# Phase IA Documentary Study and Archaeological Assessment for the Chinatown Downtown Revitalization Initiative, Manhattan, New York County, New York



## Prepared for

New York State Office of Parks, Recreation and Historic Preservation City of New York – Landmarks Preservation Commission New York City – Economic Development Corporation Marvel Architects, Landscape Architects, Urban Designers PLLC

Prepared by Alyssa Loorya, Ph.D., R.P.A. Elissa Rutigliano, R.A.

Edited by Christopher Ricciardi, Ph.D., R.P.A.

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#### I. INTRODUCTION

Chrysalis Archaeological Consultants, Inc. (Chrysalis) was retained by Marvel Architects, Landscape Architects, Urban Designers PLLC (Marvel) to undertake a Phase IA Documentary Study and Archaeological Assessment for the proposed New York City Economic Development Corporation Chinatown Connections project (NYCEDC 106750001) located at Chatham Square in the Chinatown neighborhood of Manhattan, New York County (Maps 1 and 2). This project is being undertaken by NYCEDC, leading the Project, in partnership with the New York City Department of Transportation (NYCDOT)

The proposed project is part of the Chinatown Downtown Revitalization Initiative Strategic Investment Plan. This 'design phase' project focuses on Chatham Square — specifically the realignment of Chatham/Kimlau Square and the creation of a Chinatown Welcome Gateway. This Phase IA documentary study was requested as part of the design services proposal put forth by NYCEDC. The purpose is to determine the likelihood that indigenous (pre-contact) or historic-period (post-contact) archaeological resources may still be present within the project area and to assess the potential for these resources to be impacted by the proposed project.

#### PROJECT AREA AND DESCRIPTION

The project area is Chatham Square, a major intersection in the Chinatown neighborhood of Lower Manhattan, New York County, New York. The project's Area of Potential Effect (APE) is defined by the NYC EDC proposal (Map 2). It encompasses the entirety of Chatham Square and extends into the eight streets that converge at this location. These are: the Bowery, Doyers Street, East Broadway, St. James Place, Mott Street, Oliver Street, Worth Street, and Park Row. As noted in the initial proposed design plan these project limits are conceptual, to be finalized during design.

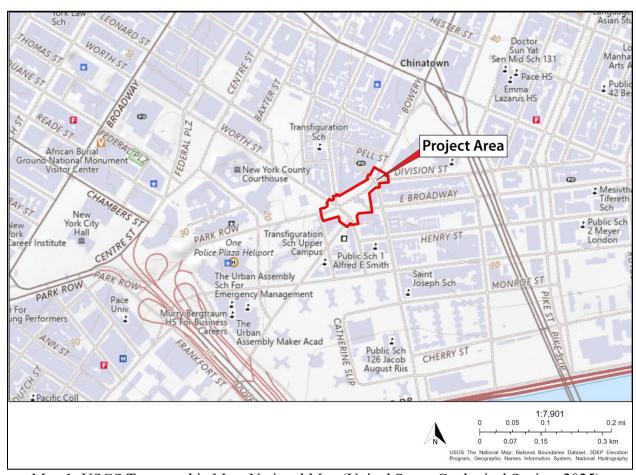
This initial phase of this project focuses on Architectural and Design Services for public improvements in the Chinatown neighborhood. There are two primary components to the project: the realignment of Chatham Square and Kimlau Square to improve navigation and expand public space, and the creation of a Chinatown Welcome Gateway to commemorate the cultural heritage of Chinatown (NYC EDC 2024) (See Figures 1 and 2).

## **PROJECT INFORMATION**

Project Name	Chinatown Connections
Street Address	Chatham Square roadway and sidewalks (see map)
Borough/ Block	New York/289, 281, 279, 117, 161, 164, and 162
LPC PUID (If Yet Assigned)	N/A
Applicant Name	Marvel
Lead Agency	NYC EDC
Secondary Agency	NYC DOT
Principal Investigator	Alyssa Loorya, Ph.D., R.P.A.

All work for this study was conducted in accordance with the NYC LPC's Guidelines for Archaeological Work in New York City (NYC LPC 2018) and the NY SHPO guidelines (New York Archaeological Council [NYAC] 1994; 2000; 2002), which are subsequent to the National Historic Preservation Act (NHPA) of 1966, as amended, the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800), the New York State Historic Preservation Act (SHPA), the (New York) State Environmental Quality Review Act (SEQRA), the (New York) City Environmental Quality Review Act (CEQRA).

Alyssa Loorya, Ph.D., R.P.A., and Elissa Rutigliano, R.A. authored this report. Christopher Ricciardi, Ph.D., R.P.A, edited the report.



Map 1: USGS Topographic Map, National Map (United States Geological Society 2025).



Map 2: Project Area Map.



Figure 1: NYCDOT existing site plan (NYCEDC 2024).

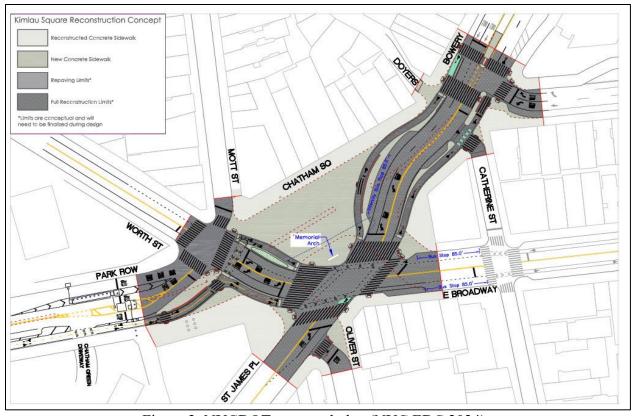


Figure 2: NYCDOT proposed plan (NYC EDC 2024).

## II. PREVIOUS CULTURAL RESOURCES WORK

A search of reports filed with NYC LPC and the NY SHPO CRIS system identified 36 previous archaeological assessments undertaken within a .5-mile radius of the Project Area. Table 1 provides an outline of these surveys.

Table 1: Archaeological Reports within a .5-mile radius of the project area.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
1993	Reconstruction of Foley Square – Historical and Archaeological Resources Report	Joan H. Geismar	The study concluded that should construction activity occur in areas of potential archaeological sensitivity, archaeological testing should occur prior to construction.  Archaeological monitoring was recommended.
1994	62-64 Mulberry Street, Public Parking Garage, Borough of Manhattan, New York, New York – Archaeological and Historical Sensitivity Evaluation	Greenhouse Consultants, Inc.	The study recommended archaeological testing prior to any construction activity to identify potential prehistoric or historical archaeological resources, such as 18th—and 19th-century cisterns, privies, and features.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
1995	Two Bridges Urban Renewal Area, Manhattan, New York – Phase IA Archaeological Study	Historical Perspectives, Inc.	The study determined there was a high disturbance record within the project area, however, specific areas were likely to yield archaeological resources. Concluded that a limited area for potential archaeological recovery could be disturbed based on the construction plans. Archaeological monitoring was recommended for this area.
1999	The Lower East Side Tenement Museum: Archaeology at 97 Orchard Street	Joan H. Geismar	Between 1991 and 1993, sporadic field testing and excavation occurred on the project site, which revealed a mid-to-late 1880s schoolsink, privy, and stone yard surface.
2000	Tales of Five Points: Working-Class Life in Nineteenth-Century New York (Vol. 1, A Narrative History and Archaeology of Block 160)	John Milner Associates, Inc.	This study analyzed two archaeological projects that occurred in 1990 and delved into the stories of the residents of Block 160 in Manhattan.
2001	101-117 Worth Street, Manhattan – Revised Phase IA Archaeological Assessment	Historical Perspectives, Inc.	Determined that the project area had little to no sensitivity for precontact or historic-period resources due to its sloping topography and the subsequent episodes of filling and grading that occurred on site. No further work was recommended.
2002	Historic Front Street Redevelopment, Block 97, Lots 18, 32, 37, 58, New York City Department of City Planning, Borough of Manhattan, New York – Phase IA Archaeological Assessment Report	Celia J. Bergoffen	The study determined that the historical interest for the project area lies under the current building's concrete slab footings at depths up to 18' below grade. Therefore, archaeological monitoring was recommended during construction excavation.
2003	88 Leonard Street, Tribeca Residential Development, Block 173, Lot 27, Borough of Manhattan, New York – Phase IA Archaeological Assessment		Determined that any precontact or historic- period resources had been disturbed by episodes of filling, grading, and construction activity on site. It concluded that no archaeological remains were present. No further work was recommended.
2003	Shearith Israel Cemetery, St. James Place, New York, New York, Second Avenue Subway – Intensive Documentary Study	Historical Perspectives, Inc.	Due to the possibility that human remains from the former Shearith Israel Graveyard may be present in the Chatham Square Station project site, the study recommended a redesign of the project that would allow for avoidance of this parcel. If avoidance were impossible, the study recommended archaeological field testing of the site prior to construction and/or archaeological monitoring at the time of construction.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
2003	Tweed Courthouse (Vol. 1) – Archaeological Survey and Data Retrieval Investigations	Hartgen Archaeological Associates, Inc.	Archaeological monitoring and testing 52 Chambers Street. During fieldwork, 28 intact, partially intact, and heavily disturbed historic burials were discovered within the project's boundaries and 16,626 disarticulated or disturbed human skeletal remains.  Additionally, eight significant features were uncovered, including stone foundation walls, a well, and a privy. The study concluded that though the potential disturbance within the project's boundaries had been mitigated, there remained high potential to uncover human skeletal remains in the general area. It was recommended that any further ground disturbance occurring within the courthouse grounds, Chambers Street, or associated sidewalks should necessitate archaeological monitoring and testing.
2003	Block 170, 101-117 Worth Street, New York, New York – Phase IB Archaeological Field Investigations	URS Corporation	Archaeological testing identified two sections of intact stone walls dating to the early-19 <sup>th</sup> century, the remains of a well dating to the mid-19th century, and the remains of a commercial building dating to the late-19 <sup>th</sup> century. The investigations also determined that prior historical development had severely compromised the original surface. It was concluded that the historic resources uncovered did not have the potential to yield additional information beyond what is already known. No further work was recommended.
2004	New York Downtown Hospital, Block 100, Lot 1, Borough of Manhattan, New York – Phase IA Archaeological Assessment Report	Celia J. Bergoffen	The study determined that portions of the project site were potentially sensitive for historic archaeological remains dating to the 18 <sup>th</sup> and 19 <sup>th</sup> centuries. Archaeological testing was recommended before any construction activity requiring excavation.
2004	The New York African Burial Ground (Vol. 1) – Skeletal Biology Final Report	Howard University	The report provides information on the archaeological fieldwork undertaken between 1991 and 1992 at the African Burial Ground and the analysis and disposition of skeletal material uncovered during the excavation.
2005	Columbus Park, New York (New York County), New York – Phase IA and Partial Monitoring Report	Chrysalis Archaeological Consultants, Inc.	The study determined there was a potential for portions of the project area to contain buried resources dating to the 19 <sup>th</sup> century. Limited field monitoring to remove several existing structures unearthed two 19th-century brick walls. It was recommended that further archaeological monitoring be conducted during construction excavation.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
2006	New York Downtown Hospital, Block 100, Lot 1, Borough of Manhattan, New York – Phase IB Archaeological Field Testing Report	Celia J. Bergoffen	Nine trenches were opened throughout the project site during the spring of 2006, which revealed six stone walls dating to the late 19 <sup>th</sup> century.
2006	The New York African Burial Ground (Vol. 1) – Archaeology Final Report	Howard University	The report provides information on the archaeological fieldwork undertaken between 1991 and 1992 at the African Burial Ground and the analysis and disposition of non-skeletal material uncovered during the excavation.
2007	Columbus Park, New York (New York County), New York – Monitoring Report for Phase II Construction	Chrysalis Archaeological Consultants, Inc.	Archaeological monitoring was conducted for five areas within the overall Columbus Park reconstruction project. Only one area yielded a significant feature, which remains in situ and undisturbed. The remaining regions showed previous signs of disturbance. The report concluded that construction excavation did not adversely affect any buried cultural resources or landscape. Therefore, no further work was recommended.
2007	East River Waterfront Esplanade and Piers – Inboard Resources North of Brooklyn Bridge – Phase IA Archaeological Assessment	Historical Perspectives, Inc.	The study determined that the first two feet below grade have already been adversely impacted by various episodes of street paving and grading and concluded that those areas were not sensitive to archaeological resources. Therefore, further work was not recommended for any activity within two feet below grade, and monitoring was recommended for all activity at lower depths.
2007	East River Waterfront Esplanade and Piers – Outboard Resources – Phase IA Archaeological Assessment	Historical Perspectives, Inc.	The study determined that the site was not sensitive to precontact archaeological resources, sunken vessels, or river bottom remains. It concluded that the soil borings would be analyzed by an archaeologist and that if no evidence of potentially sensitive strata was found, no further work would be recommended.
2007	Lower Manhattan Development Corporation, Fulton Street Redevelopment Project, Pearl Street Playground, Manhattan, New York – Phase IA Archaeological Documentary Study	Historical Perspectives, Inc.	The project area was found to have little or no potential for precontact archaeological resources and a potential sensitivity for historical archaeological resources. A field-testing program was recommended if construction excavation was to reach depths lower than 3'-5' below grade.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
2008	Lower East Side Rezoning, Borough of Manhattan, New York – Phase IA Archaeological Assessment Report (Part 1-Historical Background & Lot Histories)	Celia J. Bergoffen	The study determined that the site retained a potential sensitivity for 19 <sup>th</sup> - and 20th-century archaeological features and resources. Archaeological testing was recommended if the area was rezoned and the vacant lots developed.
2009	Fulton Street Reconstruction, Project Extension, Fulton Street between Water Street and South Street, New York (New York County), New York – Phase IA Cultural Resource Documentary Report	Chrysalis Archaeological Consultants, Inc.	The study determined that excavations in and around Fulton Street have proven the potential to uncover in situ cultural resources. It concluded that the potential to continue doing so remains high, regardless of modern disturbance. Therefore, archaeological monitoring throughout the project area was recommended.
2009	East River Waterfront Access Project, Catherine Slip between Madison and South Streets, New York, New York – Phase IA Archaeological Documentary Study	AKRF, Inc.	The study concluded that the project area retained a low sensitivity for precontact archaeological resources and a low to moderate sensitivity for historical archaeological resources. It was recommended that further investigations be carried out he project area where construction excavation will extend to depths lower than 2' below grade.
2010	Pike and Allen Streets: Center Median Reconstruction, between Delancey and South Streets, New York, New York – Phase IA Archaeological Documentary Study	AKRF, Inc.	The study concluded that the project area retained a low sensitivity for precontact archaeological resources and a moderate sensitivity for historical archaeological resources. It was recommended that further investigations be carried out in undisturbed portions of the project area where construction excavation extended beyond 2' below grade.
2012	City Hall Rehabilitation Archaeological Project	Chrysalis Archaeological Consultants, Inc.and URS	Three-year Phase I-III project uncovered dozens of in situ features, including the Bridewell Foundation and several cisterns, thousands of historic material remains, human remains and several trash pit features. Work within City Hall itself uncovered additional information on previous on site structures.
2013	Worth Street Reconstruction, Centre Street to Mott Street, New York, New York – Phase IA Archaeological Documentary Study	Historical Perspectives, Inc.	The study concluded that the project site retained sensitivity for potential historical resources dating to the 18 <sup>th</sup> , 19 <sup>th</sup> , and 20 <sup>th</sup> centuries. Archaeological monitoring in conjunction with construction activity was recommended.
2016	South Street Seaport Archaeology: Fulton Street Phase II Reconstruction Project; Peck Slip Redevelopment Project	Chrysalis Archaeological Consultants, Inc.	The report detailed the results of two South Street Seaport Historic District projects that were subject to archaeological monitoring and testing between 2009 and 2014. It documented 183 features, and 45,000 artifacts recovered during the investigations.

