APPENDIX M
Phase IA
Cultural Resource Assessment

DUTCH KILLS REZONING PROJECT
DUTCH KILLS, LONG ISLAND CITY
QUEENS, NEW YORK

PHASE IA CULTURAL RESOURCE ASSESSMENT

Prepared For:

New York City Department of City Planning
New York, New York

Prepared By:

The Louis Berger Group, Inc.
New York, New York

May 2008

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EXECUTIVE SUMMARY

The New York City Department of City Planning (DCP) is proposing zoning map amendments for an area encompassing 36 whole blocks and four partial blocks within the Dutch Kills neighborhood of Long Island City in the Borough of Queens. The proposed rezoning area is generally bounded by 36th Avenue on the north, Northern Boulevard on the east, 41st Avenue on the south, and 23rd Street on the west. The proposed action would rezone approximately 70 acres of land currently zoned as M1-3D and M1-1 to M1-2/R5B, M1-2/R5D, and M1-3/R7X zones. Such rezoning amendments would result in a net decrease in the density of permitted light manufacturing within the area and, in turn, cause a net increase in residential density. This rezoning would work in conjunction with the establishment of a Dutch Kills Subdistrict as an extension of the Special Long Island City Mixed-Use District and enable a range of residential, community facility, commercial, and light industrial land uses as-of-right.

As part of this action, the DCP is undertaking a Draft Environmental Impact Statement (DEIS) for the proposed Dutch Kills rezoning project. Consideration for cultural resources, including both archaeological and historic architectural resources, must be undertaken as part of the City Environmental Quality Review (CEQR) process. The following Phase IA Cultural Resource Assessment establishes Areas of Potential Effect (APEs) for the project, those areas within which the proposed actions may affect potential archaeological and/or historic architectural resources, 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. This Phase IA Cultural Resource Assessment is subject to the review of the New York City Landmarks Preservation Commission (LPC) under the CEQR process.

Within the proposed rezoning area, DCP has delineated projected and potential development sites. These development sites are located throughout the 70-acre rezoning area and often encompass multiple tax lots within a single projected or potential site. A total of 67 individual lots comprise the 40 projected development sites; 314 city lots encompass the 192 potential development sites. LPC determined that of the 381 lots slated for rezoning, only five lots had the potential to contain significant and intact nineteenth century archaeological resources which may be impacted by the proposed rezoning project. These five lots established the archaeological APE for this Phase IA Cultural Resource Study. Research was conducted on the ownership and occupation history of the five lots while only general background information was obtained for the project area. As for the historic architectural survey, the historic architectural APE was determined using the CEQR guidelines that recommend a 400-foot (121.92 meters) radius from the borders of the project site as the limits of the study area for architectural resources (CEQR Technical Manual 312). Thus, the historic architectural APE was calculated by buffering 400 feet (121.92 meters) from the exterior limits of the proposed rezoning area.

The documentary study concluded that each of the five lots or portions of each of the lots had the potential for intact archaeological deposits. Four of the LPC-selected lots, Block 367, Lot 23, Block 368, Lot 11, and Block 398, Lots 1 and 39, were found to have the potential for intact prehistoric archaeological resources. Portions of four of the lots, Block 367, Lot 23, Block 368, Lot 11, Block 371, Lot 38, and Block 398, Lot 1, were also found to have the potential for intact mid-nineteenth and/or late nineteenth historic period deposits including potential shaft features. Soil boring data was not available for any of the five selected-LPC lots during this initial documentary study. Given the potential for past episodes of filling and/or grading within each of these areas, conclusions regarding the sensitivity of each lot should be reevaluated if borings or other soil profile information becomes available. The comprehensive support for the conclusions regarding the sensitivity of the lots within the archaeological APE is included in the following report.

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 properties and one historic district were recommended eligible for listing in the State and National Registers. Three of these properties were also recommended New York City Landmark-eligible.

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1.1 Project Description

The New York City Department of City Planning (DCP) is proposing zoning map amendments for an area encompassing 36 whole blocks and four partial blocks within the Dutch Kills neighborhood of Long Island City in the Borough of Queens (Figure 1). The proposed rezoning area is generally bounded by 36th Avenue on the north, Northern Boulevard on the east, 41st Avenue on the south, and 23rd Street on the west. The proposed action would rezone approximately 70 acres of land currently zoned as M1-3D and M1-1 to M1-2/R5B, M1-2/R5D, and M1-3/R7X zones. Such rezoning amendments would result in a net decrease in the density of permitted light manufacturing within the area and, in turn, cause a net increase in residential density. This rezoning would work in conjunction with the establishment of a Dutch Kills Subdistrict as an extension of the Special Long Island City Mixed-Use District and enable a range of residential, community facility, commercial, and light industrial land uses as-of-right.

Current zoning regulations within Dutch Kills are restrictive with respect to the creation of new residential spaces and uses requiring City Planning Commission authorization before the creation of any such space. The proposed rezoning would remove these restrictions and enable as-of-right residential opportunities, along with retaining existing light industrial businesses within the area and supporting the continued the growth of other business opportunities within a mixed-use commercial and light industrial community. The rezoning proposal aims to meet the residential needs of the community, whose population growth has outstripped the growth and availability of housing units, while safeguarding the interests of a manufacturing sector that is vulnerable to rising rents and potential displacement potentially associated with residential growth. The proposed project attempts to establish balanced development and redevelopment within Dutch Kills so as to meet both the housing demand and to improve the quality of life within the community as a whole.

As part of this action, the DCP is undertaking a Draft Environmental Impact Statement (DEIS) for the proposed Dutch Kills rezoning project. Consideration for cultural resources, including both archaeological and historic architectural resources, must be undertaken as part of the City Environmental Quality Review (CEQR) process. The following Phase IA Cultural Resource Assessment establishes Areas of Potential Effect (APEs) for the project, those areas within which the proposed actions may affect potential archaeological and/or historic architectural resources, 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. This Phase IA Cultural Resource Assessment is subject to the review of the New York City Landmarks Preservation Commission (LPC) under the CEQR process.

This study was performed for compliance with the City Environmental Quality Review (CEQR) and the report was prepared in accordance with the *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City* (April 2002). The cultural resource specialists who performed the investigations meet the standards specified in 36 CFR66.3(b) (2) and 36 CFR 62.

1.2 Areas of Potential Effect

Within the proposed rezoning area, DCP has delineated projected and potential development sites. Projected development sites consist of those sites considered most likely be developed within ten years of the proposed rezoning. Potential sites are those considered less likely to be developed within a ten-year period from the proposed actions. The proposed rezoning project consists of 40 projected development sites and 192 potential development sites (Figure 2). These development sites are located throughout the 70-acre rezoning area and often encompass multiple tax lots within a single projected or potential site. A total of 67 individual lots comprise the 40 projected development sites; 314 city lots encompass the 192 potential development sites (Figure 3; Appendix B). A list of the 381 lots, including both those lots within both the projected and potential development sites, was submitted to LPC in order to preliminarily evaluate the potential archaeological sensitivity within the redevelopment area (Jessica Neilan, Information Request dated November 9, 2007). LPC completed its initial evaluation of lots to be affected by the proposed rezoning so as to assist DCP in fulfilling its environmental review obligations. After reviewing archaeological sensitivity models, reports detailing previously conducted archaeological studies in the vicinity of the rezoning area, and historic maps, LPC recommended that an archaeological documentary study be conducted for five of the 314 affected lots (LPC, Environmental Review letter dated 12/26/2007). LPC found that each of these

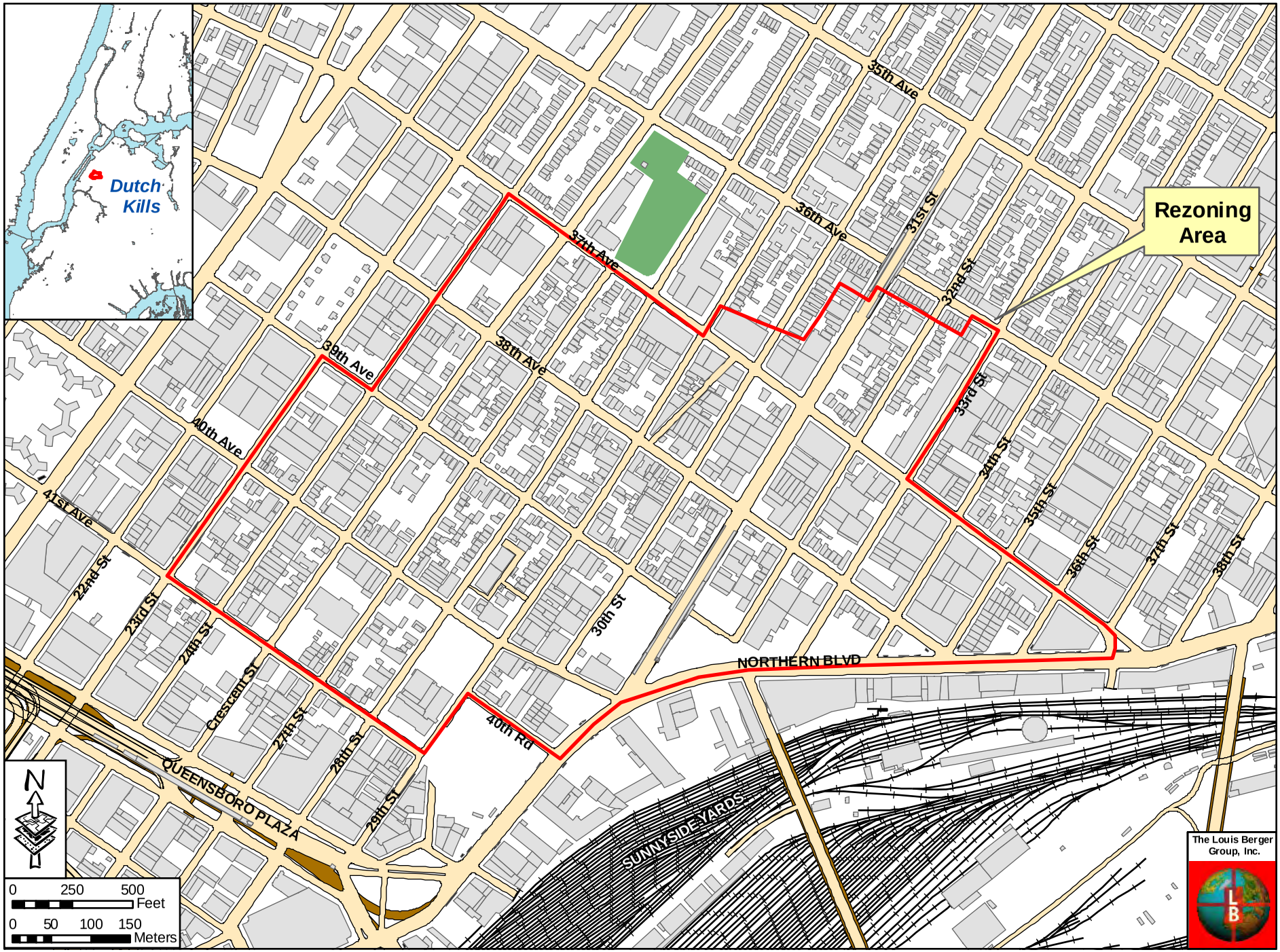

FIGURE 1: Overview of the Proposed Dutch Kills Rezoning Area

SOURCE: NYCEMap GIS

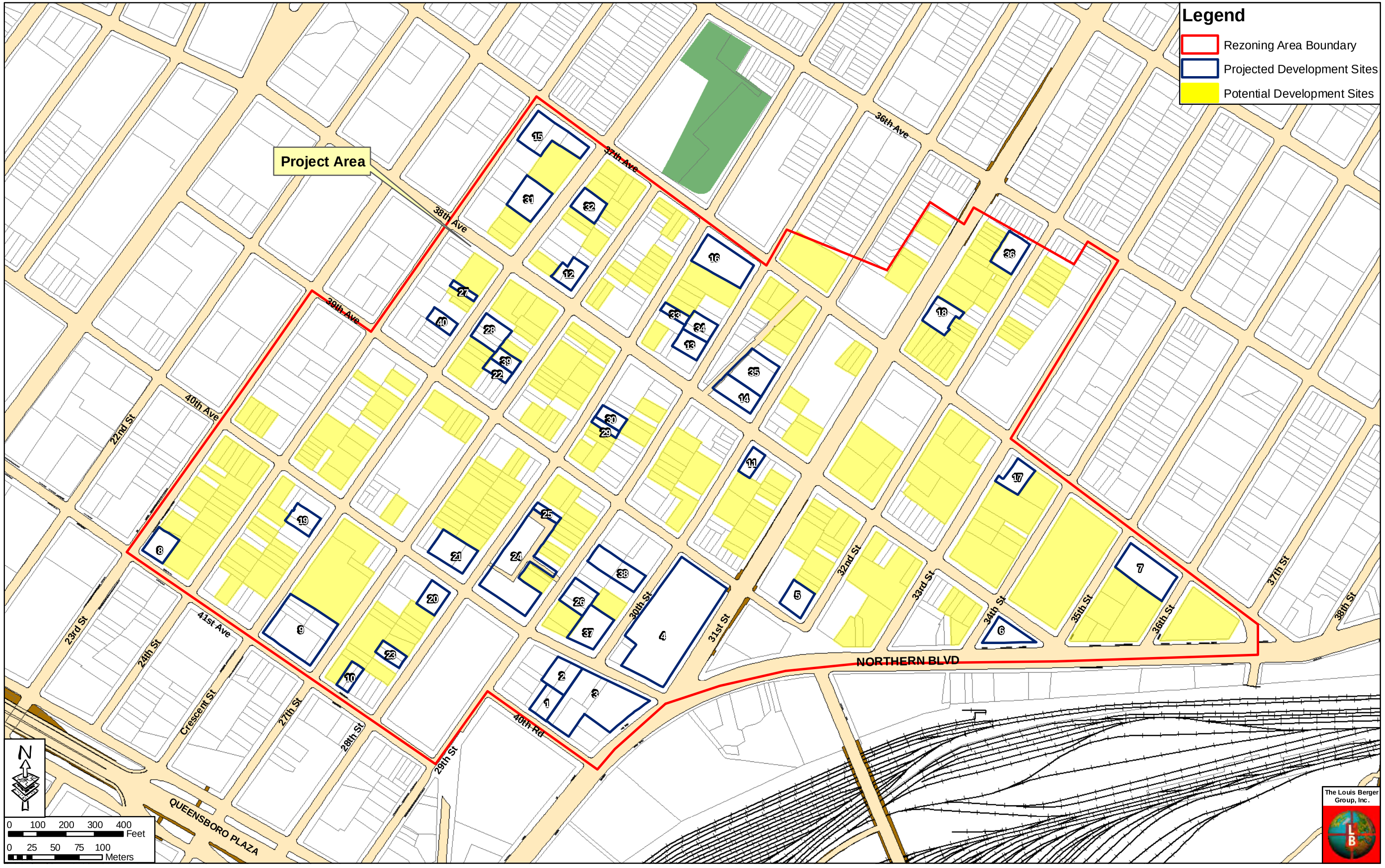

FIGURE 2: Projected and Potential Development Lots within the Proposed Dutch Kills Rezoning Area

