CHAPTER 7: HISTORIC RESOURCES

A. INTRODUCTION

This chapter evaluates the potential impacts of the proposed project on archaeological and historic architectural resources. The *CEQR Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. Historic resources include designated New York City Landmarks (NYCL), Interior Landmarks, Scenic Landmarks, and properties located within designated New York City Historic Districts; properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed on the State and/or National Registers of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for S/NR listing; properties recommended by the New York State Board for Historic Preservation (State Board) for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but that meet their eligibility requirements. The analyses utilized in this chapter follow the guidelines contained in Section 3F of the *CEQR Technical Manual.*

B. OVERVIEW

According to the guidelines contained in the *CEQR Technical Manual*, impacts on historic resources are considered on those sites affected by a proposed action and in the area surrounding identified development sites. Consequently, the study area for this chapter is defined as the rezoning area plus an area approximately 400 feet around the rezoning area's perimeter. This is the area in which it is expected that new development could affect physical, visual, and historic relationships of architectural resources and is also called the "area of potential effect" (APE). Archaeological resources are considered only in those areas where excavation is likely and would result in new in-ground disturbance, which is defined as any disturbance to an area not previously excavated, and includes new excavation deeper and/or wider than previous excavation on the same site. These areas are limited to sites that may be developed in the rezoning area, including projected and potential development sites. The Phase IA Cultural Resource Assessment (found in Appendix M) establishes APEs for the project, identifies designated and potential cultural resources that may be affected by the proposed project, and assesses the proposed action's potential effects on those resources.

HISTORICAL OUTLINE

In 1609, Henry Hudson, as an explorer for the Dutch East India Company, arrived on the coast of Long Island with his ship the *Half Moon*. After attempting to enter Jamaica Bay via the Rockaway Inlet, Hudson passed through the Narrows and sailed up the present day Hudson River. After this discovery, the Dutch began to quickly settle Manhattan Island, founding the colony of New Amsterdam. In 1614, Adrian Block became the first European explorer to circumnavigate Long Island and, as a result, ascertain that Long Island was not connected to the mainland. Several years would elapse before colonists settled on Long Island with Dutch settlers coming from the west and English settlers coming from the New England settlements to the east. Long Island became disputed territory with both nations laying claim to it. In fact, the last act of the Plymouth Company of England was to grant "lands in New England and Long Island to Lord Sterling". Despite the actions of Lord Sterling's land agent, James Farret, who claimed the whole of Long Island and secured a personal claim to Shelter and Robbins Islands, the Dutch authorities appear to have ignored these English ventures. Ultimately, Farret returned to Europe having accomplished little.

During the 1630s, Governor Kieft acquired the title to present-day Queens County from its Native American inhabitants. Soon after this purchase, villages began to appear along the western end of Long Island. The earliest European settlement of Long Island City occurred between 1637 and 1656, when individual Dutch farmers secured land grants in Astoria and Ravenswood from Dutch authorities. The first settlements along the Dutch Kills began in 1643. At this time, Richard Brutnall (Brutnell), an English citizen, purchased 100 acres on the east side of the Dutch Kills and near its junction with Newtown Creek, including the Blissville area and half of the Old Calvary Cemetery. In the same year, Tymen (Tyman) Jansen, a former ship captain for the West India Company, was granted land on the west side of the Dutch Kills. Also, in 1643, Burger Jorissen secured land to the north of Jansen's grant, in the present-day Queens Bridge Plaza area and eastward along Jackson Avenue. Prior to 1654, Jorissen constructed a dam across the Dutch Kills at a point between modern day 41st Avenue and 40th Road slightly south of present-day Jackson Avenue, and erected a water-powered grist mill. The grist mill was located to the southeast of the proposed rezoning area. Jorissen also excavated a long ditch called *Burger's Sluice* within his property in order to drain his land and obtain a better water flow over the mill dam. This ditch extended through the swamp that paralleled Jackson Avenue on the south from 40th to 46th Street.

By 1667, the English acquired dominion over Long Island. At this time, they divided Long Island into three Ridings: Suffolk County became the East Riding; Brooklyn, Staten Island, and western Queens became the West Riding; and, Jamaica, Flushing, and Nassau County became the North Riding. An act of the Colonial Assembly in 1683 abolished the Ridings and created ten new counties within which Queens was one. Five towns fell within Queens County: Newtown, Jamaica, Flushing, Hempstead, and Oyster Bay. In the 1660s, the settlement of Newtown included a carpenter, a cooper, a mason, a blacksmith, and two tailors.

In 1671, Burger Jorissen passed away. Upon his death, Jorissen's sons sold their farm to John Parcell. Around this same time, Joris Stevenson "de Caper van Alst" purchased Tymen Jansen's farm on the west side of the Dutch Kills, along with other property. Stevenson died around 1710, but his estate remained within the Van Alst family for the next two centuries. According to Seyfried, the Van Alst family homestead was built in 1766 and stood between Jackson Avenue and the railroad yards, a few feet east of the Queens Boulevard viaduct, until 1910. Portions of the former Jorissen estate were purchased in 1690 and 1693 by the Bragaw (Broucard) family. Peter Bragaw sold this farm to William Post in 1702, sometime after which the land was reacquired by Isaac Bragaw (Broucard).

During the Revolutionary War, the present-day area of Sunnyside, Queens experienced extensive activity and Long Island City was the setting for many British troop movements. A portion of the
British Army was positioned within the current Sunnyside Yards neighborhood. From this position, they controlled both the Dutch Kills Creek and, more importantly, the Newtown Creek. Newtown Creek functioned as a highway for the British fleet, and also served as a winter haven and storage basin for British Men-of-War and supply ships. In the fall of 1779, the Prince of Hesse's infantry was quartered within the property of John Morrell of Dutch Kills. Within the fall and winter of the following year, the Royal Artillery, Lord Cornwallis' 33rd Regiment, and some Grenadiers were spread along present-day 39th Avenue. The Regiment occupied huts on the land of John Bragaw, whose property and home would eventually descend to the Payntar family. According to Hazelton's account:

> Their huts built on the farm between the two Bragaw houses were rectangular in form and fifty feet long. They were open on the south to let in the sunlight. The roofs were thatched and the sides sodded to the eaves to keep out the northwest winds. The inner wall was of square hewn logs. In the centre of the inclosure (sic) formed by the huts the soldiers would parade. The

> foundations of these old huts were plainly distinguishable even in recent years. Relics are still unearthed.[1]

British troops pulled out of the Long Island City area in December of 1783. By this time, the seven-year British occupation of the region had caused extensive disturbance to the environment. Specifically, the once extensive tracts of forestland within Queens had been decimated by the time of the British departure.

Queens retained a primarily rural character into the nineteenth century. In 1801, the Payntar family purchased the former Bragaw property, where British troops had previously been garrisoned, from the Larremores. While owning the property, the Payntars resided within a farm house thought to have been originally constructed by Isaac Bragaw until its demolition between 1912 and 1914. According to one historian, this structure was located 65 feet north of 41st Avenue and Jackson Avenue, immediately south of the proposed rezoning area. A millstone formerly placed by the Payntar family in the walkway in front of their home was subsequently moved to its present location, the parking lot divider of the Long Island Savings Bank in Bridge Plaza. According to Seyfried, the millstone was formerly used to grind corn within the grist mill of Burger Jorissen. As such, the millstone may represent the oldest European artifact within Queens, possibly having been imported from Europe around 1657.

The Works Progress Administration (WPA) records relating to Peter Bragaw (Broucard) suggest a potentially different ownership history for this property. These records indicate that William Payntar, Jr. acquired a large tract of land from Peter P. Larremore in 1831. These accounts further suggest that William Payntar, Jr. most likely constructed the farm house building rumored to have been built by Isaac Bragaw (Broucard). The WPA locates this structure on the north side of Skillman Avenue, midway between Jackson Avenue and the North Shore Railroad. Given that the Payntar family owned a considerable amount of land within the Dutch Kills area throughout the nineteenth century, it is possible that both the Seyfried and WPA land transaction histories are correct with different members of the family having conducted multiple transactions with the Larremores and, furthermore, with individual Payntar households having occupied distinct homesteads within the area. In fact, the mid-nineteenth century maps of Queens County indicate that at least four different Payntar households were located within the vicinity of present day Northern Boulevard. The WPA records further note that the original Bragaw (Broucard) farm dwelling was located on the Old Ridge Road which may be the one of the first north to south roadways traversing the Dutch Kills area. The alignment of this former roadway is potentially maintained into the present day by an alleyway which diagonally divides Block 371 (bound by 37th and 38th Avenues and 29th and 30th Streets) within the rezoning area.

Historical accounts indicate that Jorissen's grist mill was still in existence until 1861 when construction of the Long Island Railroad through the headwaters of the Dutch Kills demolished the building. Burr's 1829 Map of New York, Kings, Queens, and Richmond Counties depicts the grist mill immediately southeast of the Dutch Kills Creek. The rezoning area, to the northwest of the mill location, appears undeveloped as of 1829. *Burger's Sluice* was also filled in by the Long Island Railroad construction in 1861, with Jackson Avenue opening this same year.

Beginning in the 1830s, urbanizing forces started to develop within Queens with suburban villages being founded by individuals and realty companies. Charles and Peter Roach founded the initial village of Long Island City in 1834. Over the next thirty years, the villages of Hunter's Point, Dutch Kills, Laurel Hills, and Blissville sprang up within the town of Newtown, with the population of the area surging to over

[1] H.I. Hazelton, *The Boroughs of Brooklyn and Queens, Counties of Nassau and Suffolk, Long Island, New York, 1609-1924* (New York: Lewis Historical Publisher, 1925), p.107.

15,000 inhabitants by 1869. Within Dutch Kills, the shift to urbanized streets and denser development began in the north, with formal streets being extended into the northern portion of the project area. By 1863, along with the extension of a street system into the northern sections of Dutch Kills, structures began to appear in areas which did not front the main north-south historic roadway within the proposed rezoning area. In 1870, Governor Hoffman signed a bill which incorporated the villages of Astoria, Ravenswood, Hunter's Point, Dutch Kills, Blissville, Middletown, and Bowery Bay into the preexisting Long Island City. Given severe inadequacies within the city government established by this initial charter, a revised charter was drafted and ratified for Long Island City in 1871.

Prior to the incorporation of Long Island City, population growth and urbanization within the area continued despite the scarcity of laid streets, sewers, or water mains. One particular problem resulting from the increased urbanization in the region involved pollution. Specifically, within Long Island City the area east of Vernon Avenue and south of Broadway was once a tidal marsh through which the Sunswick Creek and its tributaries flowed. The creek was dammed in 1679 in order to create a mill pond. The initial damming of the creek had no marked ill-effects on the surrounding community. However, by 1870, the growth of Hunter's Point and increasing industrialization within the area resulted in extensive pollution. In particular:

> The foul sludge acids from the factories and the refuse of the manure boats and docks and filth of the slaughter houses washed in over the meadows where it became lodged in the sedge and putrefied, occasioning nauseating odors and fouling the ground waters. The damming of the Sunswick Creek cut off the flushing-out of the meadow lands and the salt water that used to ebb and flow became stagnant and slimy and filled with mosquitoes. By 1866 chills and fever were becoming endemic in Hunter's Point and Dutch Kills, especially during the summer months. [2]

To help ameliorate the pollution and resulting health concerns, the newly incorporated city allocated funds for the excavation of ditches in order to drain the tidal marshes. Repeated inefficient efforts at draining the marshes continued throughout the 1870s, with outbreaks of smallpox and diphtheria occurring in 1871 and 1875. The situation was ultimately resolved in the summer of 1879 when the tidal marshes were thoroughly drained.

The lack of a municipal water supply was another serious public concern at the time of incorporation. Up to this time, residents were still obtaining their water from hand pumps located on street corners. Such pumps were maintained by the city and produced water of varying qualities depending upon their location and their proximity to salt water or industrial pollution. The unregulated disposal of industrial waste and oils into the East River and the Newtown Creek also posed a constant threat to the water supply. The 1871 incorporation charter provided for the formation of a Water Board to deal with the city's water issues. The board adopted the Holly system of water-works and imported the machinery from Lockport. In 1875, the engine and boiler houses for the water-works had been built. On April 24, 1875, the water-works was completed and the following day, the water was turned on. By 1877:

> There were 15 miles of pipes laid, half of it six-inch; the big mains were on Van Dam St, Jackson and Thomson Avenues. There were only 200 hydrants. The system was not yet financially self-sustaining because there were far too few customers. [3]

[2] Vincent Seyfried, *300 Years of Long Island City, 1630-1930* (Garden City, NY: Edgian Press, 1984), p.945.
[3] Ibid, p.110.

At this time, the Water Board did not have sufficient funding to build a municipal water system with the capacity to meet the future demands of a growing city and population. The 1898 Sanborn maps of Queens indicate that by the late nineteenth century water lines had been extended into portions of the project area excluding primarily the southwestern and southeastern streets.

