		
		Driller : Zebra		Time: 1225		
		Weather: Clear, 45 °F		Time: 1330		
		Sampler: AKRF/ Asya Kleyn, Mark Accetturi		Date: 3/3/08		
Depth (feet)	Recovery (inches)	Surface Condition: Concrete, street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	18	Top 3": CONCRETE (FILL).	ND	none	dry	SB-3 (1'-5')
2		Middle 3": Black SAND and BRICK (FILL).				
3		Bottom 12": Brown SAND, trace fine Gravel, Silt, Concrete, Coal (FILL).				
4						
5	42	Top 18": Brown SAND, trace Brick, fine Gravel, Silt, Concrete, Ash (FILL).	ND	none	dry	
6		Bottom 24": Brown SAND, trace fine Gravel, Silt, Concrete, Ash (FILL).				
7						
8						
9	45	Top 24": Brown SAND, trace Concrete, Brick, Ash, fine Gravel (FILL).	ND	slight tar-like	Top 33" - moist Bottom 12" - wet	SB-3 (GW)
10		Middle 6": Brown SAND (FILL).				
11		Bottom 15": Brown SAND, trace Silt, Ash, Brick, fine Gravel (FILL).				
12						
13	18	Brown SAND, trace fine Gravel, Ash, Silt (FILL).	ND	slight tar-like	wet	
14						
15						
16						
17	12	Brown SAND, trace Silt, fine Gravel, Ash, Brick (FILL).	ND	slight tar-like	wet	
18						
19						
20						
21	6	Brown SAND, trace Silt (FILL).	ND	slight tar-like	wet	
22						
23						
24						
25	16	Brown SAND, trace fine Gravel, Silt, Brick (FILL).	ND	slight tar-like	wet	SB-3 (23'-25')
26						
27						
28						
29	36	Top 24": Brown SAND, trace Silt, fine Gravel.	ND	organic	wet	
30		Bottom 12": PEAT, trace Wood.				
31						
32						
		End of boring at 32 feet.				
Notes: PID - Photoionization detector ND - Not Detected Groundwater encountered at approximately 11 feet. Boring ended at 32 feet. Installed temporary one-inch well screen at 9'-19' below surface. Soil and groundwater samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals.						

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-4			
		AKRF Project Number : 11034		Sheet 1 of 1			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start			
		Driller : Zebra		Time: 0820			
		Weather: Cloudy, occasional rain, 50 °F		Date: 3/5/08			
		Sampler: AKRF/ Asya Kleyn, Chad Ondrusek		Date: 3/5/08			
Depth (feet)	Recovery (inches)	Surface Condition:	Concrete, street level	Soil Head Space PID Reading (ppm)	Oder	Moisture	Soil Samples Collected for Lab Analyses
1	15	Top 2": CONCRETE (FILL).		ND	none	dry	SB-4 (3'-5')
2		Middle 6": BRICK (FILL).					
3		Bottom 7": Gray-brown SAND and CONCRETE, trace Silt (FILL).					
4							
5	42	Top 7": Light gray to brown-black, SAND, trace Silt, fine Gravel (FILL).		ND	none	dry	
6		Middle 14": Red-brown SAND, trace Silt, Brck (FILL).					
7		Bottom 21": Brown SAND, trace Silt, Brck, fine Gravel (FILL).					
8							
9	48	Top 18": Gray, brown and black SAND, trace Ash, Concrete (FILL).		ND	Top 18" - none Bottom 30" - organic	Top 18" - moist Bottom 30" - wet	SB-4 (8'-10') SB-4 (GW)
10		Bottom 30": Brown medium to fine SAND, trace Silt (FILL).					
11							
12							
13	21	Top 11" - Brown SAND, trace fine Gravel, Silt, Brck (FILL).		ND	none	wet	
14		Bottom 10" - Brown to gray-brown fine SAND, trace Organic Matter.					
15							
16							
17	32	Top 22": Gray-brown SAND, trace fine Gravel.		ND	Top 22" - none Bottom 10" - organic	wet	SB-4 (18'-20')
18		Bottom 10": Black CLAY.					
19							
20							
21	8	Brown SAND, trace Silt.		ND	none	wet	
22							
23							
24							
25	23	Top 17": Brown to red-brown, SAND, trace fine Gravel, Silt.		ND	Top 17" - none Bottom 6" - organic	wet	
26		Bottom 8": Dark brown SAND, trace fine Gravel, Silt.					
27							
28							
29	22	Brown to red-brown SAND, trace fine Gravel, Silt.		ND	none	wet	
30							
31							
32							
33	21	Brown to red-brown SAND, trace fine Gravel, Silt.		ND	none	wet	
34							
35							
36							
		End of boring at 36 feet.					
Notes: PID - Photoionization detector ND - Not Detected Groundwater encountered at approximately 10.5 feet. Boring ended at 36 feet. Installed temporary one-inch well screen at 8'-18" below surface. Soil and groundwater samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals.							