SOURCE: NYCEMap GIS; NYC DCP 2007

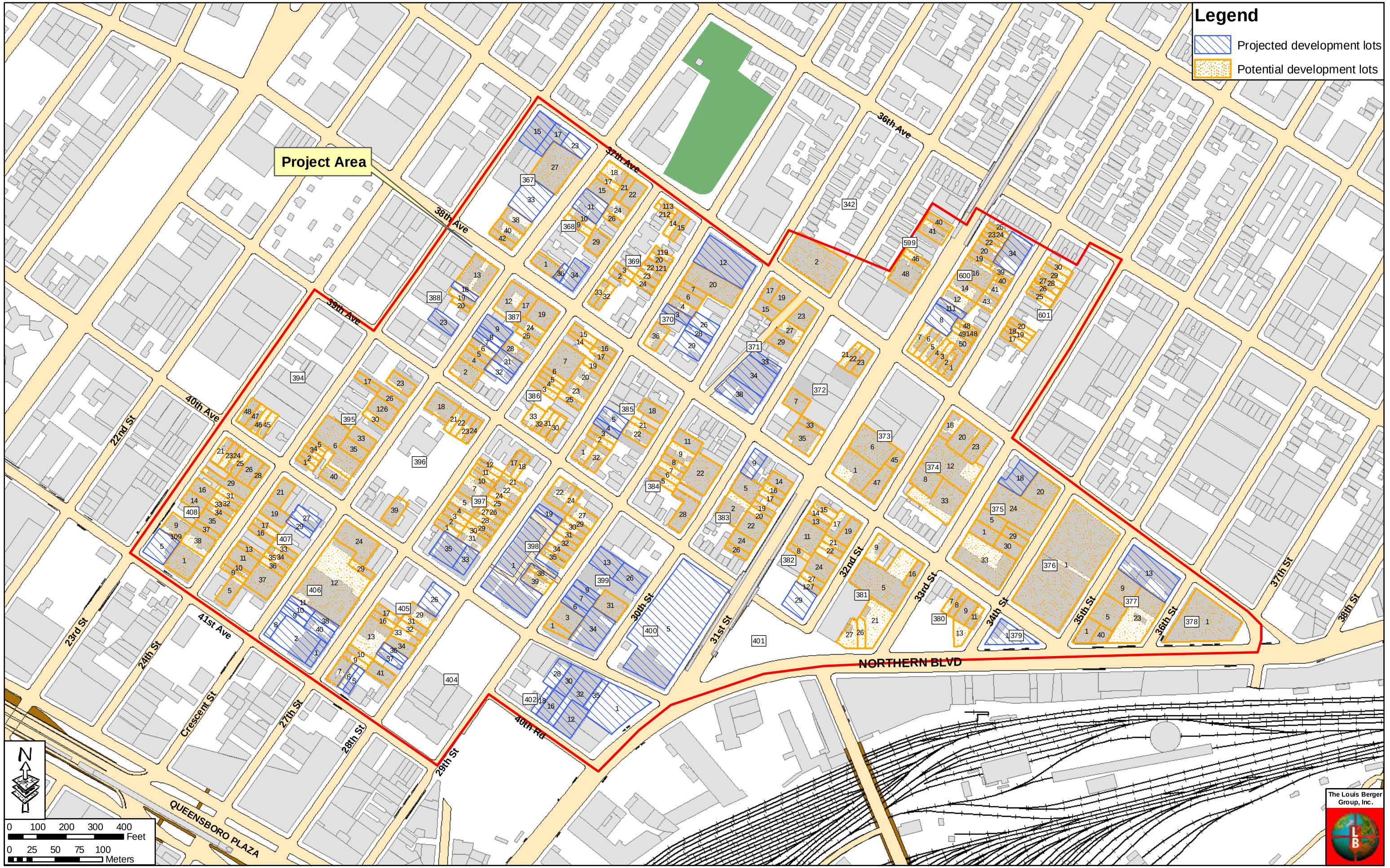

FIGURE 3: Tax Block and Lots within the Projected and Potential Development Sites for the Proposed Dutch Kills Rezoning Area

five lots had the potential to contain significant and intact nineteenth century archaeological resources which could be impacted by the proposed rezoning project.

The five lots consist of:

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),
Block 398, Lot 39 (part of Potential Development Site 47)

These five lots which LPC determined as potentially sensitive for historic archaeological resources, define the archaeological Area of Potential Effect (APE) for this Phase IA Cultural Resource Study (Figure 4). LPC also found that the remaining 309 lots to be affected by the proposed rezoning had been extensively disturbed by previous development and, therefore, had low potential for intact archaeological deposits. However, LPC did indicate that the potential existed for the recovery of remains from prehistoric Native American occupation and possible burial site(s) within the project area. The precise location of potential burials within the project area is not know, but previous archaeological surveys of the project area placed the prehistoric burials near Crescent Street (Parker 1922, Boesch 1997), which crosses through the western portion of the project area.

LPC concluded that given the extensive disturbance to the project area, there were no further archaeological concerns with respect to these 309 lots provided that additional information on potential for recovery of remains from prehistoric occupation is not discovered during the course of the Phase IA Cultural Resource assessment (LPC, Environmental Review letter dated 12/26/2007).

The historic architectural APE was determined using the CEQR guidelines that recommend a 400-foot (121.92 meters) radius from the borders of the project site as the limits of the study area for architectural resources (CEQR Technical Manual 312). Thus, the historic architectural APE was calculated by buffering 400 feet (121.92 meters) from the exterior limits of the proposed rezoning area (Figure 5). The historic architectural APE for this Phase IA Cultural Resource Study encompasses an irregularly shaped area roughly bounded by 35th Avenue to the north, the Sunnyside Yard complex to the east, Queens Boulevard to the south, and 21st Street to the west.

1.3 Scope of Work and Project Personnel

This Phase IA Cultural Resource Survey consisted of background research on the project area and its immediate vicinity; assessing the potential to encounter archaeological resources within the five LPC-selected lots, the archaeological APE; and, a historic architectural survey of the historic architectural APE. The archaeological assessment was designed to determine the prior usage and occupancy of each lot, determine if historical resources and/or their associated features existed within each lot, establish the potential to encounter prehistoric and/or historic archaeological resources within each lot, identify the extent to which prior disturbances (such as grading and construction) would have affected potential archaeological resources, and assess the proposed project's likelihood to affect any areas identified to possess archaeological potential.

The archaeological study attempted to address two primary concerns—the likelihood that potential historic archaeological resources of significance existed within each LPC-selected lot and the potential for such resources to have remained intact and relatively undisturbed. In the case of nineteenth century residential resources, attempts were made to establish the date at which the earliest structures were constructed, the occupancy and ownership of any such structures, and the length of time within which any dwellings stood prior to the availability of public utilities. Documentary research also focused on establishing not only the historical occupancy and use of each lot, but also the extent and nature of impacts from prior construction and development in order to assess the potential for intact archaeological deposits. Any structure built concurrently with or after the availability of piped sewer and water utilities was assumed to lack the potential for associated historic yard features such as privies, cisterns, or wells. The nature and extent of past development within each lot was also evaluated in light of the preexisting topography, natural setting, and previous archaeological studies within the region in order to evaluate the potential, if any, for intact prehistoric archaeological deposits.

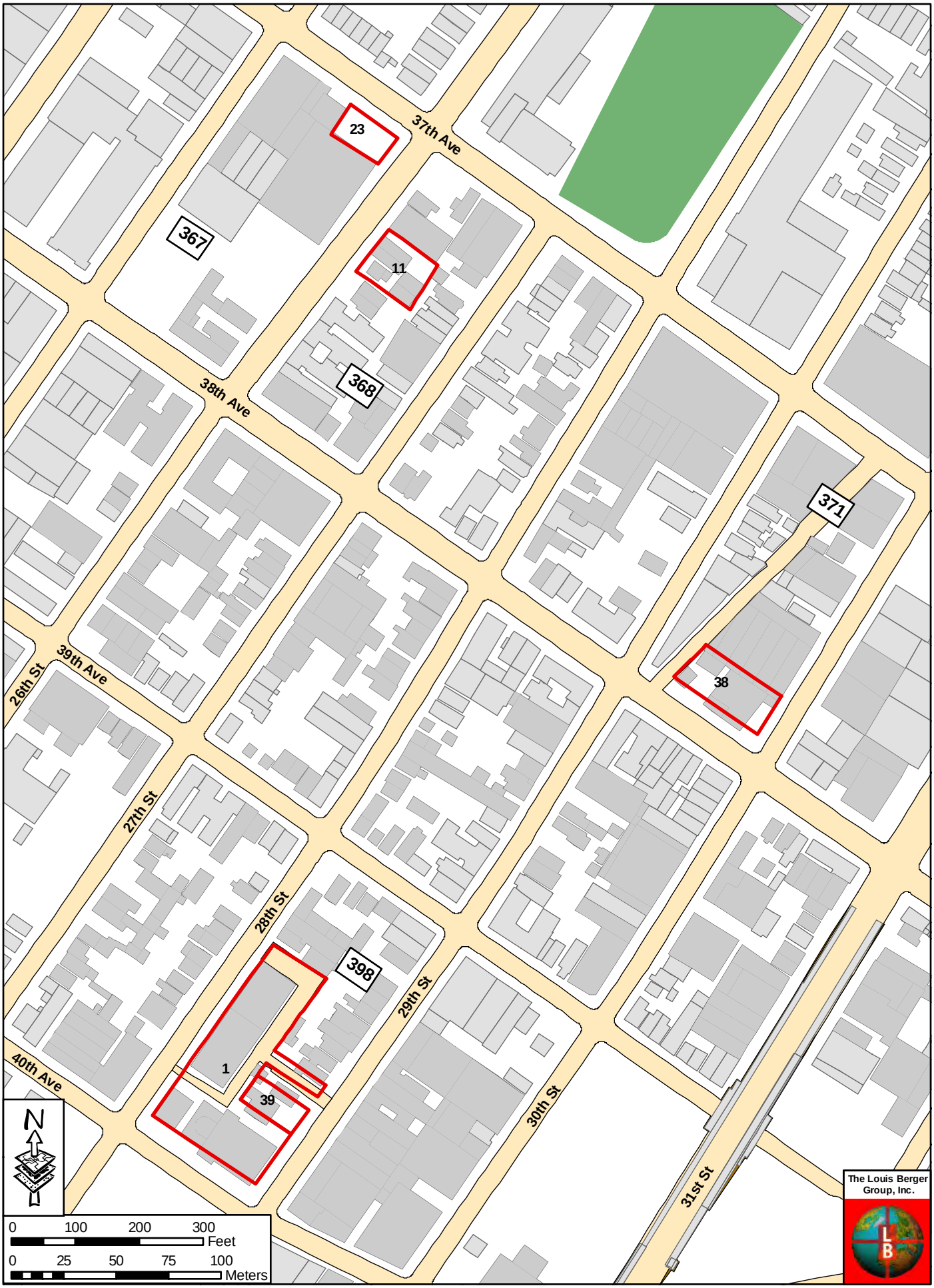

FIGURE 4: Archaeological APE

SOURCE: NYCEMap GIS; NYC DCP 2007

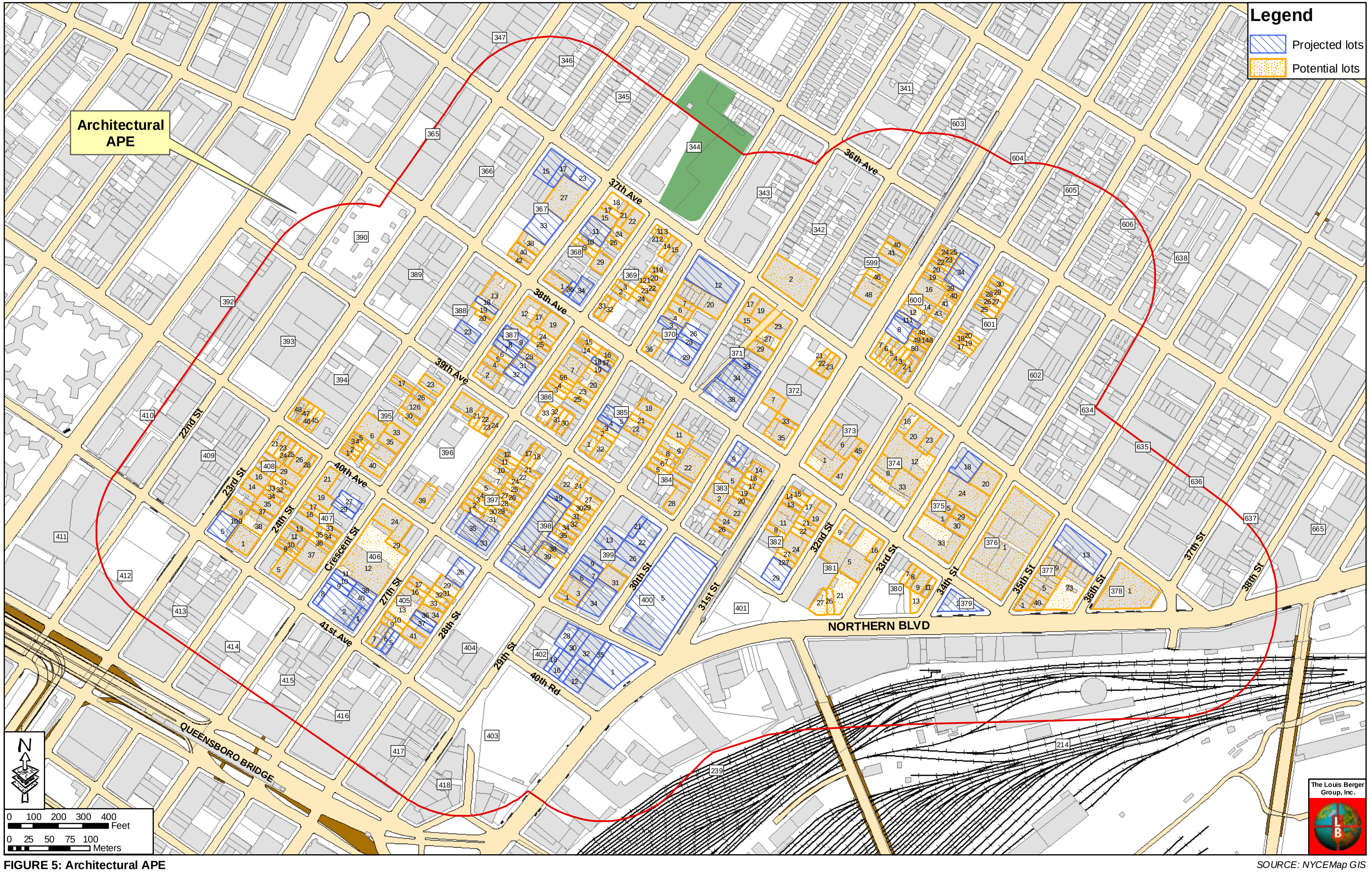

FIGURE 5: Architectural APE

SOURCE: NYCEMap GIS

To accomplish these goals the Louis Berger Group, Inc. performed a documentary and cartographic review of each LPC-selected lot. Research was conducted at various institutions, such as the Queens City Register, the Queens Department of Buildings (DOB), the Topographic Bureau of the Borough of Queens, the New York Public Library, the Queens Public Library, Long Island Division, and the New York City Landmarks Preservation Commission (LPC). Additional resources were consulted online for historic and cartographic information.

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 at LPC. In addition to documentary research, field visits were undertaken and resident interviews were conducted as necessary. During these field visits, site photographs were also taken.

Zachary Davis, RPA, Senior Archaeologist, served as Project Manager, while historic architectural resources were evaluated by Deborah Van Steen, Architectural Historian. Archaeologist Tina Fortugno, RPA, and Peter Matranga conducted the background research. Ms. Fortugno, Ms. Van Steen, and Mr. Davis, who also assembled the report's graphics, authored this report.

2.0 ENVIRONMENTAL SETTING

2.1 Project Area and Current Land Use

The Dutch Kills neighborhood presently consists of a mixed-use residential, commercial, and light industrial community located directly north of the Queensboro Bridge and the Special Long Island City Mixed-Use District (Photo 1). Approximately half of all of the zoning lots within the proposed rezoning area are residential and mixed-use, and about one-third are in light industrial, wholesale, warehouse, or parking use. The proposed rezoning area is characterized by a diverse mix and inconsistency of land use with residential structures, primarily individual family dwellings and also a few larger scale apartment buildings, warehouse buildings, professional offices, auto-repair shops, and parking lots often occupying adjacent lots within a given block. Several public schools, churches, and, at least, one public playground are located within the proposed rezoning area. In recent years, large hotels have also been constructed along the southeastern extent of the area in the vicinity of Northern Boulevard.

Photo 1: Bird's Eye View of the Project Area (Source: Windows Local Live, 2008)

2.2 Geology and Geography

Queens, as part of the Long Island land mass, is situated within the Atlantic Coastal Plain physiographic province (USGS 2003a; Schuberth 1968: 9). The Atlantic Coastal Plain extends from the north shore of Long Island along the Atlantic Ocean southward towards Florida and westward to the Piedmont. According to Schuberth, the sediments within this province lack a definite coherence, consisting of layers of sand, clay, and marl, "recently emerged sea bottom" (1968: 9). In addition to the coastal plain deposits, sedimentary deposits within Long Island also consist of moraine and outwash, till once deposited by the movement of the Pleistocene glaciers (USGS 2003b).

Two expressions of the Wisconsin glacial terminal moraine—the Ronkonkoma Moraine and the Harbor Hill Moraine have been identified on Long Island. The Ronkonkoma Moraine, the older of the two, extended from the eastern extent of Long Island to the southern shore. The Harbor Hill Moraine, also trended from east to west across Long Island, and terminated north of the Ronkonkoma terminal extent.