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS	
2017	Emergency Ventilation Plant IND-BMT Divisions at Forsyth and Delancey Streets, New York, New York – Phase IA Literature Search and Sensitivity Assessment	Dewberry Engineers, Inc.	The study concluded that the project area retained a low sensitivity for potential precontact archaeological resources and potential historical archaeological resources.  No further work was recommended.	
2017	Deconstructing City Hall Park: The Development and Archaeology of the Common	Loorya, Alyssa	Ph.D. Dissertation on the various excavations in and around City Hall Park. Focus was a landscape archaeological project that defined the historic landscape transformations of the	
2018	26 Federal Plaza Waterproofing Project, Borough of Manhattan, New York County, New York – Phase IA Archaeological Sensitivity Assessment	Louis Berger & Associates	area.  The study determined that the project would not affect any archaeological sites, including the African Burial Ground National Historic Landmark. It concluded that construction activity would not disturb intact archaeological deposits or human burials, nor were isolated human remains likely to be encountered. No further work was recommended.	
2018	Baruch Houses, Manhattan (Superblock 323, Lot 1) – Phase IA Archaeological Report	Joan H. Geismar	The study recommended that six areas within the project site require archaeological testing for 19th-century backyard features, and five require archaeological monitoring for 19 <sup>th</sup> -century landfill features.	
2019	Brooklyn Bridge – Montgomery Coastal Resilience Project – Phase IA Archaeological Documentary Study	Historical Perspectives, Inc.	The study concluded that there is potential for intact submerged precontact archaeological resources and historical river bottom remains, landfill retaining structures, piers, wharves, slips, and historic landfill deposits in discrete portions of the project area. Further work was recommended for these potentially sensitive areas.	
2020	Reconstruction of Peck Slip, between Water Street and South Street, Manhattan, New York County, New York – Phase IB Archaeological Monitoring	Chrysalis Archaeological Consultants, Inc.	The report detailed the archaeological monitoring that occurred in 2020. No significant archaeological features or materials were documented, and all exposed soils showed evidence of previous excavation and disturbance. Concluded that while the potential for historical archaeological materials remains in the general area, archaeological monitoring has overseen the full depth of project impacts within the project area. Therefore, no additional work was recommended.	

YEAR	TITLE/SITE	AUTHOR	CONCLUSIONS
2020	Reconstruction of Worth Street from Hudson Street to Park Row, Borough of Manhattan, New York County, New York – Phase IB Field Monitoring	Chrysalis Archaeological Consultants, Inc.	The report detailed the archaeological monitoring that occurred between 2018 and 2020. The project site was highly disturbed from repeated episodes of construction. Small pockets of pre-20th-century remains were recovered. However, all were recovered within disturbed contexts. The report concluded that the project area retained a low sensitivity for intact cultural resources. No further work was recommended.
2020	Battery Park City Ballfield and Community Center Resiliency Project, New York, New York – Phase IA Archaeological Documentary Study	Historical Perspectives, Inc.	The study concluded that the project site has the potential to contain intact sections of the Hudson River Bulkhead and that proposed excavations in specific areas may impact this feature. Further investigation was recommended before construction activity.
2022	North/West Battery Park City Resiliency Project, Manhattan, New York County, New York – Phase IA Archaeological Documentary Study	AKRF, Inc.	The study determined that episodes of development and construction activities during the 18 <sup>th</sup> through 20 <sup>th</sup> centuries would have disturbed any precontact resources. It concluded that there was a low sensitivity for precontact archaeological resources and a moderate sensitivity for historic archaeological resources. Further archaeological investigation and monitoring were recommended.
2023	Queensboro Renewable Express, Kings, Queens, and New York Counties, NY – Preliminary Maritime Resource Report	SEARCH	The study identified submerged resources within the project area that are recommended for further research or avoidance. Fifteen submerged features related to submarines were recommended for avoidance, reconnaissance, or further study for NY State NRHP eligibility.

The same review of files maintained by the NY SHPO-CRIS system identified 33 archaeological sites are within a .5-mile radius of the Project Area. Three are listed in the NRHP database, and one is eligible for NRHP status. The site locations and a brief description are presented in the table below.

Table 2: Known SHPO Archaeological Sites within a .5-mile Radius

Site Number	Site Name	Description/Type	NRHP Status
NYSM 4060	Nechtanc	Precontact, Contact	N/A
06101.000001	District and Extension	Form Missing	Listed
06101.000604	209 Water St Site	Historic	Listed
06101.000623	Block 74W Telco Site	Historic	Undetermined
06101.001304	City Hall Park Site	Historic	Undetermined
06101.006980	African Burial Ground	Historic with Human	Listed
		Remains	

Site Number	Site Name	Description/Type	NRHP Status	
06101.006981	Five Points Area	Historic	Eligible	
06101.012569	Worth St Historic Site	Historic	Undetermined	
06101.013335	Almshouse/Bridewell	Historic with Human	Undetermined	
	Cemetery	Remains		
06101.015708	School Privy	Historic	Undetermined	
06101.015825	Block 100, Lot 1 Site	Historic	Not Eligible	
06101.016117	Columbus Park Pavilion Cistern	Historic	Undetermined	
06101.023082	First Baptist Church Cemetery (Gold Street)	Historic with Human Remains	Undetermined	
06101.023083	First Moravian Church Cemetery, Location 1	Historic with Human Remains	Undetermined	
06101.023084	North Dutch/Collegiate Reformed Dutch Church	Historic with Human Remains	Undetermined	
06101.023085	Saint George's Chapel Cemetery	Historic with Human Remains	Undetermined	
06101.023086	Christ Protestant Episcopal Church	Historic with Human Remains	Undetermined	
06101.023088	Brick Presbyterian Church	Historic with Human Remains	Undetermined	
06101.023089	Leisler Cemetery	Historic with Human Remains	Undetermined	
06101.023090	Christ Evangelical Lutheran Church/Swamp Church/Old Dutch Lutheran Church	Historic with Human Remains	Undetermined	
06101.023091	Rose Street United German Lutheran Cemetery	Historic with Human Remains	Undetermined	
06101.023092	Friends Meeting House (Pearl Street)	Historic with Human Remains	Undetermined	
06101.023094	Almshouse Cemetery	Historic with Human Remains	Undetermined	
06101.023095	Second Associate Reform Presbyterian Church (Pearl Street)	Historic with Human Remains	Undetermined	
06101.023096	Society of United Christian Friends Church	Historic with Human Remains	Undetermined	
06101.023098	African Methodist Episcopal Zion Church	Historic with Human Remains	Undetermined	
06101.023099	Zion Church Cemetery, Location 1	Historic with Human Remains	Undetermined	
06101.023100	Moravian Cemetery (Pell Street)	Historic with Human Remains	Undetermined	
06101.023101	First Shearith Israel Cemetery	Historic with Human Remains	Undetermined	

Site Number	Site Name	Description/Type	NRHP Status
06101.023102	German Reformed Dutch	Historic with Human	Undetermined
	Church (Forsyth Street)	Remains	
06101.023103	Forsyth Street Methodist	Historic with Human	Undetermined
	Episcopal Church	Remains	
06101.023107	Saint Stephen's Churchyard	Historic with Human	Undetermined
		Remains	
06101.023108	Bethel Baptist Churchyard	Historic with Human	Undetermined
	and Vaults	Remains	

#### III. CONTEXT

The project area is in the Chinatown neighborhood of Manhattan, New York County, New York. Chatham Square forms a major intersection and contains an open public area. Eight streets merge into or pass through Chatham Square: the Bowery, Doyers Street, East Broadway, St. James Place, Mott Street, Oliver Street, Worth Street, and Park Row. Catherine Street and Division Street are at the northern edge of Chatham Square 1. Along the eastern side, at the center of the square is the small park known as Kimlau Square and Lin Ze Xu Square which honors United States military service members of Chinese Ancestry.

#### HISTORIC ENVIRONMENTAL CONTEXT

Manhattan Island lies within the Hudson Valley region and is considered part of the New England Upland Physiographic Province (Schuberth 1968:10). Gneiss and mica schist "with heavy, intercalated beds of coarse-grained, dolomitic marble and thinner layers of serpentine" comprise the underlying geology of the island (Scharf 1886:6-7). The landscape was formed by advancing and retreating glaciers during several known glacial periods. The last known glacial retreat occurred at the close of the Pleistocene era (ca. 12,500 B.P.), creating glacial lakes throughout the Hudson Valley. Over the course of five hundred years, erosion ate through the moraine dams surrounding one glacial lake, Lake Flushing. By 12,000 B.P., it had drained, revealing the dry land of Manhattan. By 2,600 B.P., the sea levels surrounding Manhattan had risen due to releasing meltwater, creating the familiar form of island.

Historical development has altered the topography that once characterized precontact Manhattan, and the present-day island bears little resemblance to that of the early seventeenth century when European colonization began. The area of Manhattan known as downtown was first developed with the arrival of the Dutch West India Company in 1621. At the time of contact, the island, "Comprised an intersection of three physiographic provinces: sandy coastal plain, rolling upland hills, and craggy metamorphic ridges, much of which was slashed and gouged by the glaciers of the last ice age, leaving a stippling of streambeds, jumbled moraine, and glacial lakes" (Shorto 2005:42).

-

<sup>&</sup>lt;sup>1</sup> Catherine and Division Streets are not specifically listed as merging into Chatham Square in the project documentation, which this study utilizes in defining Chatham Square.

Development of the island continued to spread further uptown during the first half of the nineteenth century, as waves of immigration hit Manhattan. The widespread development of New York City that began in the early twentieth century further solidified Manhattan's urban landscape.

#### **CURRENT CONDITIONS**

The project area is in the Chinatown neighborhood of Manhattan, New York County, New York. The area is a distinctly urban setting. The city blocks facing Chatham Square – Block 289, 281, 279, 117, 161, 164, and 162 – contain a mix of commercial and residential structures.

The project area features a modern urban streetscape, with associated urban infrastructure, both above and below the surface. The United States Department of Agriculture Soil Survey defines the area as urban land with an outwash substratum.

Table 3: USDA Soil Survey Results

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
ULAI	Urban land – LaGuardia complex, 0 to 3 percent slopes, low impervious surface	0.4	16.5%
UoA	Urban land, outwash substratum, 0 to 3 percent slopes	0.9	38.1%
UoB	Urban land, outwash substratum, 3 to 8 percent slopes	1.1	45.4%
<b>Totals for Area of Interest</b>		2.4	100.0%

#### IV. PROJECT METHODS

This Phase IA documentary study has been designed to investigate the history and development of the project area, as well as its potential to retain significant archaeological resources. Archaeological resource potential may include the project area's association with indigenous groups, colonial and post-colonial development, and use. In addition, research aims to determine how the landscape changed, when and how the APE was developed, and whether modern infrastructure or utility works have impacted the area's potential to retain significant cultural resources that may be impacted by the proposed project.