By the turn of the twentieth century, the inability of the municipal water system to meet the needs of the inhabitants and businesses within Long Island City was being felt throughout the city. Many residents were only able to draw water from their cellar faucets, and larger businesses often lacked sufficient water to run their boilers full-time. As a result of this water deficit, in 1901, the Board of Public Improvement of the City of New York awarded a contract to the Citizens' Water Company of Newtown to supply Long Island City with water at a rate of $65 per million gallons.

Similar municipal issues also surrounded the lack of a systemic sewage system within the city. Given the lack of sewers at the time of incorporation, the cellars of most buildings were frequently flooded and often contained stagnant, standing water. The city established a general sewer plan to drain a large area in and around the Dutch Kills in the 1870s. Over the course of twenty years, the plan was slowly completed with sewers initially being built along Jackson and Vernon Avenues. Contracts were awarded in 1893 for the completion of the sewer system including the construction of one mile of brick sewer in three sections. Engineering estimates for the construction of the sewer system included the removal of at least 10,000 cubic yards of rock. Sewer maps on file at the Topographic Bureau of the Borough of Queens indicate that sewer lines with house connections had been installed within the project area by 1911, with the majority of lines having been introduced between 1901and 1906 at the latest.

During the 1890s, two churches were constructed within or in the immediate vicinity of the project area. In 1898, the cornerstone was laid for a new St. Patrick's Roman Catholic Church. The congregation had begun worshipping in the area around 1869. Several years later they constructed a church at the corner of 24th Street and 40th Avenue. With the congregation continuing to grow, a new structure was built within the project area, on the northwest corner of 29th Street and 40th Avenue, Block 398 Lot 1. The St. Patrick's Roman Catholic Church continues to worship at this location to the present-day, although the building has been altered from its original brick-faced construction.

The First German Methodist Episcopal Church was organized in the area in 1890. This church was constructed on the east side of 29th Street between 41st Avenue and 40th Road, opposite the old Bryant High School. This location would be immediately southeast of the rezoning area. Sanborn maps of the project area depict the First German Methodist Church within the rezoning area, on the east side of 29th Street between 40th Avenue and 40th Road. However, the location of the church falls within a tax lot which is not a projected or potential development site.

A movement to consolidate Manhattan with its surrounding areas began to emerge in the 1890s. A vote was conducted on November 6, 1894 to determine whether the inhabitants of western Long Island (modern-day Brooklyn and Queens) would elect to consolidate with New York City. In Queens, Long Island City and the towns of Jamaica and Newtown voted in favor of the consolidation, whereas, Brooklyn and the Town of Flushing rejected the proposition. In May 1896, Governor Morton signed the legislation consolidating the western part of Queens, Long Island City, Newtown, Flushing, Jamaica, and part of Hempstead, with Brooklyn, the Bronx, Staten Island, and New York City. On December 31, 1897, the old town governments of Queens were disbanded. On January 1, 1898 the Greater City of New York was formed with the consolidated portions of Queens becoming the Borough of Queens. The eastern unconsolidated portions of Queens became Nassau County.

The consolidation of Queens with the city brought with it increasing pressure to construct a bridge from Manhattan into Queens. Development and planning of the Queensboro Bridge began in 1901. By March 1909, the bridge was open to pedestrian and vehicular traffic. Long Island City and the Dutch Kills area in particular, experienced dramatic change as a result of the bridge construction. With the construction, Jane Street, the southern border of the Dutch Kills neighborhood, was changed from a 60-foot residential street to a 150-foot wide Queens Bridge Plaza. The creation of this broad street required the demolition of many small wooden frame buildings and the raising of the ground surface ten feet.

Around this same time, a new high school, the William Cullen Bryant High School, was being constructed on the northwest corner of 29th Street and 41st Avenue. In July 1902 while digging the foundation for the school, workmen uncovered the gravestone for John Francis Ryerson. In 1930, the Bryant school was moved and the existing school building was renamed the Long Island City High School. The Newcomers High School (the school was renamed in 1995) continues to occupy this corner. This block, Block 404, is located within the southeast corner of the rezoning area, but is not a projected or potential development site.

The construction of the Queensboro Bridge necessitated other widespread changes to the surrounding area. The Payntar homestead located 65 feet north of 41st Avenue on the south side of Jackson Avenue, immediately south of the rezoning area, was razed in the 1910s as a result of manufacturing development. The building of the bridge also required that the Sunswick Meadows, a primarily empty sunken area beneath and north of the bridge, be filled. As the Bien 1891 map of the area shows, a formal street system had yet to be laid out across much of the area between Vernon Avenue and Jackson Avenue including the western portions of the proposed rezoning area. In Seyfried's Pictoral History of Queens, he contends that the Sunswick Meadows constituted much of the area between Crescent Street on the east and Vernon Avenue on the west with the area having been filled between 1870 and 1920. In direct association with the bridge construction:

> the City Highway Department carried 36th Avenue. (Washington) and 37th Avenue (Webster), 38th (Beebe) and 40th Avenue (Payntar) across the Sunswick Meadows on huge embankments of earth and cinders ten to twelve feet high and for the length of half a mile. 40th Ave. was laid out 60 feet across and the other avenues 80 feet across. The huge amount of fill used was taken from hills and from contractors' refuse.[4]

Coincident with the bridge construction were other transportation developments, specifically the completion of the Steinway Tunnel to connect the Interborough Rapid Transit Company and the Pennsylvania Railroad Company to the tracks of the Long Island Railroad Company. The excavation of various railroad tunnels not only enhanced the transportation hub that was becoming Long Island City, but also provided materials for the construction of Sunnyside Yards, the first industrial park-style development in New York City. Sunnyside Yards was built on landfill dumped into the marshes surrounding the Dutch Kills waterway and encompassed over 30 blocks of the eastern portion of the original Dutch Kills neighborhood. The Dutch Kills Creek was also filled in by 1910. At this time, Michael J. Degnon, a subway builder, owned the majority of the meadowland surrounding the creek. He obtained permission from the War Department to dump the excavated soil and rock from his subway construction into the creek which had become unimportant commercially by the 1880s.

With the incursion of train lines into the area in the 1910s, Queens Plaza became a rapid transit hub which, in turn, transformed it into a commercial and banking center. With the increased transportation

[4] Ibid, p.140.

facilities and developing infrastructure throughout Dutch Kills and its environs, companies soon flocked to the area, taking advantage of inexpensive land, access to waterways, and cheap transport rates. As a result, industrial and commercial interests began to take root within the once-residential community. By 1900, several large food manufacturers, such as Silvercup Bakeries, and other industrial companies took advantage of the open space and low land values unattainable in Manhattan or Brooklyn. Along Queens Bridge Plaza, the Brewster Company building for the manufacture of automobile parts, a large concrete factory which became known for its tall red clock tower, represented one of many large industrial plants to move into the area. During the 1910s, the Palmer-Singer automobile factory was also built less than a mile north of the plaza on Webster (37th) and Second (31st Street) Avenues, in the northwestern portion of the rezoning area. By 1912, a dozen large automobile concerns were already located in and directly around the Queens Bridge Plaza. A 1914 article within The Real Estate Record and Builder's Guide forecasted that Queens might become one of the largest manufacturing centers within the northeast. Factory buildings for the National Casket Company, along Jackson Avenue near the Queens Bridge Plaza, for the New York Consolidated Card Company, at Webster (37th) and Fourth (33rd Street) Avenues (in a non-development site within the rezoning area), and the Ford Company's service building were all constructed around this period, with several more industrial and manufacturing buildings being proposed each week. Prior to the construction of the elevated Queensboro train line in 1915, Queens Bridge Plaza was an ornamental public space upon which various industrial and commercial buildings, like the Brewster Building, fronted. This plaza area was destroyed with the extension of elevated subway lines into the area.

The increase in industrial plants and manufacturing centers within Long Island City brought an onslaught of workers to the area. This population boom created an increasing demand for housing in the area which, in turn, spurned the construction of flats and two and three-story family houses within Long Island City, in the vicinity of the Queensboro Bridge, and within Jamaica. In the 1920s, banks and commercial corporations also built large buildings in Long Island City to the support the needs of the growing manufacturing and industrial sector. The widespread industrial, commercial, and residential growth which defined Dutch Kills during the early twentieth century created a mixed-use community with historic elements and newly constructed structures existing side by side. Modifications of the landscape, including the filling-in of street beds, extending of street systems, and the grading of some areas, accompanied the urban development.

In September 1938, ground was broken on a large public housing project, the Queensbridge Houses, to the southwest of the proposed rezoning area. This public housing complex represented the fifth low-rent, government-financed housing project to be built in New York City since 1936. At the time of its construction and into the present day, the Queensbridge Houses represents the largest public housing project in the United States. The development was designed by the Queensbridge Project Associated Architects under the direction of William F. Ballard, chief architect. The Queensbridge Houses occupy six blocks bounded by 21st Street, Vernon Boulevard, 40th Avenue, and a line 100 feet north of the southerly limit of Queens Plaza. The project consists of 25 six-story buildings arranged in a Y-shaped configuration which occupy approximately 25 percent of the 47 acre parcel. Elevators in each of the buildings were initially built so as to only stop on the first, third, and fifth floors. Public facilities including a nursery school, baby clinic, gymnasium, a branch of the Queens Public Library, over a dozen stores, and playground spaces were also built or planned within the housing project. Prior to the construction of the Queensbridge Houses, civic activists within Queens argued against the location of public housing in "one of the noisiest, dirtiest areas in the city". This outrage provides a glimpse into the public perception of Long Island City during the 1930s. The availability and low cost of land along the East River waterfront appears to have been the determining factor in the ultimate location of the housing

project. The Queensbridge Houses was officially opened on October 26, 1939 with 270 families having moved into the new units.

Throughout World War I and World War II the national need for industry and postwar consumer boom brought economic prosperity and increasing numbers of industrial workers to the Dutch Kills area. By the end of the 1950s, industrial-based economic growth had ceased and entered into a four-decade long decline. This decline had detrimental effects on the highly industrialized areas of Long Island City and Dutch Kills, in particular. Industrial properties were increasingly left vacant.

In 1961, the New York City Department of City Planning designated Dutch Kills and the surrounding area as an M1-3 district – a manufacturing designation which precluded the construction of additional housing units. The zoning change was intended to maintain the low price of manufacturing spaces within the area and thereby ensure industrial retention. The designation did not improve the economic situation of Dutch Kills and vacancy rates throughout the area increased during the 1970s and 1980s. In 1989, the M1-3 district was amended to allow for limited expansion of residential uses and development. Between 1990 and 2000, the population in Dutch Kills and the surrounding area increased 29 percent.

Shifts within the demographic profile of the Dutch Kills population have accompanied an overall population increase over the past few decades. Between 1990 and 2000, the Hispanic population within the area experienced a 40 percent increase, with Hispanics representing 42 percent of the entire neighborhood population by 2000. Comparatively, between 1980 and 1990, the Hispanic population increased by 23 percent. The Asian population has experienced a similar exponential growth with a 53 percent increase between 1990 and 2000. Asians now represent 26 percent of all Dutch Kills residents. Over this same period, the black and white populations have decreased, with the relative demographic percentage of both groups decreasing by 20 to 30 percent.

The immigrant population within Dutch Kills also experienced a substantial increase between 1990 and 2000. Whereas immigrant groups represented 59 percent of the residential population in 1990, these groups represented over 67 percent, a clear majority, of the Dutch Kills population in 2000. Along with increases in the immigrant population, the last two decades have also evidenced dramatic differences in immigration patterns. Specifically, between 1988 and 1998, the predominant countries of origin for immigrant groups within Dutch Kills included: the Philippines, China, Romania, Guyana, the Dominican Republic, and Korea. Conversely, from 1998 onwards, the majority of immigrants settling within Dutch Kills have come from Bangladesh, Ecuador, Colombia, Yugoslavia, Egypt, and Pakistan, with Bangladeshis representing over 33 percent of the entire immigrant population.

In contrast to the increasing residential population within Dutch Kills, between 1990 and 2000, the amount of residential housing within the neighborhood increased by only a little more than three percent. The relatively sparse growth in housing units has resulted in overcrowding throughout the area – with approximately 43 percent of the households in Dutch Kills being classified as overcrowded, having more than one person per room. In 2000, students at the Hunter College Urban Planning Studio conducted a survey of contemporary land use within Dutch Kills. This survey found that 45 percent of the total land within the area is designated for industrial use. Residential areas constitute about 25 percent of the land area with commercial uses, institutional uses, and vacant land each comprising about 10 percent of the area. This survey reflects the fact that into the present day, new housing units and residential developments have not kept pace with the increasing population and the diminishing number of industrial and manufacturing positions within the area.

C. METHODOLOGY

ARCHAEOLOGICAL RESOURCES

In assessing the potential for archaeological resources within the rezoning area, only those locations in which new in-ground disturbance is likely to occur were evaluated. This area included both projected as well as potential development sites. In order to preliminarily evaluate the potential archaeological sensitivity within the redevelopment area, LPC was contacted and asked to review and determine the potential to encounter archaeological resource eligibility of all of the projected and potential development sites.

