PHASE IA LITERATURE REVIEW AND ARCHEOLOGICAL SENSITIVITY ASSESSMENT

LIU WELLNESS CENTER

BLOCKS 2086 and 2087

BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

HAA, INC. # Y013

Submitted to:

LONG ISLAND UNIVERSITY UNIVERSITY CENTER 700 NORTHERN BOULEVARD ENVIRONMENTAL REVIEW **BROOKVILLE, NEW YORK 11548**

RECEIVED

NOV 25 2003

LANDMARKS PRESERVATION COMMISSION

Prepared By:

HARTGEN ARCHEOLOGICAL ASSOCIATES, INC. **CERTIFIED WBE/DBE** 1713 8TH AVENUE **BROOKLYN, NEW YORK 11215** PHONE (718) 369-2033 FAX (718) 369-2034 e-mail: nyc@hartgen.com www.hartgen.com

> AN ACRA MEMBER FIRM WWW.ACRA-CRM.ORG

214

NOVEMBER 2003

ABSTRACT

This report presents the results of the Phase IA Literature Review and Sensitivity Assessment conducted for the proposed LIU Wellness Center in the Borough of Brooklyn, Kings County, New York. The study was conducted under the direction of a 36 CFR 61 qualified archeologist in compliance with the Landmarks Law of 1965 (New York City Charter Section 3020; Title 25, Chapter 3 of the New York City Administrative Code) and the State Environmental Quality Review Act (SEQR). The tasks included in this research follow the guidelines for cultural resource study outlined in the New York City Landmarks Preservation Commission Guidelines for Archaeological Research in New York City (LPC 2002) and the New York Archaeological Council Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (1994).

Due to its location immediately bordering the National Register and New York City Landmarks Fort Greene Historic District, the project location has been subject to a preliminary review by the New York City Landmarks Preservation Commission (LPC). Impacts are to occur within Blocks 2086 and 2087. According to LPC's review there are no archeological concerns associated with Block 2086 Lot 34 and Block 2087 part of Lot 1 (historic lots 33, 35, 36, and 37), as these locations have been disturbed by 20th century construction. However, due to the potential for 19th-century archeological resources within Block 2087, Lot 1 (historic Lots 10-13), the LPC has determined that an archeological documentary study (Phase IA study) is required for this portion of the project.

The Phase IA literature review and sensitivity assessment included a site file search for previously identified cultural resources including historic and precontact archeological sites, National Register eligible and listed properties, and New York City Landmarks in the vicinity of the project area. The review also included an inventory of historic maps and other sources documenting the development of the project area. These data are combined with environmental information to provide a sensitivity assessment for the project.

The results of the Phase IA study confirm that the section of Block 2087 Lot 1 containing historic lots 10-13 appears to have remained relatively undisturbed by modern construction, including utility installations, and is therefore highly archeologically sensitive for historic resources such as foundation remains of domestic structures once located on these lots, as well as other features associated with historic residence of the property, including privies, cisterns, wells, and the like. Given the likelihood of historic archeological resources, Phase IB archeological testing is recommended for the area including historic lots 10-13.

TABLE OF CONTENTS

Abstract
Map List iii
List of Tables
List of Photographs iii
INTRODUCTION
PROJECT INFORMATION
ENVIRONMENTAL INFORMATION
PRECONTACT OVERVIEW6
HISTORIC OVERVIEW
REVIEW OF KNOWN CULTURAL RESOURCES Archeological sites Historic structures and districts Previous cultural resource surveys History of the project site based on map and documentary research Historic Lot 10: 237 Navy Street Historic Lot 11: 239 Navy Street Historic Lot 12: 241 Navy Street Historic Lot 13: 243 Navy Street 20 Historic Lot 13: 243 Navy Street
SITE VISIT AND ASSESSMENT OF PRIOR DISTURBANCE
ARCHEOLOGICAL SENSITIVITY ASSESSMENT
RECOMMENDATIONS
BIBLIOGRAPHY
Appendix 1: LPC Environmental Review Form
Appendix 2: Qualifications

MAP LIST

1. Pi	roject Area Location (1979 USGS Brooklyn 7.5' Topographic Quadrangle)			
2. Pr	roposed Impact Areas			
3. E	xisting Site Plan with Proposed Impact Areas			
4. B	oundaries of the LPC-designated Fort Greene Historic District			
5. 18	355 Dripps Map of the City of Brooklyn			
6. 18	372 Street Index of the City of Brooklyn			
7. 18	366 Robinson Atlas of the City of Brooklyn			
8. 18	386 Sanborn Borough of Brooklyn			
9. 19	904 Sanborn Borough of Brooklyn22			
10. 1	1929 Hyde Atlas of the Borough of Brooklyn23			
11.	1990 Sanborn Building and Property Atlas of Brooklyn24			
	LIST OF TABLES			
1. O	PRHP and NYSM sites within one mile of the proposed project			
2. N	ew York City Landmarks within one-half mile of proposed project			
LIST OF PHOTOGRAPHS				
1. Vi	ew north of the project area, Block 2086, Lot 34 and Block 2087, Lot 1			
2. Vi	ew south of block 2086, Lot 34 and part of Lot 1 on Block 2087			
3. Pa	rt of Lot 1, Block 2087 containing historic lots 10-13			

INTRODUCTION

This report presents the results of the Phase IA Literature Review and Sensitivity Assessment conducted for the proposed LIU Wellness Center in the Borough of Brooklyn, Kings County, New York (Map 1). The research associated with this project was designed to gather background information concerning the project's cultural and environmental setting in order to evaluate the potential for encountering and impacting cultural resources. The Phase IA study was conducted under the direction of a 36 CFR 61 qualified archeologist in compliance with the Landmarks Law of 1965 (New York City Charter Section 3020; Title 25, Chapter 3 of the New York City Administrative Code) and the State Environmental Quality Review Act (SEQR). The tasks included in this research follow the guidelines for cultural resource study outlined in the New York City Landmarks Preservation Commission Guidelines for Archaeological Research in New York City (LPC 2002) and the New York Archaeological Council Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (1994).

The Phase IA literature review and sensitivity assessment included a site file search for previously identified cultural resources including historic and precontact archeological sites, National Register eligible and listed properties, and New York City Landmarks in the vicinity of the project area. The review also included an inventory of historic maps and other sources documenting the development of the project area. These data are combined with environmental information to provide a sensitivity assessment for the project.

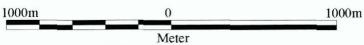
PROJECT INFORMATION

The proposed LIU Wellness Center site consists of an approximately 11.323 acre (493,239 sq ft) parcel situated on the corner of DeKalb Avenue and Ashland Place in Brooklyn (Map 2). Development is proposed across several lots in the area bounded by DeKalb Avenue on the south, Ashland Place on the east, Willoughby Street on the north, and existing LIU facilities on the west. These lots include Block 2086 Lot 34 and Block 2087 Lot 1 (Map 3).

The purpose of the project is to construct a new Athletic/Recreation/Wellness Center. While depth of impact has yet to be determined, two alternatives are being considered:

- Construction of the facility as shown on the current project plans,
 with a depth of approximately 20 feet (6.1 m) below existing grade.
- Construction of the facility as shown on the current plans, with two levels of below grade parking creating a bottom depth of approximately 40 feet (12.1 m) below grade.