Standard documentary research methodologies were employed to gather information for this study. This included a review of existing cultural resource reports within the repositories of NYC LPC and NY SHPO. Additionally, historical maps and other documentary information from online libraries and museum repositories were consulted to inform the understanding of the project area's history and development. Repositories utilized included the New York Public Library, the Library of Congress and the, New York State Archives. A selection of relevant historic maps is presented in Section V.

Both primary and secondary source documents were consulted. Primary source records included historic maps, New York City Tax Maps, and Real Estate records. Other sources included historic newspapers and published histories of the area. Pertinent information reviewed as part of this survey is presented in Section V. Also incorporated is an assessment of the information provided by the project.

## V. DOCUMENTARY RESEARCH

The area of Chatham Square has been established since the colonial period. It is situated along, at the foot of, the Bowery, which was an established trail used by the indigenous population.

#### INDIGENOUS CONTEXT

The Indigenous (prehistoric) era began with the first human occupation of North America and ended with the arrival of European settlers. There is evidence of an Aboriginal presence in the northeastern United States, dating back approximately 15,000 years before present (B.P.), following the retreat of the Laurentide Ice Sheet, which had covered the area during the Late Wisconsin Glaciation (Kraft 1986).

A chronological framework for pre-Contact North America has been constructed from the archaeological record, wherein stages of cultural similarity, bookended by significant shifts in tradition, are classified as a distinct cultural period. The sequence of prehistoric occupation in North America is divided into three significant cultural periods: Paleo-Indian (approximately 13,000–8,000 B.P.), Archaic (approximately 8,000–3,000 B.P.), and Woodland (approximately 3,000 B.P. – A.D. 1670).

## THE PALEO-INDIAN PERIOD

The first people in North America were nomadic tribes that crossed the Bering Strait from Russia to Alaska when the climate was cooler, and sea levels were lower than they are today. These people gradually spread across the continent, following prey and subsisting on seasonal terrestrial and marine life supplemented with foraging.

The earliest Paleo inhabitants in New York were presumably small bands of organized and highly mobile hunter-gatherers. They did not establish permanent settlements; instead, they moved seasonally, following the availability of resources. Due to the need for mobility, these early inhabitants maximized efficiency by producing portable items. As a result, Paleo tools and other material culture were not overly complicated or extensive.

Paleo-Indian sites typically reflect temporary occupation camps located at elevated sites, which are optimal for hunting. Rivers, lakes, salt marshes, and other coastal environments were utilized for the abundant fish, shellfish, fowl, plant life, and other aquatic resources that could be easily procured there. Lithic assemblages associated with the Paleo period are characterized by the Eastern Clovis Tradition, which features flaked tools and fluted lanceolate projectile points. Lithic processing sites are often found alongside streams and rivers where food was procured (Ritchie & Funk 1971; Fletcher & Kintz 1979:12; Marshall 1982; Fagan 2005)

Paleo-archaeological evidence within New York City is limited due to centuries of post-contact development. Few Paleo sites have been excavated and recorded by modern archaeologists in New York City.

#### THE ARCHAIC PERIOD

The Archaic period in the mid-Atlantic region is generally characterized by the continued adaptation of indigenous peoples to the environment through hunting, gathering, and fishing activities. Archaeologists view this period in three consecutive stages: Early Archaic, Middle Archaic, and Late Archaic.

Environmental transformations and rising sea levels marked the close of the Paleo-Indian period and the onset of the Early Archaic period. Settlement patterns remained semi-mobile as available resources shifted throughout the year, with a trend toward increasingly extended periods of time spent in one location as water sources stabilized. Groups established base camps and moved periodically throughout a more limited territory. The disappearance of megafauna and migration of large game northwards led to a focus on plants and smaller animals, such as elk, deer, bear, turtles, and fish. The Early Archaic toolkit featured lithic assemblages comprised of hammer and anvil stones, notched pebble net sinkers, and new variations of stemmed and corner-notched projectile points (Kraft & Mounier 1982; McManamon et al. 2009).

Environmental changes transformed the landscape, creating intertidal flats, coastal lagoons and marshes, swamps, lakes, and estuaries. The exploitation of wetland resources reflects the onset of the Middle Archaic period (Kraft & Mounier 1982; Fagan 2005). Indigenous groups continued to evolve from that of a hunter-gatherer economy. In New York, "settlement patterns of these hunter-gatherer-fishermen reflect the utilization of the varied resources from shore to the forest" during the Middle Archaic period (Fletcher & Kintz 1979:12). Eventually, this acclimation to specific environments led to the diversity of regional specializations and cultural adaptations. Archaeological evidence for diversity in cultural adaptations is present in more varied and complex tool kits. Specialized fishing equipment and implements for food production – such as grinding stones, mortars, and pestles – appeared. Woodworking skills and new implements appeared, e.g. ground stone axes, celts, and gouges. Areas of occupation within Long Island and New Jersey have also offered evidence of bone and copper use in tool production (Kraft & Mounier 1982; Kraft 1986).

Larger populations characterize the Late Archaic period with markedly more complex settlement activity and trade relations. Late Archaic groups fully utilized all environmental niches in upland and lowland settings. Specialized sites for resource procurement were established – hunting and butchering camps, fishing posts, and wild food collection stations – and were occupied on a recurring seasonal basis. The purpose and function of lithic tools adapted to fit the new dynamics of a growing population, and there was a marked increase during the Late Archaic in the manufacture of grinding stones, heavy food processing tools, milling equipment, adzes, and stone axes. The Late Archaic archaeological record reflects a growing complexity in social development and structure – as the population became more sedentary (Fletcher & Kintz 1979:12-13).

## THE WOODLAND PERIOD

The introduction of agriculture, the introduction and advancement of ceramic technology, the prevalence of more elaborate and diverse tools, and the appearance of permanent settlements typically characterize the cultural evolution into the Woodland Period.

Large rivers remained central, utilized for their resources and transportation and communication between indigenous groups. There is evidence that riverine environments could have supported semi-permanent occupations; however, these sites represent base camps of small, dispersed groups. Small groups possibly consisted of a few hundred people, with this number being a seasonal aggregate rather than a constant population.

Many adaptive strategies developed during the Archaic period in the northeastern woodlands continued into the Woodland period. Woodland groups inhabiting the area would have followed the same general settlement and subsistence patterns but made intricately decorated ceramic vessels. Cord-marked and collared ceramic vessels appeared during this period. The introduction of clay pottery during the Woodland period enabled cooking and food storage. Sites evolved during the Woodland period to include various storage and pit features, used for cooking or as refuse receptacles, as well as specialized work areas (Kraft & Mounier 1982; Kraft 1986).

The advent of horticultural activities and the domestication of plants and animals is critical in enabling groups to settle in one place and develop into more complex societies. Woodland populations in New York centered their agricultural activities around cultivating maize, beans, and squash. Subsistence activities also centered heavily on exploiting marine-based resources (Furman 1875; Bolton 1922; Fletcher & Kintz 1979:12). "It is apparent that Woodland period inhabitants of the coastal regions relied heavily on abundant shellfish resources of the coastal bays. Shell midden sites are ubiquitous in coastal zones of the lower Hudson Valley" (Affleck et al. 2005:4.6).

Stone tool making continued to evolve. In New York, narrow points are a characteristic feature of the Woodland period toolkit. Projectile points were made of various locally sourced and non-local traded stone materials. The Meadowood-type projectile point dominated the early Woodland, followed by Jacks Reef, Fox Creek, and Rossville-type projectile points. Triangular projectile points of the Levanna and Madison types dominated the later Woodland era (Fagan 2005).

The end of the Woodland period saw the most advanced prehistoric societies and represented the first peoples that early European settlers would have encountered (Ritchie & Funk 1971).

## PROJECT AREA CONTEXT

Prior to the arrival of Europeans in North America, the Algonquin people populated the Atlantic coast, stretching as far west as the Mississippi River. The Algonquin people comprised roughly thirty nations, each speaking a dialect of the same language. One Algonquin nation was the *Leni-Lenape*, who were divided into three bands – the Munsee, the Unami, and the Unalacthigo. The scope of their territory covered New Jersey, New York Harbor, and the Lower Hudson Valley, extending west into eastern Pennsylvania and east through Long Island (Skinner 1909:30; Leng & Davis 1930:71).

At the time of contact, people of the Munsee dialect resided on Manhattan Island. The main group in Manhattan was called the *Manates*. The *Manates*<sup>2</sup> were comprised of the *Mareckawick* tribe of Brooklyn, who likely had a station or stations at the southern tip of the Island, and the *Reckgawawanc* tribe in the north (Bolton 1920:7; Grumet 1981:25). These groups occupied long-term villages and seasonal camps throughout Manhattan.

Archaeological investigations of indigenous sites in Manhattan have thus far revealed a prehistoric settlement pattern organized around freshwater resources, arranged proximate to tidal creeks, tidal marshes, stream banks, estuaries, and wetland areas. These locations were likely used as hunting grounds and collection sites for plant-based and marine-based food resources. Secondary requisites would have included well-elevated areas with good drainage, sandy soil, usable sunlight, and/or places that offered protection from harsher climates and other elements. Indigenous camps in Manhattan would have been consistently located near freshwater sources on knolls, terraces, and well-drained slopes with sandy soil or dry, elevated land that could be easily cultivated to raise maize crops (Schrabisch 1915:10; Bull & Giordano 2007:12).

A campsite was reportedly located on a hill adjacent to the *Kalch Hoeck*, or Collect Pond, along the north-south foot trail that traversed the Island, running from Battery Park to Inwood. The campsite, known as *Warpoes* (NYSM 4059), was described as a Native American village with shell heaps prior to the introduction of the colonial era (Bolton 1920:79, 303; Parker 1922:630; Burrows & Wallace 1999:5-7). *Warpoes* would be the closest prehistoric site to the project area. The former Collect Pond was west of the project area and Collect Pond Park is located 1,378.4' (420.1m) northwest of the project area. However, the site did not appear in Chrysalis' search of the NY SHPO-CRIS system.

The NY SHPO-CRIS identified one prehistoric site located in the vicinity of the project area. This site is *Nechtanc* (NYSM 4060), located on Forsyth Street, just north of East Broadway, 1,082.6' (330m) east of the project area. There are differing opinions as to the former location of *Nechtanc*. Bolton places it atop a large hill in the vicinity of Jefferson, Henry, Clinton, and Madison Streets, far closer to the project area (Bolton 1920:79). However, Grumet posited it was located on Corlaer's Hook along the East River at the extreme southeastern end of Manhattan Island (1981:39). It was depicted on the Dodd map as being at a point on the East River now between Jackson, Corlears, Monroe, and Front Streets (Map 4). For this report, the NY SHPO-CRIS location is provided.

Nechtanc was a village where the high elevation and proximity to the river made it an ideal location for habitation. It further served as an essential refuge for the indigenous groups warring with the Dutch during the seventeenth century (Bolton 1920:79). It was not depicted on Joan Vinckeboon's map of New Amsterdam in 1639, nor were any other Native settlements depicted on Manhattan Island.

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<sup>&</sup>lt;sup>2</sup> The *Manates* comprised roughly 200 to 300 people who resided on the Island under different chiefs. The last written record that mentions them by this name dates to 1680, where they were referred to as the former inhabitants of Manhattan Island. This suggests that shortly after the land sale of Manhattan Island to the Dutch, the Native inhabitants removed from the Island to the mainland and nearby Kings County (Grumet 1981:25).

#### HISTORIC CONTEXT

#### CONTACT PERIOD

In 1609, Henry Hudson's ship, *De Halve Maen*, commissioned by the Dutch East India Company anchored at Coney Island before continuing north along the river that would one day bear his name (Stiles 1867:9). Hudson's brief visit launched several consequent expeditions sponsored by the Dutch East India Company and its later iteration, the Dutch West India Company (Winfield 1874:4-5; Ieradi 2001:8-11).

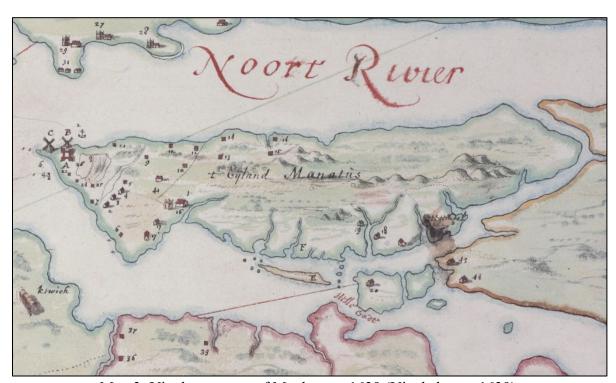
On June 3rd, 1621, the Dutch West India Company (the Company) received a charter and title to New Netherland. The Company initiated settlement of the New Netherland colony in 1623 when thirty families arrived on Manhattan Island under Cornelis Jacobsen Mey, the first Director of the colony. They established Fort Amsterdam, a trading post, on the southern tip of Manhattan Island, making New Netherland an official Dutch province in 1624. In 1626, the Company appointed Peter Minuit as Director. That same year, Minuit purchased Manhattan Island from the local Indigenous group and named New Amsterdam the capital of New Netherland (Stiles 1867:18; Winfield 1874:11).