The project site falls immediately north of the Harbor Hill Moraine within a pre-development undulating terrain of rolling hills and rocky soil (Boesch 1997; Kross 1983: 10). Sediment within the moraine ranges from unsorted till deposits to local deposits of stratified and sorted sand and gravel (New York City Soil Survey 2005). With the retreat of the Wisconsin glacier, streams of melt water carrying sand, gravel, and silt would flow outward from the terminal moraine and the ice front, weaving a complicated pattern of channels within the land in front of the glacier (Schuberth 1968: 187). Schuberth further observes that,

> As they flow away from the ice sheet, these streams rapidly lose their velocity and, in so doing, deposit much of their debris. In time an extensive plain, called an *outwash plain*, is formed of these stratified and sorted sediments, a plain that may extend for miles beyond the ice front. The heaviest particles, the sand and gravel, are deposited near the terminal moraine, while the fine sands and silts form a more gentle slope farther to the south [1968: 187-188].

Boesch observes that such outwash deposits in combination with glaciofluvial events created kames, kame terraces, eskers, and kettles, to the north of the moraine (Boesch 1997). He further notes that such landscape features have been destroyed by past and modern development within Queens.

Within Queens, beneath the glacial outwash deposits, the soil profile consists of coastal plain sediments of unconsolidated deposits of Late Cretaceous age eroded New England Upland deposits (New York City Soil Survey 2005). These sediments overlay metamorphic and igneous rock, specifically muscovite-biotite schist, gneiss, and granite, which comprise the bedrock deposits within Queens (Boesch 1997).

According to the New York City Soil Survey, soils within the project area and immediate vicinity are classified as *Pavement & Buildings*—outwash substratum (2005). This soil complex consists of nearly level to gently sloping, highly urbanized areas with more than 80 percent of the surface being covered by pavement and buildings. The pavement and structures overlie deposits of glacial outwash. This soil type is typically found within urban centers (New York City Soil Survey 2005).

Although the project area has seen extensive development throughout the twentieth century, the preexisting topography of the project area can be established from early historic maps. Plotting the project area on the 1844 United States Coast Survey indicates that the proposed rezoning project encompassed an area that ranged from low-lying meadowland to uphill agricultural planes in between two water bodies (Figure 6). The Sunswick Creek drained from north to south with its southern terminus lying approximately 500 feet (152.4 meters) to the west of the project area. Forestland bordering the marshland associated with the creek occupied the southwestern corner of the area with small knolls and cleared agricultural lands lying in the northwestern, northern, and central portions. The Dutch Kills Creek followed a southwest to northeast course terminating near the southeastern corner of the project area (Photo 2). Marshland surrounded the eastern and western banks of the Dutch Kills Creek and extended into the southeastern corner of the rezoning area. Forestland stood along the northeastern extent of the area. Both the Sunswick Creek and the northern extent of the Dutch Kills Creek were dredged and filled by the early twentieth century. The Sunswick Creek and its associated tidal marshes were gradually filled between 1870 and 1920 (Seyfried 1982). The northern portion of the Dutch Kills Creek was filled by 1910; the southern portion of the creek still exists as a tributary of the larger Newtown Creek (New York Herald Tribune 1941).

Elevations in the vicinity of the project area range from 20 feet (6.1 meters) above sea level on the northwest, 23rd and Crescent Street, to an elevation of 40 feet (12.2 meters) above sea level in the southeastern corner, 30th and 31st Street. This incline gradually and then dramatically rises from the west, the lowest points lying along the banks of the East River, to northeast of the project area cresting much farther to the northeast towards Astoria Boulevard and St. Michael's Cemetery. The Newtown Creek lies approximately 6200 feet (1890 meters) south of the proposed rezoning area and the northern terminus of the Dutch Kills Creek sits roughly 3725 feet (1135 meters) to the southeast.

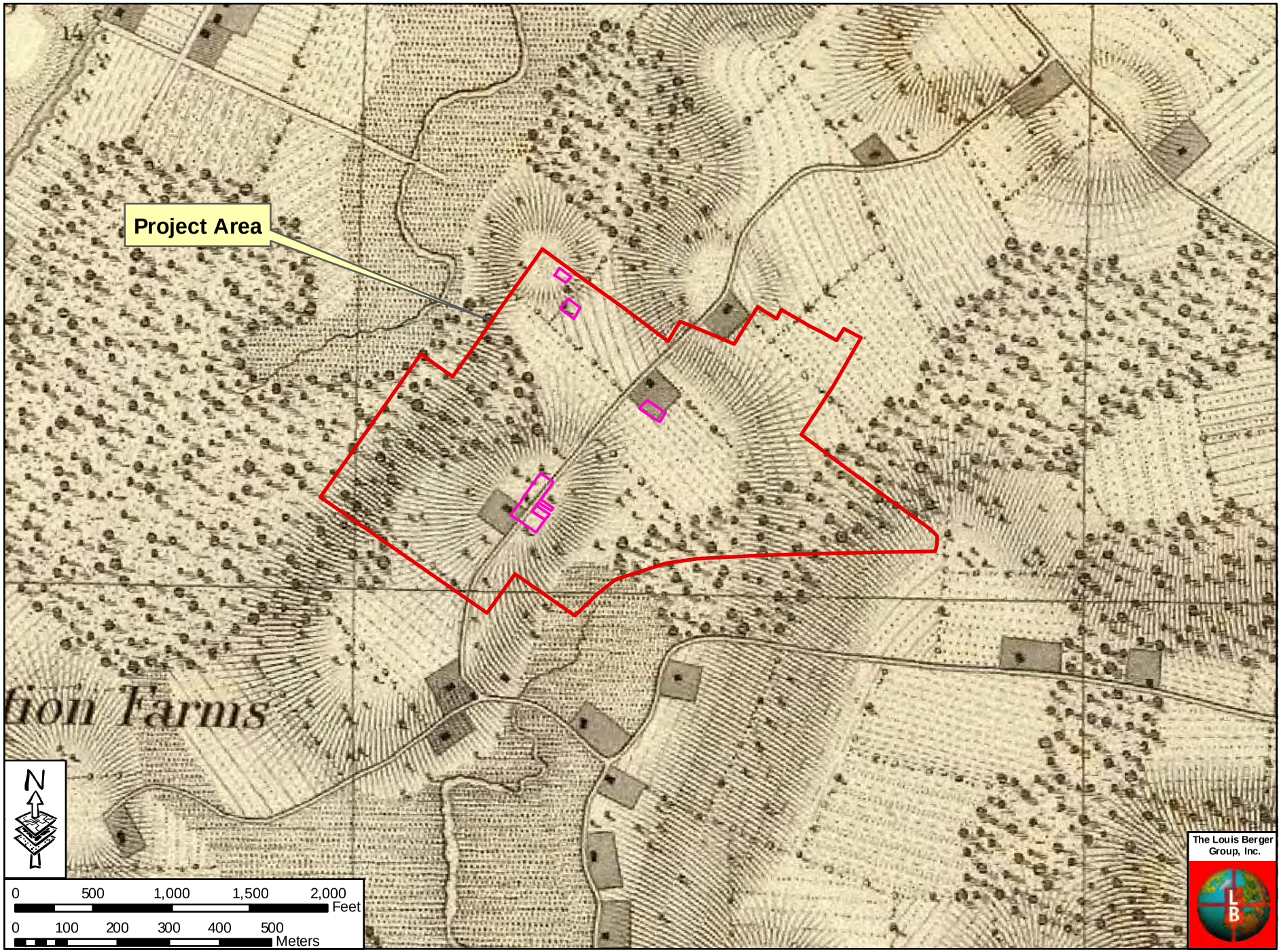

FIGURE 6: 1844 View of the Dutch Kills Rezoning Area

SOURCE: USCS 1844

Photo 2: Historical Image of the Dutch Kills Creek, View Likely to the South. (Source: Greater Astoria Historical Society 2004: 11).

3.0 BACKGROUND

3.1 Prehistoric Overview

The earliest documented human occupation of New York occurred about 12,000 years before present (BP) during what is known as the Paleoindian period. Paleoindian lifestyle was organized as mobile hunter-gatherers adapted to periglacial environments of the late Pleistocene and early Holocene. Paleoindian sites are known primarily through distinctive lanceolate fluted points that were usually made of high-quality stone. The Paleoindian economy was dominated by game hunting, an adaptation to the open forest environments and colder climate of the period. Although isolated fluted points have been found on Long Island (Saxon 1973), no Paleoindian habitation sites have been identified. The Port Mobil Site on Staten Island is the closest identified Paleoindian site to the project area (Eisenberg 1978; Funk 1977). At the time of Paleoindian occupation, large portions of the present continental shelf near coastal New York would have been exposed because of the lower sea levels. It is, therefore, possible that former habitation sites on Long Island may have been submerged or destroyed by rising seas following the last glacial retreat (Edwards and Merrill 1977; Newman 1977).

The Archaic period extended from circa 10,000 BP to circa 3300 BP; however, the instability of the coastal environments during the early Holocene epoch may be one reason that evidence of significant Native American occupation of Long Island prior to Late Archaic times (circa 6000 to 3300 BP) is lacking (Wyatt 1977:400). Remains of Early Archaic (circa 10,000 to 8000 BP) occupation are represented by a few scattered points similar to the Kanawha Stemmed and LeCroy Bifurcate Base types (Broyles 1971). Vosburg and Brewerton point types are also known to have come from Long Island, but are relatively scarce (Wyatt 1977:400).

The rate of sea-level rise and isostatic rebound of the continental margins had lessened by Late Archaic times (Edwards and Merrill 1977; Newman 1977; Snow 1980), resulting in the stabilization of marine environments. There is considerable archaeological evidence in the form of shell midden sites concentrated near salt marshes to indicate that marine resources were intensively exploited by Late Archaic populations on Long Island (Wyatt 1977). However, the relationship between the shell midden sites and Late Archaic sites in interior areas, which are characterized by artifact assemblages that include Wading River points, atlatl weights, and celts (Ritchie 1980:142-145), is poorly understood.

The rise in sea-level and changes in drainage patterns during the Holocene also had widespread effects on the terrestrial environment and on vegetation. By 8500 BP, oak and hemlock forests had replaced the predominantly pine forests of the area. The ecological changes brought about by the warmer Holocene climates subsequently encouraged population migrations and the development of new subsistence strategies that characterize the Archaic period. Compared with the Paleoindian period, a wider variety of artifact types was used during the Archaic. This suggests that a greater diversity of subsistence and technological activities was pursued, although hunting still appears to have been the major focus.

The Terminal Archaic or Transitional period (3000 to 2700 BP) is characterized by distinctive technologies that included production of soapstone vessels and a variety of broad-bladed projectile point types. The appearance of soapstone or steatite vessels and artifacts during this period provides evidence of interregional trade and also suggests increased residential stability, since stone bowls are items not easily transportable. Coastal occupation intensified during the Transitional period, which is represented by artifact assemblages that include broadspear points and soapstone vessels. On Long Island, the earliest known Native American burials are associated with Transitional period occupation (Ritchie 1980:164-165).

The appearance of ceramics in cultural assemblages marks the beginning of the Woodland period (circa 2700 BP). Various ware types and distinctive projectile points provide a means of dating sites. Later in the Woodland period (circa 2000 BP), horticulture became a part of subsistence practices, and as the cultivation of plants intensified, Native American settlements became larger and more permanent. In some areas of New York State, competition for land and resources appears to have resulted in conflicts that caused groups to nucleate in larger defensible settlements; late prehistoric occupation of Long Island, however, seems to have been dispersed along the coastline, suggesting that marine and estuarine resources continued to dominate subsistence economies. The majority of Woodland period studies have been conducted primarily along the coast, or along rivers and streams, and it is therefore not surprising that most sites have been found in these locations. More recently, archaeologists have shown that Native Americans conducted many activities in inland areas of Long Island (e.g., Lightfoot and Moore

1985), suggesting that there may have been a range of settlement patterns and more diverse subsistence strategies during the Woodland period.

At the time of European contact, Long Island was occupied by the Canarsee and Rockaway tribes (Munsell & Co. 1882: 193). According to Bolton, the Rockaway chieftaincy controlled those portions of Queens stretching from the East River to Jamaica Bay (1922: 171). At the time of contact, the local indigenous population lived in small bands and resided within small dispersed settlements that pursued primarily corn and squash agriculture (Educational Broadcasting Corporation 2004). Initial contact between Europeans and Native Americans was made when early explorers entered the area to engage in trade. The introduction of European material goods, the demands of trading relationships, rapid colonial expansion, and the spread of diseases brought by the Europeans had profound effects on the settlement and subsistence practices of the native populations. Native groups gradually became dependent on trade with the Europeans. Tribal and clan affiliations were quickly affected, and much of the native population was depopulated or displaced (Brasser 1978). Some estimates suggest that between 60 and 90 percent of the native population was lost to European diseases in the seventeenth century in southern New England and New York (Snow 1980:34).

3.1.1 *Prehistoric Archaeological Site Potential*

A search of the archaeological site records on file at the New York State Museum (NYSM) and at the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) revealed a total of seven previously recorded archaeological sites either in the survey area or within a one-mile radius of the proposed Dutch Kills rezoning area (Table 1). These previously identified sites represent evidence of past prehistoric occupation of the region and potentially of the project area and its immediate vicinity.

Table 1: Previously Recorded Prehistoric Archaeological Sites Within One-Mile Vicinity of Project Area

NYSOPRHP Site Number	NYSM Number	Additional Site Name	Site Type/Description	Source
	4537	ACP QUNS 14 (Parker 14)	Prehistoric: Burial site located on Crescent Street in Long Island City	Parker 1920: 672; Bolton 1934: 150
	4538	ACP QUNS #	Prehistoric: Village site	Parker 1922
08101.000100		Sunwick	Prehistoric: Shell heap with associated Native American artifacts	Bolton 1922: 175
08101.000101		Parker 14	Prehistoric: Burial site located on Crescent Street in Long Island City	Parker 1920: 672; Bolton 1934: 150
	4061	ACP NYRK #	Prehistoric: Traces of occupation	Parker 1922
08101.000099	4535	ACP QUNS 12 (Parker 12)	Possibly Prehistoric: Shell heap/midden with early and modern artifacts	Parker 1920: 672
	8217	ACP QUNS #	Prehistoric: Campsite	Parker 1922

According to the NYSORPHP site files, portions of two previously recorded sites may extend into the project area—NYSM 4537 and 4538. With respect to NYSM 4537, both Parker and Bolton recorded the presence of human burials along Crescent Street within Long Island City (Parker 1920: 672; Bolton 1934: 150). The exact location of the burial site is unclear from either description. A NYSOPRHP site (08101.000101) has been recorded less than one-mile north of the project area. The brief description of this site also references Parker's Site 14, the burial site along Crescent Street (Parker 1920: 672). It is unclear which of the two recorded site locations represents the approximate location of the recovered human burials. According to NYSOPRHP, the village site, NYSM 4538, is located within an area bounded by 37th Avenue to the north, Queens Boulevard to the south, 31st Street to the east,

and 21st Street to the west. Parker's map of prehistoric sites within Queens appears to situate this site to the north of the project area and north of the NYSORPHP location, around 35th Avenue and Crescent Street (1920: Plate 208). It is, therefore, unclear which of these two recorded site locations represents the approximate location of the village site.

Four additional prehistoric sites were documented within a one-mile vicinity of the project area. One site, NYSM 4061, was located one-mile west of the project area, along the eastern shore of Manhattan. There is only a brief description provided for this site as a locale with "traces of occupation" (Parker 1922). Bolton also documented the Sunwick site, a shell heap with Native American artifacts uncovered by Calver on the east bank of the East River, less than one-mile north of the project area (1922: 175). Parker identified another shell heap/midden site with associated early and modern artifacts, NYSM 4535, approximately one-mile north of the project area opposite the northern end of Blackwell's (Roosevelt) Island (Parker 1920: 672). A NYSOPRHP site (08101.000099) has been recorded to the north of NYSM 4535 and refers to the same shell midden recorded by Parker. It is unclear which site location represents the more accurate site location. A campsite, NYSM 8217, was also identified immediately northeast of NYSM 4535. No additional description was provided for this site.

An additional site has been recorded slightly over one-mile south of the project area. NYSM 3613 was reported by Parker as a trace of occupation along the mouth of Newtown Creek in Kings County (Parker 1920; HPI 2000: 7). No additional information was provided for this site.