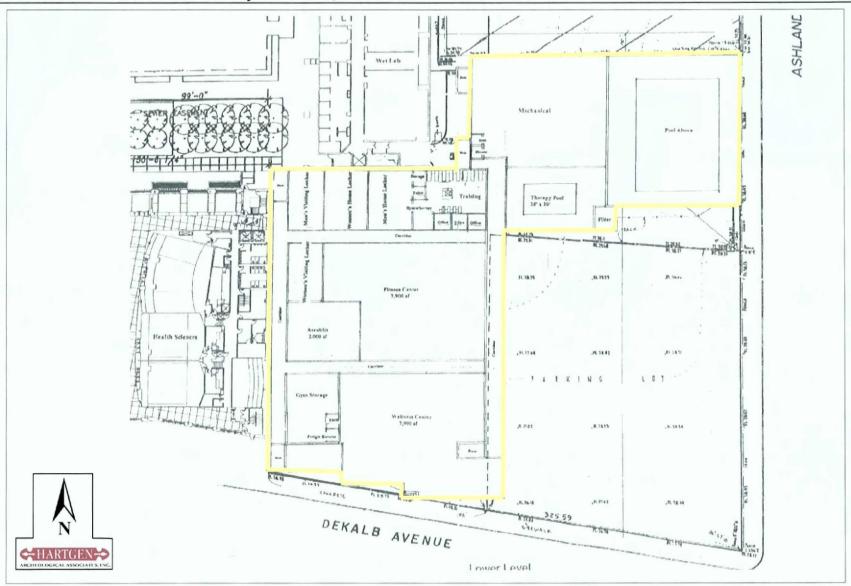




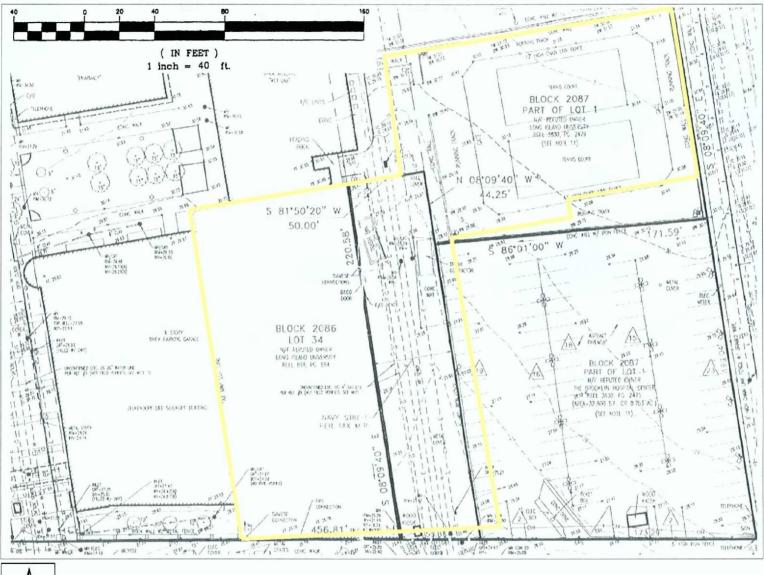


MAP 1

Project Area Location 1979 USGS Brooklyn 7.5' Topographic Quadrangle



MAP 2 Proposed Impact Areas





MAP 3
Existing Site Plan with Proposed Impact Areas

Due to its location immediately bordering the National Register listed and New York City Landmarks designated Fort Greene Historic District, the project location has been subject to a preliminary review by the New York City Landmarks Preservation Commission (LPC). According to LPC's correspondence of November 2002 (Appendix 1) there are no archeological concerns associated with Block 2086 Lot 34 and Block 2087 part of Lot 1 (historic lots 33, 35, 36, and 37), as these locations have been disturbed by 20th century construction. However, due to the potential for 19th-century archeological resources within Block 2087, Lot 1 (historic Lots 10-13), the LPC has determined that an archeological documentary study (Phase IA study) is required for this portion of the project. According to the LPC, this portion of the site appears to have been occupied before availability of public water and sewer with no apparent subsequent disturbance as indicated by later historic maps (Appendix 1).

In order to clarify these findings and provide recommendations for the next phase of review, if necessary, the LPC recommended an archeological documentary study of the proposed project. Hartgen Archeological Associates, Inc. (HAA, Inc.) conducted a literature review, map research, and site visit for this project in April and May 2002. Karen S. Hartgen, RPA, was the Principal Investigator. The site file research was conducted by Kim Croshier. Carol A. Raemsch, Ph.D. and Michael C. Diaz conducted the site visit and historic map review, and the report was authored by Carol A. Raemsch.

ENVIRONMENTAL INFORMATION

The proposed LIU Wellness Center project area is located in the northwestern section of Brooklyn, Kings County, approximately one mile south of the East River. Brooklyn is located within the Southern New England physiographic province of which approximately one-third consists of urban land. Approximately one-quarter of this province is agricultural land including eastern Long Island, northern New Jersey, and the Connecticut River Valley. Forested areas include a mixture of oak-hickory and other hardwoods, white pine-red pine forest, and pine-oak woodlands or barrens (United States Department of the Interior, Bureau of Land Management 2002). The current project area is in an urban setting with no tree cover. According to the New York City Department of City Planning (NYC Department of City Planning 2003), the area of the project is classified as containing parking facilities and public facilities/institutions, the latter of which includes facilities associated with the Long Island University Brooklyn campus.

Topography in the area of the project ranges from 50-60 feet (15-18 m) above mean sea level. The project area itself is characterized by level topography with an elevation of approximately 50 feet (15.24 m) above mean sea level. Underlying bedrock in this area consists of Middle Proterozoic Fordham Gneiss consisting of "metamorphosed igneous rocks which range from felsic to mesocratic to mafic in composition" that are of a volcanic-arc origin (Brock and Brock 2003). Riverhead soils are found in the vicinity of the proposed project area. The Riverhead soil series consists of very deep, well-drained soils formed in glacial outwash deposits primarily from granitic materials. These soils are found on outwash plains, valley trains, beaches, and water-sorted moraines. Slopes range from 0-50 percent (United States Department of Agriculture 2002).

PRECONTACT OVERVIEW

The earliest recognized period in Northeast prehistory is the Paleo-Indian period dating from approximately 10,50076000 B.C. This period is somewhat poorly defined and is normally recognized only by sporadic surface finds of "fluted" projectile points. The thin scatter of Paleo-Indian points in the Northeast follows the principal river systems, and early populations were located in large, fertile valleys and along coastal plains where large populations of food mammals roamed (Ritchie 1980:7). The general opinion prevails that early populations in the area became established in what is now Pennsylvania and southern Ohio, and followed migrating caribou herds onto the newly deglaciated Northeast via river systems such as the Susquehanna and the Delaware (Ritchie and Funk 1973:6). Chert type distributions in the Northeast also suggest movement along a variety of other routes. Historically, the area of New York City was crossed by a number of Native American trails, and over 80 habitation sites have been identified throughout the area of the five boroughs.

The Paleo-Indian period was followed by the Archaic period, generally dating from 7000-1000 B.C. During this period, there is evidence of increased mobility and a wider distribution of populations throughout the Northeast most likely resulting from the search for subsistence resources within limited areas. Subsistence needs were met by hunting, fishing, and gathering, and settlement organization was tied closely to these strategies. Seasonal campsites were likely occupied by small bands, and food procurement activities occurred in various areas as the seasons progressed. Most earlier Archaic sites are small and lack traces of substantial dwellings, fortifications, storage pits, and graves typical of the Woodland period (Ritchie 1980:32).

The body of known sites in the Northeast from the Late Archaic period (4000-1000 B.C.) is larger and richer than for previous periods. Known sites include small hunting and gathering camps within drainage basins. Based on the analogy with historic hunters and gatherers, it is assumed that social organization consisted of bands occupying limited territories and moving with the seasons (Funk 1993:320).

Several Archaic period sites have been identified in the New York City region including four Early Archaic sites on Staten Island: Ward's Point (a National Historic Landmark), Richmond Hill, H.F. Hollowell, and Old Place (Cantwell and Wall 2001:48). Several sites provide evidence that shellfish were an abundant resource for early Native Americans in the New York City region. Numerous large shell middens have been identified throughout the area, and were even documented in the journals of the Dutch upon their arrival to the Manhattan area. Traces of Native American use of the region are most abundant beginning in the Late Archaic Period. Two of the more well-known sites are Tubby Hook, located on the Hudson River shore line in the Washington Heights section of Manhattan, and Inwood located in a park at the northern tip of the island. Both sites contained substantial shell middens and evidence of various subsistence activities including the presence of spear points, knives, stone axes, and bannerstones (Cantwell and Wall 2001:57-58).

The Transitional period, dating approximately 1000-0 B.C., is recognized in the New York City region by the presence of the "Orient" stone tool culture. Typical of this culture is the "Orient

fishtail" point which was used for spearpoints, and was often reworked into other tools such as knives and drills. Soapstones pots for cooking were also evident by this time (Cantwell and Wall 2001:63). Evidence of ceremonial life was also beginning to appear during this period. Numerous cemeteries, some of which included cremation burials, have been identified in eastern Long Island. Many of these burials have been found to include offerings such as stone bowls, paint stones, stone and shell pendants, and various tools. These collections of artifacts have been referred to as "cosmetic kits" and "fire-making kits." (Cantwell and Wall 2001:66-69).