At the time, Manhattan Island contained game-filled forests, open flatlands, and freshwater streams. The Company provided engineer Cryn Fredericks, with detailed instructions for laying out the land. Moving outward from the tip of the island where Fort Amsterdam stood would be roadways and twelve *bouweries*, sufficient for farming. The Dutch appropriated two existing Lenape footpaths – the present-day streets of Broadway and Bowery – for highways. Fredericks traversed the latter northward, beyond the boundaries of New Amsterdam, finding mostly virgin wilderness of oak and chestnut trees dotted with hills and interspersed with arable fields alongside salt marshes (Shorto 2005:42, 304). The twelve *bouweries* were established adjacent to the footpath, later known as Bowery Lane (Alexiou 2018:20). *Bouweries* No. 1 and No. 2 were considered the best, with No. 1 reserved by the Company for each successive Director-General of the Colony. No. 2 was intended for the Commissary, and the remaining *bouweries* were leased by the Company to various colonists for a period of six years, with new owners transitioning in and out (Alexiou 2018:12) (Map 3).

By 1638, New Amsterdam consisted of eighty to ninety structures, centered around present-day Pearl Street, Broad Street, and Maiden Lane, housing approximately four hundred people. All residents were employees of the Company and worked in various capacities, including administration, as well as in roles such as soldiers, sailors, farmers, artisans, tradespeople, or craftsmen (Burrows & Wallace 1999:30-31). New Amsterdam during the 1630s was in a state of disrepair due to a lack of settlers and enslaved persons willing to perform the manual labor necessary to maintain it (Alexiou 2018:26). A new Director-General, Willem Kieft, attempted to regain some semblance of structure. Beginning in 1643, Kieft granted parcels of *bouwerie* lands north of New Amsterdam to freed or half-freed slaves to insulate New Amsterdam from a rising wave of arson attacks waged by indigenous groups. This occurred for several years, and the tract came to be called 'Negroes Land'. The 130 acres of swampy fields made up North America's first "free" Black settlement (Alexiou 2018:32, 34). However, Kieft's abuse of the indigenous population throughout the colony resulted in disaster and obliterated most settlements (De Vries, 208; Kolff 1918:19).

The colony was at its most prosperous under Kieft's successor, Petrus Stuyvesant. Stuyvesant established New Amsterdam's first municipal government during his tenure as Director-General. He established a police force, a fire department, and firefighting apparatus, instituted building codes, regulated land transactions, and enforced rules for homeowners and business owners regarding the maintenance and cleanliness of their properties. Surveyors were hired to lay out property lines and streets; roadways were paved with cobblestones, and recurring trade markets were organized. Company funds were allocated to public works projects, and the first hospital building, orphanage, and almshouse in New Amsterdam were erected under Stuyvesant's direction (Burrows & Wallace 1999:42-47). The majority of this was south of the palisade wall (now present-day Wall Street). New Amsterdam featured Fort Amsterdam and fortifications along the Hudson and East Rivers. "Stuyvesant's campaign to tidy up New Amsterdam helped spur its evolution from a seedy, beleaguered trading post into a well-run Dutch town" (Burrows & Wallace 1999:45). New Amsterdam once again became an attractive destination for Europeans looking to settle in the New World and by the 1650s, roughly 1,500 persons lived in the burgeoning city (Burrows & Wallace 1999:49).

On February 2, 1653, New Amsterdam was officially incorporated as a city.



Map 3: Vingboons map of Manhattan, 1639 (Vinckeboons 1639).

## REGIONAL HISTORY

In 1664, Stuyvesant surrendered the New Netherland colony to English rule. On March 12th, 1664, the British King, Charles II, granted the newly acquired colony to his brother, James, the Duke of York. New Amsterdam was anglicized to New York. In 1683, the Provincial Assembly restructured New York into twelve counties, with Manhattan forming New York County (Armbruster 1914:18).

Shortly thereafter, the Great Dock was built along the East River, firmly establishing Manhattan's position as a base for commercial and capital activity in the New World. By the 1680s, Manhattan Island had approximately 400 buildings, and its population had reached around 3,000 persons by the close of the seventeenth century (Burrows & Wallace 1999:87). As New York entered the eighteenth century, its population continued to grow. Most of the growth was confined to the southern tip of the Island, and it was sparsely populated above present-day Wall Street.

By the mid-to-late 1700s, tensions between the colonies and the British government escalated, leading to the American Revolution. New York played a central role in the outbreak of the war. Following the Americans defeat in the Battle of Long Island in August 1776, the British captured Manhattan (Lengel 2005:141; McCullough 2006:163, 176, 191).

The British occupied New York until the war's end, using existing defenses and imposing harsh conditions. Patriot sympathizers faced harassment, theft, and violence. British troops looted farms and homes, cut down forests, and destroyed property (Stiles 1867:314, 325). Trade ceased, wharves decayed, and fires in 1776 and 1778 left much of Manhattan in ruins. The population fell from 20,000 to 10,000 (De Sola 1952:41). The British surrendered in 1781, and evacuated New York in 1783, leaving its people to rebuild.

On March 7, 1788, New York City was confirmed under the Legislature of the newly established State of New York.

In 1807, the city-wide reordering of Manhattan's street system began with the City Commissioner's grid-like plan and its implementation four years later. The Collect Pond was filled in 1808 to make way for the new thoroughfares. Sprawling farms and estates were broken up into street blocks, which were further divided into salable building lots. The cultivated lands of the eighteenth century were soon replaced by uniform, two- to three-story or four- to five-story row houses. In the 1820s, the Erie Canal opened, and the establishment of the New York and Harlem Company's horse-drawn streetcars sparked a surge in Manhattan's population and development (Morrone 2018:66). From 1821 to 1835, the population of every ward tripled or quadrupled (Burrows & Wallace 2000:576). As the population increased, housing development became a priority for Manhattan. Row houses allowed for more efficient land use, and their construction had been well established throughout the first decades of the nineteenth century. However, large-scale development was stalled when New York suffered an economic depression in 1837 (Brazee 2012:16).

Meanwhile, at the southern tip of the city, a massive influx of immigrants were arriving in Manhattan's harbor. In the 1840s, most of these immigrants were impoverished Irish who fled their country's agricultural crisis in 1845, or individuals from the German states of central Europe who were escaping the failed revolutions of 1848. Immigration continued to rise during the 1850s, and the City population doubled between 1840 and 1860. Immigrants crowded into downtown wards and areas along the Lower East Side of the island, transforming the eastern wards into a "cohesive, large-scale ethnic community" (Bergoffen 2008:16-17; Brazee 2012:19).

The immigration waves that had hit Manhattan further crippled the New York City's housing resources. The lack of available housing necessitated the development of tenement houses, which are defined as multi-occupancy buildings (Bergoffen 2008:19). Vacant land was quickly filled with the construction of buildings specifically designed to accommodate numerous households (Brazee 2012:16). Tenements became a standard fixture in every immigrant neighborhood.

In the late nineteenth and early twentieth centuries, a new surge of immigrants, broadly diverse and originating from East Asia, Western European countries, and the United Kingdom, arrived on New York City's Lower East Side. "The neighborhood evolved into a polyglot enclave representing a complex array of overlapping national, regional, ethnic, linguistic, and religious identities" (Brazee 2012:22).

#### Chinatown

For decades, there had been a small, transient population of Chinese mariners and merchants on Manhattan Island. By the middle of the nineteenth century, fewer than 150 Chinese persons had established a semi-permanent presence in the city. A transformation in living patterns began with the establishment of a boarding house. In 1847, Ah Sue, a cook and steward, opened a store on Cherry Street, where he sold candy and tobacco. On the floor above his business, he operated a boarding house that catered to Asian seamen whose vessels were docked on the East River. Soon, numerous boarding houses opened in the area, all accommodating seamen wishing to make a career change into land-based labor. Work was hard to come by though and most of these men, collectively referred to at the time as "John Chinaman," peddled goods at City Hall and around the Bowery (Burrows & Wallace 1999:1126).

After slavery was outlawed in the British and Spanish colonies, sugar planters in South America, Cuba, and Jamaica lost their workforce. Rather than lose their industry, they rebuilt by "importing" men from impoverished areas of South China. Cuban cigarmakers recruited these men during the 1860s to work as hand rollers. Most traveled north on the Cuban-New York trade routes, where they attracted the attention of American cigarmakers in Manhattan who paid better wages. The growing number of Chinese residents in the city led to the emergence of a "Chinese quarter" throughout the blocks of the Sixth Ward, located just above Chatham Square. Boarding houses, various stores<sup>3</sup>, mutual aid associations, and religious shrines lined Baxter Street and Mott Street, "where it spilled into Chatham Square" (Burrows & Wallace 1999:1127).

<sup>&</sup>lt;sup>3</sup> Wo Kee, a former Hong Kong merchant, became the first commercial store in the area that would form Chinatown when he moved his general goods store to Mott Street in 1872. He sold medicines, incense, jewelry, exotic foods, opium and smoking pipes, silks, and teas. The store further served as a social and entertainment lounge, where men could gather and gamble. The upper floor of the establishment served as a sleeping quarters that could hold up to

In the late 1870s, the Chinese population in New York City surged when Manhattan experienced a surge of Chinese immigrants from California. These newcomers were largely unskilled and impoverished men from Canton and Fukien recruited to America to work on the transcontinental railroad. Upon the railroad's completion in 1869, many settled in California and entered the laundry business. The California depression of the 1870s, part of the broader Panic of 1873 and Long Depression, hit the West Coast. For six years, California's residents experienced a significant economic downturn and social unrest, which resulted in widespread anti-Asian animosity that ultimately turned into policy. Anti-immigration provisions led many Chinese to depart eastward to New York. Their arrival in New York brought a new industry: hand laundries. In 1877, there were approximately thirty "washee washees" in Manhattan. Two years later, in 1879, there were two hundred, and by 1888, there were over 2,000 in Manhattan alone (Burrows & Wallace 1999:1127-1128).

In 1890, 2,048 Chinese persons, primarily men, were living in Manhattan, which accounted for only one-quarter of the Chinese population in New York City. Around Chatham Square, many lived in dormitories that were divided into cubicles for those who could afford privacy and a communal bunk area for those who couldn't. Men would often sleep two to three to a single bed. Outside of Chatham Square, the Chinese population was scattered throughout the city, living in quarters attached to the hand laundries where they worked. Others lived uptown in the residences of the wealthy who could afford to hire servants from "exotic" backgrounds. Chinatown became a resource for Chinese immigrants to find commodities and community. Mott Street thrived in the evenings and on Sundays, with Chinese men gathering to socialize, gamble, smoke opium, and catch up on news from home. As the community grew, so did the area, and Chinatown expanded into parts of Bayard, Doyer, and Canal Streets (Burrows & Wallace 1999:1128).

The internal organization within Chinatown also became more complex. By the 1880s, there were thirty all-purpose stores in Chinatown. Individual proprietors no longer ran them, but mutual aid and protection societies, known collectively as *fang*, did. *Fang* were organized by kin or area of origin. They provided housing, financial assistance, and proper burials for their members and hosted social events and cultural festivals. As with any community, fringe groups appeared on the extremes. A pseudo-criminal element appeared in Chinatown as card games paved the way for "fan-tan" gambling houses. On the other end were the Christian Chinese, who established ten Sunday schools throughout Manhattan by the early 1880s, a Chinese Young Men's Association, and an independent Chinese church. They would often infiltrate the gambling houses and participate in the ensuing police raids (Burrows & Wallace 1999:1129). "The emergence of this criminal entity contributed to a sharp change in the wider city's attitude toward the Chinese community. The former high esteem held for Chinese goods and culture turned to fear and loathing" (Burrows & Wallace 1999:1130).

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twenty-two people at a time. Soon after, other multipurpose centers opened, often catering to persons from the same territory in China (Burrows & Wallace 1999:1127).

Rather than advocate for assimilation, the public called for their exclusion, ultimately leading to the 1882 Chinese Exclusion Act. In response, Chinatown turned inward. In 1883, the *fang* united into a single organization, the *Zhonghua Gong Suo*, which served as the local and unofficial "government" for the Chinese in New York. Four years later, in 1887, the *Zhonghua Gong Suo* purchased a building on Mott Street. Upon its completion in 1890, the group incorporated as the Chinese Consolidated Benevolent Association of the City of New York (CCBA). The association presided over the community, settling disputes, allocating business sites, setting fixed prices, and maintaining records of leases and contracts. Most importantly, it served as a liaison for the Chinese community within the wider city and defended the community's interests in municipal affairs (Burrows & Wallace 1999:1130).

Throughout the 1890s, fear gave way to fascination, and Chinatown became a popular tourist attraction for adventurous New Yorkers. They flocked to the area's restaurants and 'Chop Suey' houses and partook in opium dens and fan-tan parlors. "The Chinese community was unique among the new immigrant groups in having its entire community turned into a cultural commodity," which Chinatown remains to this day (Burrows & Wallace 1999:1131). Although the first Chinese settlement had developed between Mott and Pell Streets, the area has since expanded across Canal Street and into Little Italy.