3.1.2 *Previous Cultural Resource Surveys*

A review of previously conducted archaeological surveys indicated that seven previous archaeological studies have been conducted within a one-mile radius of the project area. Three of these surveys were conducted to the south of the project area. In association with the proposed rezoning of Long Island City, Historical Perspectives, Inc. (HPI) undertook a preliminary archaeological assessment of the area (2000). This preliminary assessment found that the Long Island City rezoning area was potentially sensitive for prehistoric and historic archaeological resources. The documented presence of prehistoric occupation in the vicinity of the project area, along with the presence of fresh water sources, the Dutch Kills Creek, Newtown Creek, and Sunswick Creek, in the region, suggested that the area may have been an attractive setting for past prehistoric activities and occupations. Historical and cartographic research undertaken as a main component of the assessment revealed that the area may have been developed as early as the late seventeenth century and continuing through the 1860s (HPI 2000: 10-17). The study further suggested that these early structures, along with those industrial and residential structures built in the 1870s, most likely predated the installation of municipal sewer or water lines in the area. Given the potential for extant historic period shaft features within the Long Island City rezoning area, it was also considered preliminarily sensitive for historic archaeological resources. In order to determine the extent of past subsurface disturbance to the area, the assessment concluded that additional Phase IA studies should be conducted prior to construction on any particular block or lot within the project area (HPI 2000: 21-22). Such studies would determine the nature and depth of any past disturbance to the specific property and would thereby reassess the potential for extant archaeological resources within the particular project area.

Greenhouse Consultants, Inc. (Greenhouse) undertook a secondary level documentary research study of a portion of the proposed Long Island City rezoning district in 2000. This study was intended to determine to what extent, if any, the project parcel, between Crane and Davis Streets and Jackson Avenue and the Long Island Railroad, had been previously disturbed (Greenhouse 2000: 1) . Cartographic research indicated that the majority of this area was not developed until the early twentieth century, when water and sewer lines already serviced much of Long Island City. Although a few buildings were constructed within the area between 1891 and 1898, historic research could not document a single continuous family occupation during this period (Greenhouse 2000: 2-5). The documentary study also found that the domestic and industrial developments of the twentieth century most likely destroyed any preexisting prehistoric deposits within the area. Given the lack of a continuous historic occupation within the parcel, and the existence of structures with deep cellars and foundations in the area, Greenhouse concluded that this parcel was not sensitive for prehistoric or historic archaeological deposits (2000: 9-10).

In 1991, Greenhouse conducted an *Archaeological and Historic Sensitivity Evaluation of the Korea News Project, 42-22 27th Street, Long Island City, Queens County, New York.* This evaluation found that the area immediately south of the Dutch Kills project area is sensitive for both prehistoric and historic archaeological resources. Greenhouse reviewed previous soil borings taken from the area and concluded that existing shaft features or

prehistoric deposits may have been capped and, in turn, protected by previous fill episodes. Greenhouse also found a continuous historic occupation of the western portion of the project parcel by a single family from 1879 to 1923 (1991: 3-5). Given this continuity of residence, the study concluded that the western portion of the parcel should be archaeologically tested for historic features or deposits relating to the Jones family occupation. Furthermore, Greenhouse recommended that archaeological testing for intact prehistoric resources should be conducted in those portions of the site within which buildings with cellars or deep foundations had not been constructed (1991: 6-7).

HPI also conducted a Phase IA Archaeological Assessment of the proposed Silvercup Rezoning area along Vernon Boulevard and the East River, to the west of the Dutch Kills project area (2005a). The assessment found that the construction of the New York Architectural Terra Cotta Company within the project parcel in the 1880s and its operation into the mid-twentieth century would have caused extensive subsurface disturbance to the area (HPI 2005b: 25-30). Such disturbance would have effaced any preexisting prehistoric or historic deposits. Despite the lack of prehistoric or early historic sensitivity for the area, HPI found that there was a likelihood that features or deposits relating to the New York Architectural Terra Cotta Company and its operation may still remain intact within the area (HPI 2005b: 31). Therefore, the assessment recommended that a testing protocol be developed in coordination with the relevant review agency for the purpose of retrieving relevant data from the former factory grounds.

To the east of the Dutch Kills project area, HPI also completed a Stage IA Archaeological Assessment of the proposed MTA/Long Island Rail Road East Side Access Project (1999). This project included construction in both the southeastern portions of Manhattan and the northwestern portions of Queens. A search of the cultural resource studies on file at the NYSM and the NYSOPRHP did not uncover this report. The Manhattan portion of the original assessment was identified within the files of the LPC; however, the Queens section of the report could not be located at either LPC or at NYSOPRHP.

In association with the East Side Access Project, the MTA/East Side Access Team produced a Construction Protection Plan to satisfy the requirements of the Programmatic Agreement between the Federal Transit Administration (FTA), the MTA, and the Preservation Officer of the NYSOPRHP regarding the implementation of the project (2004). The plan was developed in order to avoid any potentially adverse impacts that the proposed construction might cause to existing historic structures or archaeological resources. As such, the Construction Protection Plan summarized the historic structure and archaeological resource findings of the previous Stage IA and offered methodologies for field testing areas with potential archaeological deposits and for safeguarding potential historic structures.

According to the Construction Plan, the Stage IA report identified 12 areas within the Queens portion of the proposed East Side Access Project with the potential to possess intact archaeological resources (MTA/ESA 2004: Appendix D). Within Queens, the proposed construction would impact an area approximately 100-200 feet (30.5 to 61 meters) southeast of the proposed Dutch Kills rezoning area and encompassing the majority of the present-day Sunnyside Yards complex. This complex is roughly bounded by Jackson Avenue and Northern Boulevard to the north, 43rd Street to the east, Skillman Avenue to the south, and by Hunter's Point Avenue and Jackson Avenue to the west. After a review of available soil boring data for the 12 potentially sensitive areas, HPI revised its Stage IA findings, and concluded that 11 areas within the East Side Access project area had the potential to produce intact archaeological deposits. Two of these areas are within close proximity to the rezoning parcel—Area 1, east of Northern Boulevard between 41st Avenue and 40th Road, and Area 10, also east of Northern Boulevard between 41st Avenue and 40th Road. HPI concluded that Area 1 was sensitive for both prehistoric deposits and for historic deposits relating to the mid-nineteenth century Payntar Homestead (MTA/ESA 2004: Appendix D: 2). Based on an examination of the available soil boring data, HPI concluded that potentially intact ground surfaces or archaeological deposits might be found beneath 4 to 20 feet (1.2 to 6.1 meters) of fill. Given that such an extensive fill deposit would require mechanical excavation, that environmental conditions within this area would require the installation of a slurry retaining wall to prevent groundwater infiltration, and that potentially hazardous deposits may exist, HPI recommended that Area 1 be archaeologically monitored for any potential intact deposits or surfaces during the construction process (MTA/ESA 2004: Appendix D: 12). Similarly, HPI found that Area 10 was sensitive for both prehistoric deposits and potential historic period deposits related to a mid-seventeenth century grist mill located between 41st Avenue and 40th Road. Soil boring data for this area also indicated that potentially intact deposits might be found beneath 11 to 17 feet (3.4 to 5.2 meters) of fill. The study found that Area 10 is also prone to groundwater infiltration and, therefore, has the potential for hazardous material contamination. In light of the fact that construction plans for this area had not been finalized by the preparation of the Construction Plan, HPI

recommended that a protocol for testing Area 10 be developed after the proposed construction and impact plans were completed (MTA/ESA 2004: Appendix D: 18).

The nine remaining sensitive areas within the Queens portion of the East Side Access Project ranged in potential sensitivity for prehistoric resources, nineteenth to early twentieth century residential deposits and shaft features, or for deposits relating to the British and Hessian Revolutionary War troop occupation (MTA/ESA 2004: Appendix D: 2). In each area, a deposit of fill from 3.5 to 20 feet (1.1 to 6.1 meters) in depth was believed to cap any potentially intact deposits or surfaces. The evidence for groundwater infiltration and potentially hazardous material deposits throughout the East Side Access Project area suggested that field testing for archaeological resources within any of the sensitive areas would most likely consist of archaeological monitoring of mechanical excavations during the construction phase. The Construction Plan also noted the presence of three known historic resources within the Queens project area (MTA/ESA 2004: Appendix C: 2). These resources included: Switch Tower Q, east of the Queens Boulevard Viaduct, the Office (formerly Signal Cabin F), west of Thomson Avenue, and the Sunnyside Gardens Historic District, a total of 16 blocks east of 43rd Street and south of Barrett Avenue. The two buildings were found to be eligible for listing on the New York State and National Registers of Historic Places; the historic district has already been listed (MTA/ESA 2004: Appendix C: 2).

A 2005 addendum study to the original Stage IA East Side Access Assessment was also found on file with LPC (HPI 2005b). The addendum report was written to assess proposed alterations to development plans evaluated by the original document (HPI 2005b: 1-2). Primarily, this secondary assessment concluded that in those portions of the East Side Access project area within which cartographic records indicate that past grading had occurred to a depth of over five to ten feet (1.5 to 3 meters) that such areas were not sensitive for intact prehistoric or historic resources. Alternatively, in those areas within which past filling episodes or limited grading had previously occurred, the study concluded that archaeological resources may still remain extant. For those potentially sensitive areas that the proposed construction could not avoid, the addendum referred the reader to the archaeological testing recommendations from the Stage IA report (2005b: 18).

Two previous cultural resource studies were also conducted to the north of the Dutch Kills project area. In 1988, HPI conducted a *Phase IA Archaeological Assessment Report for the West Queens Housing Site and the West Queens High School Site, Astoria, New York.* This study evaluated the archaeological potential of a flag-shaped area bordered by Broadway and 34th Avenue, including 13th, 14th, and 21st Streets. Based on the pre-1850 topography of the area, on prior disturbance to the project parcel, and on the known filling history of the parcel as evidenced by soil boring profiles, the assessment concluded that only three lots within the parcel were potentially sensitive for cultural resources. One lot was considered sensitive for prehistoric deposits based on the limited fill deposit in this area and the lack of previously documented disturbance. Two other lots were deemed sensitive for potential historic deposits including an old existing privy. For each lot, HPI recommended that an archaeologist be present to monitor construction-related excavations in these areas (1988: 26). In 1992, HPI conducted a supplementary Phase IA Assessment of a proposed expansion to the West Queens High School site. This planned expansion for a proposed athletic field encompassed a single lot to the west of the site evaluated in 1988. The study concluded that the proposed expansion lot was sensitive for both potential prehistoric and historic archaeological resources. At the time of this assessment, the final design plans for the West Queens expansion were unknown. Therefore, HPI recommended that if the final plans for the expansion included the introduction of fill material which would, in effect, encase and cap any preexisting archaeological deposits, that no additional archaeological work would be required. However, if the expansion would require subsurface excavations or grading, HPI concluded that either soil borings or a few shovel test pits should be excavated in the area in order to provide an idea of the stratigraphic sequence on site. Further recommendations for additional archaeological work would then be made in consultation with the reviewing agency and in light of the exposed soil profile (HPI 1988: 24-25).

Further to the north, in 1998, John Milner Associates, Inc. (JMA) conducted a Phase IA archaeological evaluation of the proposed site for the construction of a new school, PS 234-Q, in Astoria, Queens. The proposed location was a through block fronting on 29th and 30th Streets. In a previous preliminary screening of the parcel, JMA concluded that five lots within the area were potentially significant for historic archaeological resources. Based on this assessment, JMA recommended a Phase IA archaeological study of each of the five lots. Lot histories were prepared for each of the lots based off of the historic and cartographic records. As a result of these histories, JMA found that two of the five lots, Lots 16 and 18, had the potential to yield historic features or deposits which could provide insights into past lifeways in the area and, therefore, recommended archaeological testing in the form of a

Phase IB/II investigation of these lots. Since continuous residential occupations could not be tied to the three remaining lots, JMA concluded that no further archaeological work was warranted (1998: 11-12).

The Louis Berger Group (Berger) conducted Phase IB field investigations within Lots 16 and 18 of the proposed PS 234-Q construction site in August 2001 (2001). Archaeological testing on site consisted in the mechanical excavation of four linear trenches—two in each of the sensitive lots. Excavation of Trench 1 in Lot 16 revealed an intact brick and mortar wall, most likely the remnant foundation of an addition to the nineteenth century residence in this lot. No cultural material was found in association with the wall; there were no maker's marks found on any of the bricks. At a depth of 60cms (2.0 feet) below the ground surface, a recent metal sewer pipe utility was uncovered (Berger 2001: 2). The utility installation had caused subsurface disturbance to a depth of 90cms (3.0 feet) below the ground surface. Beneath the sewer utility, a filled-in shaft feature was found. The feature was filled with coal, ash, and slag. The eastern and bottom sides of the feature were composed of mortared brick. A single maker's mark "XXX" was found on the bricks within the shaft. The mark has been identified with three different brick manufactories, with the closest to the site being the Jersey City Refractories who manufactured bricks from 1927-1930 (Berger 2001: 2). Based on the dates of manufacture and cartographic records, Berger concluded that this feature was related to an early twentieth century residence on the property. Aside from the coal and ash, no additional cultural material was found within the shaft. Trench 2 was excavated parallel to Trench 1 in Lot 16 (Berger 2001: 3). This excavation exposed disturbed portions of the foundation wall found in Trench 1, and a ceramic sewer pipe utility overlying the metal pipe utility also found in Trench 1. A filled shaft feature was also uncovered within Trench 2. This brick feature was similarly filled with ash and coal slag, lacking any other cultural material. Unlike the Trench 1 shaft feature, there were no maker's marks on the bricks within the Trench 2 shaft.

Two trenches were also excavated within Lot 18. Trench 3 uncovered brick, coal, and ash deposits associated with a former nineteenth century building that had occupied the eastern portion of Lot 18 (Berger 2001: 3). Southeast of these deposits, two metal poles were uncovered. Berger interpreted these buried poles as former vertical components of the concrete footing for P.S. 17. Further southeast along the trench, a dark pungent organic deposit was revealed adjacent to a concrete structure. Mechanical removal of the structure revealed that it once functioned as a sewer catchment basin with the associated soils most likely representing the sewer drainage channel. A few pieces of brick and mortar, along with an undiagnostic whiteware sherd were found within the organic deposit. Excavation of Trench 3 was terminated with the removal of the catchment basin (Berger 2001: 3-4). Trench 4 was excavated along the eastern portion of Lot 18. Beneath the first few meters of the trench excavation, thick ash and coal deposits were found in association with a concrete floor (Berger 2001: 4). Disarticulated marble tiles were found overlying portions of this floor. Trench 4 was expanded to the south, it was confirmed that the marble tiles were not in a particular alignment and had been haphazardly deposited. Removal of these tiles revealed a floor surface. Berger concluded that the floor was associated with the backside of a nineteenth century building that previously stood within Lot 18. A modern sewer pipe utility was also found within this area, disturbing portions of the floor. Further excavation of Trench 4 did not reveal any shaft features or dense deposits. A diffuse scatter of cultural material, including a cow bone, a clay pipe stem, glass fragments, and metal nails, were found beneath the floor layer. Given the diffuse nature of this scatter, Berger interpreted the deposit as "typical background scatter for an urban archaeological excavation," as opposed to an activity area. Ultimately, Berger concluded that the excavations within Lots 16 and 18 did not uncover significant or integral deposits which could potentially provide insights into past lifeways or household behaviors within this area (Berger 2001: 5). Therefore, no additional archaeological investigations were recommended.

3.2 Historic Background

In order to document any development and changes to the project area over time, historic maps of the region were scanned and georeferenced to the project location using the software program ArcView 9.2. This software enables the superimposition of the Dutch Kills rezoning area to historic maps (Pratt 2002). 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 the project area due to the variability in the historical accuracy of the surveying methods used to create the historic era maps.

Historical resources indicate that portions of Long Island were once occupied by the Canarsee and Rockaway tribes (Munsell & Co. 1882: 193). Bolton observes that the Borough of Queens "includes the entire tract which was once occupied by the Rockaway chieftaincy extending from the East river to Jamaica bay" (1922: 171). He further notes

that the region surrounding the inlet of Newtown Creek, just south of the proposed rezoning area, was occupied by a subordinate chieftaincy, the Mispat (1922: 173). Historical accounts record that the Newtown Creek was known as the Mespaetches or the Mespat Creek by local inhabitants (Bolton 1922: 173; Munsell & Co. 1882: 259). Bolton cites Tooker's interpretation of the Mespaetches name as a reference to a bad water place within a swampy location, a fitting description of "the character of the borders of the creek and of its branches," according to Bolton (1922: 173). Several historical references indicate that the Dutch Kills tributary was called Canapaukah (Kanapaukah) Creek at this time (Grumet 1981: 4-5; Bolton 1922: 173; and Munsell & Co. 1882: 259). Various interpretations have been offered for Canapaukah, a fenced-in water place being one translation recorded by both Grumet and Bolton.