The Woodland period (1000 B.C.- A.D. 1650) was marked by increased sedentism and increased population density as groups established fixed home bases. Evidence of large-scale storing of food resources in pits excavated into the ground and in large ceramic vessels is also present at this time. Based on the evidence compiled thus far, it appears that during this time populations settled in the more resource-rich lowlands. While few Early Woodland sites have been identified, several Middle Woodland sites are scattered throughout the area. Several sites in the Bronx and Queens suggest that coastal groups in this region were trading with distant groups. This is evidenced by a large cache of mica, which is not native to the area, at the Morris-Schurz site in the Bronx. In addition, this site and others have contained various tools made of non-local materials. Other materials found on coastal sites, such as smoking pipes and elaborately designed pottery, also suggest that rituals were a significant part of life at this time (Cantwell and Wall 2001:79-82).

The last precontact stage in the Northeast, the Late Woodland, was characterized by population expansion that resulted in the development of the nations and tribes that were later encountered by European settlers. Territorial expansion was also common at this time. Many additional cultural developments occurred during this period, including elaboration in subsistence strategies such as stone tool and hunting technology, cooking and storage equipment, and the development of large-scale agriculture and village life.

The end of the precontact era and the beginning of the proto-historic period is marked by the introduction of European trade goods into the area during the 17th century. Native Americans in the New York City region first encountered Europeans in the early 1600s at the time of Henry Hudson's travels into New York Harbor. The area of the five boroughs was traditionally occupied by the Munsee, a branch of the Lenape or Delaware. The Munsee had ties to other groups across an area stretching from the lower Hudson Valley and western Long Island to northern New Jersey and across to northeastern Pennsylvania (Cantwell and Wall 2001:120). Beginning in about 1630, the Munsee began to sell their land to the Dutch and later the English. Consequently, the land comprising New York's five boroughs was all sold by the beginning of the 18th century (Cantwell and Wall 2001:145). At this time, most Munsee groups had fled to isolated parts of New York and New Jersey or to join other Munsees along the Delaware River. Some stayed in New York "working as tenant farmers, laborers, field hands, sailors, and servants, or selling baskets, straw brooms, mats, and herbal medicines" (Cantwell and Wall 2001:147-148). While descendants of the early Munsee still reside in the area, the Munsee language itself had died out by the early 19th century (Cantwell and Wall 2001:148).

HISTORIC OVERVIEW

Following Henry Hudson's arrival in 1609, the New York City area transformed into a primarily European settlement rather quickly. The first permanent settlement on Manhattan (New Amsterdam), established by the Dutch in 1625, was on the southern tip of the island. The Dutch established a variety of settlements including isolated farms, nucleated farm villages, and large plantation-like estates (Cantwell and Wall 2001:259). By 1639, Dutch plantations lined the East River, and other land purchases extended settlement to the western end of Long Island. In 1642, three villages were joined to form "Breukelen" (Homberger 1994:30). The earliest developments occurred in the areas known today as Brooklyn Heights and Flatlands, with a few scattered settlements elsewhere. Walloon and Dutch farmers settled in the shoreline areas just north of the Fort Greene Historic District (USDOI 1978:5).

By 1783 the village of Brooklyn was populated by 1,500 residents. Following the development of regular ferry service between Manhattan and Brooklyn in 1814 (Homberger 1994:122) the population grew quickly as the new transportation route allowed Brooklyn residents to commute to jobs in Manhattan. Between 1800 and 1820 the population grew threefold, then doubled again in the 1820s and the 1830s. In 1834 the Village and Town of Brooklyn were joined to form the City of Brooklyn (Macy 2003). Following the annexation of Bushwick and Williamsburgh in the 1840s the population rose to nearly 97,000. By 1880, a population of about 600,000 made Brooklyn the third largest city in the nation (Homberger 1994:122).

The area of today's 30 acre Fort Greene Park, adjacent to the project area, originally was the site of Fort Putnam. During the 1776 Battle of Brooklyn Fort Putnam served to defend General Washington's retreat across the East River. Later in 1812, anticipating a British attack, patriotic volunteers fortified the top of the hill, establishing barriers and digging trenches. The attack never came, but the site of the fortification was renamed in honor of General Nathaniel Greene (Fort Greene Park Conservancy 2003). In the mid 19th century a public park was designed by landscape architects Olmstead and Vaux at Fort Greene as "Washington Park" but was later renamed Fort Greene Park in 1897. A monument memorializing and entombing the remains of Revolutionary War soldiers who died aboard prison ships was established in the park (USDOI 1978:5) and still stands today.

Residential development in the area of the Fort Greene Historic District began in the mid 1840s and accelerated through the 1870s. As summarized in the National Register nomination form for the district (USDOI 1978:5):

By the 1880s the district was largely built up...although the construction of apartment buildings, institutional and religious buildings occurred sporadically well into the twentieth century...Rising land values and increasing pressures for higher density development resulted in the construction of a small number of multi-family apartment buildings within Fort Greene after 1890. Institutions, designed to serve the increasing population of the district were built

in the early twentieth century... The nineteenth century fabric of the district survived those additions well despite the changing socioeconomic status of the district's population.

While the depression witnessed little new construction in the Fort Greene area, which remained a mixed-use neighborhood through future decades, several developments occurred specifically within the area of the LIU Wellness Center project. The map review and documentary research presented below summarizes the history of development within the area of the project specifically.

REVIEW OF KNOWN CULTURAL RESOURCES

The overview of known cultural resources within the general area of the project included an examination of site files compiled by the New York State Museum (NYSM) and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). These files were examined in order to document previously identified cultural resources including historic and precontact archeological sites and National Register eligible and listed properties in the vicinity of the project area. The review also included an inventory of historical maps at the Brooklyn Public Library and the New York Public Library, a review of architectural and archeological surveys on file at OPRHP, a review of New York City Landmarks within one-half of a mile of the project area, and a review of utilities records on file at the City Register in Brooklyn, New York. The purpose of this portion of the research was to provide additional information concerning the history of development within and surrounding the project, and to provide an archeological sensitivity assessment based on previously documented historic properties and archeological sites within and adjacent to the proposed project.

Archeological sites

Research at the OPRHP library revealed that six archeological sites have been identified within one mile of the project area (Table 1). All of these sites are located between one-half and one mile from the project area. Two sites are precontact Native American sites and four are historic sites. One of the Native American sites is a camp/village site located south of the Fort Greene Historic District and one is a site of unknown date located near the East River shoreline. The sites were identified in the late 19th century prior to major residential and commercial development in these areas.

The historic sites include the Naval Hospital Cemetery site, the Naval Hospital Archaeological Site, the Bishop Mugavero site, and the Atlantic Terminal Historic Site. The Bishop Mugavero site and two sites associated with the naval hospital are National Register eligible sites. These sites reflect important historical development within the area surrounding the LIU Wellness Center project and their presence attests to the area's historical significance.

Site name/Site number* General location in relation Site type Description to project area NYSM 3606 Precontact Camp/village site. Approximately .75 mi south. NYSM 9412 Buried layer of ash Precontact Approximately 1 mi north. containing precontact artifacts. Atlantic Terminal Historic Historic Stone-lined shaft features: Approximately .5 mi south-Site/OPRHP A04701.013923 mid-9th century domestic east. artifacts. Naval Hospital Cemetery/ Historic Historic cemetery site. Approximately 1 mi north-OPRHP A04701.014899 east. Naval Hospital Archaeological Historic Foundation remains and Approximately 1 mi north-Site/OPRHP A04701.014975 associated historic artifacts. east. Bishop Mugavero Site/ Historic Stone privy features, brick Approximately .5 mi OPRHP A04701.000508 cisterns, and associated southwest. historic artifacts.