## HISTORIC LAND USE OF THE PROJECT AREA

During the seventeenth century, Manhattan Island north of the palisade wall had few residences, two *bouweries*, several Company farms, and the Company slave quarters. Commercial establishments included a brewery, a mill, a blacksmith, and a private warehouse. Common lands, a clover pasture, a cow pasture, and a road winding north towards the ferry to Brooklyn were situated between "primitive forests." Eventually, the land north of the central city was sold to various colonists (Maps 4 - 5).

## Early Patents

Chatham Square was bound by the property of William Beekman to the west and Hendrick Rutgers to the east. The southeastern end of Chatham Square borders property owned initially by Stuyvesant (Map 4).

William Beekman came to New Amsterdam in 1647. From a wealthy family, he initially purchased the farm known as Corlear's Hook in 1652. This was the first of several properties he would own. In 1655, he received the patent for a tract of land beyond the Kalck Hoek (Collect Pond). Other properties included the area generally bound by Nassau and Pearl Streets, Ann and Frankfort Streets, as well as a property in Harlem. William lived with his family in the house that stood on the north side of present-day Chatham Square and east of Collect Pond (Maps 4 and 6) (White 1956:33).

Beekman was actively involved in local government, holding several positions throughout his life. Among them was his appointment as one of the five Schepens of New Amsterdam, where he served as an officer in the militia and as sheriff of New Amsterdam. He was elected Burgomaster in 1674, a position he retained when the British took control of the colony. He later served as acting mayor of New York City and as an Alderman. At some point, he relocated to a home located near present-day Pearl and Frankfort Streets (Hamm 1902:26; Holland Society 1919:208).

In addition to his active role in government and his real estate investments, he was also the proprietor of a flour mill and a brewery. He retired in 1696, at the age of 73.

The Rutgers estate, located north of Oliver Street and extending to Division Street, ran east as far as Montgomery Street, and concluded westward at Chatham Square (Maps 4 and 5). During the seventeenth century, the estate was known as *Bouwerie* No. 6, the boundaries of which encompassed most of the present-day Seventh Ward and a portion of the Fourth Ward (Maps 4 and 5). The *bouwerie* was initially granted to Wolphert Gerritsen van Couwenhoven in 1630. In 1647, it was granted to Cornelis Jacobszoon Stille, whose heirs owned and operated the *bouwerie* throughout the remainder of the seventeenth century. In 1728, the Stille family conveyed the land, featuring a farmhouse, barn, and several outbuildings, to Harmanus Rutgers, Jr. (Meade 2010:10) (Map 4).

Harmanus Rutgers, a third-generation brewer, bought the Stille estate in 1728 and built a farmhouse near present-day Oliver Street and East Broadway, with two structures and a garden abutting Chatham Square (Map 6). His son Hendrick (b. 1712), also a brewer, inherited the estate in 1753 (Meade 2010:10). By 1755, Hendrick began dividing the land into lots, anticipating urban development (Fowler 2010, para. 8). By 1764, the estate had at least 600 lots, which were later inherited by his children. By the 1770s, the estate featured 12 buildings, including a mansion, brewery, malt house, mill, and stable.

Leading up to the Revolutionary War, Hendrick's son, Henry, volunteered with the American army in Brooklyn Heights. When the British occupied New York in 1776, the family fled, and their property, valued more than any other patriot's, was seized (Fowler 2010, para. 1). During the war, the estate was used by the British for military purposes, including officer housing, a hospital, and naval storage. After returning from the war as a Lieutenant Colonel, Henry found the estate in ruins (Fowler 2010, para. 24; Map 8). In 1784, he rebuilt and leased the land, requiring tenants to construct quality brick buildings. The location attracted trades linked to nearby shipyards (Burrows & Wallace 1999:389), and Division Street became a ropewalk (Maps 7 and 8).

Henry became a wealthy landlord and investor (Fowler 2010, para. 34). He also remained politically active, being elected to the New York Assembly in 1801, and served in educational roles, including being appointed a university regent in 1802, trustee at Princeton, and a donor to New York's free schools. Queens College was renamed Rutgers College in his honor before his death in 1830 (Fowler 2010, paras. 39, 44, 46).

## Chatham Square

The project area, Chatham Square, was an established crossroad as early as the seventeenth century, as suggested by the plotting of the original patents (Map 4). It is visible on maps as early as 1776 (Maps 6 and 7). Within less than a century following European settlement, the landscape had undergone significant changes. The primitive forests, particularly those surrounding Chatham Square, had given way to cultivated farms, gardens, and orchards (Map 6).

West of the Square, the lands belonged to "Minthorns" in the mid-seventeenth century. The property comprised seven structures, several of which were located within the footprint of present-day Chatham Square (Map 6). East of the Square, south of present-day Oliver Street, was the land of Wolfert Webbers. North of Oliver Street and stretching to Division Street, as far east as Montgomery Street, was the Rutgers estate (Maps 4 and 6).

Mercantilism and agrarian lifeways were the norm. As the Revolutionary War approached, the growth of Manhattan had begun to move northward past Collect Pond. Streets had been laid out in their approximate current formation but had yet to be developed (Maps 7 and 8). Development of Chatham Square continued after the war, when Petrus Stuyvesant III laid out roadways through his ancestral property and funded the construction of an Episcopal Parish Church, today known as *St. Marks in the Bowery*. The church drew worshippers as well as new settlers to the area. Farmers were further incentivized to relocate, as they were exempt from paying New Amsterdam's market tax when selling their goods. By the close of the eighteenth century, Bowery Lane was teeming with buildings and residences. A meat processing industry had been established north of the Square, and a thriving maritime industry was situated to its east. "The waterfront was the commercial lifeline of the city and the place where much social interaction took place" (Fowler 2010, para. 5). Chatham Square featured a horse market, a livery stable that housed Boston stagecoaches, a distillery, a watchhouse, and several blocks of commercial stores and workshops (Burrows & Wallace 1999:389).

New York City's grid system was laid out in the early nineteenth century, and Chatham Square, like lower Manhattan, maintained its then-present form. By the 1850s, the blocks surrounding Chatham Square would be divided into salable building lots, housing first, second, and third-class brick or stone stores, as well as mixed-use buildings that featured various trades, artisans, and craftsmen (Map 10). Three banks, a museum, a hotel, a mechanics institute, a church, and a variety store abutted the Square (Maps 9 and 10). Nineteenth-century Manhattan had quickly become an urban metropolis, and New York City developed new methods of transportation to accommodate its growing population. By 1870, railway lines had been placed along present-day Park Row, north towards Bowery, and on Oliver Street and St. James Place (Map 11). Five years later, in 1875, the Rapid Transit Commission granted the Gilbert Elevated Railway Company the right to construct an elevated line along Second Avenue from Battery Park to Harlem. By 1891, the line had come to Chatham Square. A 72' wide elevated station was erected on the west side of the Square (Maps 12 and 13). Utilities – such as 12" and 20" water mains and sewer lines – had been installed within the Square and throughout the surrounding streets. Fire hydrants were installed by 1893 (Map 13). Dwellings, mixed-use buildings, warehouses, and religious buildings filled every corner and vacant lot in the area (Maps 14 and 15).

By the early twentieth century, the elevated station had expanded to include two platforms. The original platform on the west side of Chatham Square remained, and a new platform was constructed on the east side of Chatham Square, extending from Bowery to St. James Place (Maps 16 and 17). The changing culture further altered the cityscape. Between 1916 and 1925, Chatham Square was crowded with dwellings, stores, lodging houses, movie theatres, hotels, religious buildings devoted to various denominations, two public schools, a New York Public Library, and a firehouse. West of Chatham Square was the burgeoning Chinatown, featuring three Chinese laundries, eight restaurants, three dormitories, a printer, and the *Hok San Society*, which lined the blocks between Mott Street and Pell Street (Map 18). The area retained this form through the midtwentieth century (Map 19).

## Roadway and Infrastructure Development

As noted above, Chatham Square was established on maps by the mid-eighteenth century. Urban development of the surrounding area has led to changes in the surrounding streetscapes. Within the Square itself, the most impactful development would have been the installation and eventual removal of the elevated railway and modern utilities.

A rail line is shown running along Park Row, through Chatham Square, and up Bowery on the 1870 Fisk map (Map 11). The rail lines were installed sometime after 1865 based on historic images. An 1865 photo shows Chatham Square as densely developed, with horse-drawn carriages along a Belgian block (stone) roadway, and visible trolley tracks. (Image 1).

The Chatham Square elevated rail station had two levels, upper and lower. Images show the two rail lines converging at Chatham Square from southern points. The expanse of the station was supported by steel roadway support columns (Images 2-5). The 1878 photo shows the elevated rail above the Belgian block roadway still exhibiting trolley tracks.

In the early twentieth century, the station served as an express station for the IRT Second Avenue and Third Avenue lines. Use of the station was discontinued entirely in the 1950s. Demolition of the station was approved in September 1950 (The Staten Island Advance, September 29, 1955, p. 1). A 1956 photo shows no traces of the former elevated station and rail lines (Image 6).



Image 1: Image by George Stacy ca. 1865 (Library of Congress).



Image 2: Third Avenue El, Manhattan, at Chatham Square, 1878 (New York Historical Society).



Image 3: Chatham Square elevated railroad station ca. 1880 (Library of Congress).



Image 4: Chatham Square elevated rail lines 1900 (NYC Urbanism).

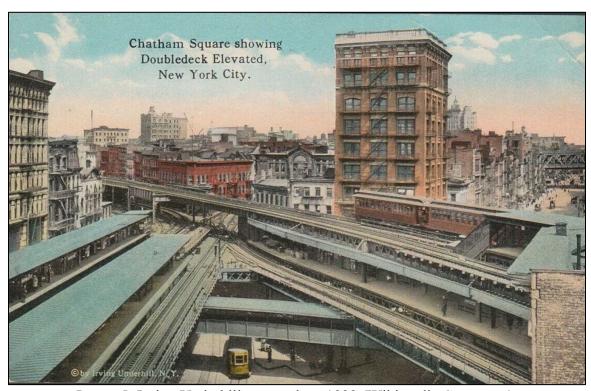


Image 5: Irving Underhill postcard ca. 1923 (Wikimedia Commons).



Image 6: Chatham Square, July 1956 by Angelo Rizzuto (Library of Congress).

Other infrastructure impacts within the roadway include the installation and upgrades of utilities. Among these are 12-inch and 20-inch water mains and sewer lines, as well as fire hydrants. These utilities are noted on the 1893 Robinson map (Map 13) and subsequent maps.

The most significant impacts on cultural resources would be street openings, realignments, or widening. The Dripps 1852 map (Map 9) shows the project area cutting into developed blocks and adjacent to the Shearith Israel cemetery. More specifically, the opening of New Bowery (now St. James Place) south of Chatham Square cut through the block that Shearith Israel cemetery occupies. This was coupled by the narrowing of Chatham Street between Mott and Mulberry Streets (Map 10). Several properties on the southern side of Chatham Street would eventually be impacted. Additionally, impacts would occur to properties at the intersection of Bowery and Division Street, as well as the western end of the block between Catherine Street and Chatham Square (Maps 9 and 10).

By 1893, Worth Street was opened, impacting the block situated between Mulberry and Mott Streets (Map 13). By this time, the streets had acquired their present-day pattern. The extent of the train station is visible on the early twentieth-century atlases. While the elevated rail remained active, construction was occurring beneath the surface. Images 7 – 9 show construction within Chatham Square between 1892 and 1905. The 1892 photo shows construction at the base of the support columns. The March 1904 image shows construction with shoring boxes. The 1905 image features sewer construction associated with the Contract One subway construction (Image 9).

The corner properties of Blocks 117, 289, and 281 are still present on the 1923 Sanborn map and 1927 atlas (Maps 18 and 19). The property at the corner of Division and Bowery on Block 289 is noted as a "lodging house" (Map 18). These corner properties are still present on the 1955 Bromley Atlas (Map 20).

The corner of Block 289, which once contained a lodging house, is currently an open space known as Confucius Plaza. The block contains the 44-story Confucius Plaza apartment tower constructed in 1975. The truncated Block 281 houses two commercial buildings. The corner of Block 117 was likely demolished when the Chatham Green apartments were constructed in 1960 (NYCity Map). Immediately adjacent is Kimlau Square, an open-air space dedicated in 1961 that extends from Block 279, forming a more defined turn from Worth Street to Oliver Street.

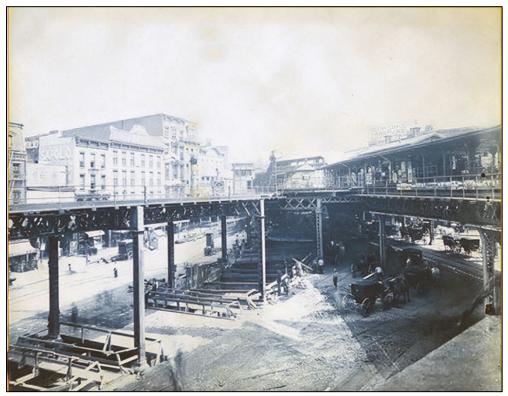


Image 7: Chatham Square Station, looking north, 1892 (Brooklyn Public Library).



Image 8: Manhattan, Chatham Square excavation, looking south, March 10, 1904 (New York Historical Society).