It was determined that four lots on the projected development sites and one lot from the potential development sites had the potential to contain historic archaeological resources. In accordance with the *CEQR Technical Manual* guidelines, LPC was consulted to corroborate the APE for archaeological resources that may be adversely impacted by the proposed project (correspondence dated December 26, 2007). The archaeological APE includes five lots within the rezoning area. A cultural resource assessment was undertaken for these lots (see Figure 7-1).

In order to document any development and changes within these lots over time, historic maps of the region were scanned and georeferenced to the modern lot boundaries using the software program *ArcView 9.2*. This software enables the superimposition of the project's archaeological APE to historic maps. The process of georeferencing historic maps to a contemporary GIS database necessarily involves reconciling resources and information that have been acquired at different times via disparate surveying and cartographic methods. Therefore, discrepancies may appear in the relative location of each lot due to the variability in the historical accuracy of the surveying methods used to create the historic era maps.

Additionally, site file searches were performed at the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), the New York State Museum in Albany (NYSM), and LPC in order to determine whether any archaeological resources have been previously recorded or identified within the project area or immediate vicinity. A documentary and cartographic review of the history of land use and development within the rezoning area was also conducted. Research was conducted at various institutions, such as the New York Public Library and the LPC. Additional resources were consulted online for historic and cartographic information.

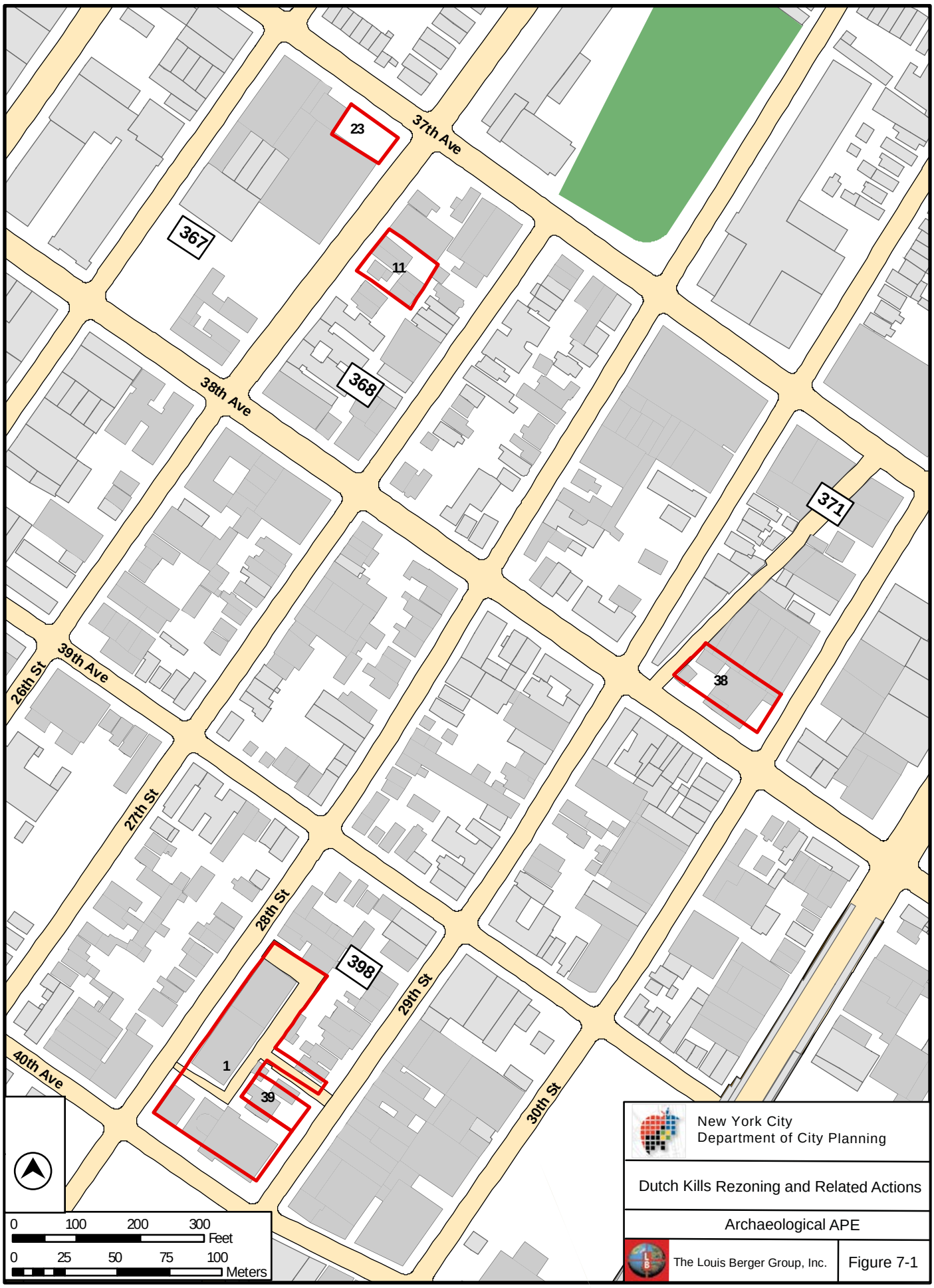
ARCHITECTURAL RESOURCES

The study area within which the architectural assessment is to be conducted, known as the Area of Potential Effect (APE), is developed based on the potential for the proposed project to affect historic architectural resources. Potential impacts to historic architectural resources can include both direct physical impacts and indirect impacts. Direct impacts include demolition of a resource, alterations to a resource that cause it to become a different visual entity, damage from vibration (e.g., from train movements underground or from pile driving), and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery.

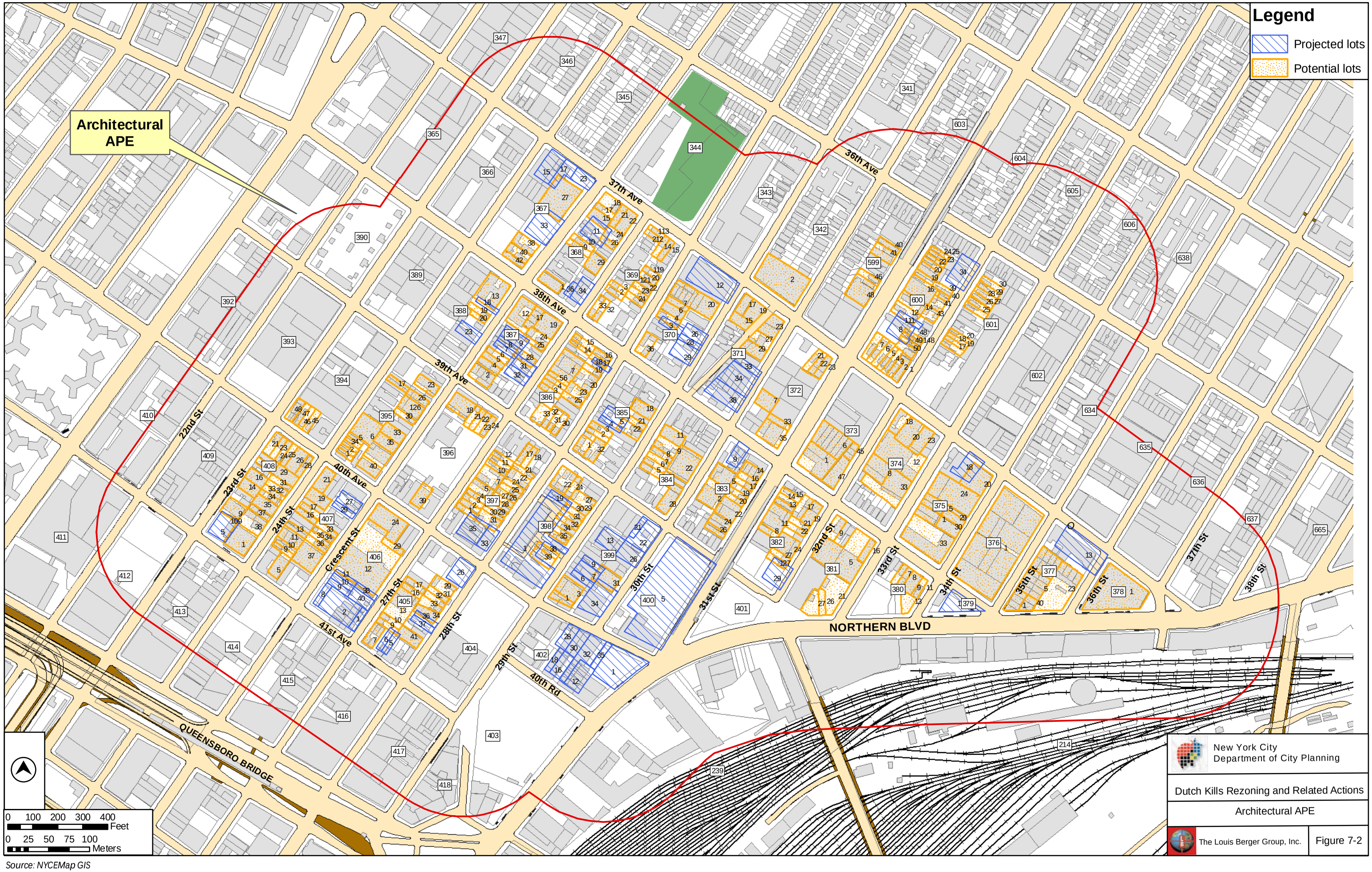
Indirect impacts are contextual or visual impacts that could result from the construction and/or operation of a project. The *CEQR Technical Manual* provides the following examples of indirect impacts: blocking significant views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a

resource's setting; or introducing shadows over significant characteristics of a historic resource, such as a church with notable stained-glass windows.

To address the potential for direct and indirect impacts, the architectural APE consists of the projected and potential development sites as outlined in the proposed project description and an area that extends approximately 400 feet beyond the perimeter of those sites (see Figure 7-2).



Source: NYCEMap GIS; NYCDCP 2007.



Source: NYCEMap GIS

An inventory of previously listed, eligible, or potentially eligible properties within the APE was compiled. Criteria for listing on the National Register are outlined in the Code of Federal Regulations, Title 36, Part 63, and New York City has adopted these criteria for use in identifying architectural resources for CEQR review. Following these criteria, districts, sites, buildings, structures, and objects are eligible for inclusion on the National Register if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: 1) are associated with events that have made a significant contribution to the broad patterns of history (Criterion A); 2) are associated with significant people (Criterion B); 3) embody distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); or 4) may yield [archaeological] information important in prehistory or history (Criterion D). Properties that are less than 50 years old are ordinarily not eligible, unless they have achieved exceptional significance. Eligibility determinations are made by the NYSOPRHP.

The LPC designates historically significant properties in the city as NYCLs and/or historic districts following the criteria provided in the *Local Laws of the City of New York, New York City Charter, Administrative Code, Title 25, Chapter 25, Chapter 3*. Properties, buildings, or objects are eligible for landmark status when a part is at least 30 years old. Landmarks have a special character or special historical or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the city, state, or nation. There are four types of landmarks: individual landmarks, interior landmarks, scenic landmarks, and historic districts.

In addition to identifying architectural resources formally recognized in the architectural APE, an inventory was compiled of other buildings within the study area that could warrant recognition as architectural resources. For this project, potential architectural resources were those properties that appeared to meet one or more of the National Register Criteria (described above) and are at least 30 years of age. Such architectural resources were identified based on a field survey of the study area and by using historical sources, such as documents at the New York Historical Society, the New York Public Library, the Avery Architectural Library at Columbia University, the Department of Buildings, and the Greater Astoria Historical Society.

Once the historic architectural resources in the rezoning area were identified, the proposed actions were assessed for both direct physical impacts and indirect visual and contextual impacts to these resources.

D. EXISTING CONDITIONS

ARCHAEOLOGICAL RESOURCES

Of the total 40 projected development sites, representing 67 lots, it was determined that four lots had the potential to contain historic archaeological resources. From the total 192 potential development sites, representing 314 lots, one lot was identified that had the potential to possess historic archaeological resources. The archaeological APE includes five lots on four different tax blocks within the rezoning area. A cultural resource assessment was undertaken for the following blocks and lots, constituting the archaeological APE:

- Block 367, Lot 23 (Part of Projected Development Site 15) - northwest corner of Crescent Street and 37th Avenue;

- Block 368, Lot 11 (Projected Development Site 32) - east side of Crescent Street, midblock between 37th and 38th Avenues;
- Block 371, Lot 38 (Projected Development Site 14) - southwest corner of 30th Street and 38th Avenue;
- Block 398, Lot 1 (Projected Development Site 24) - southeast corner of 28th Street and 40th Avenue, and;
- Block 398, Lot 39 (Part of Potential Development Site 47) - west side of 29th Street just north of 40th Avenue.

The findings of the assessment are contained in the Phase 1A Cultural Resource Assessment Report (April 2008) conducted for the proposed actions and are summarized in Table 7-1, and discussed in greater detail below.