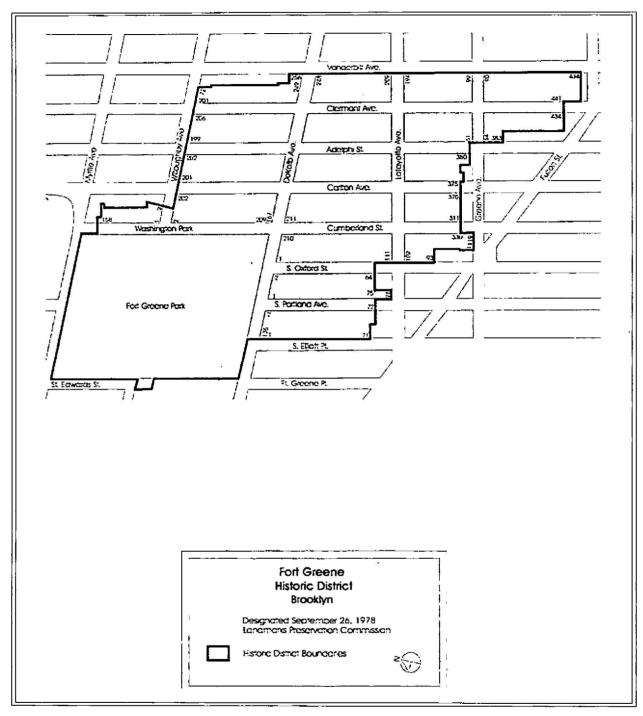
Table 1. OPRHP and NYSM sites within one mile of the proposed project.

Historic structures and districts

Four distinct areas within a half mile of the project have been designated as National Register and/or New York City Landmarks historic districts. The Fort Greene Historic District and the Clinton Hill and Boerum Hill historic districts are designated as both National Register and New York City Landmarks districts. The LPC has also designated the Brooklyn Academy of Music Historic District as a New York City Landmarks district. The latter three districts are located south and east of the LIU project area, and the LIU project area immediately borders the western boundary of the National Register Fort Greene Historic District (c. 1840-1932). Originally the boundaries of this NR district were established in 1983 as Ft. Greene Place, Fulton Street, Vanderbilt, and Myrtle avenues. In 1984 the boundaries were extended to include Ashland Place, DeKalb Avenue, Hanson Place, Oxford Street, and Adelphi, Vanderbilt, and Myrtle avenues (National Register of Historic Places 2003).

The New York City Landmarks portion of this district (Map 4) is smaller in size than the National Register district, and does not include Ashland Place. The Fort Greene historic district, as

^{*} NYSM=New York State Museum site numbers; OPRHP=Office of Parks, Recreation and Historic Preservation site numbers.





MAP 4

Boundaries of the LPC-designated Fort Greene Historic District Landmarks Preservation Commission (2003) defined in the National Register of Historic Places nomination form (United States Department of the Interior [USDOI] 1978), represents:

an unusually significant and rare concentration of architecturally distinguished nineteenth century townhouses, together with compatible and in many cases individually significant church buildings, commercial buildings and rows, and later institutional and apartment buildings. The district also includes a major nineteenth century urban park of outstanding historical and landscape design significance, designed by the nationally prominent partnership of Olmstead and Vaux. Within the park, and on the site of fortifications built in 1776 and 1814, stands a monument memorializing the Prison Ship Martyrs of the Revolutionary War.

In addition to the presence of four historic districts, numerous historic buildings that have retained their architectural integrity and cultural significance through the beginning of the 21st century are located in the vicinity of the LIU Wellness Center project area. Eleven New York City Landmarks are located within a half-mile of the project area (Landmarks Preservation Commission 1998; Table 2). The closest buildings are the Williamsburgh Savings Bank building, the Dime Savings Bank building, and Hanson Place Baptist Church. The two bank buildings date to the early 20th century and the church was constructed in the mid-19th century. Other landmarked buildings in the general area include mid-19th-century residences, an early 20th-century apartment building, two mid-to late 19th-century churches, the 1897 Friends Meeting House, a late 19th-century restaurant building, and the late 19th-century headquarters of the Brooklyn Fire Department. This variety of buildings in the area reflects the presence of a mixed residential/commercial district in this area from the mid-19th through early 20th century.

Previous cultural resource surveys

According to the OPRHP files, three cultural resource surveys have been conducted within a one mile radius of the current project area. In July 2002 Historical Perspectives, Inc. conducted a Phase IB investigation of Hoyt-Schermerhorn, Blocks 170, 171, and 176. One National Register eligible historic site was identified during this investigation. Block 176, Lot 56 contained a ca. 1860s privy and cistern.

In 1996, Joan Geismar and Stephen Oberon conducted a Stage IB study for the Brooklyn Navy Yard Cogeneration Project. The study consisted of archeological monitoring and interpretation of test borings. Most of the test borings were characterized by fill, and no natural soils were identified. While cultural materials were identified in a sample of the test borings they were interpreted as associated with fill deposits and were therefore not considered significant resources (Geismar and Oberon 1996).

In 1997 TAMS Consultants, Inc. conducted a ground-penetrating radar (GPR) study within the Brooklyn Navy Yard in order to identify possible burials associated with an old cemetery on the

Table 2. Historic districts and landmarks within one-half mile of proposed project.

Landmark Name	Individual Landmark (I) or District (D)	Date of Construction	General Location (in relation to project area)
Fort Green Historic District*	D	Mid-19 th c. to early 20 th c.	Borders project area to the east.
Brooklyn Academy of Music Historic District	D	Mid-19 th c. to early 20 th c.	One block south.
Clinton Hill Historic District*	D	Mid-19 th c. to early 20 th c.	½ mile east, bordering Fort Greene Historic District.
Boerum Hill Historic District*	D	1840s-1870s	½ mile southwest.
Joseph Steele House	I	Early 1850s.	½ mile east, bordering Fort Greene Historic District.
Royal Castle Apartments	I	Early 20th c.	½ mile east, bordering Fort Greene Historic District.
Saint Luke's Episcopal Church	I	1888-1891	½ mile southeast, bordering Fort Greene Historic District.
Hanson Place Baptist Church	I	1857-1860	Approx. ¼ mile southeast.
Williamsburgh Savings Bank Building	I	1927-1929	Two blocks south.
First Free Congregational Church	I	1846-1847	½ mile northwest.
Brooklyn Fire Headquarters	I	1892	½ mile northwest.
Gage & Tollner Restaurant	I	c. 1875	½ mile west.
Dime Savings Bank	I	1906-1908	1∕8 mile west.
Friends Meeting House	I	1857	½ mile west.
State Street Houses	I	1847-1874	½ mile west.

^{*} Also National Register-designated historic districts.

navy grounds. The GPR study identified that unexhumed remains were still present in portions of the Brooklyn Navy Yard Annex Cemetery (Subsurface Consulting Ltd. 1997). Excavation of archeological backhoe trenches in the areas flagged by the GPR study identified refilled shaft features, the remnants of previously removed coffins, and one burial containing human skeletal remains (TAMS Consultants, Inc. 1997).

In 1999 TAMS Consultants, Inc. conducted a study of archeological features identified at the Naval Hospital site. A cultural resource survey conducted by the Navy in 1997 identified five areas of archeological sensitivity at the Brooklyn Naval Station. The purpose of this study was to determine the presence or absence of National Register eligible archeological resources in these areas. One National Register eligible historical archeological site was identified during the study. The site contained four historic features including a pair of cisterns, a cesspool, and brick drain (TAMS Consultants, Inc. 1999).

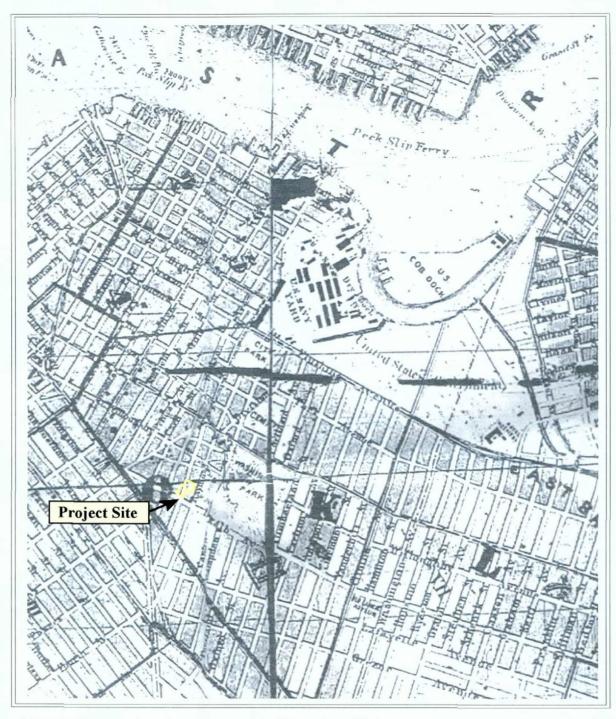
These studies and their findings illustrate that significant archeological resources are identifiable even in urban environments that have been subject to extensive development since the historic era.