Image 9: Contract One. Underground photograph ca. 1905. Subway Construction Photograph Collection (New York Historical Society).

## Congregation Shearith Israel Cemetery

The oldest relic of Manhattan's early settlement is located at 55 St. James Place, at the eastern edge of the project boundary. It is a small cemetery set between the buildings of Block 279, belonging to the Congregation Shearith Israel, and is the only remaining seventeenth-century structure in Manhattan.

The first Jewish residents of New Amsterdam arrived in the New World in the summer of 1654. They were joined in September of that year by Sephardic refugees from Brazil, who were fleeing Portuguese oppression, when Spanish pirates captured their ship. A French Privateer saved them and rerouted his ship, the *St. Charles*, to New Amsterdam (De Sola 1952:6; Burrows & Wallace 1999:59). The following year, in 1655, five wealthy Jewish merchants and their families were granted passports by the Dutch West India Company to settle in New Netherland. Stuyvesant protested their presence in his city, but the Company, under pressure from Amsterdam's Jewish leaders, pushed back. The Company directed Stuyvesant to allow the Jewish population the same civil and political rights afforded them in Holland, excluding the right to build or worship in a synagogue. Worship was only permitted within the confines of a private home. Eventually, the small Jewish community of New Amsterdam petitioned for further civil rights, including the right to serve in the militia, conduct trade, and own property (Burrows & Wallace 1999:60).

The most important civil right asked for was to have a dedicated cemetery. "In Jewish life, to a greater degree than is commonly found elsewhere, the establishment of a common consecrated burial ground is a significant sign of permanent settlement" (De Sola 1952:6). On July 27th, 1655, Abraham de Lucena, Salvador d'Andrada, and Jacob Cohen petitioned for land to establish a burying ground. Stuyvesant denied the request, citing no reason (Col. Doc. Minutes 6:68b). Less than a year later, on February 22nd, 1656, the three men again advocated for the Jewish community's right to a resting place. Stuyvesant authorized two counselors for the Dutch administration to "indicate to the petitioners a piece of land" (Col. Doc. Minutes 6:285). The location of the original cemetery land is unknown, and it may never have been used, as most of New Amsterdam's Jewish residents had moved out of the city and into the greater colony during the 1660s (Burrows & Wallace 1999:132).

The 1680s witnessed a resurgence of Jewish people in the city as Portuguese-speaking Sephardim from the West Indies, Suriname, France, and England migrated to New York. Religious services, which had been held in a house on Beaver Street, resumed by 1682 (Burrows & Wallace 1999:132-133). A new burial ground for the community was purchased by Joseph Bueno de Mesquita that same year. Mesquita had acquired the land from William Merritt, the former Mayor of New York City, and his wife, Margery. It was a 52'x50' parcel that allowed for "free liberty of a passage from the highway (Park Row) thereto carry their dead" (De Sola 1952:11) (Map 6). The first burial in the cemetery was a relative of Mesquita's, Benjamin, in 1683.

By 1728, at least eighteen people had been buried in the cemetery, according to the Congregation's register, and the cemetery land was at capacity (De Sola 1952:19; Congregation Shearith Israel: Cemetery accessed 2025). The following year, in 1729, Lewis Moses Gomez and his three sons, acting as trustees for the Jewish community, purchased the land adjoining the burial ground to expand the cemetery.

A survey was undertaken by Cornelis Lodge in 1729 of the original burial ground. Its parameters were 51.75' northerly, 56' southerly, and 54' westerly and easterly. Additionally, Lodge's survey provided measurements of the new land acquired by Gomez. It expanded the cemetery northerly by 338' westerly and 313' easterly. The deed between Willey and Gomez for the land (Liber 31, p. 319) further confirmed these measurements. All in all, the enlarged cemetery began just before present-day Madison Street, covered a third of the block of present-day Oliver Street, and fronted 51.75' on Park Row, where it meets its terminus at Chatham Square.

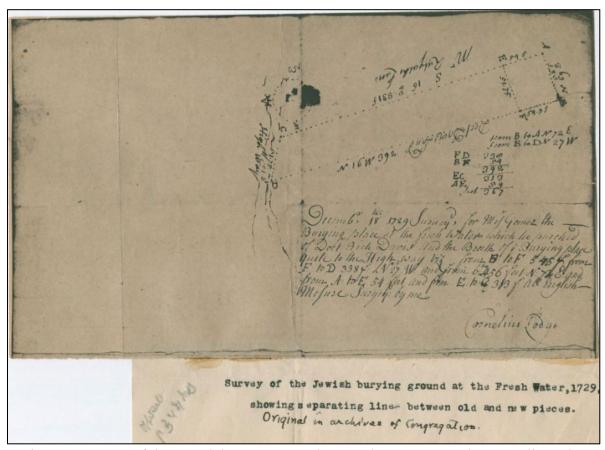


Figure 3: Survey of the Jewish burying ground at Fresh Water, 1729, by Cornelis Lodge (Congregation Shearith Israel: Cemetery, accessed 2025).

A wall was built around the widened grounds in 1729 to ensure compliance with City regulations (De Sola 1952:21, 27). The cemetery was situated on high ground that sloped downward towards Madison Street and Chatham Square. The slopes were subject to constant erosion and tended to slide or cause cave-ins, especially after inclement weather. Thus, maintenance on the cemetery grounds and its fence enclosure was frequently required. A new wall was erected to replace the old one in 1737, and its upkeep continued well through the 1760s (De Sola 1952:29-34). To leverage the costs of maintenance, the Congregation rented unused portions of the cemetery land to their neighbors, including John Roosevelt, the ancestor of Theodore and Eleanor<sup>4</sup> (De Sola 1952:44).

<sup>&</sup>lt;sup>4</sup> De Sola thoroughly documents each transaction in his 1952 history of the cemetery.

At some point before 1771, the Congregation acquired additional surrounding lands. In 1771, a survey of the cemetery was conducted by Maerschalk, which shows the property was larger than it had been in 1729. The actual burying ground had been expanded northward to parameters of 52.4' northerly, 53.6' southerly, 141' westerly, and 140' easterly. The entire Shearith Israel cemetery property, however, fronted 45.5' on Park Row, 53.6' southerly, 459' westerly, and 447.9' easterly. The Congregation also owned two parcels adjoining the cemetery on Park Row, which they rented to Mr. Barker and Mr. Ryke, respectively. It is unclear whether the measurements are due to a potential change in conversion systems during the eighteenth century, an error on behalf of the surveyor, or the possibility that the Congregation acquired additional land.

Regardless, the 1771 Maerschalk survey illustrates that the burying ground had been expanded northward to accommodate the needs of the Congregation. However, it appears the additional area was unused.

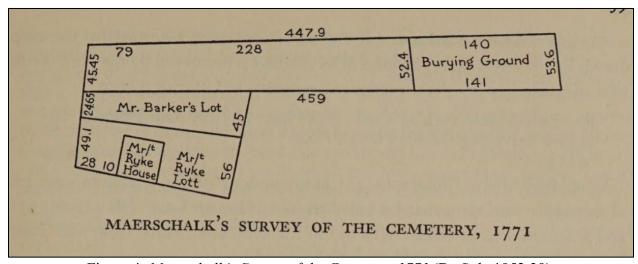


Figure 4: Maerschalk's Survey of the Cemetery, 1771 (De Sola 1952:39)

Though the high ground of the cemetery had been cumbersome to the Congregation, the land was highly sought after for its strategic value during the Revolution. "From its eminence, one could look south over the city and the harbor. Towards the east, the cemetery heights commanded a view over the... East River and beyond to the heights of Brooklyn and the shores of Long Island" (De Sola 1952:50). After New York fell to British occupation, they too utilized the high vantage points for the same purpose. It is purported that lead epitaph plates were removed by the British troops and melted down for ammunition (De Sola 1952:51-52; Congregation Shearith Israel: History, para. 4, accessed 2025). Legend has it that a burial trench for American prisoners of war was in the vicinity of the Jewish cemetery. David De Sola writes that 2,500 prisoners who were taken at Fort Washington were paraded and shot near the graveyard (1952:52). William L. Stone posits that the entrenchments were behind the cemetery. Quoting prisoner Adolph Meyer, he writes, "If any died they were thrown at the door of the prison, and lay there till the next day, when they were put on a cart and drawn out to the entrenchments, beyond the Jews burial-ground, where their fellow prisoners interred them" (1876:148).

The same problems that threatened the cemetery before the war persisted after its close. In 1789, Madison Street was graded to its current street level, leaving the cemetery roughly "twenty steps" above street level. As a result, cave-ins occurred with distressing frequency, exposing skeletal remains eroding from the ground surface. A secure portion of the ground in the northeast corner of the cemetery was set aside for the reinterment of those remains that had already been unearthed. The problem persisted through 1791, despite attempts to remedy it. In the end, the Congregation voted that year to grade the entire cemetery ground to 6' above street level and reinter all burials in the graded portions (Congregation Shearith Israel: Register, accessed 2025). The work was completed in June of 1792. All burials were removed from the original burying ground, which was located closer to Madison Street, and were reinterred in leveled and unused portions of the cemetery, which was situated closer to Park Row. The coffins were sealed, and the tombstones were placed in their new resting spots by August (De Sola 1952:75-81).

New problems arose for the cemetery in the early nineteenth century. In 1818, New York City proposed to extend Oliver Street from the East River to Chatham Square. "Oliver Street... came up the slope from the direction of the East River as far as Madison Street. Its further progress up the hill to its natural outlet on Chatham Square was completely blocked off by the burial ground" (De Sola 1952:105). Though De Sola never explicitly confirms or denies it, it can be assumed from his writing that the portion of the cemetery ground that cut off Oliver Street was unused. Over \$12,000 was assessed to the Congregation to accommodate the opening of the Oliver Street extension. In 1820, the Congregation authorized the sale of "unused land" on Oliver Street and Madison Street (De Sola 1952:108). Two years later, in 1822, the Congregation further authorized the sale of the unused property that fronted Park Row between Oliver and James Streets. It was sold to the Tradesmen Bank in 1823 for \$15,000 (De Sola 1952:112; Congregation Shearith Israel: Cemetery, accessed 2025).

In 1823, New York City passed a law prohibiting burials south of Canal Street, and the remaining unused property was sold. The Congregation's register of 1894 records the last burial as Grace Nathan in November 1831 (Congregation Shearith Israel: Cemetery accessed 2025). De Sola writes that the last burial was that of two-year-old Brandilla Isaacs in February of 1833 (1952:114-115).

In 1855, urban development jeopardized the integrity of the cemetery. New York City proposed opening New Bowery, an 80' wide thoroughfare that would connect Chatham Square with Franklin Square. It was oriented in a NE-SW direction and divided Block 279 into two pieces. Today, it is known as St. James Place (Map 15 Perris 1857). The City requisitioned the whole front portion of the cemetery ground for its construction. It took 48.8' on the north side, 57.4' on the south, 51.2' on the east, and 91.9' on the west by eminent domain. During construction, modern utilities, including a 6" and 36" water main and sewer line, were connected to existing utilities in Chatham Square (Maps 12 and 13). Used portions of the cemetery lay directly in the path of the roadway, so the Congregation resolved to relocate the impacted burials to their cemetery on West 21st Street (De Sola 1952:154). Between November of 1855 and March of 1856, 256 burials that had the potential to be disturbed were "carefully dug away, each one separately, and exhumed remains put into new coffins" where they were then moved to their new home (De Sola 1952:155; Congregation Shearith Israel: History, para. 7, accessed 2025). St. James Place opened two months

<sup>5</sup> Since New York City had not yet issued regulations on the depth of burials, burials in those days were shallow.

later, on May 1, 1856. An additional nine graves were reinterred at the West 21<sup>st</sup> Street cemetery two years later, in 1858, when foundations for a wall fronting St. James Place were dug (De Sola 1952:157). In 1878, an elevated station serving the Second Avenue subway line was constructed on St. James Place (Maps 18 and 19).

Multiple city expansions over time reduced what began as a sprawling plot of land. The current parameters of the cemetery have remained the same since the construction of St. James Place in 1855. It fronts 57.6' on St. James Place, 94' northerly, 75.7' southerly, and 52.3' easterly (Map 12). It represents a small fraction of what the cemetery was historically.

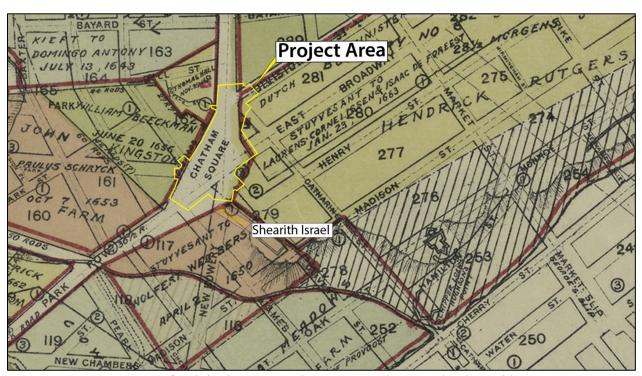
In 2003, Historical Perspectives, Inc. conducted an intensive documentary study of the Shearith Israel cemetery on St. James Place in anticipation of proposed construction. The study documented the grading and leveling episodes within the burial ground during the eighteenth century. It noted that burial laws before 1820 required individuals to be buried anywhere from 2' - 6' below grade. The report suggested that since the elevation of the street bed is currently 3' below the cemetery's original surface, burials could still lie several feet below grade (Martin et al. 2003:9). The report further pointed out that no primary source records were available documenting the number of interments made throughout the cemetery, or disinterment's made during the first half of the nineteenth century (Martin et al. 2003:10). Congregation Shearith Israel and the Congregation's historian, David de Sola, affirm that 256 persons were removed, only 70 of whom could be identified. However, the primary source records made available by the Congregation through the Center for Jewish History Archives do not document the episodes of disinterment. The first of two burial registers provided by the Congregation documents 145 burials that occurred during the cemetery's tenure, while the second registers 182 burials conducted between 1683 and 1831. Both registers note the 70 individuals who were removed to the West 21st Street cemetery (Congregation Shearith Israel: Cemetery accessed 2025).