Table 7-1
Archaeological Potential for each Lot within the Dutch Kills Archaeological APE

Block/Lot	Potential	Description of Archaeological Potential
367, 23	Prehistoric; Historic	Given the predevelopment topography, the proximity to the Sunswick Creek, and the previous identification of prehistoric archaeological sites along Crescent Street, the entirety of Lot 23 has the potential for intact prehistoric deposits. A two-story dwelling appears within the northeastern corner of the lot in 1877. This occupation predates the installation of municipal water and sewer lines. The remaining portions of the lot, which experienced minimal twentieth century development, have the potential to contain mid to late nineteenth century historic period deposits including shaft features.
368, 11	Prehistoric; Historic	Given the predevelopment topography, the proximity to the Sunswick Creek, and the previous identification of prehistoric archaeological sites along Crescent Street, the entirety of Lot 11 has the potential for intact prehistoric deposits. A two-story dwelling appears in the southwestern portion of the lot in 1877. This occupation predates the installation of municipal water and sewer lines. The remaining portions of the lot, which experienced limited or minimal twentieth century development, have the potential to contain mid to late nineteenth century deposits including shaft features.
371, 38	Historic	Development in the immediate vicinity of Lot 38 began in the 1840s. The lot may have functioned as the southern and eastern yard areas of this mid-nineteenth century farmstead. Structures appear within the lot in the early 1890s prior to the introduction of municipal water and sewer lines. Twentieth century development in the far eastern portion of the lot would have caused extensive disturbance to any preexisting subsurface deposits. The remainder of the lot has experienced limited twentieth century development, including structures with basement cuts four feet (1.2 meters) below grade, and, therefore, has the potential for mid-nineteenth and possibly late nineteenth century historic period deposits including shaft features (see Figure 7-3).
398, 1	Prehistoric; Historic	Given the predevelopment topography and the proximity to the Dutch Kills Creek, the entirety of Lot 1 has the potential for intact prehistoric deposits. Development in the immediate vicinity or within the southwestern portion of Lot 1 began in the 1840s with the Abraham Payntar farmstead. This farmstead appears to have occupied the area from the 1840s into the 1860s. An 1877 survey of the area depicts a building complex within the southern portion of the lot which may represent buildings previously associated with the Payntar farmstead. In light of the limited extent of the twentieth century disturbance within Lot 1, including several buildings with basements of six to eight feet (1.8 to 2.4 meters), the southern portions of the lot have the potential for mid-nineteenth century deposits relating to the Payntar farmstead (see Figure 7-4).
398, 39	Prehistoric	Given the predevelopment topography and the proximity to the Dutch Kills Creek, the entirety of Lot 39 has the potential for intact prehistoric deposits.

BLOCK 367, LOT 23

Block 367 is bound by 37th Avenue to the north, Crescent Street to the east, 38th Avenue to the south, and 24th Street to the west. Lot 23 is located at the northeast corner of Block 367, fronting both 37th Avenue and Crescent Street. The lot measures approximately 92 feet along 37th Avenue, commencing at the southwest corner of 37th Avenue and Crescent Street, and has a width of 87.10 feet on its southern edge. Lot 23 has a length of 52.18 feet with an eastern frontage on Crescent Street. As of February 2000, the lot was owned by the New York City Industrial Development Agency who leased the property to Hephestos Tile Supplies, Inc. Currently, the lot is used by Hephaistos Building Supplies, Inc. as a storage and loading area with several large aluminum and painted metal shipping containers occupying a paved cement parcel.

Block 367, Lot 23 was in an undeveloped and primarily rural area throughout the early and mid-nineteenth century. A structure appears to have been built within the northeastern corner of the lot by 1877. This building predated the introduction and extension of water or sewer lines into the area and may have predated the extension of formal roads. A two-story dwelling continued to occupy the northeastern corner of the lot from 1877 to 1972, at the latest. The nineteenth and twentieth century depictions of this structure show it extending into the adjacent 37th Avenue and Crescent Street roadbeds. This extension of the building outside of the lot boundaries indicates that it may have extended into the sidewalks or curb lines of the fronting streets. This further suggests that portions of the structure fell outside of the boundaries of Lot 23, although the majority of the structure occupied the northeastern corner of the lot. The remaining portions of Lot 23 witnessed minimal development throughout the twentieth century. A one-story shed building arose to the west of the two-story dwelling by 1915 and a one-story garage was constructed along the southern boundary of the lot by 1938. There is no indication that either of these associated structures had basements or caused extensive subsurface disturbance when they were constructed. Given that a residential structure was present within Lot 23 prior to the introduction of utilities, that this structure may have remained extant within the lot for nearly 100 years, and that there is no clear indication of subsurface disturbance to any other portion of the lot, the majority of Lot 23, excepting the northeast corner, is considered sensitive for intact historic period archaeological resources including shaft features associated with this mid-nineteenth century to twentieth century occupation. Given that the structure appears to predate the introduction of formal roads to the area, and that portions of the building extended outside of the lot boundaries, it is possible that historic deposits or features associated with the dwelling sit within the 37th Avenue or Crescent Street sidewalks or roadbeds.

Previous archaeological studies of historic period sites located within urbanized areas have illustrated that shaft features, particularly privies, were typically located in the rear and side portions of the urban houselot. These previous studies suggest that the rear and side yards of Lot 23 have the highest potential for buried privy deposits. Given that the earliest development of Lot 23 appears to date to the beginnings of urbanization within the Dutch Kills area, this initial occupation may have more closely resembled an *urban farmstead* as opposed to an urban houselot. According to Stewart-Abernathy[5], the urban farmstead represents an urban household which incorporated aspects of *rural* living within its residential space. Such rural elements might include privies, wells, vegetable gardens, chicken coupes, or stables which would enable the urban household to fulfill those daily needs which the newly urbanized community may not have been able to provide. Although, municipal water was available to residents of Dutch Kills via hand pumps situated on street corners by the 1870s, municipal sewage lines, electrical or gas utilities, and public transportation were not available until the twentieth century. Thus, the late-nineteenth century

[5] Stewart-Abernathy, "Urban Farmsteads: Household Responsibilities in the City," *Historical Archaeology*, 1986, 20(2): pp.5-15.

household within Lot 23 may have used its houselot space to help fulfill such daily needs as consumption, sanitation, waste disposal, and transportation. Therefore, aside from its extreme northeastern corner, Lot 23 is considered sensitive for historic urban farmstead deposits including potential shaft features, planting beds, internal fence lines, or informal structures.

The location of Lot 23 according to the 1844 United States Coast Survey[6] places this area on a raised knoll approximately 620 feet east of the Sunswick Creek and its associated marshlands. Given the location of this lot on one of the only raised surfaces in the near vicinity of the creek, the lack of clear past subsurface disturbance to the majority of the lot, and previous archaeological studies which have indicated the presence of prehistoric sites along Crescent Street, Lot 23 also appears to have the potential for intact prehistoric deposits.

At present, soil boring data could not be obtained for Block 367, Lot 23. Given the history of extensive ground filling to the west of Lot 23, and the late date at which formal streets were extended into this area, it is possible that this lot was also filled. Alternatively, the preexisting raised topography of the lot suggests that it could also have been graded or leveled so as to meet the elevation of the newly filled street beds. A review of soil boring data for Lot 23, if such data does exist, would elucidate the history of filling and/or grading which may have occurred within this area. If such episodes did previously occur, they may have had direct effects upon preexisting archaeological deposits. The addition of fill deposits may have capped and sealed any preexisting archaeological resources; conversely, extensive grading of the area may have truncated or completely removed such resources. Therefore, based on the available information, Lot 23, except for its northeast corner which contained a structure with a basement, is considered sensitive for prehistoric and historic period archaeological deposits. If soil boring data for the lot becomes available, both the prehistoric and historic sensitivity of the lot would have to be reevaluated on the basis of this information.

BLOCK 368, LOT 11

Block 368 is bound by 37th Avenue to the north, 27th Street to the east, 38th Avenue to the south, and Crescent Street to the west. Lot 11 is located on the western side of the block approximately 125.68 feet south of the southeast corner of 37th Avenue and Crescent Street. The lot is irregularly shaped measuring 95.67 feet in width along its northern edge and 104.43 feet in width along its southern edge. Lot 11 is 83.74 feet in length. As of November 2007, the lot was owned by 19 Crescent Corporation and had a listed address of 37-19 Crescent Street. The lot is currently an active construction site encased within blue scaffolding with a posted new building permit. The permit, NB402465694-01, dates from December 2007 to December 2008.

Block 368, Lot 11 remained an undeveloped and primarily rural area throughout the early and mid-nineteenth century. A structure appears to have been built within the western portion of the lot by 1877. This building predated the introduction and extension of water or sewer lines into the area and may have predated the extension of formal roads. A two-story dwelling continued to occupy the southwestern portion of the lot from 1877 to at least 1972. The eastern portions of Lot 11 experienced development throughout the twentieth century. A one-story rug cleaning structure with a partial basement was constructed in the southeastern corner of the lot in 1928. This building remained on the property from 1928 to at least 1972. A small one-story dwelling and a one-story garage structure were also constructed

[6] U.S. Coast Survey, *Map of New York Bay and Harbor and the Environs. Founded upon a Trigonometrical Survey under the Direction of F.R. Hassler Superintendent of the Survey of the Coast of the United States* (Washington, D.C., 1844).

on the eastern side of the lot during the mid-twentieth century. The northwestern portion of Lot 11 appears to have remained undeveloped over time. Given that a nineteenth century residential structure was present within Lot 11 prior to the introduction of utilities, the lot may have contained historic period archaeological resources particularly shaft features. Although the southeastern portion of the lot was developed within the twentieth century, a poured concrete division was maintained between the dwelling and the shop. This concrete surface may have capped and protected subsurface deposits or features during the twentieth century development. It is also possible that the partial cellar of the shop building caused only limited disturbance to any extant subsurface deposits. Previous archaeological studies in Manhattan have uncovered buried privy deposits ranging in depth from 2.5 to 12 feet. Thus, the shop building may have truncated but, in effect, may have also sealed and protected any deeply buried shaft features or historic period deposits within the southeastern corner of Lot 11. Given the lack of development in the northwestern portion of Lot 11 and the lack of evidence of subsurface disturbance in the northeastern portion of the lot, the northern portion of Lot 11 is considered sensitive for historic period archaeological deposits.

As previously noted in the discussion of Block 367, Lot 23; Block 368, Lot 11 appears to have been developed during the initial onset of urbanization within the area. At this time, the municipal utilities and services which often accompany urban development were not yet fully operational. This suggests that the initial occupation of Lot 11 may have resembled an *urban farmstead* with the household having to maintain some *rural* characteristics in order to fulfill its daily needs and maintain a desired quality of life. Given the potential that Lot 11 may have resembled an urban farmstead occupation, the entirety of the lot, aside from the southwest corner location of the dwelling, is considered sensitive for historic deposits including shaft features, activity areas, or informal structures.

The location of Lot 11 according to the 1844 United States Coast Survey places this area on a downhill slope southeast of a small knoll. The lot stood approximately 750 feet east of the Sunswick Creek and its associated marshlands. Given the location of this lot in relative proximity to a known water source, the lack of clear past subsurface disturbance to the majority of the lot, and previous archaeological studies which have indicated the presence of prehistoric sites along Crescent Street, Lot 11 also appears to have the potential for intact prehistoric deposits.

At present, soil boring data for Block 368, Lot 11 could not be obtained. It is, therefore, unclear as to what extent this lot may have been filled and/or graded in the past. Previous episodes of extensive filling have been documented to the west of this block, and limited grading has also been documented to the east. It is possible that either or both types of disturbance may have occurred during the urbanization and development of Lot 11. Both processes would have affected the likelihood for finding intact archaeological deposits within the lot. Based on the available data, Lot 11, aside from its southwestern corner which contained a dwelling with a basement, is considered sensitive for prehistoric and historic period archaeological deposits. If soil boring data becomes available for this lot, the sensitivity assessment would have to be reevaluated on the basis of such information. In particular, if the area has been filled in the past, any preexisting prehistoric deposits may have been sealed and protected from subsequent development like the historic dwelling within the southwest corner of the lot. It is also currently unclear as to what extent the proposed new building construction within Lot 11 may have disturbed portions or the entirety of the lot. The nature and extent of this disturbance could also potentially impact previously intact archaeological deposits within Lot 11.

BLOCK 371, LOT 38

Block 371 is bound by 37th Avenue to the north, 30th Street to the east, 38th Avenue to the south, and 29th Street to the west. Lot 38 is located on the eastern side of the block with frontages on 30th Street and 38th Avenue. The lot extends from the northwestern corner of 30th Street and 38th Avenue approximately 159.45 feet to the west terminating at an alleyway which diagonally crosses the block. The irregularly shaped lot extends for a length of 75.18 feet on its western edge and a length of 70.33 feet on its eastern edge. The northern line of Lot 38 extends for a width of 142.30 feet from 30th Street to the alleyway. As of May 2005, the lot was owned by the Alpet Holding Corporation and had a listed address of 29-15 38th Avenue. The eastern portion of the lot is currently occupied by a garage and storefront for L.I.C. Taxi Management, Inc., with adjacent paved parking areas to the east and west. A two-story domestic residence sits along the western portion of the lot bordering a paved driveway/alleyway.