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* (Von Skal 1908: 7). 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 (Von Skal 1908: 7). 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" (Von Skal 1908: 7). 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 (Von Skal 1908: 8).

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 (Von Skal 1908: 8). 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 (Seyfried 1982: 13). 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 (Seyfried 1984: 76; Munsell & Co. 1882: 259). 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 (Seyfried 1984: 76; Munsell & Co. 1882: 260). 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 Jackson Avenue, and erected a water-powered grist mill (Seyfried 1984: 76). 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 (Seyfried 1984: 76).

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 (Seyfried 1982: 14). 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 (Seyfried 1982: 15). In the 1660s, the settlement of Newtown included a carpenter, a cooper, a mason, a blacksmith, and two tailors (Long Island City Savings Bank 1986).

In 1671, Burger Jorissen passed away. Upon his death, Jorissen's sons sold their farm to John Parcell (Seyfried 1984: 76). 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 (1984: 76). Portions of the former Jorissen estate were purchased in 1690 and 1693 by the Bragaw (Broucard) family (Riker 1852: 371). Peter Bragaw sold this farm to William Post in 1702, sometime after which the land was reacquired by Isaac Bragaw (Broucard) (WPA 1938: 69-70; Riker 1852: 371).

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 (Seyfried 1984: 77; Seyfried 1982). 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 (Seyfried 1982: 27). 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 (Munsell & Co. 1882: 270). 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 (Seyfried 1982: 27). 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 [1925: 945].

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 (Seyfried 1982: 28).

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 (Seyfried 1984: 78). 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 (Seyfried 1982). According to Seyfried, this structure was located 65 feet north of 41st Avenue and Jackson Avenue, immediately south of the proposed rezoning area (Seyfried 1984: 78). 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 (Greater Astoria Historical Society 2007a; Seyfried 1982). 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 (Greater Astoria Historical Society 2007a).

The WPA records relating to Peter Bragaw (Broucard) suggest a potentially different ownership history for this property (1938). These records indicate that William Payntar, Jr. acquired a large tract of land from Peter P. Larremore in 1831 (1938: 69-70). 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 (1938: 69-70). The alignment of this former roadway is potentially maintained into the present day by an alleyway which diagonally divides Block 371 within the proposed rezoning area.

Historical accounts indicate that Jorissen's grist mill was still extant until 1861 when construction of the Long Island Railroad through the headwaters of the Dutch Kills demolished the building (Seyfried 1984: 76). Burr's 1829 Map of New York, Kings, Queens, and Richmond Counties depicts the grist mill immediately southeast of the Dutch Kills Creek (Figure 7). The proposed rezoning area, to the northwest of the mill location, appears undeveloped as of 1829. Seyfried notes that *Burger's Sluice* was also filled in by the Long Island Railroad construction in 1861, with Jackson Avenue opening this same year (Seyfried 1984: 76).

Beginning in the 1830s, urbanizing forces started to develop within Queens with suburban villages being founded by individuals and realty companies (Educational Broadcasting Corporation 2004). Charles and Peter Roach founded

Figure 7: The Dutch Kills Rezoning Area in 1829

SOURCE: Burr 1829

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 15,000 inhabitants by 1869 (Munsell & Co. 1882: 277). 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 (Figure 8). 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 (Von Skal 1908: 20). 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 (Munsell & Co. 1882: 278).

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 (Munsell & Co. 1882: 277). 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 (Figure 9; Seyfried 1984: 107). 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 [Seyfried 1984: 107].

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 (Seyfried 1984: 108). 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 (Seyfried 1984: 109). 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 (Seyfried 1984: 110). 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 (Seyfried 1984: 110). 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 [Seyfried 1984: 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 (Munsell & Co. 1882: 283). 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.

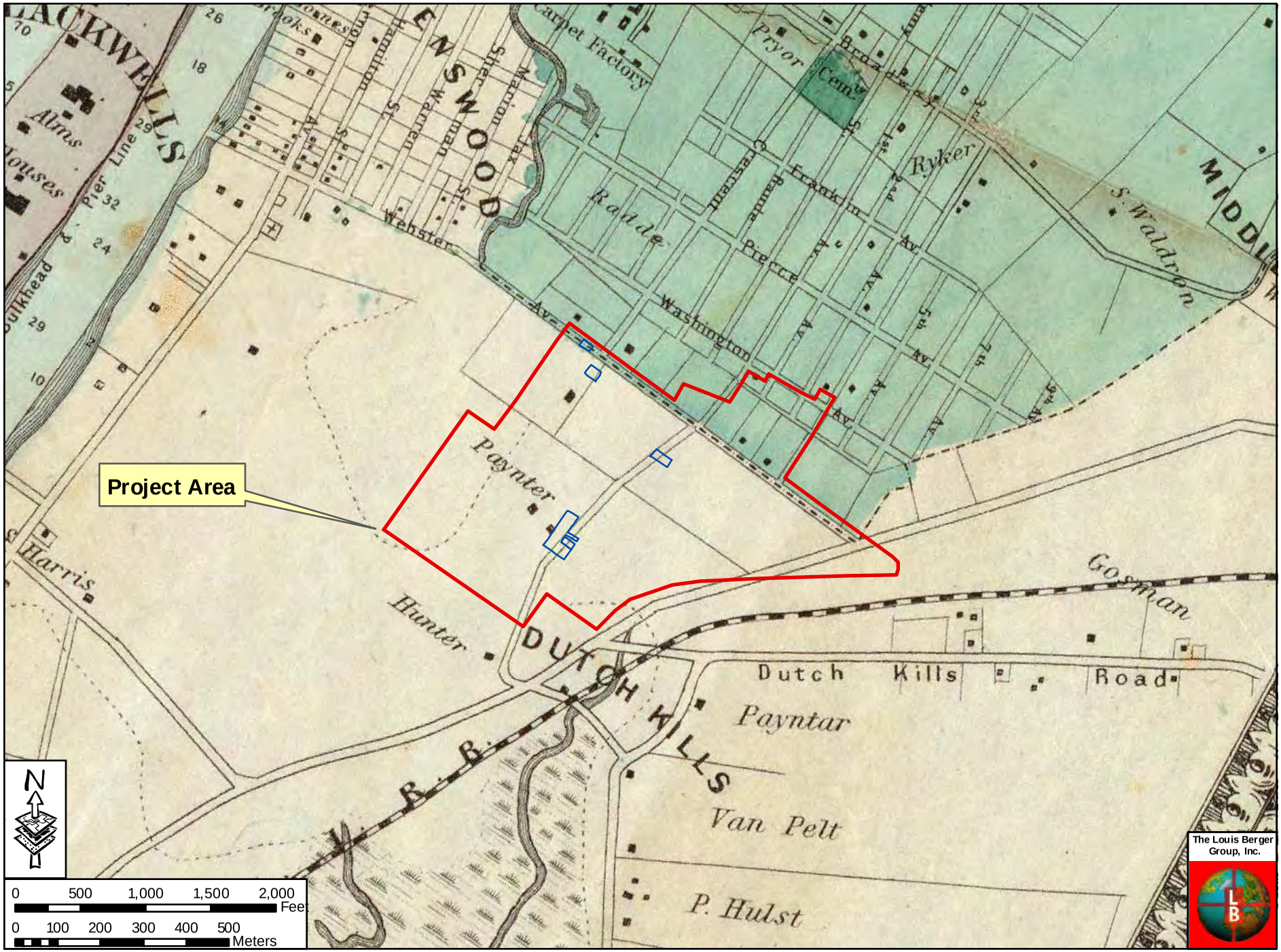

Figure 8: The Dutch Kills Rezoning Area in in 1863

SOURCE: Dripps 1863

Figure 9: The Dutch Kills Rezoning Area in 1891

SOURCE: Bien 1891

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 (Hazelton 1925: 952). 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 (Hazelton 1925: 951).

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 (Munsell & Co. 1882: 280). 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 (New York Times 1893b). 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 (New York Times 12/23/1893). 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 (Seyfried 1984:166). 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 (Photo 3). 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.

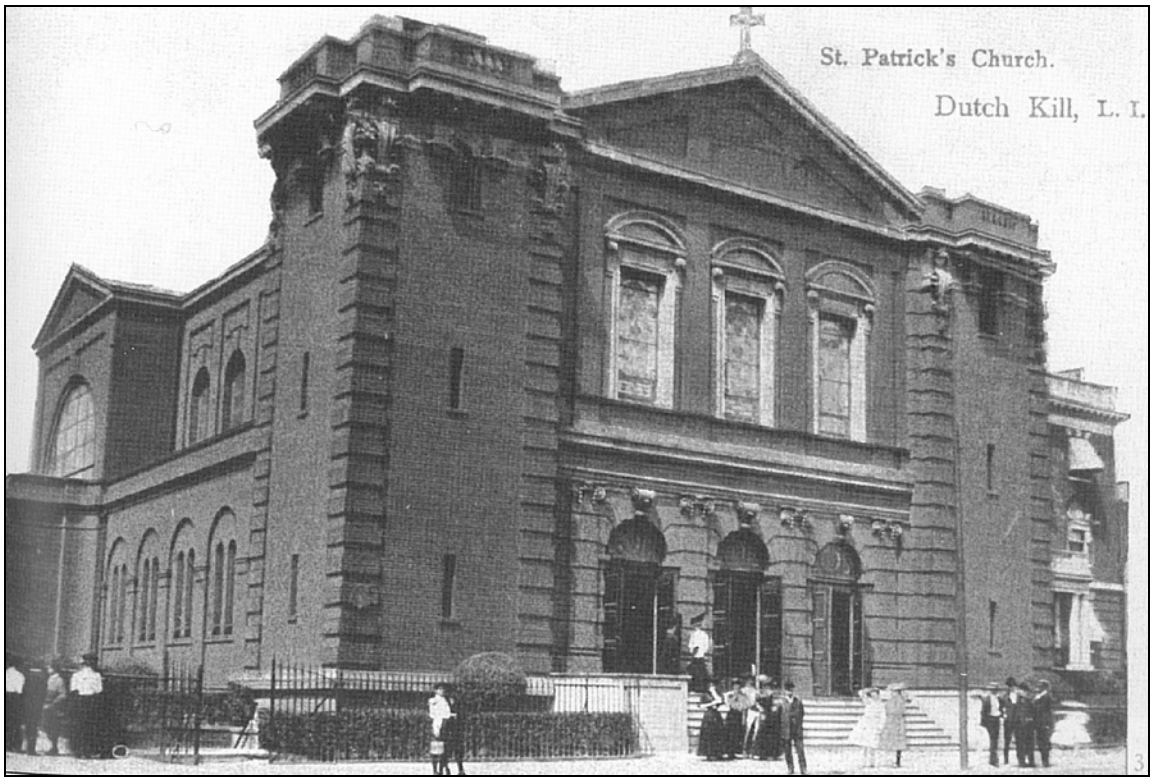

Photo 3: Original Brick Facade and Construction of St. Patrick's Roman Catholic Church at the Corner of 29th Street and 40th Avenue. (Source: Greater Astoria Historical Society 2007b: 67).

The First German Methodist Episcopal Church was organized in the area in 1890 (Seyfried 1984: 166). According to Seyfried, this church was constructed on the east side of 29th Street between 41st Avenue and 40th Road, opposite the old Bryant High School (166). This location would be immediately southeast of the proposed rezoning area. Sanborn maps of the project area depict the First German Methodist Church within the project 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 within the rezoning project.

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 (Educational Broadcasting Corporation 2004). 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 (Educational Broadcasting Corporation 2004). 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 (Von Skal 1908: 19).

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 (Seyfried 1984: 139). 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 (18.3-meter) residential street to a 150-foot (45.7-meter) wide Queens Bridge Plaza (Photo 4). The creation of this broad street required the demolition of many small wooden frame buildings and the raising of the ground surface ten feet (three meters) (Seyfried 1984: 140).

Photo 4: Queens Bridge Plaza, Formerly Jane Street, after 1909. (Source: Greater Astoria Historical Society 2007b: 103).

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 (Seyfried 1984). The gravestone was found approximately six feet (1.8 meters) below the ground surface. In 1930, the Bryant school was moved and the existing school building was renamed the Long Island City High School (Greater Astoria Historical Society 2007b: 77). 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 proposed rezoning area, but is not a projected or potential development site.

The construction of Queensboro Bridge necessitated other widespread changes to the surrounding area. The Payntar homestead located 65 feet (19.8 meters) 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 (Seyfried 1982, 1984). 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 (see Figure 9). 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 (Photo 5; 1982). In direct association with the bridge construction,

> the City Highway Dept. carried 36th Ave. (Washington) and 37th Ave. (Webster), 38th (Beebe) and 40th Ave. (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 [Seyfried 1984: 140].

Photo 5: From Vernon Avenue, Looking East Across the Sunswick Tidal Marshes to Developed City in 1893 (Source: Seyfried 1982).

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 (Hunter 2003). 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 (Hunter 2003). 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 (New York Herald Tribune 1941).

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 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 (Hunter 2003). 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 (New York Times 1910). 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 (New York Times 1912b). A 1914 article within The Real Estate Record and Builder's Guide (RERBG 1914b) forecasted that Queens might become one of the largest manufacturing centers within the northeast (1936:736). 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 proposed 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 (RERBG 1936:702, 736). 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 (Photo 6). This plaza area was destroyed with the extension of elevated subway lines into the area.

Photo 6: Image of the Ornamental Public Space Defining Queens Bridge Plaza from 1912-1914. The Queensboro Bridge can be seen in the background of the image; the Brewster Building sits on the right-side of the frame. (Source: Greater Astoria Historical Society 2004: 109.)

The increase in industrial plants and manufacturing centers within Long Island City brought an onslaught of workers to the area (RERBG 1913). 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 (New York Times 1912a). 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 (Photo 7). 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.

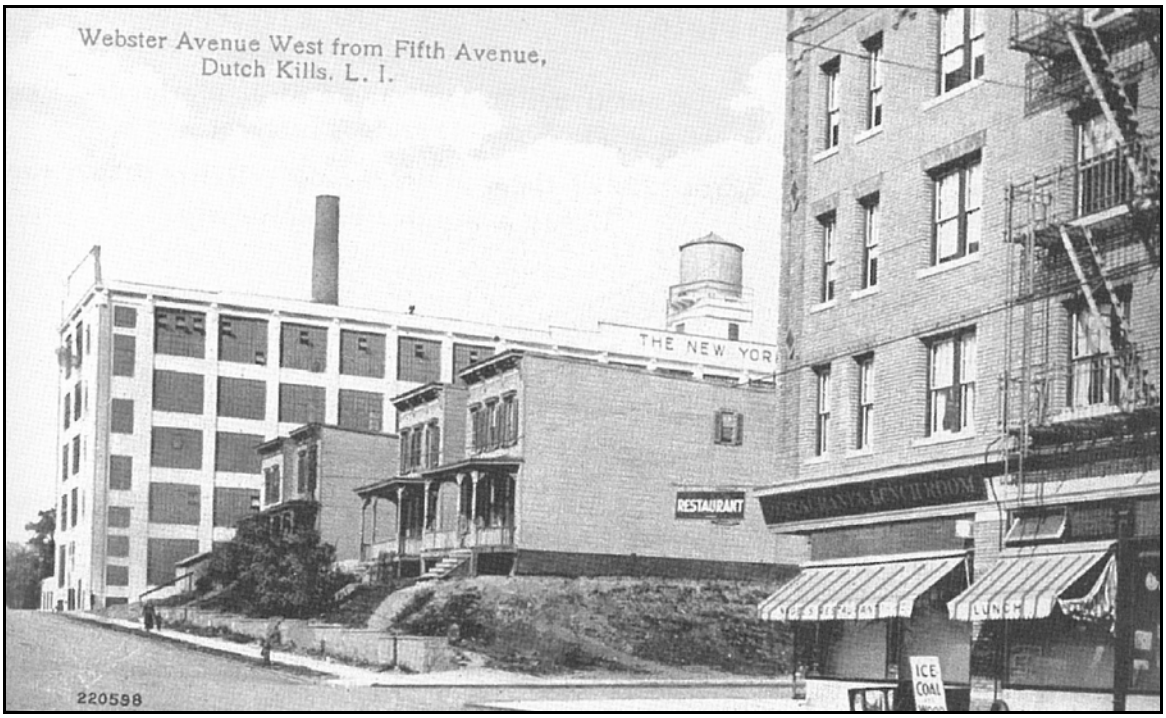

Photo 7: After 1917, Image of Webster (37th) Avenue Looking West from Fifth Avenue (34th Street) Showing the Juxtaposition of Historic Structures with Twentieth Century Constructions. Note historic buildings have not been graded to meet the street level. (Source: Greater Astoria Historical Society 2007b: 55).