History of the project site based on map and documentary research

A review of 19th- and 20th- century maps as well as census records, building records, business and residential directories, and tax records assist in tracing the historical development of the project area. Numerous maps and documentary sources were reviewed during this research. The project area is located within Block 2087, which was formerly designated Block 30 and later Block 147. Historic lots 10-13 correspond to 237, 239, 241, and 243 Navy Street.

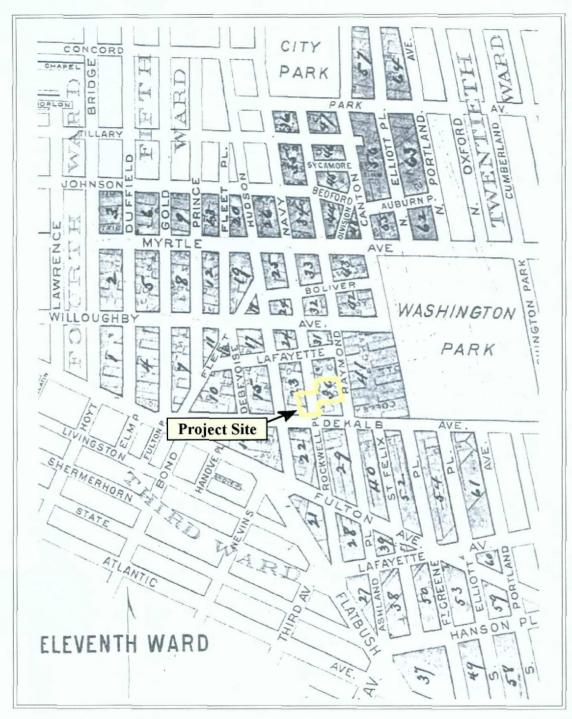
A sample of maps depicting development of the lots within the project area are included in this report. In addition, the following maps were consulted during this research: Bromley (1880), Dripps (1858), Hopkins (1880), Hyde (1904, 1912, 1920, 1929), and Sanborn (1915 and 1939). One of the earliest maps showing details of the block occupied by the LIU project area is Dripps' 1855 map (Map 5). As illustrated on this map today's Fort Greene Park was known historically as Washington Park, shown on this map just east of the project area. The street known today as Ashland Place is indicated as "Raymond." Review of the Perris map of 1855 at the New York Public Library (copy not available) indicated that no buildings were constructed on the eastern corner of the block formed by DeKalb and Raymond, while brick and frame buildings with rear yards were constructed in the western section of the block.

A street index map of Brooklyn from 1872 (Map 6) includes street names in the vicinity of the current project area, located in the 11th ward. DeKalb Ave. is shown along the south side of Washington Park. This map shows more clearly that north of DeKalb Avenue, Ashland Place was previously known as Raymond Avenue. Map 6 illustrates the assigning of the Block number 30 to the area including the project area, and indicates that it is well developed.





MAP 5 1855 Dripps Map of the City of Brooklyn





MAP 6
1872 Street Index of the City of Brooklyn

The next series of maps more clearly illustrate specific developments on the block from the later 19th through early 20th centuries. The area flagged by the LPC as an archeologically sensitive area of the LIU project (based on Hyde 1904) is indicated along the former Navy Street on these maps. Robinson's 1886 map (Map 7) refers to the block as number 147 and the 1886 Sanborn map (Map 8) shows the division of buildings are 3-story domestic structures, with a few commercial enterprises interspersed throughout the block, including a "horse shoer" on DeKalb and several "Second Hand Lumber" yards.

The county record of conveyances for 1869 through 1892 (Kings County 1869-1892) indicate that Valentine G. Hall owned Lot 10 and John Murphy owned Lots 11-13 on what is today's Block 2087. Neither owner lived on their respective properties. Hall originally purchased Lot 10 in 1841, and is indicated in tax assessment records as owner of the property until 1891. There is some discrepancy in the records, however, as the lot is listed in a newspaper advertisement as being auctioned in 1874. Records from 1876 show that Lot 10, located at 237 Navy Street, was a three-story structure with basement, valued at \$2200. In 1841, Hall was a painter and glazier at 98 Cranberry and Joralemon. He was noted in the 1860-61 records as being a secretary at Brooklyn Gas, 136 Remsen, and his residence was listed as 57 Livingston. Directories from 1864-67 indicate he moved his residence to 148 Joralemon (Brooklyn City Directories 1860-61, 1864-65).

Lots 11-13 were purchased by John Murphy in 1866. Murphy owned the lots until 1875, but ownership by the Murphy family continued through at least 1894. Buildings on all three lots were three stories and the properties were valued at \$2200-\$2500. Residential directories for 1860-1861 indicate Murphy was a cartman, residing at 238 Navy Street. In the 1864-67 directories he is listed as a grocer residing at 236 Navy Street (Brooklyn City Directories 1860-61, 1864-65).

Ann Murphy owned the Lot 11 property from 1878 until her death in 1900, and she lived there (at least in part of the house) during that time. During her 22 years in the building, other tenants are noted as residing there, as indicated in the lot summaries below. These summaries are compiled from advertisements found in the *Brooklyn Daily Eagle* between 1861 and 1900 (Brooklyn Public Library 2003). While the *Daily Eagle* archives begin in 1841, no mention of the addresses were found prior to 1861. Through time, each building appears to have been used at least partially for rentals. It appears that in the mid-19th century there were few long-term residents in this area of Brooklyn.

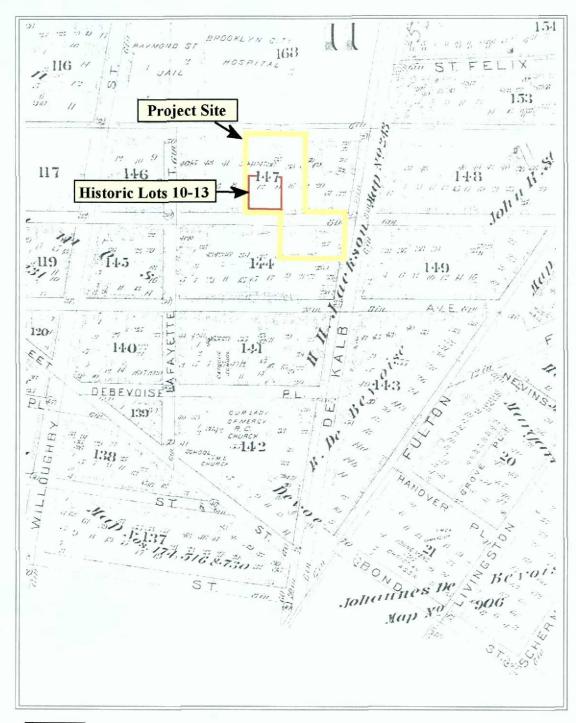
Historic Lot 10: 237 Navy Street

1866: a butcher's shop is to let.

1874: 3-story building with basement and extension frame house, the latter filled in with brick, are auctioned. Dimensions of house frame listed as 8x38 ft; the extension as 8x15 ft; and the lot as 18.8x100 ft.

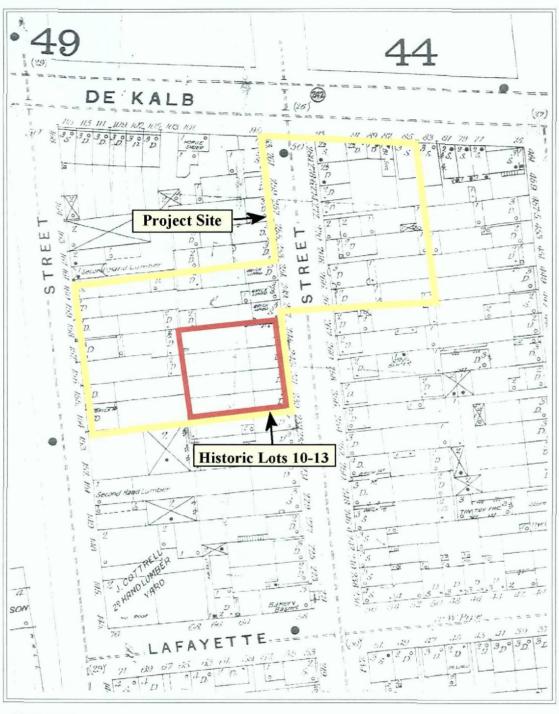
1887: John Thomas and wife Julia live there. John accused Julia of being with another man and tried to kill her with a knife.