Beginning in the 1840s, Block 371, Lot 38 appears to have been within the immediate vicinity of an unidentified structure. The lot may have fallen within the southern and eastern yard areas or the southeastern corner of a developed parcel. The unnamed structure may have been removed by 1863 with a subsequent structure being developed immediately north of Lot 38 by 1877. Alternatively, the 1877 structure may be the same building depicted on the mid-nineteenth century maps. Development within Lot 38 did not begin until 1891 with a one-story dwelling along the northwestern corner of the lot. This structure appears to have predated the introduction of water lines along Old Bridge (Ridge) Road which were present by 1898. In 1898, a second dwelling sat along the southern edge of Lot 38 at 333 Freeman Avenue. This dwelling also predates the introduction of water or sewage lines to Freeman (38th Avenue which occurred in 1907. Extensive development occurred across the majority of Lot 38 throughout the twentieth century. In particular, a large garage with a cellar-cut and a filling station with associated gas tanks were developed in the central and eastern portions of the lot by 1930. A two-story dwelling with a basement was also built in the southwestern corner of Lot 38 by 1928. The presence of gas tanks and a filling station along the far eastern extent of Lot 38 (historic lots 15 and 15A) suggests that this area most likely experienced extensive subsurface disturbance. Therefore, this portion of Lot 38 is not considered sensitive for intact archaeological resources.

However, the majority of Lot 38 appears to have experienced little or minimal disturbance over time. In particular, the southern portion of historic Lot 19 appears to have remained continuously undeveloped. Although the structures located on the western and central portions of Lot 38, the carpet cleaning building and the two dwellings, each had a cellar cut or basement, the documented subsurface disturbance in each case appears to have extended to approximately four feet below the curb. It is unclear to what, if any, extent urban development in this area involved filling and/or grading episodes. If fill deposits had been introduced to Lot 38, it is possible that any preexisting subsurface deposits would have been capped and sealed. The basement excavations associated with the carpet cleaning building and the two dwellings would have caused very limited or no impact to such sealed deposits. Regardless, as previously noted, archaeological studies in Manhattan have documented privy deposits ranging in depth from 2.5 to 12 feet. Therefore, the development in the western and central portions of the lot may have merely truncated extant historic deposits, and, thusly, particularly with respect to buried shaft features, may have also capped and maintained these deposits.

The earliest occupation in the vicinity of Lot 38 dates to the 1840s. At this time, Dutch Kills appears to be a primarily rural area with developed parcels consisting of farmsteads and associated agricultural lands. It seems likely that these early occupations would have resembled *rural farmstead* occupations as opposed

to urban houselots. As Muir[7] has shown in his study of historic period farmsteads within the Richland/Chambers drainage in Texas, traditional rural farmsteads utilized a vast amount of space particularly in comparison with the urban houselot. Muir found that features associated with the rural farm could be found at distances up to 230 feet from the primary dwelling. He also estimated that privy deposits could be found within 59 to 79 feet of the main house. The 1844 United States Coast Survey places Lot 38 within 65 feet of the nearest structure. Given Muir's findings, it appears that Lot 38 may have functioned as a portion of this unidentified rural farmstead. Therefore, aside from its eastern extent, Lot 38 is potentially sensitive for historic period archaeological deposits relating to this mid-nineteenth century farmstead occupation.

With respect to the late nineteenth century occupation of historic Lots 16, 18, and 19, contemporaneous settlement in and around Block 371 reflects increased urbanization. This would suggest that these late nineteenth century developments would most likely resemble urban houselot occupations. Previous archaeological studies have documented that the side and rear yards of such houselots are typically the most sensitive areas for historic archaeological deposits particularly shaft features. These patterns suggest that the southern portions of historic Lots 18, 19, and 20, along with the entirety of historic Lot 17 and the northern portion of historic Lot 16 would be sensitive for late nineteenth century historic deposits (see Figure 7-3). The lack of obvious development within the southern portion of historic Lot 19 suggests that this portion of Lot 38 has the highest potential for intact historic period deposits. However, it is unclear to what extent twentieth century development may have caused disturbance to the other potentially sensitive areas. Soil boring data for modern Lot 38 could not be located during the preparation of this report. Such data would provide indications as to what extent the lot may have been filled or graded in the past. The extent to which such periods of disturbance may have occurred within this area would affect the likelihood for finding intact archaeological deposits within the lot. Therefore, if soil boring data becomes available, the historic sensitivity assessment for Lot 38 would have to be reevaluated.

With respect to prehistoric archaeological deposits, the 1844 United States Coast Survey indicates that prior to urbanized development within the area that Lot 38 was located in a raised flat terrace over 1500 feet from both the Sunswick Creek and the Dutch Kills Creek. There have been no previously recorded prehistoric archaeological sites in the immediate vicinity of Lot 38. Therefore, given the predevelopment location of the lot with respect to known water sources and the lack of previously recorded archaeological deposits within the immediate area, Lot 38 is not considered sensitive for prehistoric archaeological resources.

BLOCK 398, LOT 1

Block 398 is bound by 39th Avenue to the north, 29th Street to the east, 40th Avenue to the south, and 28th Street to the west. Lot 1 is a large irregularly shaped lot with frontages on 28th Street, 40th Avenue, and 29th Street. The lot extends from the northeast corner of 40th Avenue and 28th Street to a point 347.36 feet to the north. From this point, the lot extends 100.10 feet to the east and from there it moves south 171.98 feet. At this point, the lot extends east 100.10 feet to 29th Street. Along 29th Street, the lot moves 25 feet to the south and then extends to the west 100.10 feet. At this point, Lot 1 turns to the south and extends 75.01 feet at which point it turns to the east and extends 100.10 feet to 29th Street. The lot then proceeds south 100.13 feet to the northwest corner of 40th Avenue and 29th Street. Along 40th Avenue, Lot 1 extends for a width of 200.20 feet to the northeast corner of 28th Street and 40th Avenue. Lot 1 is owned by St. Patrick's Roman Catholic Church of Long Island City and has a listed address of 39-42 40th

[7] Randall W. Muir, "Method and Theory in the Study of Sheet Refuse," Chapter 2. (Chapter on file at the Louis Berger Group, Inc., 412 Mount Kemble Avenue, Morristown, NJ 07960).

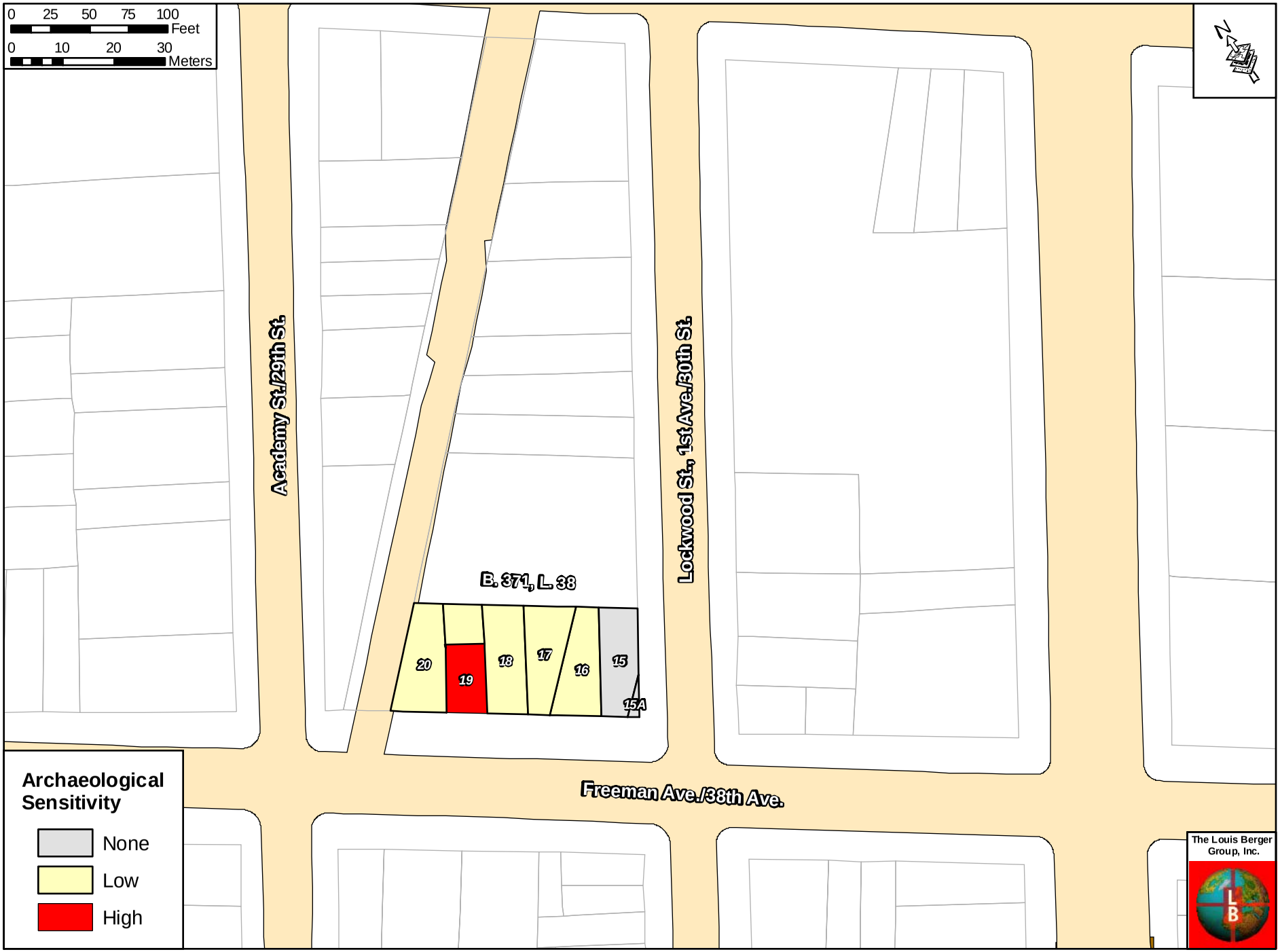


Figure 26 3: Areas Sensitive for Historic Period Archaeological Resources within Block 371, Lot 38 (Historic Lots Italicized)

SOURCE: Berger 2008

Avenue. A large school building with a northern extension occupies the western portion of Lot 1 along 28th Street. A three-story convent building sits at the northeastern corner of 28th Street and 40th Avenue, separated from the school building by a paved parking area. A large church building spans the majority of the southern portion of the lot and fronts on the northwest corner of 29th Street and 40th Avenue. A paved parking area occupies the northeastern arm, the 25-foot extension, of Lot 1.

Development within Block 398, Lot 1 or in the immediate vicinity of this lot began in the early 1840s. From the 1840s through the 1860s, this parcel appears to have been part of the developed farmstead of Abraham Payntar. It is unclear from the cartographic records as to whether one of the earliest Payntar structures fell within the southwest corner of Lot 1 or whether portions of Lot 1 occupied the rear yard area associated with this building. By 1877, a complex of buildings occupied the southern portions of the modern lot. These buildings may represent portions of the former Payntar farmstead. These structures were removed by 1891 when a linear hothouse occupied the western and central western portions of Lot 1, encompassing the majority of historic Lots 5 and 6. By 1898, the hothouse had been removed and construction of the St. Patrick's Roman Catholic Church began. Two domestic structures also appeared in the northwest corner of Lot 1, historic Lots 17 and 18, by this time. Water lines had been introduced to Radde (28th Street by 1898, suggesting that these dwellings may have been tied to the municipal water system from their initial occupation.

St. Patrick's Church expanded its land holdings and building complex across modern Lot 1 throughout the twentieth century. The construction of the church building, the convent, the school building, and the school building extension appear to have potentially caused an extensive amount of disturbance to the majority of the lot. With basement and foundation cuts extending to depths of at least six to eight feet within each of these buildings, there is a high likelihood that their construction may have caused extensive subsurface disturbance to any preexisting archaeological deposits. Nevertheless, despite the intense development across the majority of the lot, a few areas appear to have remained relatively untouched over time. In particular, the eastern portion of the historic lots fronting 28th (Radde) Street upon which the twentieth century school building sits appears to have remained relatively undeveloped, functioning as parking or pedestrian areas. The location of the eastern portion of historic Lots 1 and 2 with respect to the 1877 building complex suggests that these areas would be sensitive for historic deposits. Given that the 1877 buildings predate the extension of water and sewer lines into the area and that these buildings may represent a continuous occupation of the area from the 1840s through the 1860s, there is a high potential for intact historic period deposits including shaft features within the eastern portions of both these historic lots. Those residential structures within Block 398 which appear in 1891 are depicted with one-story outbuildings in their rear lots by the 1898 Sanborn, with one such outbuilding being labeled a water closet, suggesting that these structures were built prior to the installation and connection with municipal water and sewage lines. The lack of such a rear outbuilding in association with the dwellings in historic Lots 17 and 18 which do not appear until 1898 suggests that these dwellings postdate the installation of utilities and, therefore, were connected to the municipal system from their earliest occupation. For this reason, these areas are not considered sensitive for significant historic period archaeological deposits or shaft features.