Historical Perspectives, Inc. determined that the section of the cemetery underlying St. James Place, which was actively utilized during the eighteenth and nineteenth centuries, was highly sensitive for potential burials from the ground surface to 8' below grade. The report recommended a redesign of the project that would allow for the avoidance of this parcel. If avoidance were impossible, it was recommended that archaeological field testing of the site prior to construction and/or archaeological monitoring in conjunction with construction activity should be undertaken (Martin et al. 2003:10).

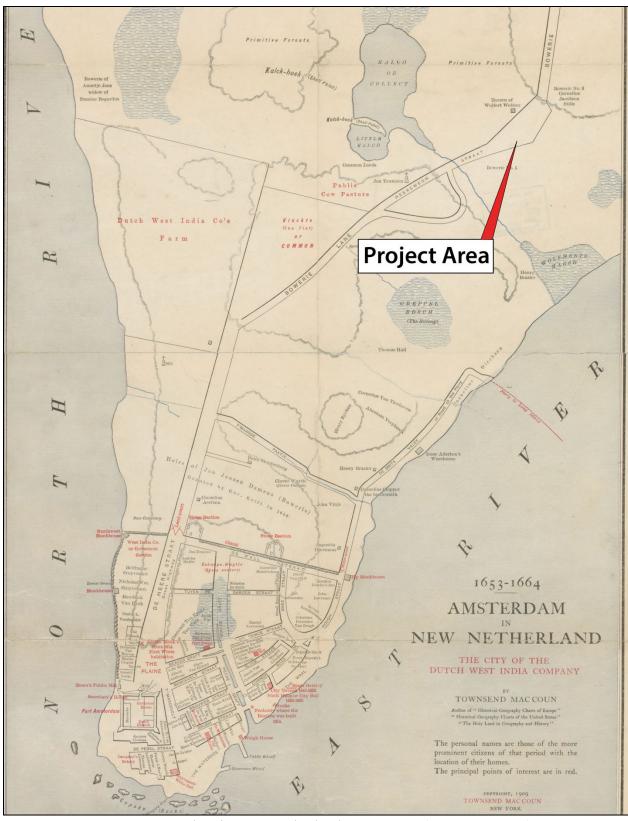


Image 10: Photo of the cemetery, undated (Congregation Shearith Israel: Cemetery)

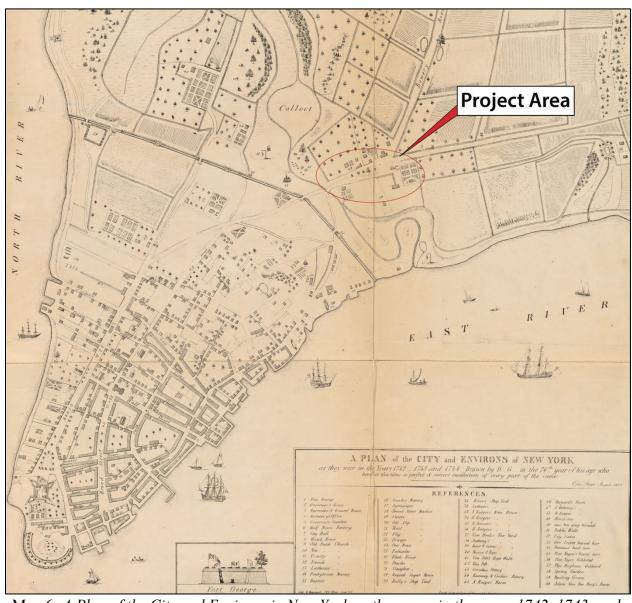
# HISTORIC MAPS



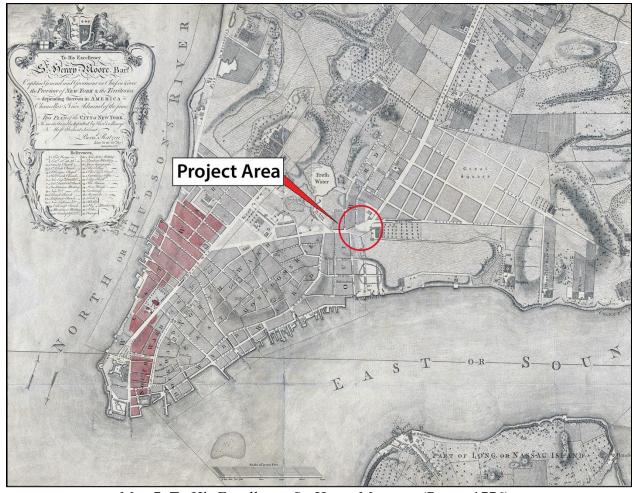
Map 4: Map of Original Grants and Farms: Manhattan Island (Dodd 1928).



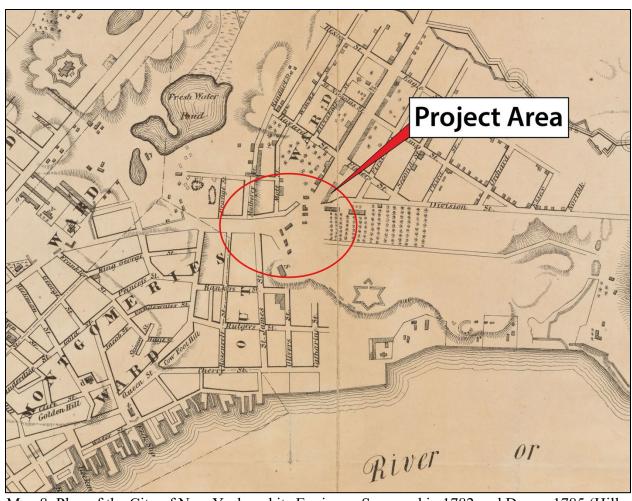
Map 5: Amsterdam in New Netherland, 1653-1664 (MacCoun 1909).



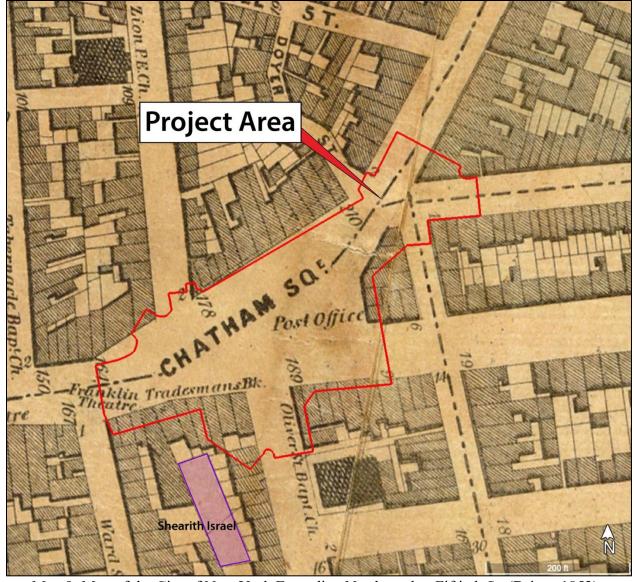
Map 6: A Plan of the City and Environs in New York as they were in the years 1742, 1743, and 1744 (Valentine 1854).



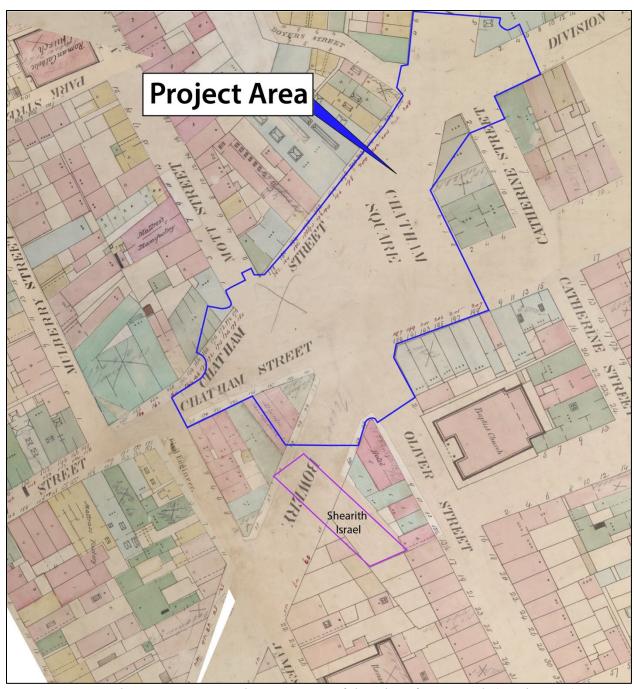
Map 7: To His Excellency Sr. Henry Moore... (Ratzer 1776).



Map 8: Plan of the City of New York and its Environs, Surveyed in 1782 and Drawn 1785 (Hills 1857).



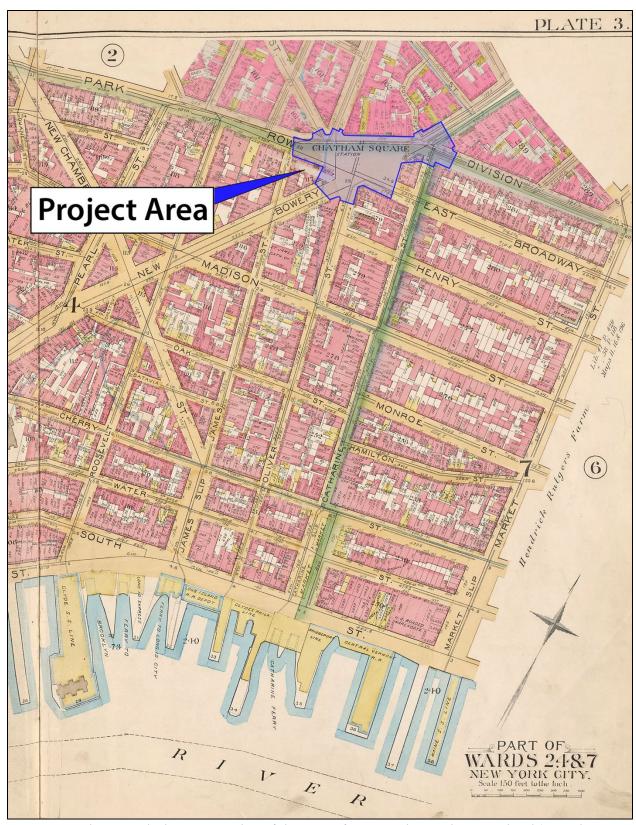
Map 9: Map of the City of New York Extending Northward to Fiftieth St. (Dripps 1852).



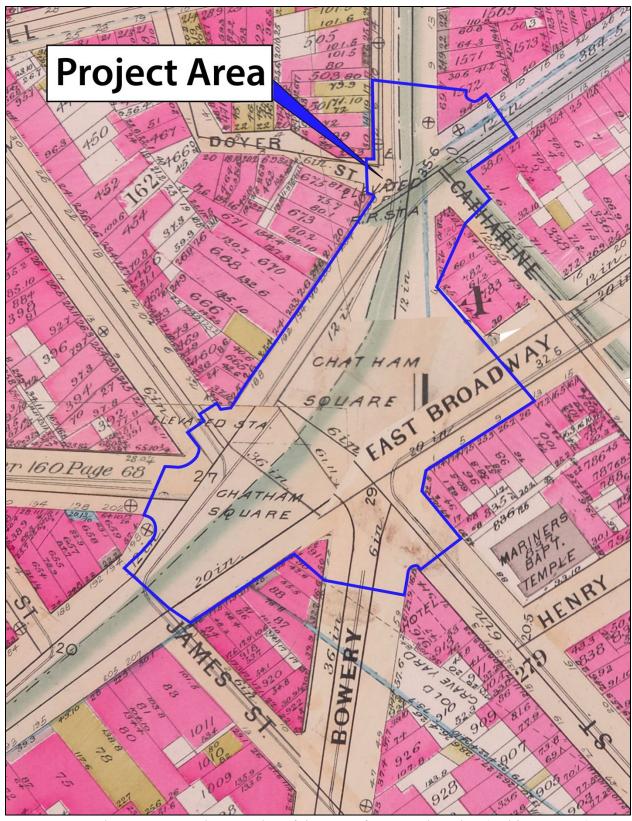
Map 10: Plates 10, 11, 13, and 14. In Maps of the City of New York (Perris 1857).