1897: ads for furnished rooms to let.





MAP 7 1886 Robinson Atlas of the City of Brooklyn





MAP 8 1886 Sanborn Borough of Brooklyn

Historic Lot 11: 239 Navy Street

1868: a family sewing business, with Wheeler and W(r?)eon's Machine, advertise for helpers.

1870: ads for letting apartments. 1874: James D'Olier and Sarah Phebe live there.

1898: Mrs. Quinn lives there.

1900: Ann Murphy, of Irish descent, died; her funeral was to be at her residence at this address. She is said to have lived at the house she inherited from her father, John Murphy, from 1878 to 1900. In 1886 she and Mary Murphy were executrixes of Michael T. Murphy, where her name was noted as "formerly" Murphy, with a current name of Lockwood, her whole name being Elizabeth Ann Lockwood.

Historic Lot 12: 241 Navy Street

1866: Timothy G. Abbey lived there.

1867: P. Glover lived there and was responsible for letting or leasing.

1869: auctioned to the highest bidder.

1873: John Castello and his wife Mary lived there.

1875: Ann (?) Dealeney and her sister lived there.

1876: Thomas Kelly, owner of 2-story frame stable yard, seeks to sell or let it.

1890: Owen Kelly, plumber, operating from the address. Could be related to Thomas.

1896: James Cowan, 55, lived there.

1897: William Campbell died, his parents lived there.

Historic Lot 13: 243 Navy Street

1861: rooms to let in halves of both 241 and 243, with water and gas in each floor.

1865: Ira W. Hopping is resident and member of the Common Council.

1867: Mme. L. Leberthon is clairvoyant living at 243 Navy. She is also mentioned under the name Mme L. Le Burthon. Also, numerous advertisements for letting rooms.

1869: building is auctioned.

1881: a respectable woman living at 243 Navy asks for washing, housecleaning, and ironing.

1888: a girl is wanted for general housework for a small private family.

1896: a girl is wanted at the top floor to work as a waitress or chambermaid or to do laundry.

1897: a large family seeks a chambermaid.

The information presented above summarizes what is known about the specific lots included within the current project area, including ownership and tenancy of each lot. In addition to this information, a few additional maps indicate several changes within the area of the project following 1900. The 1904 Sanborn map (Map 9) reflects a few changes in the block specifically. From this point forward the block is referred to as Block 2087. The building occupied by the horse shoer in 1886 is now noted as "Blacksmith"; several structures in the center of the block are noted as "Dilapidated"; the "Brooklyn Hospital Ambulance Stable" has been added on Raymond Street near its intersection with DeKalb; and several structures were developed by "Cowperthwaite."

By 1929 (Map 10), several additional changes have taken place within the block, including the apparent demolition of the former blacksmith shop and other structures to its west. This area is now occupied by an "Auto Park & Gas Sta." Several other structures north of this development were also removed to form a "Garage," "Namm's Garage," and "Namm's Wearhouse." These developments reflect the evolution of the neighborhood from more residential to more commercial in nature. Throughout this period of time however, several domestic structures (including those on Lots 10 through 13) remained in place until an unknown time in the early to mid-20th century.

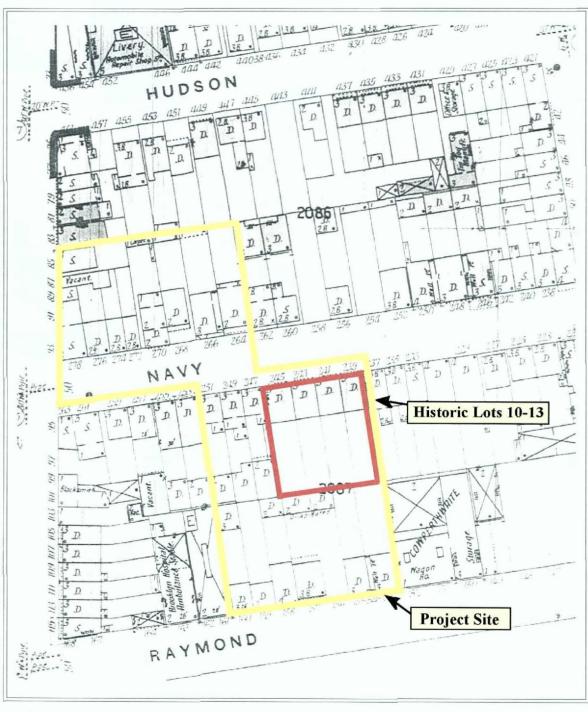
By 1926, Long Island University began to develop portions of this block for its Brooklyn campus (Long Island University 2003) and eventually all of the historic domestic buildings were demolished within this block. Map 11 illustrates current use of the block by LIU for campus facilities and athletic fields. The archeologically sensitive area of Block 2087, Lot 1 is currently occupied by tennis courts and a running track. Historic Lots 10-13, designated as archeologically sensitive by LPC, are located in this area which will be impacted by construction activities associated with this project.

In summary, historic lots 10-13 were developed by at least the 1860s and most likely prior to that given that this area of Brooklyn was well-developed by that time. Given that Lot 10 is known to have been purchased in the 1840s, it is likely that structures existed on the site before the first maps and other documentation include them. Brooklyn is indicated in the directories to have had pump and well districts by mid-century, and as mentioned in the records by the 1860s, the structures apparently had both gas and water service by then. Sewer service was not available in this region until ca. 1860s, therefore, structures dating prior to the 1860s would have had cisterns and privies in the back yards. These features, as well as building foundations, may still exist within the project area, especially given that there has been little disturbance in the area of these historic lots.

SITE VISIT AND ASSESSMENT OF PRIOR DISTURBANCE

A site visit was conducted on April 14, 2003 in order to assess existing conditions of the project area, as well as to identify the amount of prior disturbance potentially affecting any existing archeological deposits on the property. Photos 1-3 depict the areas of development within Blocks 2086 and 2087. The project area is characterized by the presence of a six-story parking structure, parking lots, and athletic facilities, including a running track and tennis courts. The building and parking lot is included within Block 2086, and the athletic facilities within Block 2087.

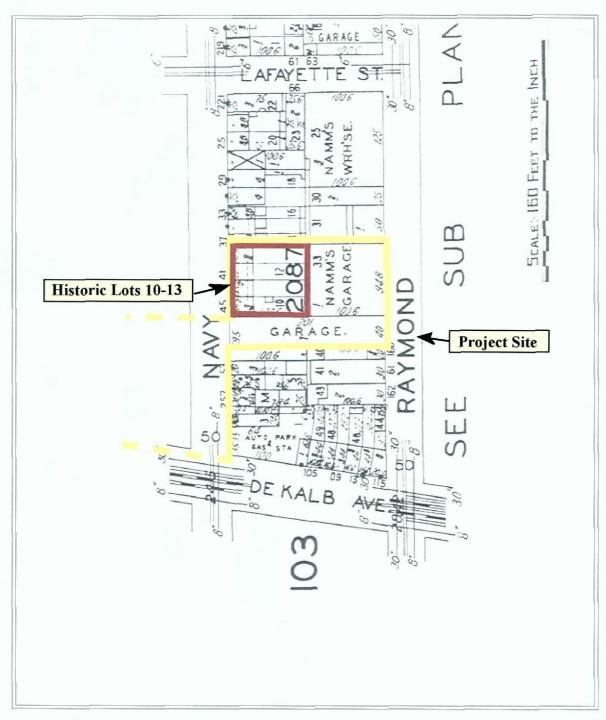
Based on the historic map review and the existing conditions observed within Block 2087, it appears that the area containing the tennis courts and running track is likely to have suffered little disturbance in the past. A review of the updated Sanborn map for this block (Map 11) as well as a review of updated records at the Surveyor's Division of the City Register in Brooklyn indicate that no underground utilities currently exist in this section of the project. Historic archeological resources, and potentially precontact Native American resources, may still exist below surface in this section of the project.