In September 1938, ground was broken on a large public housing project, the Queensbridge Houses, to the southwest of the proposed rezoning area (New York Times 1939a). This public housing complex represented the fifth low-rent, government-financed housing project to be built in New York City since 1936 (Federal Writers' Project 1939). 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 (Federal Writers' Project 1939). The Queensbridge Houses occupy six blocks bounded by 21st Street, Vernon Boulevard, 40th Avenue, and a line 100 feet (30.5 meters) 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 (New York Times 1939b). 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 (New York Times 1939a). 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" (New York Times 1939a). 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 (New York Times 1939b).

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 (Hunter 2003). 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 (Berger 2007).

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 (Hunter 2003: 16). 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 (Hunter 2003: 16). 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 20-30 percent (Hunter 2003: 16-17).

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 (Hunter 2003: 26). 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 (Hunter 2003: 27). 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 (Hunter 2003: 27-28).

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 (Hunter 2003: 38). 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 (2003). 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 (Hunter 2003: 46-47). 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.

4.0 INDIVIDUAL LOT DOCUMENTARY STUDIES

As a function of the DEIS for the proposed Dutch Kills rezoning, a letter detailing all of the projected and potential development sites and the respective lots within each development site was submitted to LPC for their review (Jessica Neilan, Information Request dated November 9, 2007). Of the total 40 projected development sites, representing 67 lots, LPC determined that four lots had the potential to contain historic archaeological resources (LPC, Environmental Review letter dated 12/26/2007). From the total 192 potential development sites, representing 314 lots, LPC determined that one lot had the potential to possess historic archaeological resources. In accordance with CEQR guidelines, this review letter from LPC established the Area of Potential Effect (APE) for archaeological resources that may be adversely impacted by various components of the proposed action. The archaeological APE, defined by LPC's first-level review, includes five lots on four different tax blocks within the proposed rezoning area. Per LPC's request, a documentary study was undertaken for the following blocks and lots, constituting the archaeological APE, as part of the proposed rezoning action:

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);
Block 398, Lot 39 (Part of Potential Development Site 47)

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 (Pratt 2002). 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.

4.1 Block 367, Lot 23

Block 367 is bounded 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 (28 meters) along 37th Avenue, commencing at the southwest corner of 37th Avenue and Crescent Street, and has a width of 87.10 feet (26.5 meters) on its southern edge. Lot 23 has a length of 52.18 feet (15.9 meters) 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 (New York City Department of Finance 2008). 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 (Photo 8).

Photo 8: Block 367, Lot 23, View Southwest.

Lot History

According to the 1844 United States Coast Survey of Queens, Lot 23 was undeveloped in the mid-nineteenth century (see Figure 6). At this time, the lot was situated on a small knoll surrounded by rural property to the east, meadowland to the south and north, and the Sunswick Creek to the west. During the 1840s, the parcel changed ownership several times, eventually becoming the property of Mary Gardner (Liber 76, Page 313; see Table 2).

Table 2: Recorded Land Transfers Within for Block 367, Lot 23

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
J. Debevoise	C. Gardner	1817[1]			
James B. and Mary Ann Gardner, Thomas Gardner, Jr., Hannah Badgley	John and Charles Gardner	7/20/1841	54: 418	Includes 61: 6	Includes 61: 23
John and Sarah Ann Gardner, Charles Gardner	William and Adrianna K. Gardner	5/28/1842	57: 461	Includes 61: 6	Includes 61: 23
William and Adrianna K. Gardner	William B. Bolles	4/1/1847	71: 111	Includes 61: 6	Includes 61: 23
William B. Bolles	Mary Gardner	9/1/1848	76: 313	Includes 61: 6	Includes 61: 23

[1] Source 1935 Topographic Bureau *1800 Map of the Borough of Queens*.

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
Mary Gardner	Mary J. Gardner	2/27/1893	966: 109	Includes 61: 6	Includes 61: 23
Mary Gardner	George J. Gardner	5/7/1900	1300: 34	Includes 61: 6	Includes 61: 23
George J. Gardner	Maria Vitelli Bianco	7/3/1920	2296: 263	61: 6	61: 23
Maria Vitelli Bianco	Joseph Pavlicek	1/26/1935	3732: 2349	61: 6	61: 23
Joseph Pavlicek	Royal Top Realty Co.	5/15/1953	6518: 272	61: 6	61: 23
Berleaf, Inc.	Alfred and Bernard Harmon	4/23/1984	1670: 1192	61: 6	61: 23
Alfred and Bernard Harmon	Hephestos Tile Supplies, Inc.	2/7/200	5501: 467	61: 6	61: 23
Hephestos Tile Suppliers, Inc.	Hephaistos Building Supplies, Inc. (Sublease)	2/7/200	5501: 478	61: 6	61: 23
New York City Industrial Development Agency	Hephestos Tile Supplies, Inc. (Lease)	2/7/2000	5501: 497	61: 6	61: 23

Lot 23 appears to have remained undeveloped from the 1840s through the 1860s, with formal streets and limited urbanization having developed north of Webster (37th) Avenue by 1863 (see Figure 8). The Julius Hunerbein 1877 survey represents the first illustration of a structure within Lot 23 (Figure 10). The Hunerbein map depicts a single structure in the northwest corner of Lot 23, designated Lot 6 of Block 61. The structure appears to extend beyond the present-day boundaries of the lot and into the roadbed of 37th Avenue. The location of the building within the street alignment suggests that the structure predates the formal laying of 37th Avenue. The Hunerbein survey may illustrate the proposed street and grid layout for the area prior to the actual extension or development of these roads. Although the 1844 Coast Survey indicates that Lot 23 was located on a natural rise immediately east of the Sunswick Meadows, which were filled between 1870 and 1920, formal roads may not have been extended into this area until the late nineteenth to early twentieth century (see Figure 9). Given that the area immediately west of Lot 23 was extensively filled in order to extend the street system to the west, it is possible that Lot 23 was also filled during this time. However, in light of the preexisting topography of the lot, it is also possible that this area had to be graded or leveled to meet the relative elevation of the filled-in street extensions. During this initial stage of background research, soil boring data for Lot 23, which would give some indication as to past filling and/or grading episodes, could not be obtained.

The 1891 Wolverton map also documents a single structure in the northeast corner of Lot 23 extending across the lot boundaries and into Webster (37th) Avenue (Figure 11). In 1893, Mary Gardner sold this parcel to Mary J. Gardner (Liber 76, Page 313; see Table 2). The 1898 Sanborn map illustrates a single two-story dwelling with a basement in the northeast corner of Lot 23, which extends beyond the boundaries of the lot and seemingly into the street bed of Webster (37th) Avenue and Crescent Street, most likely the same structure first appearing on the 1877 survey (Figure 12). The Sanborn map does not indicate that water lines had been extended along these portions of Webster (37th) or Crescent by 1898. A plan and profile map of Webster (37th) Avenue illustrating sewer lines within the street bed indicates that utility lines with house connections had been installed along Webster (37th) Avenue and Crescent Street by 1905 (Topographic Bureau, Map 23-289). In May 1900, Mary Gardner sold this property to George J. Gardner (Liber 1300, Page 34; see Table 2). A search of the available early twentieth century residential directories for the Borough of Queens revealed that George J. Gardner was not residing within this structure at the corner of Webster (37th) Avenue and Crescent Street (Trow 1889-1912).

Federal census records from the early twentieth century provide an indication as to who may have resided within the dwelling on Lot 23 in 1900 and 1910 (see Table 3). Given the lack of a numbered street address to the parcel in