During the initial mid-nineteenth century development within the area, Dutch Kills appears to have been a primarily rural area with settlement defined by rural farmsteads and their associated agricultural lands. Given this setting, it appears that portions of Lot 1 may have functioned as rear or side yard areas within the larger Abraham Payntar farmstead. Depictions of this farm complex from 1844 through 1877 suggest continued development and alterations to the farmstead over time, possible reflecting expansions or alterations in the function of the farm. By 1877, the nature, shape, and orientation of structures within Lot 1 suggest that these buildings were not the main dwelling of the farm, but rather affiliated structures –

barns, animal coupes, stables, kitchen areas, etc. – associated with the daily functions of the farmstead. As such, the interior courtyards and open spaces surrounding and between these structures may have contained archaeological deposits relating to their past use and to larger conceptions of the farmstead landscape. Therefore, historic Lots 1, 2, 3, 32, 33, 34, 35, 36, 37, 38, 39, and 40, which fall within the interior of the building complex, have to potential to have contained historic archaeological deposits relating to the nineteenth century farmstead. Additionally, with historic Lots 4, 5, 6, 7, and 8 falling to the north and outside of the 1877 building complex, these lots are not considered sensitive for historic archaeological deposits.

However, as previously noted, the eastern portions of historic Lots 1 and 2 appear to be the only portion of these potentially sensitive lots which have remained relatively undeveloped. Conversely, extensive twentieth century development, including several structures with basement cuts six to eight feet in depth, has occurred across the majority of the southern portion of Lot 1. Given the documented history of past filling to the south of Block 398, it is possible that this block was also filled at some point in the past. Such filling episodes may have capped and protected any preexisting historic ground surface or deposits from the twentieth century development. Thus, historic Lots 3, 32, 33, 34, 35, 36, 37, 38, 39, 40, and the western portions of historic Lots 1 and 2 may also be sensitive for historic period archaeological deposits (see Figure 7-4).

The 1844 United States Coast Survey indicates that prior to urban development Lot 1 was situated on a small knoll approximately 620 feet northwest of the Dutch Kills Creek and its associated marshlands. Given the preexisting topographic conditions within this area, Lot 1 appears to have been a potentially appealing area for prehistoric activity. Furthermore, previous archaeological studies within the Sunnyside Yards have concluded that an intact prehistoric ground surface may exist beneath deep fill deposits in this area. Since Lot 1 is in comparable proximity to the Dutch Kills Creek as the Sunnyside Yards this lot is also considered sensitive for intact prehistoric deposits.

However, the preexisting topography of Lot 1 with respect to the surrounding terrain suggests that during the construction and extension of road systems this area may have been graded in order to conjoin with the surrounding elevations. Alternatively, the presence of an extensive fill deposit immediately south of Block 398, also suggests that this block may have experienced past filling episodes. At this time, soil boring data is unavailable for Lot 1. Therefore, it is unclear to what extent this landscape may have been manipulated by past filling and/or grading episodes. Based on the available information, Lot 1 is considered sensitive for prehistoric archaeological deposits and portions of Lot 1 are considered sensitive for historic archaeological deposits. If soil boring data for the lot becomes available conclusions regarding the potential for intact prehistoric and historic period archaeological deposits within the lot should be reevaluated.

BLOCK 398, LOT 39

Block 398 is bound by 39th Avenue to the north, 29th Street to the east, 40th Avenue to the south, and 28th Street to the west. Lot 39 is located on the east side of the block with a frontage on 29th Street. The lot is immediately north and east of Lot 1. Lot 39 is situated 100.13 feet north of the northwest corner of 40th Avenue and 29th Street. The lot measures 50.04 feet in length along 29th Street and 100.10 feet in width. Lot 39 is owned by St. Patrick's Roman Catholic Church of Long Island City and has a listed address of 39-38 29th Street. A three-story rectory building with a one-story exterior brick extension occupies the lot. The building sits upon a raised surface with cement stairs leading from the curb level to the entrance. A landscaped short-grass lawn with ornamental shrub growth sits at the eastern portion of the lot fronting the building.

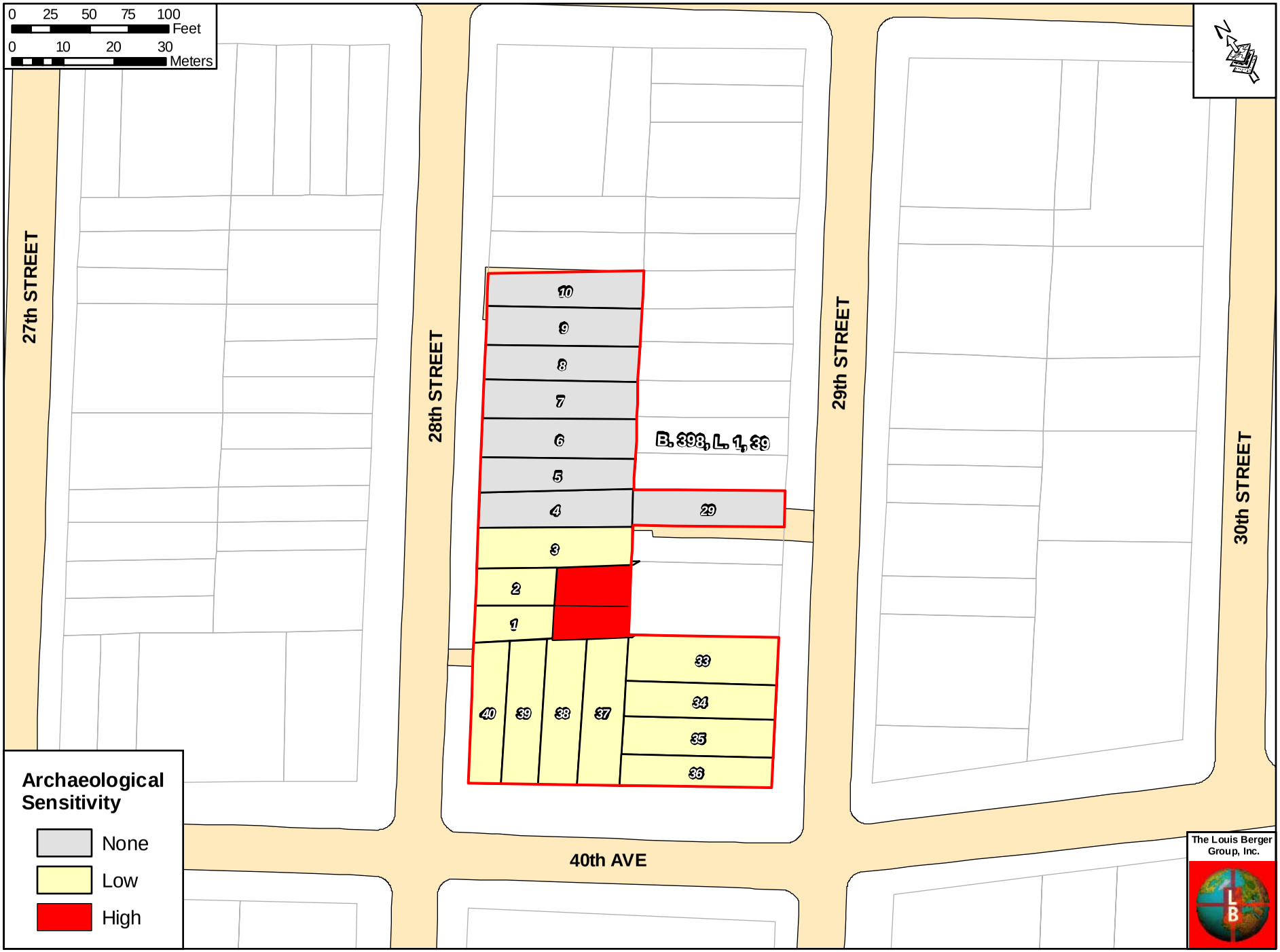


Figure 33 4: Areas Sensitive for Historic Period Archaeological Resources within Block 398. Lot 1 (Historic Lots Italicized)

SOURCE: Berger 2008

Development in the vicinity of Block 398, Lot 39 began during the mid-nineteenth century. From the 1840s through the 1860s, it appears that a historic roadway may have run across the lot from roughly north to south. By 1877, a complex of buildings appears to have occupied the western portions of Lot 39 and extended to the west. The orientation of these structures suggests that they may have been part of an earlier farmstead complex and that sensitive activity areas within this complex may have been located in within the interior courtyards of this building complex. Therefore, Lot 39 is not considered sensitive for deposits relating to this mid-nineteenth century occupation given that the western portion of the lot falls within the footprints of the buildings and that the eastern portion of the lot lies on the exterior of the complex. By 1891, a single square structure appears to sit within the southwestern corner of Lot 39. There is no indication as to how or by whom this building may have been occupied. The 1898 Sanborn indicates that a two-story dwelling sat within the western portion of the lot. At this time, water lines had been introduced and extended across Academy (29th) Street. Given the lack of associated structures or outbuildings with this dwelling, particularly in light of the presence of such structures in the rear lots of several pre-1898 buildings within the block, it appears that this structure did not predate accessibility to municipal water or sewage lines. This further suggests that this building was connected to municipal utilities at the time of its initial occupation. Therefore, Lot 39 is not considered sensitive for historic period archaeological resources or shaft features associated with either the mid-nineteenth century farmstead or with potential late-nineteenth century occupations.

As previously noted with respect to Lot 1, the 1844 United States Coast Survey indicates that prior to urban development Lot 39 was situated on a rise approximately 620 feet (189.0 meters) northwest of the Dutch Kills Creek and its associated marshlands. Given the preexisting topographic conditions within this area, Lot 39 appears to have been a potentially appealing area for prehistoric activity. Furthermore, given that previous archaeological studies within the Sunnyside Yards have concluded that an intact prehistoric ground surface may exist beneath deep fill deposits in this area, Lot 39 which is in comparable distance to the Dutch Kills Creek also appears to be sensitive for intact prehistoric deposits. It is, however, presently unclear to what extent, if any, this lot has experienced subsurface disturbance as a result of past episodes of filling and/or grading. As discussed previously, extensive fill deposits which sealed an intact historic period deposit were found to the south of Block 398. The proximity of these fill deposits suggest that Block 398 may have also been filled at some point in the past. Such fill deposits may have sealed and capped any preexisting ground surface or archaeological deposits within this area. Additionally, the modern elevation of Lot 39 indicates that this lot may not have been graded in the past, further suggesting that an intact preexisting ground surface may still exist within this area. Soil boring data could not be obtained for Lot 39 during this preliminary research phase. Such information would provide an indication as to what extent this area may have endured past episodes of filling and/or grading. Based on the available information, there appears to be the potential for a prehistoric ground surface to have remained intact within the modern lot. Therefore, Lot 39 is considered sensitive for prehistoric archaeological deposits. If soil boring data becomes available for Lot 39, the sensitivity assessment for the lot should be reevaluated in light of this new information.

ARCHITECTURAL RESOURCES

The *CEQR Technical Manual* recommends that architectural resources be assessed if the proposed action would result in new construction, demolition, or significant physical alteration to any building, structure, or object; construction related disturbances; a change in scale, visual prominence, or visual context of buildings, structures, objects, or landscape features; and screening or elimination of publicly accessible views. An architectural survey is required when a proposed action may result in any of these conditions. As the proposed Dutch Kills rezoning project is expected to generate some of these results, an assessment

of historic architectural resources was undertaken and documented in the April 2008 Phase 1A Cultural Resource Assessment Report for the proposed actions.

PREVIOUSLY LISTED OR ELIGIBLE HISTORIC PROPERTIES WITHIN THE ARCHITECTURAL APE

A survey of historic architectural resources within the architectural APE identified 22 properties that appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) and that had potential to meet the eligibility criteria for inclusion in the State and National Registers of Historic Places. Of the properties identified and evaluated as part of this study, ten individual historic properties and one historic district (with five buildings identified) were determined to be eligible for listing in the State and National Registers (Figure 7-5 and Table 7-2). In correspondence dated April 17, 2008, LPC also determined that three of these properties are eligible for NYCL designation.

Of the eligible historic architectural resources - ten individual historic properties and one historic district - only four individual structures are located on or in close enough proximity of the proposed actions' development sites which could potentially lead to direct and/or indirect significant adverse historic resources impacts due to the proposed actions. Those structures are listed below followed by a brief history and description of their architectural resources characteristics for each.