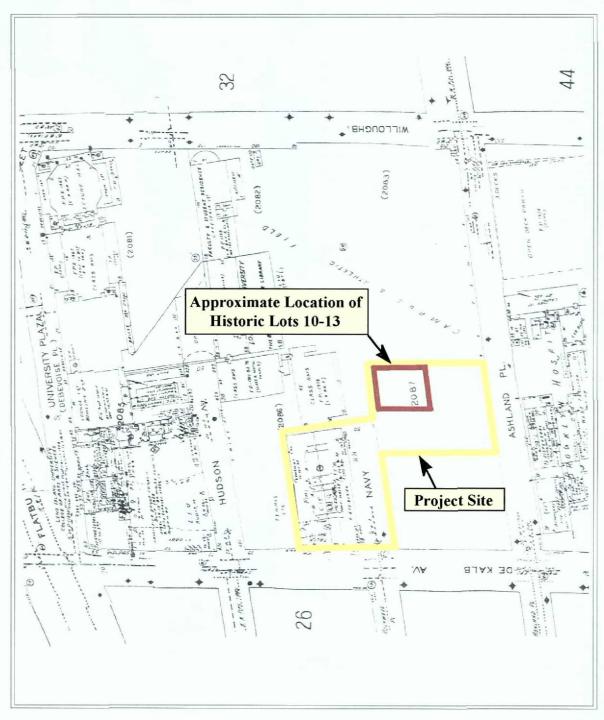
MAP9

1904 Sanborn Borough of Brooklyn





MAP 10 1929 Hyde Atlas of the Borough of Brooklyn





MAP 11 1990 Sanborn Building and Property Atlas of Brooklyn



Photo 1. View north of the project area, Block 2086, Lot 34 (left) and Block 2087, Lot 1 (right), corner of DeKalb Avenue and Rockwell Place.

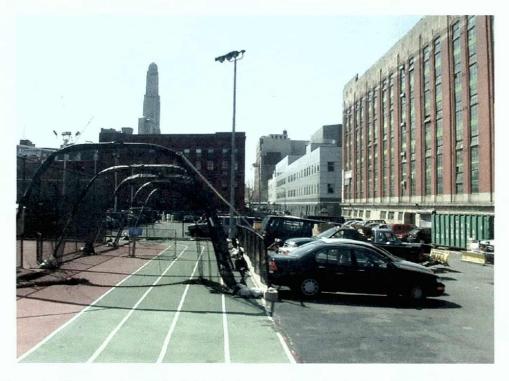


Photo 2. View south of Block 2086, Lot 34 (right, including 5 story building) and part of Lot 1 on Block 2087.



Photo 3. Part of Lot 1, Block 2087 containing historic lots 10-13, determined to be archeologically sensitive.

ARCHEOLOGICAL SENSITIVITY ASSESSMENT

Precontact Archeological Sensitivity

The archeological sensitivity assessment of the project area for precontact cultural resources is based on several factors including physiographic characteristics (topography, drainage), the distance to known archeological sites, and the level of prior disturbance within the project area. Generally, areas in the vicinity of rivers, streams, or swamps suggest a higher than average probability of occupation or use by Native Americans who may have inhabited the area during precontact times. The presence of two sites within a one-mile radius of the project area and the physiographic similarity of the project to those areas where archeological sites have been identified would tend to suggest a moderate sensitivity to precontact sites.

While historic and modern disturbance within the project area (i.e., construction of historic buildings or grading activities) may have impacted Native American sites near the surface, there is still a moderate sensitivity for the presence of precontact archeological deposits in areas that have remained undisturbed at deeper depths, i.e., the rear yards of historic domestic structures, particularly if fill has been added to the site.

Historic Archeological Sensitivity

The examination of historic maps indicates that the area of Brooklyn in which the project is located was developed by the mid-19th century. The project area was divided into lots at least by 1841 when one of the lots is recorded as being purchased by Valentine G. Hall. Several structures remained on this block at least through the early 1930s when LIU began to develop campus facilities in the area. As suggested by LPC (Appendix 1), the section of the project area containing historic lots 10-13 appears to have remained relatively undisturbed by modern construction, including utility installations, and is therefore highly archeologically sensitive for historic resources such as foundation remains of domestic structures once located on these lots, as well as other features associated with historic residence of the property, including privies, cisterns, wells, and the like.

Research of the lots and their history indicate that historically, the lots were used as tenant properties, with at least one individual residing at Lot 11 (239 Navy) for an extended period. A study of any of the remains of historic occupation of the site may provide information concerning the transient nature of this area of Brooklyn, as well as an opportunity to study the diversity of occupation in four adjacent households and potential class differences between them. In addition, archeological deposits from these properties may reflect the occasional use of the buildings for business ventures, such as the sewing shop and butcher shop referenced in the newspaper advertisements. Privy and cistern features can reveal information pertaining to public health issues, such as the presence of disease, through the study of parasites found within the deposits. The deposits may also reflect changes in disease patterns and use of the features over time.

RECOMMENDATIONS

While the majority of the project area included within the proposed LIU Wellness Center site has been affected by modern construction, the research included in this report has suggested that one section of Block 2087, Lot 1 appears to have remained relatively undisturbed over time. Given the likelihood of historic archeological resources, Phase IB archeological testing is recommended for the area including historic lots 10-13. Formal archeological testing in the form of backhoe test trenches will serve to confirm the extent of prior disturbance and the potential for identifying archeological resources in this section of the project.

BIBLIOGRAPHY

Brock, Pamela Chase and Patrick W.G. Brock

2003 http://pbisotopes.ess.sunysb.edu/reports/NYCity/map.html Published October 2001.

Bromley, G.W.

1880 Atlas of the Entire City of Brooklyn, Complete in One Volume. Part of Wards 11 and 20, City of Brooklyn. G.W. Bromley & E. Robinson, New York.

Brooklyn City Directories, 1840-1895, J. Lain and Healy Publishers, New York.

Brooklyn Public Library

2003 Brooklyn Daily Eagle Online http://www.brooklynpubliclibrary.org/eagle October.

Cantwell, Anne-Marie and Diana diZerega Wall

2001 Unearthing Gotham: The Archaeology of New York City. Yale University Press, New Haven.

Dripps, Matthew

1855 Map of the City of Brooklyn. M. Dripps, New York.

1858 Map of the City of Brooklyn. M. Dripps, New York.

Fort Greene Park Conservancy

The Park in a Nutshell. http://www.fortgreenepark.org/pages/history1.html April.

Funk, Robert E.

1993 Archaeological Investigations in the Upper Susquehanna Valley, New York State. Volume 1. Persimmon Press Monographs in Archaeology. Partners' Press, Buffalo, New York.

Geismar, Joan H. and Stephen J. Oberon

1996 Stage I-B Field Monitoring, Test Boring, Electric Line and Overhead Support Locations, Brooklyn Navy Yard Cogeneration Project, Borough of Brooklyn, Kings County, New York. On file at OPRHP, Waterford, New York.

Historical Perspectives, Inc.

Stage IB Field Investigation, Hoyt-Schermerhorn, Blocks 170, 171, and 176, Brooklyn, New York. On file at OPRHP, Waterford, New York.

Homberger, Eric

1994 The Historical Atlas of New York City: A Visual Celebration of Nearly 400 Years of New York City's History. Henry Holt and Company, New York.

Hopkins, G.M.

1880 Atlas of the City of Brooklyn. G.M. Hopkins, Philadelphia.

Hyde, E. Belcher

- 1904 Atlas of the Borough of Brooklyn, City of New York. E Belcher Hyde Map Company, Inc., New York.
- 1912 Atlas of the Borough of Brooklyn, City of New York. E Belcher Hyde Map Company, Inc., New York.
- 1920 Atlas of the Borough of Brooklyn, City of New York. E Belcher Hyde Map Company, Inc., New York.
- 1929 Atlas of the Borough of Brooklyn, City of New York. E Belcher Hyde Map Company, Inc., New York.

Kings County Registrar Conveyance Records, 1869-1892. Volume for Block 2087, Brooklyn, New York.