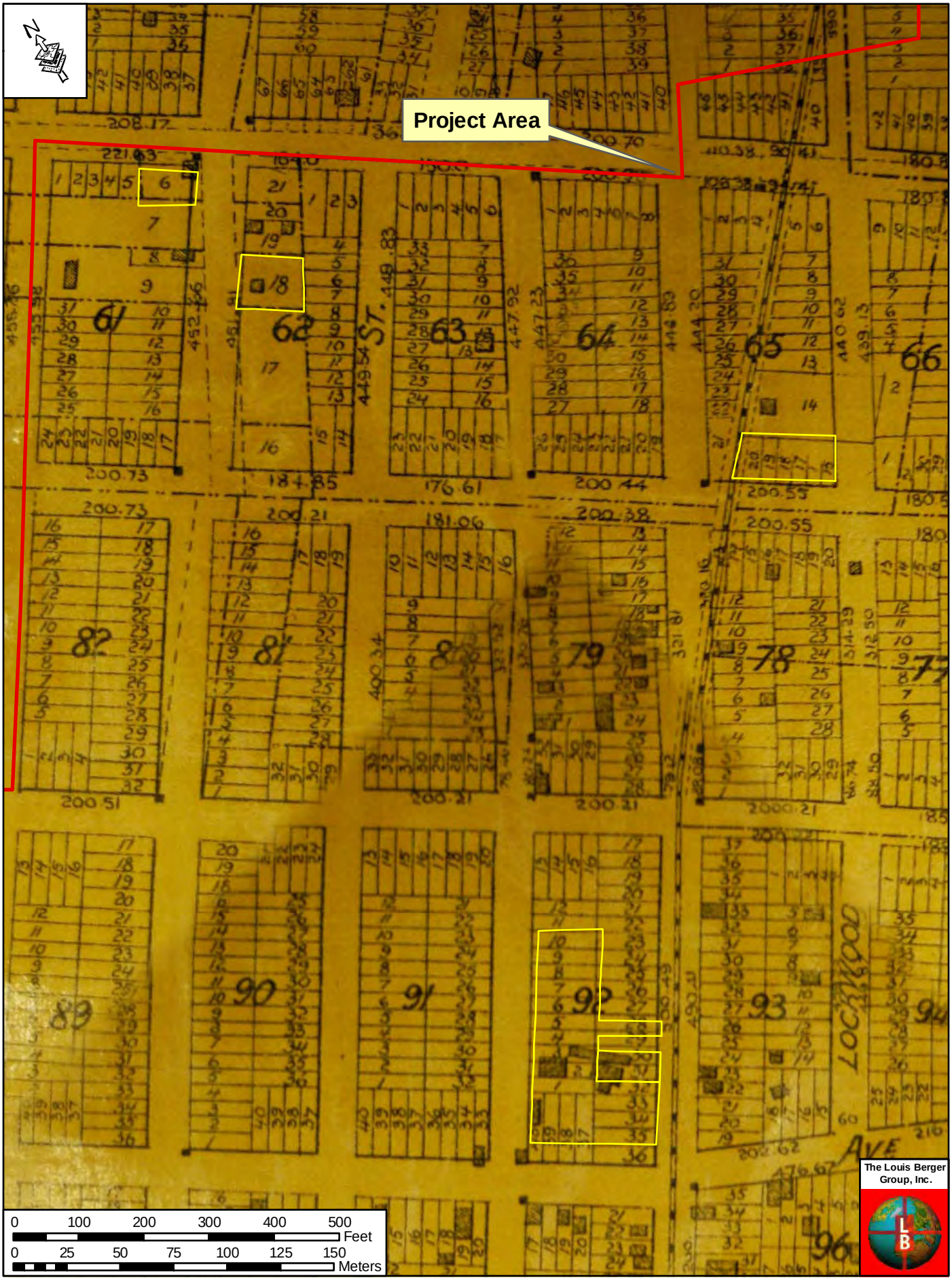

Figure 10: The Dutch Kills Rezoning Area in 1877

SOURCE: Hunderbein 1877

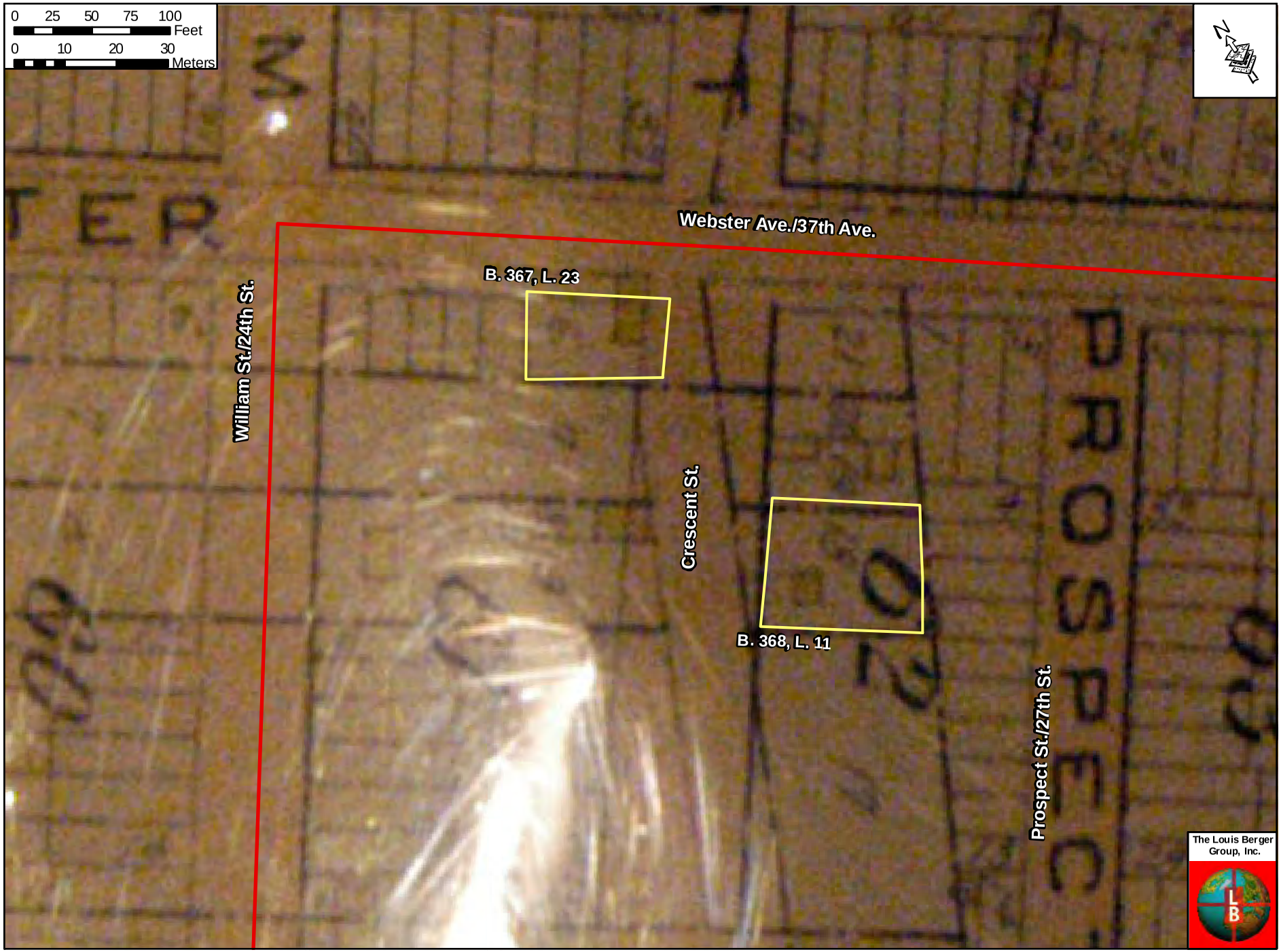

Figure 11: Block 367, Lot 23 and Block 368, Lot 11 in 1891

SOURCE: Wolverton 1891

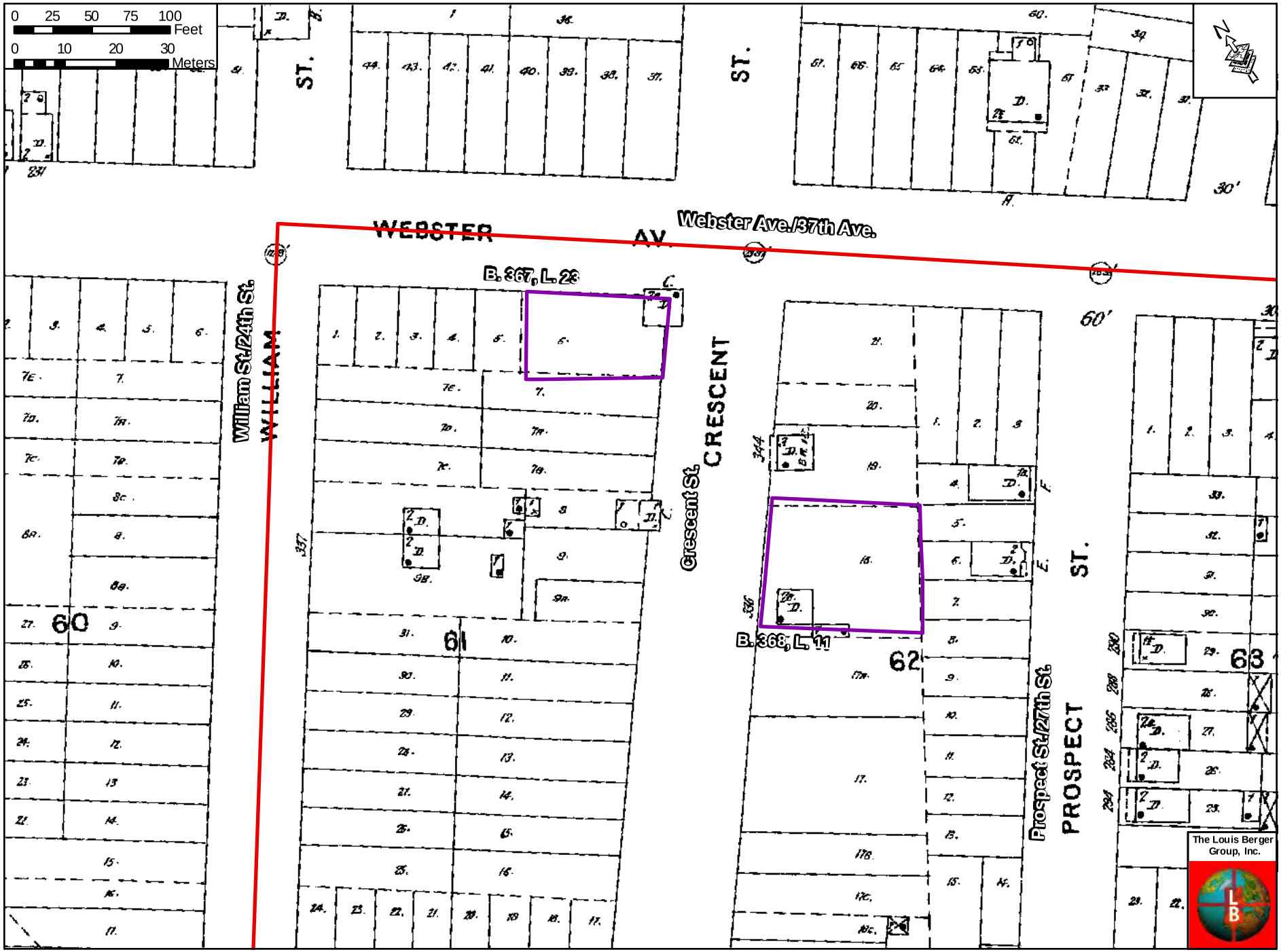

Figure 12: Block 367, Lot 23 and Block 368, Lot 11 in 1898

SOURCE: Sanborn 1898

1898 and in 1915, it is unclear whether these households recorded along Webster (37th) Avenue were residing within the lot. Nevertheless, the census records do suggest that during the early twentieth century there a single continuous family did not occupy Lot 23 for ten or more consecutive years.

Table 3: Federal Census Data for Block 367, Lot 23

Census Year	Family Name	Listed Address	Lot According to Hyde 1903
1900	*George H. Schbanon (?), head, male, white, 44, painter,* *Dora Schbanon (?), wife, female, white, 41,* *Jacob S. Schbanon (?), son, male, white, 15, day laborer,* *Dora Schbanon (?), daughter, female, white, 11,* *Lizzie Schbanon (?), daughter, female, white, 10,* *Charles Schbanon (?), son, male, white, 8,* *Mary Schbanon (?), daughter, female, white, 7,* *George Schbanon (?), son, male, white, 5,* *Catherine Schbanon (?), daughter, female, white, 2*	Webster Avenue	Block 61 Lot 23 (?)
1910	*B. (?) Tuttle, head, male, white, 40, railroad foreman,* *Hattie Tuttle, wife, female, white, 30,* *B. (?) Tuttle, son, male, white, 7,* *Lawrence Tuttle, son, male, white, 2,* *Merwin Tuttle, son, male, white, <1*	Webster Avenue	Block 61 Lot 23 (?)

Italicized entry indicates households which potentially fall within Block 368 Lot 23.

The 1915 Sanborn indicates that a second structure, a one story shed, has been built to the west of the two-story dwelling (Figure 13). By this time, the lot has been renumbered to Lot 23, although the Block number has remained 61. The majority of the lot continues to be undeveloped. The 1915 Sanborn continues to portray the two-story dwelling outside of the lot boundaries and into the Webster (37th) Avenue and Crescent Street roadbeds. The presence of a line of utilities along Crescent Street to the east of the designated block line suggests where the Crescent Street sidewalk may have been located. The presence of the hydrant to the east of the two-story dwelling suggest that this structure most likely extended into the curb or sidewalk of Webster (37th) Avenue and Crescent Street rather than the roadway itself. If the dwelling did in fact extend into the sidewalks of both streets, then portions of it fell outside the boundaries of Lot 23. Nevertheless, the majority of the structure still lies within the northeastern corner of the lot.

By 1919, the Block numbers for the area have changed, with Block 61 becoming Block 367 (Hyde 1919). In 1920, George J. Gardner sold this parcel to Maria Vitelli Bianco (Liber 2296, Page 263; see Table 2). The Hyde 1928 map reflects the new Block number and also illustrates the presence of the same two structures in the northeast corner of Lot 23 (Figure 14). However, unlike the Sanborn maps which continue to depict the two-story dwelling extending outside the boundaries of Lot 23, the Hyde map indicates that the structure sits within the lot dimensions.

The 1936 Sanborn map indicates the continued presence of the two-story dwelling in the northeast corner of Lot 23 (Figure 15). The associated shed building has been extended to the east and now connects with the dwelling. A one-story garage structure has also been developed along the southwestern corner of the lot. The assemblage of buildings within Lot 23 appears to have remained unchanged up until 1972, at the latest. During this time period, the property changed ownership a few times, having been sold to Royal Top Realty in 1953 (Liber 6518, Page 272; see Table 2). The 1972 Sanborn map depicts the parcel as a vacant lot (Figure 16). A search of the Department of Buildings (DOB) database for records pertaining to Block 367 Lot 23 revealed no recorded or filed actions for this property. According to the DOB, this lot is classified as vacant land within a light manufacturing district (M1-3D).

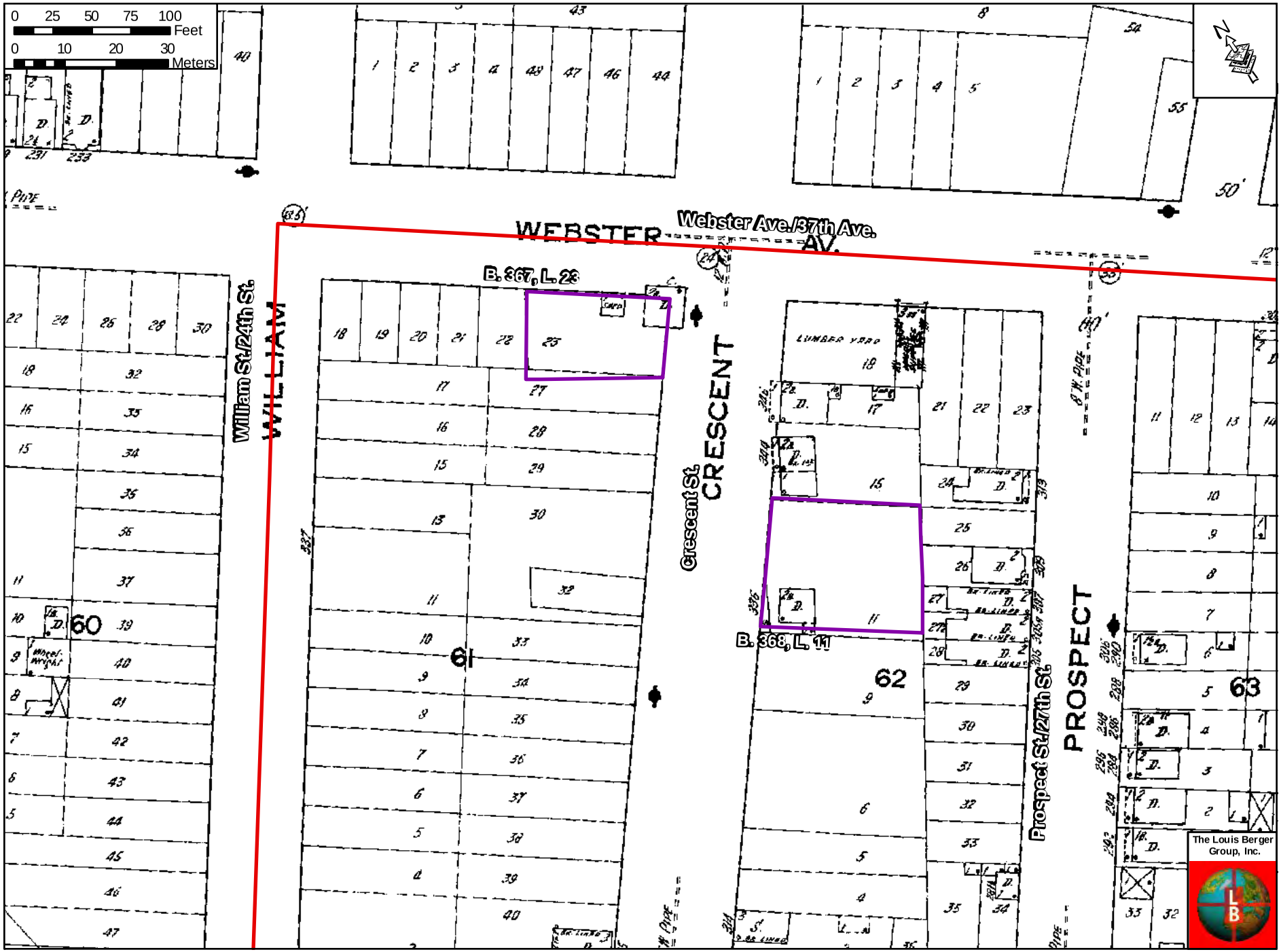

Figure 13: Block 367, Lot 23 and Block 368, Lot 11 in 1915

SOURCE: Sanborn 1915

Figure 14: Block 367, Lot 23 and Block 368, Lot 11 in 1928

SOURCE: Hyde 1928

Figure 15: Block 367, Lot 23 and Block 368, Lot 11 in 1936

SOURCE: Sanborn 1936

Figure 16: Block 367, Lot 23 in 1972

SOURCE: Sanborn 1972

Summary and Conclusions

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 (Stottman 2000, Geismar 1993). However, Stottman, in his study of privy architecture and lot location within two late nineteenth and twentieth century settlements in Louisville, Kentucky, also found some variability in the location of privies with respect to the main dwelling (2000: 53-57). 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, the urban farmstead represents an urban household which incorporated aspects of *rural* living within its residential space (1986: 6). 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 (1986: 7). 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 (Seyfried 1984: 109). Thus, the late-nineteenth century 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 places this area on a raised knoll approximately 620 feet (189.0 meters) 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.

4.2 Block 368, Lot 11

Block 368 is bounded 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 (38.3 meters) south of the southeast corner of 37th Avenue and Crescent Street. The lot is irregularly shaped measuring 95.67 feet (29.2 meters) in width along its northern edge and 104.43 feet (31.8 meters) in width along its southern edge. Lot 11 is 83.74 feet (25.5 meters) in length. As of November 2007, the lot was owned by 19 Crescent Corporation and had a listed address of 37-19 Crescent Street (New York City Department of Finance 2008). The lot is currently an active construction site encased within blue scaffolding with a posted new building permit (Photo 9). The permit, NB402465694-01, dates from December 2007 to December 2008.

Photo 9: Block 386, Lot 11, View Southeast.

Lot History

According to the 1844 United States Coast Survey of Queens, Lot 11 was undeveloped in the mid-nineteenth century (see Figure 6). At this time, the lot was situated on a downhill slope southeast of a small knoll. The lot was surrounded by rural property to the east and meadowland to the south and north. In 1841, both Charles and John Gardner acquired a portion of this lot along with adjacent territory as the larger Charles Gardner estate was being divided (Liber 54, Page 415 and 417; Table 4).

Table 4: Recorded Land Transfers for Block 368, Lot 11

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
J. Debevoise	C. Gardner	1817[2]			
James B. & Mary Ann Gardner; John & Sally Ann Gardner; Thomas Gardner, Jr.; Hannah Badgley	Charles Gardner	7/20/1841	54: 415	Partial Inclusion of 62: 11	Partial Inclusion of 62: 18
James B. & Mary Ann Gardner; Charles Gardner; Thomas Gardner, Jr.; Hannah Badgley	John Gardner	7/20/1841	54: 417	Partial Inclusion of 62: 11	Partial Inclusion of 62: 18
Charles & Sarah E. Gardner	Judson H. Hopkins	10/21/1872	392: 129	Partial Inclusion of 62: 11	Partial Inclusion of 62: 18
Judson H. & Elizabeth M. Hopkins	Pliny Freeman	10/30/1872	395: 495	Partial Inclusion of 62: 11	Partial Inclusion of 62: 18
Mary Gardner; Mary Gardner Executor of John Gardner, deceased	*Albert Gardner*	*5/26/1882*	*595: 382*		
Albert Gardner	Maria Vitelli Bianco	8/30/1919	2229:375	62: 11 (partial)	62: 18 (partial)
Albert Gardner	Maria Vitelli Bianco	9/16/1919	Torrens Law	62: 11 (partial)	62: 18 (partial)
Albert Gardner	Maria Vitelli Bianco	9/14/1920	2308:483	62: 11 (partial)	62: 18 (partial)
Maria V. Bianco	Makroohe Bojajian, Nazeli Balballan, and Ousanna Basmajian	2/4/1924	2591:10064	62: 11	62: 18
Satenig Vartabadian	Nazeli Balbalian and Ousanna Basmajian	12/20/1934	3728:46611	62: 11	62: 18
Nora Bedrosiau	Nazeli Balbalian and Ousanna Basmajian	12/20/1934	3728:46613	62: 11	62: 18
Robert Boyajian	Nazeli Balbalian and Ousanna Basmajian	12/20/1934	3728:46614	62: 11	62: 18
Ousanna Basmajian	Nazeli Balbalian	10/16/1937	3911:36654	62: 11	62: 18
Edward Balbalian (heir of Nazeli)	Efithia Enterprises, Inc.	2/15/1978	1050:1394	62: 11	62: 18
Eftithia Enterprises, Inc.	170 Liberty Corp.	10/24/2005	54: 415	62: 11	62: 18
170 Liberty Corp.	37 Crescent Corp.	7/26/2006	54: 417	62: 11	62: 18
19 Crescent Corp.	19 Crescent Corp.	11/13/2007	392: 129	62: 11	62: 18

Italicized entry indicates land transfer potentially within Block 368, Lot 11.

[2] Source 1935 Topographic Bureau *1800 Map of the Borough of Queens.*

Lot 11 appears to have remained undeveloped from the 1840s through the 1860s, with formal streets and limited urbanization having developed north of Webster (37th) Avenue by 1863 (see Figure 8). A single structure was located to the south of Lot 11 in 1863. In 1872, Charles and Sarah Gardner sold their portion of Lot 11 to Judson H. Hopkins who sold his interest to Pliny Freeman in that same year (Liber 392, Page 129 and Liber 395, Page 495; see Table 4). The Hunerbein 1877 survey depicts the first structure within Lot 11, a single structure in the western central portion of designated Block 62 Lot 18 (see Figure 10). A search of the 1870 and 1880 Federal Census records did not identify a Pliny Freeman or Freeman household residing within Newtown. This suggests that although he owned the property in 1872, Pliny Freeman most likely did not occupy the 1877 structure. As noted previously, the Hunerbein survey may illustrate the proposed street and grid layout for the area prior to the actual extension or development of these roads. The 1891 Bien map suggests that Crescent Street may not have been extended to Webster (37th) Avenue until the 1890s (see Figure 9). Therefore, the 1877 structure within Lot 11 may predate the formal extension of Crescent Street. In 1882, John Gardner's property was sold by executor to Albert Gardner (Liber 595: 382; see Table 4).