- New York Consolidated Card Company
- Pierce-Arrow Building (Harrolds Motor Car Company)
- Garside & Sons Shoe Factory
- FDNY Engine Company 261 Hook & Ladder 116

NEW YORK CONSOLIDATED CARD COMPANY, BLOCK 601, LOT 1 (NO. 1; PHOTOS 1-2)

Constructed in 1914 by the Turner Construction Company for the New York Consolidated Card Company, the plant at 32-15 37th Avenue extends 456 feet along the length of 33rd Street. The reinforced concrete factory is five stories in height with concrete spandrels and pier-to-pier window openings. Smaller openings at the corner of 37th Avenue and 33rd Street have been in-filled and some of the metal windows, like those facing 37th Avenue, have been replaced; however, the overall original design scheme created by Ballinger & Perrot is still apparent. Shaped parapets centered above the long 33rd Street facade which originally carried the company name top the end facades and wrap around the corners. A large metal sign frame stretches diagonally across the building above 37th Avenue. The building was designed for light industrial use, the manufacture of playing cards. At one time, the 200,000-square foot plant employed 500 to 700 hands. The building is unusual in that, at the time of its construction, it was one of the largest buildings, to be built during the winter months. An article in the Real Estate Record and Builder's Guide describes the process:

> This building… is one of the largest reinforced concrete plants ever erected during cold weather. In order to successfully erect this building in cold weather, extra equipment was necessary, including tarpaulin to enclose the sides and top of the building, and salamanders (open stoves) burning coke to generate the required heat so that a temperature of about 75 degrees was maintained in the vicinity of the new work. In addition to these precautions, the sand and gravel were heated on griddles of steam coils, thereby preventing any chance of frozen material, and a steam jet was connected to the water barrel, to prevent ice particles, and to be absolutely sure that

Architectural APE

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36th Ave
38th Ave
39th Ave
40th Ave
41st Ave
40th Rd
22nd St
23rd St
24th St
Crescent St
27th St
28th St
29th St
30th St
31st St
32nd St
33rd St
34th St
35th St
36th St
37th St
38th St
NORTHERN BLVD
QUEENSBORO BRIDGE

0 100 200 300 400 Feet
0 25 50 57 100 Meters

New York City
Department of City Planning

Dutch Kills Rezoning and Related Actions

Historic Architectural Resources
Surveyed for this Project

The Louis Berger Group, Inc.

Figure 7-5

Source: Louis Berger Group, Inc. 2008.

SOURCE: NYCEMap GIS; Berger Field Data 2008

Table 7-2
Historic Architectural Resources Surveyed for the Dutch Kills Rezoning Project

Map Number	Name/Type	Address	Block/Lot	Recommendation
1	New York Consolidated Card Company	32-15 37th Avenue	601/1	Eligible S/NR
2	Pierce-Arrow Building (Harrolds Motor Car Company)	34-014 38th Avenue	376/1	Eligible NYCL Eligible S/NR
3	A. Garside & Sons Shoe Factory	35-02 37th Avenue	377/13	Eligible S/NR
4	Ford Motor Company	32-10 Northern Boulevard	214/210	Eligible NYCL Eligible S/NR
5	Bank of Manhattan Company/The Clock Tower Building	29-27 41st Avenue	403/21	Eligible NYCL Eligible S/NR
6	Realty Construction Corporation Office Building	41-15 29th Street	418/14	Eligible S/NR
7	Queens Court Plaza	28-01 Queens Plaza North	417/2	Eligible S/NR
8	Plaza Apartments	41-18 – 41-24 29th Street	417/28, 30, 32	Not Eligible S/NR
9	Brewster Company Building	27-01 Queens Plaza North	416/10	Eligible S/NR
10	(First) Reformed Church	40-11 29th Street	402/22	Not Eligible S/NR
11	Bryant High School (H.S. 555 Newcomers High School)	28-01 41 Avenue	404/1	Not Eligible S/NR
12	Saint Patrick's Church Complex	39-42 40th Avenue 39-38 29th Street 39-36 29th Street	398/1 398/39 398/38	Not Eligible S/NR
13	Dwelling	30-01 39th Avenue	383/32	Not Eligible S/NR
14	Tin Shop & Residence	28-08 – 29-10 38th Avenue 38-09 28th Street	385/9	Not Eligible S/NR
15	FDNY Engine Company 261 Hook & Ladder 116	37-20 29th Street	370/23	Eligible S/NR
16	Dwelling	37-32 28th Street	369/25	Not Eligible S/NR
17	Scalamandre Silks Building	37-24 24th Street	366/1	Eligible S/NR
18	Factory/Loft	21-02 40th Avenue	410/19	Factory/Loft Historic District Eligible S/NR
19	Factory/Loft	21-22 40th Avenue	410/25	Factory/Loft Historic District Eligible S/NR
20	Factory/Loft	40-18 22nd Street	410/30	Factory/Loft Historic District Eligible S/NR
21	Factory/Loft	40-24 22nd Street	410/35	Factory/Loft Historic District Eligible S/NR
22	Factory/Loft	40-36 22nd Street	410/38	Factory/Loft Historic District Eligible S/NR

Source: The Phase 1A Cultural Resource Assessment for Dutch Kills Rezoning Project prepared by The Louis Berger Group, Inc. (April 2008) and NYC Landmarks Preservation Commission memorandum (April 17, 2008).

Photo 1: New York Consolidated Card Company, View North.

Photo 2: New York Consolidated Card Company, View North.

> forms and steel reinforcement were in the proper condition to receive the concrete, they were sprayed with steam prior to starting work.[8]

The firm which designed the New York Consolidated Card Company, the architecture and engineering firm of Ballinger & Perrot of Philadelphia, Pennsylvania, was one of the preeminent industrial design firms of the early twentieth century. Established in 1901 by Walter F. Balling and Emile G. Perrot, the company was the successor to the firms of Geissinger & Hales and Hales & Ballinger. In 1920, Walter Ballinger bought out Perrot and continued the work of the firm as the Ballinger Company. The firm pioneered the use of reinforced concrete and built on the "industrial building interests" of its predecessor companies. Ballinger & Perrot is credited with popularizing a number of important advances in industrial design, such as the "Daylight Building" with its large expanses of glazing and the "Super-Span" saw-toothed roof. Their industrial building projects included the construction of a company town for the American Viscose Company in Marcus Hook, Pennsylvania, which continues to be known as "Viscose Village," and the Emergency Fleet Shipbuilders housing at Union Park Gardens in Wilmington, Delaware. Ballinger & Perrot also designed and built churches, schools, and commercial structures.

As with Ballinger & Perrot, the builder of the New York Consolidated Card Company building, Turner Construction Company, was well known as a leading firm in reinforced concrete construction. Turner Construction was established in New York in 1902 by Henry C. Turner and DeForest H. Dixon, both college trained engineers. Known for a patented concrete reinforcing method developed by Turner, the firm soon had a stream of commissions, especially in the New York area. The Turner method of reinforced concrete construction developed into the accepted method for constructing multi-storied industrial buildings. Among other projects, Turner erected Bush Terminal, the Brooklyn Army Supply Base, the Gair Building (the largest reinforced concrete building in the U.S. in 1904), and worked with noted designers such as Cass Gilbert and Ballinger & Perrot. By the 1950s, Turner participated in the high-rise boom, changing the skyline of major U.S. cities. The company added branch offices and expanded across the country, eventually gaining worldwide operations, which it continues to enjoy into the present day.

Both firms, Ballinger & Perrot and the Turner Construction Company were innovators in the reinforced concrete building industry of the early twentieth century. The New York Consolidated Card Company building is one of a long list of their accomplishments. Given that at the time of its construction in 1914, this building was considered one of the largest buildings of its type in Long Island City and also as an innovation in the successful use of largescale reinforced concrete construction techniques during the winter, the New York Consolidated Card Company factory is significant under Criterion C in the area of engineering and design.

PIERCE-ARROW BUILDING (HARROLDS MOTOR CAR COMPANY), BLOCK 376, LOT 1 (NO. 2, PHOTOS 3-4)

Built in 1913, the Harrolds Motor Car Company's Pierce-Arrow Building at 34-01 38th Avenue is a four-story industrial building, approximately 200 feet by 200 feet, and extends across the width of 38th Avenue between 34th and 35th Streets. This brick building has multi-colored brick facades embellished with brick and terra cotta string courses and diamond patterned spandrels with red brick at the rear walls. Designed by New York architects Griffin & Wynkoop to allow for generous amounts of natural light, the building has a U-plan with bays defined by brick piers and filled with windows. Cove moldings with floral blocks

[8] "Building for New York Card Company," *Real Estate Record and Builder's Guide* (New York), 9 January 1915, p.73.

Photo 3: Pierce-Arrow Building, View North.

Photo 4: Detail, Pierce-Arrow Building, View North.

and foliated banding compliments the brick patterning. The central bay houses the building's elevator, and forms a central tower that conceals the mechanicals at the roof. Single-story wings, approximately 50 feet in length, extend the building at the sides. Later, single-story gable-roofed service buildings with stepped parapets were added at the northern end of the block along 37th Avenue, and are now covered with stucco.

The Harrolds Motor Car Company, agents for Pierce-Arrow automobiles, operated the company's Long Island City service facility where luxury automobiles and trucks were maintained. The building could house 500 cars and had the capacity to service 150 vehicles at one time. A large sign once dominated the roof of the building and was reportedly visible from Manhattan. This area of Dutch Kills, referred to as "Detroit East," was the location of several auto-related plants in Long Island City such as the Brewster Company and the Ford Motor Company. During the Depression, Pierce-Arrow fell into bankruptcy. With the demand for automobiles dropping sharply, the building was sold in 1935. In the 1940s, the Olympic Radio & Television manufacturers occupied the building. More recently, it has served as a warehouse.

The firm of Griffin & Wynkoop, consisted of Percy Griffin and John Wynkoop, was in practice in New York City from about 1912 through 1922. The firm designed factory, loft, and institutional buildings, as well as residential structures. Griffin was a graduate of the Massachusetts Institute of Technology (M.I.T.) and was a practicing architect in New York from approximately 1887 until his death in 1921. Griffin participated in a number of architectural competitions and was awarded first place for the design of the Jefferson Davis Memorial (1896, not executed) and received honorable mention for his design entry for the Department of Justice and Department of Commerce Building, Washington, D.C. (1911). Griffin was also one of the architects of the City and Suburban Homes Company, a NYCL, and of a group of neo-Georgian row houses on West 74th Street located in the Central Park West-West 73rd-74th Streets Historic District. John Wynkoop was born in Ohio and studied at Columbia University until he won the Paris prize to study at the Ecole des Beaux Arts in Paris. While in Paris, he won three medals and returned to the United States in 1908. He was a Professor of Architecture at the University of Pennsylvania, as well as a practicing architect. Both men died at the prime of their careers. Percy Griffin died of pneumonia in March 1921 and John Wynkoop died of the same illness in December of the following year.

The Pierce-Arrow Building (Harrolds Motor Car Company) was not originally considered eligible for State and National Register. However, upon review of the April 2008 Phase 1A Cultural Resource Assessment Report for the proposed actions, it has been determined that the Pierce-Arrow Building is eligible for both the State and National Register and NYCL designation (LPC correspondence dated April 17, 2008). Associated with the architectural firm of Griffin & Wykoop and with Pierce-Arrow automobiles, the building was designed to compliment the status symbol autos it serviced. The building is a relatively intact and representative example of the multi-story auto-related industrial buildings that were a dominate fixture in this section of Long Island City during the 1910s and 1920s.

A. GARSIDE & SONS SHOE FACTORY, BLOCK 377, LOT 13 (NO. 3; PHOTO 5)

The shoe factory of A. Garside & Sons at 35-02 37th Avenue occupies the block between 35th and 36th Streets. In 1916, Frank Hill Smith designed this factory for the Manhattan firm of A. Garside & Sons, Inc., shoe manufacturers. The building is roughly 60 feet (18.3 meters) by 200 feet (61 meters). It measures five stories in height with a partially exposed basement and employs fireproof construction throughout. Designed utilizing the latest standards in factory construction, reinforced concrete construction and framework with mushroom columns were used to support the concrete floors and roof. Finished with 12 inch (30.5 cms) brick and tile curtain walls, Smith also incorporated one of his signature elements into the building design—large expanses of windows. Construction began in June 1916 and was

Photo 5: A. Garside and Sons Shoe Factory, View Southeast

completed in 1917. The original estimates of the cost of the factory were $80,000; however, the final cost recorded within the Department of Building Records (DOB) is $120,000.

Frank Hill Smith was born Francis Fay Hill Smith in Massachusetts in 1879 to Frank (Francis) Hill Smith and Clara Montfort Fay. The diverse talents of the elder Frank Hill Smith, a noted artist, architect, and designer, are believed to have influenced his son's interest in building design. Interested in pursuing a degree in mechanical engineering, Frank Hill Smith studied at the Massachusetts Institute of Technology (M.I.T.) in Cambridge from 1898 to 1902. Among his many projects, which included factories, warehouses, power plants, cold storage buildings, printing plants, and paint factories, was the design and construction of buildings for shoe manufacturers. One of the first, built in 1913, was a six story factory for the Excelsior Shoe Company in Portsmouth, Ohio. In Newark, New Jersey he designed a shoe factory for the James A. Banister Company. He also constructed the factory for A. Garside & Sons in Long Island City, as well as factories for shoe companies in Cincinnati and Columbus, Ohio. In addition to his success as an engineer and designer, Frank Hill Smith appears to have possessed business leanings and knew how to obtain and work with clients. He also became affiliated with the Dayton Hydraulic Company.

During the 1910s, Long Island City caught the attention of industry and builders, and it quickly became an industrial center. Reasonable land prices and large available parcels greatly facilitated the construction of factories, lofts, and warehouses near transportation networks. A prime example of the types of industrial buildings associated with the area and designed by a prolific and innovative engineer of the period, the A. Garside & Sons Shoe Factory is considered significant under Criteria A and C in the areas of industry and architecture/engineering.