Landmarks Preservation Commission

- Fort Greene Historic District.
 http://www.ci.nyc.ny.uc/html/lpc/pdfs/historic/ft_greene.pdf> May.
- 2002 Guidelines for Archaeological Research in New York City. Landmarks Preservation Commission, New York.
- 1998 Guide to New York City Landmarks. John Wiley & Sons, Inc., New York.

Long Island Univeristy

2003 University Profiles – Then and Now. http://www.liu.edu/but01/thennow.html May.

Macy, Harry

Before the Five-Borough City: The Old Cities, Towns and Villages that Came Together for Form "Greater New York." http://www.nygbs.org/info/articles/five_boroughs.html April.

National Register of Historic Places

National Register Information System. http://www.nr.nps.gov/iwisapi/explorer.dll/x2 3anr4 3aNRIS1/script/report.iws> May.

New York Archaeological Council

1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State. NYAC, n.p.

New York City Charter Section 3020; Title 25, Chapter 3 of the New York City Administrative Code 1965 Landmarks Law of 1965.

New York City Department of City Planning

2003 District Profiles. http://www.ci.nyc.ny.us/html/dcp/html/lucds/bk7lu.html May.

Perris, William

1855 Plan of the City of Brooklyn. William Perris & J.H. Higginson, New York.

Ritchie, William A.

1980 The Archaeology of New York State. Harbor Hill Books, Harrison, New York.

Ritchie, William A. and Robert E. Funk.

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

Robinson, E.

1886 Atlas of the City of Brooklyn, New York. E. Robinson, New York.

Sanborn Map Company

1886 Borough of Brooklyn. Sanborn Map Company, New York.

1904 Borough of Brooklyn. Sanborn Map Company, New York.

1915 Borough of Brooklyn. Sanborn Map Company, New York.

1939 Borough of Brooklyn. Sanborn Map Company, New York.

1990 The Sanborn Building and Property Atlas of Brooklyn, New York. Real Estate Data, Inc., Miami.

Subsurface Consulting, Ltd.

1997 Ground-Penetrating Radar Survey, Brooklyn Navy Yard Annex, Brooklyn, New York.
On file at OPRHP, Waterford, New York.

TAMS Consultants, Inc.

1999 Determination of National Register Eligibility of Naval Hospital Archaeological Features, Naval Station, Brooklyn, NY. On file at OPRHP, Waterford, New York.

1997 Ground-Penetrating Radar Evaluation, Navy-Retained Section (former) Brooklyn Navy Yard, Brooklyn, New York. On file at OPRHP, Waterford, New York.

United States Department of Agriculture

2002 Established series, Rev. JDV-WEH-STS 03/2002. http://soils.usda.gov/ November.

United States Department of the Interior, Bureau of Land Management

2002 Southern New England Physiographic Area. http://www.blm.gov/wildlife/pl_09sum.html November.

United States Department of the Interior, National Park Service

1978 National Register of Historic Places Inventory Nomination Form, Fort Greene Historic District. National Park Service, Washington, D.C.

United States Geological Survey

1979 Brooklyn 7.5' Topographic Quadrangle. USGS, Washington, D.C.

APPENDIX 1

LPC ENVIRONMENTAL REVIEW FORM

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION 1. Centre St., 9N, New York, NY 10007 (212) 669-7700

ENVIRONMENTAL REVIEW

DAS	NY/ SEQRA-K	11/19/02		
PROJE	ECT NUMBER	DATE RECEIVED		
<u>rın v</u>	VELLNESS CENTER: BLOCKS 2086	& 2087		
[]	No architectural significance			
[]	No archaeological significance			
[X]	Designated New York City Landmark or Will	in Designated Historic District		
[X]	Listed on National Register of Historic Places			
[]	Appears to be eligible for National Register Listing and/or New York City Landmark Designation			

COMMENTS

X

PROJECT

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation on portions of the project site as follows. For Block 2087 part of Lot 1 (historic Lots 10, 11, 12, 13: Hyde 1904) there is potential for recovery of remains from 19th Century residential occupation. This portion of the site appears to have been occupied before availability of public water and sewer (Magnus 1855 map) with no apparent subsequent disturbance as indicated by later historic maps. Accordingly, the Commission recommends that an archaeological documentary study be performed for this part of the site to cladify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2001).

May be archaeologically significant: requesting additional materials

For Block 2086 Lot 34 and Block 2087 part of Lot 1 (historic Lots 33, 35, 36, 37: Hyde 1904) there are no archaeological concerns. These locations appear to be disturbed by 20th century construction as documented by Sanborn Insurance maps dated 1915 (updated to 1993 and 1999) or the "Boundary and Topographic Survey" map by G.S. Gallas dated 11/12/2002.

cc: SHPO attn: Doug Mackey ref.#02PR04149 G:\CEQRER\B2087L1B2086L34K.DOCreq3.wpd

SIGNATURE DATE

APPENDIX 2

QUALIFICATIONS

Hartgen Archeological Associates, Inc. Cultural Resource Specialists

1744 WASHINGTON AVENUE EXT. • RENSSELAER, NEW YORK 12144

KAREN S. HARTGEN, RPA

Qualifications:

36 CFR 61 Qualified Archeologist

Education:

State University of New York at Albany

Master of Arts, Anthropology, December 1988

State University of New York at Albany

Bachelor of Arts, Anthropology, January 1970

Experience:

March 1973 to Present

<u>President and Principal Investigator</u> Hartgen Archeological Associates, Inc.

I have directed the cultural resource management firm since 1973, completing over 2500 cultural resource projects in New York and New England. The firm currently has a full time staff of 25 and a trained seasonal staff of 40. We provide services in historical documentation, site file searches, field reconnaissance, archeological survey and excavation, artifact preservation, collection management, cartography, GIS, architectural history, historic structure survey, National Register nominations, Environmental Impact Evaluations as mandated under NEPA, NHPA, SHPA and SEQR. Archeological surveys include initial surveys to locate sites (Phase IA and IB), development of research designs and field methodologies to identify sites (Phase II), and subsequently data retrieval as mitigating measures (Phase III).

June 1974 to 1978

New York State Museum and Science Service State Education Department, Albany Assistant Highway Salvage Coordinator

Administration and coordination of the Highway Salvage Archeology Program for New York State during field seasons. Intermediary between various State agencies and cooperating institutions in the process of project evaluation and impact mitigation. Also prepared detailed financial reports for Federal reimbursement.

Hartgen Archeological Associates, Inc. Cultural Resource Specialists

CAROL A. RAEMSCH, Ph.D.

QUALIFICATIONS:

36 CFR 61 qualified archeologist

EDUCATION:

University at Albany, Albany, New York

Doctor of Philosophy, Biological Anthropology/Bioarchaeology (1995)

Master of Arts, Anthropology (1991)

Skidmore College, Saratoga Springs, New York

Bachelor of Arts, Anthropology (1988)

SPECIAL TRAINING:

Health and Safety Training for Archaeologists

Sponsored by Panamerican Consultants, Inc. and the NYS Occupational Safety and Health Training and Education Program, Albany, NY (2001)

NAGPRA's Evolving Legacy

Training course in Native American Graves Protection and Repatriation Act legislation, sponsored by the University of Nevada, Philadelphia, PA (1998)

Historic Preservation Law Course

Section 106 training course jointly sponsored by the Advisory Council on

Historic Preservation and the University of Nevada (1997)

Environmental Report Preparation Seminar & Environmental

Compliance Training Course

Seminar and course sponsored by the Federal Energy Regulatory Commission,

Office of Pipeline Regulation (1997)

EMPLOYMENT:

January 2002-present

Manager, New York City Office, Bioarcheologist

Hartgen Archeological Associates, Inc.

Manager of New York City office of HAA, Inc. Responsible for managing and directing Phase I, II, and III field projects and archeological monitoring; report and proposal preparation. Specialized in burial excavation; identification, analysis, interpretation of human skeletal remains from archeological contexts; NAGPRA inventory; consultation concerning historic and prehistoric burial sites.

May 1998 to Dec. 2001

Project Manager & Bioarcheologist

Hartgen Archeological Associates, Inc.

Responsible for managing and directing Phase I, II, and III field projects, and all burial-related projects; report, proposal, and company qualifications preparation; management of company's customized artifact database. Manager of all New

York State DOT and State of Connecticut cultural resource studies.