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-5			
		AKRF Project Number : 11034		Sheet 1 of 1			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start Finish			
		Driller : Zebra		Time: 1415 Time: 1435			
		Weather: Clear, 45 °F		Date: 3/3/08 Date: 3/3/08			
		Sampler: AKRF/ Asya Kleyn, Mark Accetturi					
Depth (feet)	Recovery (Inches)	Surface Condition:	Concrete, street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	2	CONCRETE (FILL).		ND	none	dry	
2							
3							
4							
5	18	Top 12": Brown SAND and BRICK, trace Silt, fine Gravel, Concrete (FILL).		4.4	slight sweet	dry	SB-5 (5'-6')
6							
7							
8							
9		End of boring at 6 feet.					
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
Notes: PID - Photoionization detector ND - Not Detected Refusal at 6 feet below grade. Soil sample analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals.							

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-6			
		AKRF Project Number : 11034		Sheet 1 of 1			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start			
		Driller : Zebra		Time: 1100			
		Weather: Cloudy, occasional rain, 50 °F		Date: 3/5/08			
		Sampler: AKRF/ Asya Kleyn, Chad Ondrusek		Date: 3/5/08			
Depth (feet)	Recovery (inches)	Surface Condition:	Concrete, street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	18	Top 3": CONCRETE (FILL).		ND	none	dry	SB-6 (3'-5')
2		Middle 2": Light brown SAND.					
3		Bottom 13": BRICK (FILL).					
4							
5	35	Top 6": BRICK and PLASTER, trace gray-brown fine Sand (FILL).		ND	none	dry	
6		Middle 8": Light brown SAND and SILT, trace fine Gravel.					
7		Bottom 21": Red-brown SAND, trace Silt.					
8							
9	48	Top 30": BRICK and gray-brown SAND (FILL).		ND	Top 40" - none Bottom 8" - organic	Top 40" - moist Bottom 8" - wet	SB-6 (10'-12') SB-6 (GW)
10		Next 10": Orange-brown medium to fine SAND, trace Silt (FILL).					
11		Next 4": Black CLAY (FILL).					
12		Bottom 4": Gray SAND (FILL).					
13	48	Top 15": Gray SAND, trace fine Gravel (FILL).		12.4	none	wet	
14		Middle 25": Light brown SAND and SILT, trace fine Gravel (FILL).					
15		Bottom 8": Gray-brown SAND and SILT, trace fine Gravel, Brick (FILL).					
16							
17	16	Gray-brown SAND, trace Silt.		20.5	none	wet	
18							
19							
20							
21	0	No recovery.					
22							
23							
24							
25	30	Top 15": Brown to red-brown, coarse SAND, trace fine Gravel.		29.8	none	wet	
26		Bottom 15": Brown fine SAND, trace Silt.					
27							
28							
29	15	Top 4": Brown SAND, trace Silt, fine Gravel.		15.5	Top 4" - none Middle 3" - organic Bottom 8" - none	wet	SB-6 (29'-31')
30		Middle 3": Black SAND, trace Silt.					
31		Bottom 8" - Brown SAND and SILT, trace fine Gravel.					
32							
33	0	No recovery.					
34							
35							
36							
		End of boring at 33 feet.					
Notes: PID - Photoionization detector ND - Not Detected Groundwater encountered at approximately 11 feet. Refusal at 33 feet below grade. Installed temporary one-inch well screen at 5'-15' below surface. Soil and groundwater samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals. The moisture filter of the PID is broken - the PID may be giving false positive readings due to saturated soils.							

AKRF, Inc.		47 Grand Street, New York, NY		Boring No. SB-7			
		AKRF Project Number : 11034		Sheet 1 of 1			
Environmental Consultants 440 Park Avenue South, 7th Floor New York, NY 10016		Drilling Method: Track-mounted Bobcat MT52 Geoprobe		Drilling			
		Sampling Method: 4-foot Macrocore		Start			
		Driller : Zebra		Time: 1155			
		Weather: Cloudy, occassional rain, 50 °F		Time: 1222			
		Sampler: AKRF/ Asya Kleyn, Chad Ondrusek		Date: 3/5/08			
Depth (feet)	Recovery (Inches)	Surface Condition:	Concrete, about 2 feet above street level	Soil Head Space PID Reading (ppm)	Odor	Moisture	Soil Samples Collected for Lab Analyses
1	18	Top 4": CONCRETE (FILL).		20	none	dry	SB-7 (1'-2.5')
2		Bottom 14": Brown SAND, BRICK, CONCRETE and PLASTER, trace Coal (FILL).					
3							
4							
5	38	Top 10" - CONCRETE (FILL).		20.5	none	dry	
6		Bottom 28" - Light brown SAND and SILT, trace Concrete, Brick, Plaster, fine Gravel (FILL).					
7							
8							
9	40	Top 25": Light brown to gray, fine SAND and SILT, trace Plaster, Brick, Coal (FILL).		6.2	none	Top 25" - moist	SB-7 (8'-10')
10		Bottom 15": Red-brown SAND, trace Silt.				Bottom 15" - wet	
11							
12							
13		End of boring at 12 feet.					
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

Notes: PID - Photoionization detector
 Groundwater encountered at approximately 10.5 feet below floor grade (about 8.5 feet below surface grade). Boring ended at 12 feet. Soil samples analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals. The moisture filter of the PID is broken - the PID may be giving false positive readings due to saturated soils.