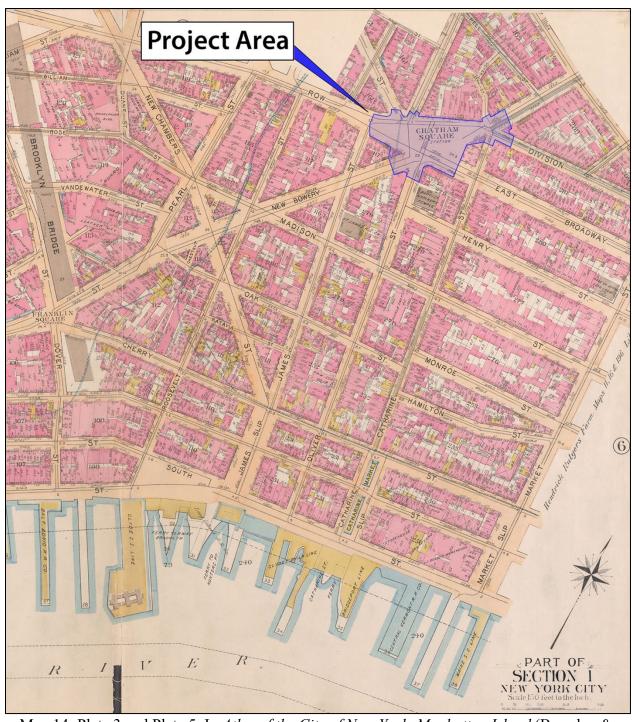
Map 11: Map of New York City (Fisk & Russell 1870).



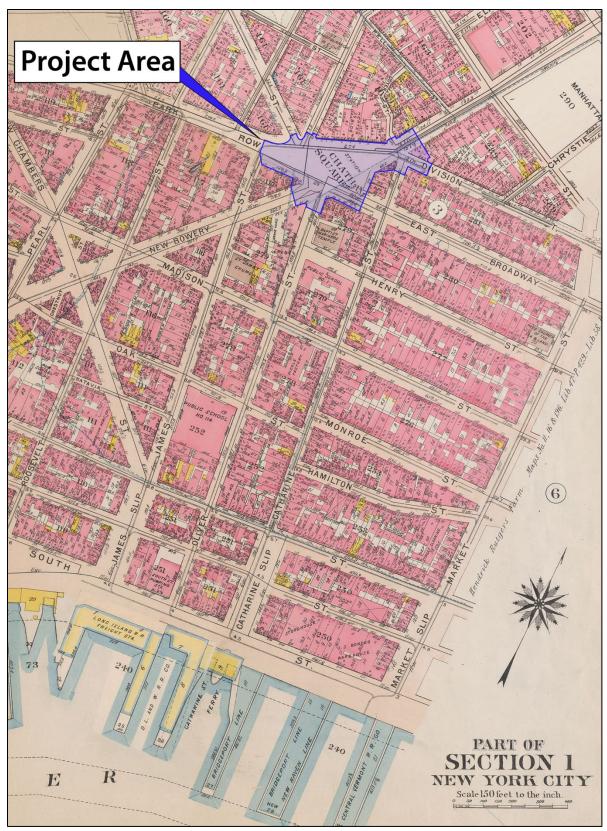
Map 12: Plate 3 and Plate 5. In *Atlas of the City of New York, Manhattan Island* (Bromley & Bromley 1891).



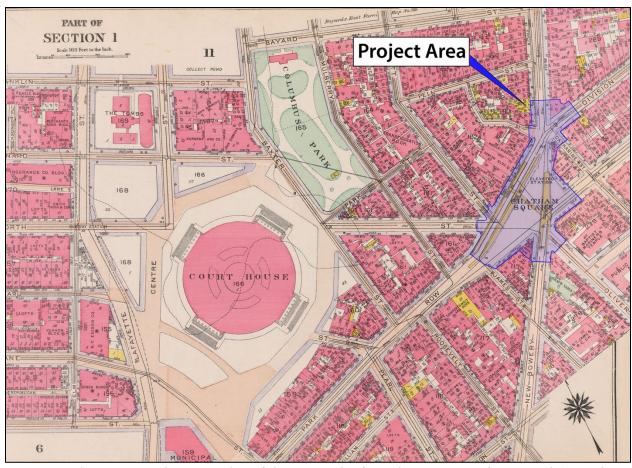
Map 13: Plates 4, 5, 8, and 9. In Atlas of the City of New York, Vol. 4 (Robinson 1893).



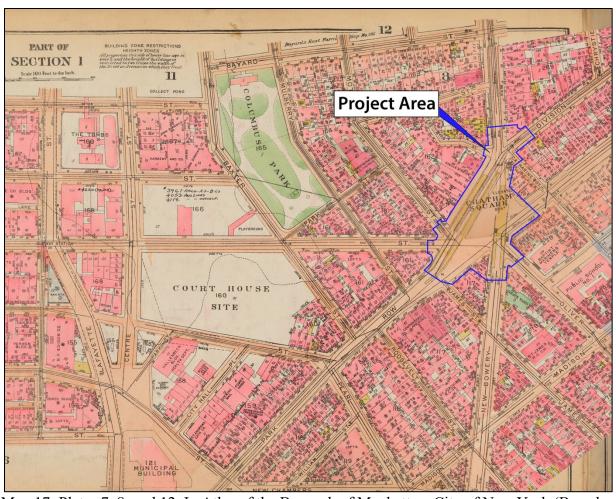
Map 14: Plate 3 and Plate 5. In *Atlas of the City of New York, Manhattan Island* (Bromley & Bromley 1897)



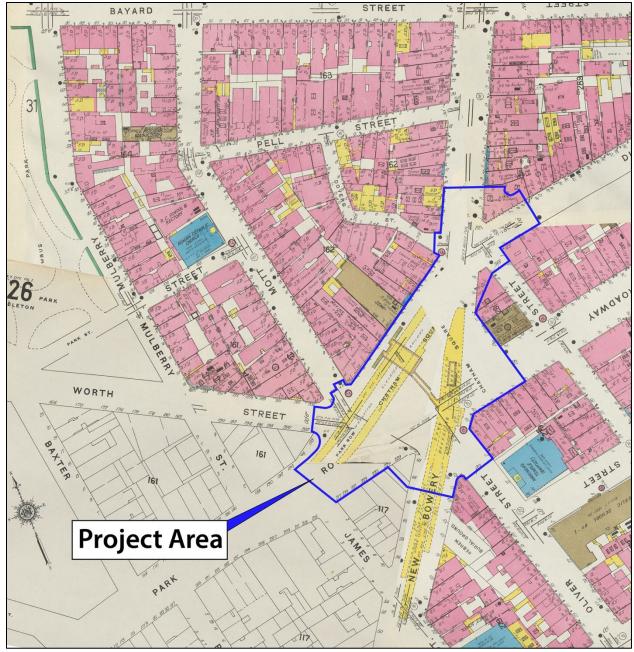
Map 15: Plate 3 and Plate 5. In *Atlas of the City of New York, Borough of Manhattan* (Bromley & Bromley 1911)



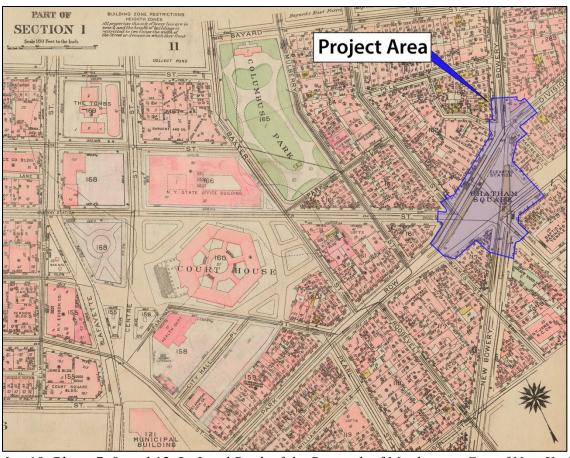
Map 16: Plates 7, 8, and 12. In *Atlas of the Borough of Manhattan, City of New York* (Bromley 1916).



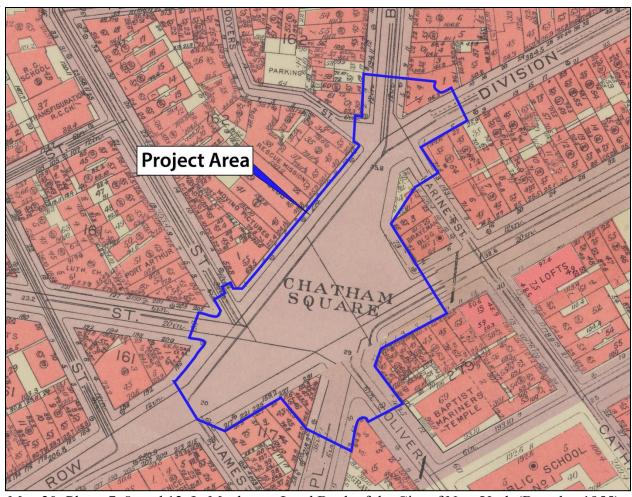
Map 17: Plates 7, 8, and 12. In Atlas of the Borough of Manhattan, City of New York (Bromley 1921).



Map 18: Plates 26, 29, 30, and 32. In Insurance Maps of the City of New York, Vol. 1 (Sanborn Map Company 1923).



Map 19: Plates 7, 8, and 12. In *Land Book of the Borough of Manhattan, City of New York* (Bromley 1927).



Map 20: Plates 7, 8, and 12. In Manhattan Land Book of the City of New York (Bromley 1955).

#### VI. CONCLUSIONS AND RECOMMENDATIONS

Based on historic maps, Chatham Square has been open "street" since the early to mid-eighteenth century. Over the course of two centuries, the area has evolved through multiple phases of development. Other than the general outline of the area, little remains from the eighteenth century.

During the nineteenth century, development transformed the landscape with urbanization. Many of the nineteenth-century structures along the streets facing Chatham Square have been demolished or altered. The main exception to this is the western block between Mott Street and Doyer Street.

The overall project area is confined to the streets and some sidewalks. In three instances, the current streetscape lies atop former building lots. These areas are seen on historic maps, for example, Maps 13 and 18.

As the project is in the design phase, specific impacts are not yet known. The proposed concept would divert all traffic to the southern end of Chatham Square – essentially extending Worth Street, which would more directly connect with East Broadway. St. James Place would directly connect to the Bowery. To facilitate these connections, the area currently known as Kimlau Square would be converted to a roadway. The northern half of Chatham Square would be converted into an open plaza, and pedestrian islands will be added to minimize crossings. Proposed impact depths, which are not known, do not influence the following conclusions and recommendations.

Within the roadbed of Chatham Square there is a low sensitivity for significant cultural resources to be encountered. This area has been an open crossroads since the eighteenth century. During the latter part of the nineteenth century, the street was heavily modified by the installation of the elevated rail train and Chatham Square Station. Further disturbance to the area was incurred with the removal of the elevated rain and station and the construction of sewer lines and other infrastructure. If any cultural resources do remain below the surface within Chatham Square, they are likely to be associated with the elevated rail or the nineteenth-century stone roadway.

This would also be true for portions of the project area that extend into the roadbeds of Mott Street, Doyers Street, Bowery, Division Street, Catherine Street, and Park Row (Formerly Chatham Street).

The Phase IA identified that a portion of the Shearith Israel cemetery was formerly located in the area now occupied by the St. James Place (formerly New Bowery) roadbed. The proposed APE lies less than 50' from the boundary of the late seventeenth century through 1855 Shearith Israel cemetery. Although the documentary history of the congregation suggests that all burials were removed or located outside the area of the street opening, there is still reason for caution. The remaining cemetery is elevated compared to the existing street. There is documentation that the elevation of the cemetery resulted in runoff and exposure of burials.

Any work within St. James Place, between Oliver and James Streets, should proceed with caution. Archaeological monitoring is recommended for any ground-disturbing activity following the removal of the extant pavement in this area.

The three areas that intersect with demolished nineteenth-century structures are: the corner of Bowery and Division Street (Block 289); The northern end of Block 281 facing Chatham Square between Catharine Street and East Broadway; and the corner of Block 117 between Park Row and St. James Place.

The corner properties of Blocks 117, 289, and 281 were still present until the 1950s (Map 20). The property at the corner of Division and Bowery on Block 289 is noted as a "lodging house" (Map 18). These corner properties are still present on the 1955 Bromley Atlas (Map 20).

The lodging house on the corner of Block 289 was demolished by the 1970s when the block was developed with apartment housing and an associated open plaza. It is possible that remnants of the lodging house structure remain beneath the plaza. However, based on maps, any resources would likely be limited to building materials. The likelihood of recovering significant cultural resources is low.

The same is likely to be the case for Blocks 289 and 117. None of these areas had backyard spaces that would house typical backyard features such as privies. Furthermore, during the demolition period of these properties, the second half of the twentieth century, there is a greater possibility that demolition debris was removed from the site. The likelihood of recovering significant cultural resources is low.

Based on the general concept plan, the proposed project involves the in-kind replacement of existing surfaces to change their usage. Redirecting the roadway will require the removal and installation of traffic lights. These would incur greater impacts, however, as it is unlikely that these would infringe upon areas that are likely to contain resources other than those outlined above.

No further archaeological work is recommended for this project except for the area adjacent to Shearith Israel Cemetery. Ground-disturbing activity in those areas should be archaeologically monitored.

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