FDNY ENGINE COMPANY 261, HOOK & LADDER 116 BLOCK 370, LOT 23 (NO. 15; PHOTO 6)

Built in 1932 by the New York City Fire Department, the firehouse at 37-20 29th Street is two stories in height and has fireproof construction with red brick facing. The contrasting molding framing the truck entrance is repeated at the top of the parapet. Stone covers the bottom three feet of the building. Centered above the entrance, a bank of four windows with contrasting sills and lintels is separated by brick piers. The outer bays project slightly and are topped with heavy stepped caps. The firehouse has a dedication plaque on the front facade with the names of the Mayor, Fire Commissioner, and other officials important at the time of dedication. Upon review of the Phase 1A Cultural Resource Assessment Report (April 2008), it was determined that the FDNY Engine Company 261 is eligible for State and National Registers (LPC correspondence dated April 17, 2008).

Photo 6: FDNY Engine Company 261, Hook & Ladder 116, View Northwest.

E. FUTURE CONDITION WITHOUT THE PROPOSED ACTIONS

As described in Chapter 2, "Project Description," it is anticipated that the rezoning area under the future condition without the proposed actions would see as-of-right development occurring on the 9 known, 16 projected, and 7 potential development sites. Under this scenario, the rezoning area would experience a slight decrease in residential units (2 units), a 334,854 square foot increase in commercial floor area, an 81,470 square foot increase in community facility floor area and a 78,440 square foot decrease in industrial floor area. In total, in the future without the proposed action, it is projected that there would be

proximately 371,052 square feet of commercial floor area, 183,011 square feet of industrial floor area, 81,470 square feet of community facility floor area and 22 dwelling units.

ARCHAEOLOGICAL RESOURCES

Five lots were identified within the proposed rezoning area that could potentially experience new in-ground disturbance and possess the potential for intact archaeological deposits. A cultural resources assessment was conducted charting the ownership and occupation history of each lot within the archaeological APE and those findings are summarized earlier in this chapter. In the future without the proposed actions, it is anticipated that three of these lots would be developed as-of-right under the current zoning by the analysis year of 2017. This would likely result in new in-ground disturbance, which would constitute an adverse physical impact to potential archaeological resources. The three locations are:

- Block 367, Lot 23 (Part of Projected Development Site 15);
- Block 368, Lot 11 (Projected Development Site 32); and,
- Block 398, Lot 1 (Projected Development Site 24)

If potential archaeological resources exist on these three lots, and they would be excavated as the result of private development (which would not require further discretionary approvals). There are no mechanisms available to require that subsequent private as-of-right development undertake archaeological field tests to determine the presence of archaeological resources or mitigation for any identified significant resources through avoidance or excavation and data recovery.

The other two lots that have potentially intact archaeological deposits (Block 371, Lot 38 and Block 398, Lot 39) are not projected to have new development occur under the future without the proposed actions scenario and therefore would have no new in-ground disturbance which could result in adverse physical impacts to potential archaeological resources.

ARCHITECTURAL RESOURCES

In the future, changes to the architectural resources or to their settings could be expected to occur. For instance, indirect impacts from future projects could include blocking public views of a resource, isolating a resource from its setting or relationship to the streetscape, altering the setting of a resource, introducing incompatible visual, audible, or atmospheric elements to a resource's settings or introducing shadows over an architectural resource with sun-sensitive features. It is also possible that some architectural resources in the project area could deteriorate or experience direct impacts through alteration or demolition, while others could be restored. In addition, the status of architectural resources could change. S/NR-eligible resources could be listed on the Registers, NYCL-eligible properties could be calendared for a designation hearing, and properties pending designation as Landmarks could be designated.

As detailed in Chapter 2, "Project Description," the future condition without the proposed actions scenario would see new or expanded as-of-right development under the current zoning by the analysis year of 2017. However, none of the development sites (9 known, 16 projected, and 7 potential) are located on or in close proximity of the identified architectural resources. Therefore, there would be no potential adverse impacts to historic architectural resources under the future condition without the proposed actions.

F. FUTURE CONDITION WITH THE PROPOSED ACTIONS

Under this scenario, the development expected to occur on the projected and potential development sites would result in a net increase of 1,555 housing units, a net decrease of 197,470 square feet of commercial floor area; a net decrease of 180,536 square feet of industrial floor area; and a net decrease of 41,697 square feet of community facility floor area when compared to the development expected with the future condition without the proposed actions.

Development on the projected and potential development sites pursuant to the proposed actions could have potential adverse impacts on historic resources from direct physical impacts – disturbance to archaeological resources, demolition and alteration of architectural resources, or accidental damage to architectural resources from adjacent construction – and indirect impacts to architectural resources by blocking significant public views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a resource's setting; or introducing shadows over an architectural resource with sun-sensitive features. These potential impacts are examined below.

ARCHAEOLOGICAL RESOURCES

Five lots were identified within the proposed rezoning area that could potentially experience new in-ground disturbance and possess the potential for intact archaeological deposits. As noted earlier, a cultural resources assessment was conducted charting the ownership and occupation history of each lot within the archaeological APE. In the future with the proposed actions, it is anticipated that all five of these lots would be developed as the direct result of the proposed rezoning by the analysis year of 2017. This development would likely result in new in-ground disturbance, which would constitute an adverse physical impacts to potential archaeological resources. The five lots along with their corresponding development sites are as follows:

- Block 367, Lot 23 (Part of Projected Development Site 15);
- Block 368, Lot 11 (Projected Development Site 32);
- Block 371, Lot 38 (Projected Development Site 14);
- Block 398, Lot 1 (Projected Development Site 24); and,
- Block 398, Lot 39 (Part of Potential Development Site 47)

As noted under the analysis for the future without the proposed actions above, three of these lots would be expected to experience as-of-right development (Development Site Nos. 15, 24, and 34) which could negatively affect potential archaeological resources located on these sites. Development under the future with the proposed actions would also occur on these three locations plus the Development Site Nos. 14 and 47. The expected development would differ from that would be allowed as-of-right and would include residential use alone or in combination with commercial of sufficient size which would likely result in the need for larger and/or deeper foundations than that would be necessary for the development expected under the future without the proposed actions. Therefore, it is expected the development sites under the future with the proposed actions would likely result in new in-ground disturbance and/or new excavation deeper and/or wider than previously excavated on the same site as compared to that would be seen under the future without the proposed actions.

Development of the above five development sites could result in adverse physical impacts to potential archaeological resources through construction; these potential impacts would be unmitigatable adverse impacts. If potential archaeological resources exist on these five lots, and they would be excavated as the

result of private development (which would not require further discretionary approvals), the impacts would be unavoidable adverse impacts. There are no mechanisms available to require that subsequent private as-of-right development undertake archaeological field tests to determine the presence of archaeological resources or mitigation for any identified significant resources through avoidance or excavation and data recovery. Therefore, development on Projected Development Site Nos. 14, 15, 24, and 34 and Potential Development Site No. 47 would potentially result in unavoidable adverse impacts to archaeological resources (see the discussion in Chapter 23, "Unavoidable Adverse Impacts").

ARCHITECTURAL RESOURCES

A survey of historic architectural resources within the architectural APE identified 22 properties that appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) and that had potential to meet the eligibility criteria for inclusion in the State and National Registers of Historic Places. Of the properties identified and evaluated as part of this study, ten were determined to be eligible for listing in the State and National Registers (S/NR). In addition, a group of five buildings were determined to be eligible as a S/NR factory/loft historic district. Of these eligible historic architectural resources only four individual structures are located on or in close enough proximity of the proposed actions' development sites which could potentially lead to direct and/or indirect significant adverse historic resources impacts due to the proposed actions. Those structures are:

- New York Consolidated Card Company
- Pierce-Arrow Building (Harrolds Motor Car Company)
- Garside & Sons Shoe Factory
- FDNY Engine Company 261 Hook & Ladder 116

One historic architectural property, the A. Garside & Sons Shoe Factory, is located on Projected Development Site No. 7. Since the property may be demolished as part of the projected development, the proposed action could result in a direct significant adverse impact. A second historic architectural property, the Pierce-Arrow Building (Harrolds Motor Car Company), is sited on Potential Development Site No. 155 and therefore, may also result in direct significant adverse impact if this lot is developed as a result of the proposed rezoning and subsequent development. The New York Consolidated Card Company is not located directly on a development site; however it is located adjacent or otherwise in close proximity of Potential Development Site Nos. 69, 70, 121, and 233. Any construction activities associated with one or more of these development sites could result in direct significant adverse impact that could occur as the result of falling objects, subsidence, collapse, and/or damage from construction machinery. Similarly, FDNY Engine Company 261/Hook & Ladder 116 could experience direct significant adverse impact as the result of construction activities associated with Projected Development Site No. 34 and Potential Development Site Nos. 42 and 185.

As previously noted, the four architectural resources that could be significant adversely impacted as the result of the proposed actions are presently eligible for listing on the S/NR. In addition, Pierce-Arrow Building (Harrolds Motor Car Company) is eligible for NYCL designation. Architectural resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection under Section 106 of the National Historic Preservation Act from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the Registers are similarly protected against effects resulting from projects sponsored, assisted, or approved by State agencies under the State Historic Preservation Act. However, private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their

properties without such a review process. Privately owned properties that are NYCLs, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. Publicly owned resources are also subject to review by the LPC before the start of a project; however, the LPC's role in projects sponsored by other City or State agencies generally is advisory only.

The New York City Building Code provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

Although there are some possible protective measures for architectural resources, only NYCL designation would afford architectural resources located on privately owned properties any appreciable protection. Given that the NYCL eligible Pierce-Arrow Building has not been calendared for consideration by LPC, it is assumed that it would not be designated as such for this analysis. Therefore, development on Projected Development Site Nos. 7 and 34 and Potential Development Site Nos. 42, 69, 70, 121, 155, 185, and 233 would result in unavoidable adverse impacts to historic architectural resources (see the discussion in Chapter 23, "Unavoidable Adverse Impacts").

G. CONCLUSION

ARCHAEOLOGICAL RESOURCES

Five lots were identified within the proposed rezoning area that could potentially experience new in-ground disturbance and possess the potential for intact archaeological deposits. In the future with the proposed actions, it is anticipated that at least four, if not all five, of these lots would be developed as the result of the proposed rezoning. This development would likely result in new in-ground disturbance, which would constitute an adverse physical impacts to potential archaeological resources. The five lots consist of the following Blocks and Lots:

- Block 367, Lot 23
- Block 368, Lot 11
- Block 371, Lot 38
- Block 398, Lot 1
- Block 398, Lot 39

Conclusions regarding the potential for intact archaeological deposits within the five sites were based on the research and background information that is currently available and on previous archaeological studies regarding the nature, location, and depth of prehistoric and historic period resources. As previously noted, soil boring data could not be obtained for any of the lots. In light of the history of filling and grading across the Dutch Kills neighborhood in association with the late nineteenth and early twentieth century urbanization and development of the area, it is possible that each of these lots have experienced some type of past land manipulation and disturbance. The extent to which each lot has been previously filled and/or graded would have direct implications for the potential archaeological sensitivity of these areas. Therefore, if such data becomes available, these borings should be reviewed and the conclusions regarding the sensitivity of each lot for prehistoric and historic period archaeological deposits

should be reevaluated. Absent that reevaluation, development due to the proposed actions could result in significant adverse impacts to potential archaeological resources through construction; these potential impacts would be unavoidable adverse impacts. There are no mechanisms available to require that subsequent private as-of-right development undertake archaeological field tests to determine the presence of archaeological resources or mitigation for any identified significant resources through avoidance or excavation and data recovery.

ARCHITECTURAL RESOURCES

Of the S/NR and/or NYCL eligible historic architectural resources located with the study area only four individual structures are located on or in close enough proximity of the proposed actions' development sites which could potentially lead to direct and/or indirect significant adverse historic resources impacts due to the proposed actions. Those structures are:

- New York Consolidated Card Company
- Pierce-Arrow Building (Harrolds Motor Car Company)
- Garside & Sons Shoe Factory
- FDNY Engine Company 261/Hook & Ladder 116

State and National Register eligibility does not provide restrictions to private property as-of-right use and development and private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without further review or approval. Privately owned properties that are NYCLs, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. As noted previously, Pierce-Arrow Building (Harrolds Motor Car Company) is eligible for NYCL designation. This could potentially afford some protection for this architectural resource pending a decision from LPC. However, it has not been calendared for consideration by LPC; therefore it is assumed that it would not be designated as such for this analysis

These architectural resources could experience accidental damage from adjacent construction and could be offered some limited protection through the New York City Department of Buildings controls governing the protection of adjacent properties from construction activities. Although additional protections could be provided through the implementation of construction protection plans that follow the *New York City Department of Buildings (DOB) Technical Policy and Procedure Notice (TPPN) #10/88* (Procedures for the Avoidance of Damage to Historic Structures) there are no mechanisms for requiring the implementation of such plans for private as-of-right development.

Based on the analysis presented herein, the proposed actions could result in direct and/or indirect significant adverse impacts to the four identified architectural resources noted above and these potential impacts would be unavoidable adverse impacts.