The extension of streets into the area may have required extensive past filling and/or grading episodes as historically documented to the east and west of Block 368, Lot 11 (Seyfried 1982; see Photo 7). During this initial research phase, soil boring data could not be obtained for Lot 11. Such data would provide an indication as to past episodes of filling or grading within the area. Without this data, it is unclear to what extent the block and lot's topography may have been altered by past urbanization and development.

The 1891 Wolverton map illustrates a single structure within the western portion of the lot (see Figure 11). The 1898 Sanborn map depicts a two-story dwelling with basement in the southwestern portion of historic Lot 18 (modern Lot 11), most likely the same building as illustrated on the 1877 survey and on the 1891 Wolverton map, at 336 Crescent Street (see Figure 12). A one-story associated structure is also depicted abutting the southeast corner of the dwelling. The Sanborn map does not indicate that water lines have been extended or introduced to the streets surrounding Block 368 by this time. A plan and profile map of sewer lines within Crescent Street indicates that sewer lines with house connections had been extended into the area by 1908 (Topographic Bureau, Map 29-455). A search of the available early twentieth century residential directories for the Borough of Queens revealed that Albert Gardner was not residing at 336 Crescent Street or at a Crescent Street address (Trow's Directories).

Federal census records from the early twentieth century provide an indication as to at least some of the households who resided at 336 Crescent Street in 1900 and 1910 (Table 5). The census records illustrate that one single family did not reside within this structure for ten consecutive years. This data also indicates that those households occupying 336 Crescent Street were renting the property.

Table 5: Federal Census Data for Block 368, Lot 11

Census Year	Family Name	Listed Address	Lot According to Hyde 1903
1900	Ferdinand Wellen, head, male, white, 54, cooper, Louisa Wellen, wife, female, white 57, Ferdinand Wellen, son, male, white, 20, harness maker, Henryetta Wellen, daughter, female, white, 17, dressmaker, Carl A. Wellen, son, male, white, 12; Francis Schneider, head, male, white, 44, Michael Schneider, son, male, white, 2, Margaret F. Schneider, daughter, female, white, 2	336 Crescent Street	Block 62 Lot 11
1910	M. (?) Wannighan (?), head, male, white, 35, painter, Anna Wannighan (?), wife, female, white, 27, Christian Wannighan (?), son, male, white, 7; Edward (?) Beirman, head, male, white, 47, painter, Paul Beirman, son, male, white, 13, William Beirman, son, male, white, 11; Charlotte Schroeder, female, white, 54, housework	336 Crescent Street	Block 62 Lot 11

The 1915 Sanborn illustrates the continued presence of a two-story dwelling with a one-story square extension within the southwestern corner of Lot 11 (see Figure 13). The one-story rectilinear building depicted on the 1898 Sanborn is no longer extant. By 1919, the Block numbers for the area have changed, with Block 62 becoming Block 368. In 1919 and 1920, Albert Gardner sold his portion of Lot 11 to Maria Vitelli Bianco (Liber 2229, Page 375 and Liber 2308, Page 483; see Table 4). By 1924, Maria Bianco sold the entire lot (Liber 2591, Page 10064; see Table 4). Historic deed research was unable to determine how Bianco obtained title to the portion of Lot 11 which had been previously owned by Charles Gardner and subsequently by Pliny Freeman.

The Hyde 1928 map reflects the new Block numbers and indicates that Lot 11 had been divided into two lots—Lot 11 and Lot 13 (see Figure 14). A two-story building occupies the majority of the southern lot (Lot 11). A one-story shop building sits perpendicular to the residential structure spanning the western portion of both lots. A small one-story structure sits to the north of the shop building in Lot 13. A 1928 new building permit on file at the DOB indicates that a storage building for the storage, display, and refinishing of rugs was constructed within Lot 11. The building was a one-story structure with a concrete base and a foundation that was a minimum of four feet (1.2 meters) below the curb (NB10762.28). A new building permit filed in September of 1930 proposed the construction of a cement one car garage as an accessory to the dwelling already present on Lot 11 (NB53281930). The garage had a 12-inch trench foundation.

The 1936 Sanborn map indicates that Lot 13 and Lot 11 have been merged into a single lot—Lot 11 (see Figure 15). Lot 11 continues to have a two-story dwelling in the southwestern portion of the lot with a large square one-story rug structure occupying its southeastern corner. A poured concrete surface separates the two buildings. A small square dwelling and a one-story garage sit within the northeastern corner of the lot. The same configuration of structures within Lot 11 is depicted on the 1972 Sanborn map with a rug cleaning shop remaining in the southeastern corner of the lot (Figure 17).

In 1978, Edward Balbalian sold this parcel to Efithia Enterprises, Inc. (Liber 1050, Page 1394; see Table 4). A building alteration permit applied for by Eftihia Enterprises, Inc. indicates that the buildings on the property had been converted to a wholesale florist storage warehouse and greenhouse (Alt1216E-78). The permit application also indicates that this storage structure had a partial cellar for a boiler. The proposed alterations, for roof drainage improvements to the greenhouse and for the addition of an extension to the greenhouse, expired before they could be implemented. Eftithia Enterprises, Inc. sold the parcel to 170 Liberty Corporation in October 2005 (see Table 4). Currently, the property is owned by 19 Crescent Corporation. The DOB classifies Lot 11 as vacant land. There were no demolition permits on file for this parcel at the DOB. At the time of the site visit, the lot appeared to be an active or soon to be active construction site with blue scaffolding and a posted current new building permit (see Photo 9).

Summary and Conclusions

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 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 (Geismar 1993). 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

Figure 17: Block 368, Lot 11 in 1972

SOURCE: Sanborn 1972

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 (Stewart-Abernathy 1986). 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 (228.6 meters) 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 (see Photo 7). 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.

4.3 Block 371, Lot 38

Block 371 is bounded 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 (48.6 meters) to the west terminating at an alleyway which diagonally crosses the block. The irregularly shaped lot extends for a length of 75.18 feet (22.9 meters) on its western edge and a length of 70.33 feet (21.4 meters) on its eastern edge. The northern line of Lot 38 extends for a width of 142.30 feet (43.4 meters) 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 (New York City Department of Finance 2008). 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 (Photo 10). A two-story domestic residence sits along the western portion of the lot bordering a paved driveway/alleyway (Photo 11).

Photo 10: Eastern Portion of Block 371, Lot 38, View North.

Photo 11: Western Portion of Block 371, Lot 38, View Northeast.

Lot History

Development in the immediate vicinity of Lot 38 appears to have begun as early as the 1840s. The 1844 United States Coast Survey indicates that Lot 38 was just southeast of an unnamed structure, within the rear or eastern extent of a developed parcel (see Figure 6). At this time, the lot was situated to the east of one of the earliest roads within the Dutch Kills area, the Old Ridge Road or Road to Williamsburgh, on fairly flat rural land due north of a downhill slope. Agricultural land surrounded Lot 38 to the north and south, with meadowland lying to the east and west. In 1841, Hannah Badgley acquired this lot along with adjacent territory as the larger Charles Gardner estate was being divided (Liber 54, Page 422; see Table 6).

Table 6: Recorded Land Transfers Within for Block 371, Lot 38

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
J. Debevoise	C. Gardner	1817[3]			
James B. & Mary Ann Gardner; John & Sally Gardner; Charles Gardner; Thomas Gardner, Jr.	Hannah Badgley	7/20/1841	54: 422	Includes 65: 15, 16, 17, 18, 19, 20	Includes 65: 38, 40, 43
Hannah Badgley	Van Renselear Terry, Jr.	3/29/1857	173: 269	65: 17, 18, 19, 20	65: 43
Hannah Badgley	John Quigley	5/22/1867	256: 409	65: 15 (partial), 16	65: 38
John Sutphin (Referee—Lewis Johnston Executor for W. Gardner's will vs. John & Mary Quigley)	John Maguire (Assigned by Joseph Maguire)	4/20/1880	560: 282	65: 15 (partial), 16	65: 38
John & Julia Maguire	Joseph Maguire	3/15/1881	593: 79	65: 15 (partial), 16	65: 38
Hannah Badgley	Charles R. Pasch	8/17/1887	716:15	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Charles R. Pasch	Joseph Maguire	3/15/1889	773: 194	65: 15 (partial)	65: 40
Joseph & Mary Maguire	Vincent and Emma Ulrich	4/4/1893	968:319	65: 15, 16	65: 38, 40
Vincent and Emma Ulrich	Joseph Maguire	11/5/1894	1044:483	65: 15, 16	65: 38, 40
Joseph Maguire	Vincent and Emma Ulrich	9/7/1899	1222:64	65: 15, 16	65: 38, 40
Vincent Ulrich	Louise Hubner	9/3/1914	1964:455	65: 15, 16	65:38, 40
Vincent Ulrich	Isabella Hubner	9/3/1914	1964:457	65: 15, 16	65:38, 40
Isabella and Louise Hubner	Vahan and Anna Buchakian	1/30/1926	2854:11276	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Isabella and Louise Hubner	Title Guarantee and Trust Co. (Release)	7/8/1926	2922:76718	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Title Guarantee and Truss Company	Vahan and Anna Buchakian (Certificate)	10/14/1926	2965:120037	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43

[3] Source 1935 Topographic Bureau *1800 Map of the Borough of Queens*.

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
Valian and Hermine Buchakian	Anton Buchakian	3/22/1930	3382:16388	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Anton, Anna, Valian Buchakian	Lease	3/22/1930	3382:16389	65: 15, 16 (partial)	65: 38 (partial), 40
Anna, Anton, Souren, Anton Buchakian	Lease	4/15/1930	3388:21617	65: 16, 17, 18, 19 (partial)	65: 38, 40, 43 (partial)
Anton Buchakian	Anna Buchakian	4/15/1930	3388:21618	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Vahan Buchakian	Standard Oil Company of New York (Lease)	3/28/1933	3639:9705	65: 15, 16 (partial)	65: 38 (partial), 40
Souren and Anton Buchakian as Kashan Carpet Cleaning	Anna and Anton Buchakian (Surrender of Lease)	1/6/1934	3680:733	65: 16, 17, 18, 19 (partial)	65: 38, 40, 43 (partial)
Anna and Anton Buchakian	George Norhadian	5/5/1945	4999:384	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
George Norhadian	Astoria Rug Cleaners, Inc. (Lease)	12/24/1962	7476:277	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
George Norhadian	Alexander Gavares and George Norhadian	6/17/1963	7533:17	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
George Norhadian	Peter Maniatis	2/7/1964	7619:57	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Peter Maniatis	Alpert Holding Corporation	2/7/1967	343:43	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Alexander Gavares	Alpert Holding Corporation	2/7/1967	346:45	65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43
Alpert Holding Corporation	Alpet Holding Corporation	5/12/2005		65: 15, 16, 17, 18, 19, 20	65: 38, 40, 43

In 1852, Lot 38 is depicted directly adjacent to an unnamed structure along a historic roadway (Figure 18). The lot appears to fall within the southern and eastern yard areas of the unidentified building. According to the Dripps 1863 map, the unnamed structure is no longer extant and the western portion of Lot 38 falls within the historic roadway (see Figure 8). The 1863 location of the lot within the roadway may indicate that the course of the road was altered over time. Alternatively, discrepancies and incompatibilities between past cartographic and surveying techniques may have resulted in the different georeferenced locations of Lot 38 with respect to the historic roadway between the mid-nineteenth century maps. In 1857, Hannah Badgley sold the western portion of Lot 38 to Van Renselear Terry, Jr. (Liber 173, Page 269; see Table 6). Badgley also sold the central and eastern portions of Lot 38 to John Quigley in 1867 (Liber 256, Page 409; see Table 6). A search of the Federal Census records for 1860 and 1870 indicated that neither Terry nor Quigley were residing within Newtown during this time suggesting that neither household occupied Lot 38.

The Hunerbein 1877 survey depicts Lot 38 as a series of six adjacent rectangular lots along the southern border of Block 65 (see Figure 10). There are no structures depicted within the modern lot boundaries. A single structure, however, lies due north of modern Lot 38 within historic Lot 14. Given the location of this structure with respect to the diagonal roadway and in relation to Lot 38, it is possible that the building may represent the mid-nineteenth century structure depicted on the 1844 and 1852 maps. The structure may have been accidentally overlooked by the Dripps survey. Alternatively, the 1877 structure may represent a new development immediately north of Lot 38. Given that many of the structures depicted by the 1877 survey appear to predate the formal delineation of a street and block/lot grid system within Dutch Kills, it is possible that modern Lot 38 was considered and utilized as a yard

Figure 18: Dutch Kills Rezoning Project Area in 1852

SOURCE: Riker 1852

area associated with the occupation in historic Lot 14. Throughout the 1880s, ownership of Lot 38 changed hands several times (see Table 6). By 1893, Vincent and Emma Ulrich had acquired the eastern portions of the modern lot (Liber 968, Page 319; see Table 6).

The 1891 Wolverton map indicates the development of a single structure in the northwestern portion of Lot 38 (Figure 19). The building within historic Lot 14 depicted in 1877 is still extant in 1891. Applying the modern lot boundaries of Lot 38 to the 1891 map suggests that the dimensions of the lot and associated street beds have altered over time, with the southern portions of the historic lots which comprise Lot 38 most likely falling into the northern sidewalk of 38th Avenue or the 38th Avenue roadbed. The 1898 Sanborn map continues to depict a one-story building with basement on the northern extent of historic Lots 18 and 19, within the western portion of modern Lot 38 (Figure 20). The Sanborn also illustrates a two-story dwelling on the southern side of designated Lot 16, within the eastern portion of modern Lot 38. A two-story dwelling is also depicted within historic Lot 14, north of modern Lot 38. A small lot, designated Lot 15A, has also appeared in the southeastern corner of modern Lot 38. The structure on Lot 16 has a street address of 333 Freeman. An address on Old Bridge Road, 210 Old Bridge Road, appears to be associated with designated Lot 20 and may represent the address for the dwelling within Lots 18 and 19. The Sanborn map indicates that water lines had been extended across Old Bridge Road by 1898; however, Freeman (38th) Avenue does not appear to have such utilities. Sewer maps on file at the Topographic Bureau of the Borough of Queens indicate that sewer lines with house connections were installed along Freeman (38th) Avenue in 1907 (Map 19-538). Sewer lines with house connections appear to have been extended along 30th Street (previously Lockwood Street, also known as 1st Avenue) between 1906 and 1911(Topographic Bureau, Map 21-313).

The 1903 Hyde map indicates that the lots within Block 65 had been renumbered by the early twentieth century (Figure 21). Three lots comprise the modern Lot 38—Lot 43 on the west, Lot 38 on the east, and a small lot, Lot 40 at the northwest corner of Freeman (38th) Avenue and Lockwood (30th) Street. The Hyde map illustrates two structures within the northwest corner of the modern lot, a brick one-story building and an adjacent frame barn structure in Lot 43. The two-story dwelling along the southern edge of the lot depicted on the 1898 Sanborn is not illustrated in 1903.

By 1899, Vincent and Emma Ulrich had sold and repurchased the eastern portion of Lot 38 (Liber 1044, Page 483 and Liber 1222, Page 64; see Table 6). A search of the 1900 and 1910 Federal Census records indicate that the Vincent Ulrich household occupied 333 Freeman during this period (see Table 7). Given the incomplete nature of the available 1890 Federal Census records, a similar search could not be completed. The 1910 Federal Census also documents a household residing at 210 Old Ridge Road (see Table 7).

The available early twentieth century residential directories for Queens list a Vincent Ulrich as a carver residing at 333 Freeman from 1900 to 1912 (Trow 1900-1912). In 1901-1902, Edward Ulrich, a mason, is also listed at this address. The continuous occupation of the 333 Freeman address during the 1900s suggests that the 1903 Hyde map is incorrect and that an additional structure existed within modern Lot 38 at this time. There is a gap in available Queens residential directories for the years between 1912 and 1927. An Ulrich household is not listed along Freeman in 1927. The deed research for Lot 38 provides an indication as to the year within which the Ulrich occupation may have ended. In September 1914, Vincent Ulrich sold his portion of the modern lot, historic Lots 38 and 40 (1903 Hyde), to Louise and Isabella Hubner (Liber 1964, Pages 455-457; see Table 6). Thus, it appears that the Ulrich household had vacated modern Lot 38 by 1914 at the latest.

The 1915 Sanborn map indicates the continued presence of two structures with Lot 38—a one-story dwelling with basement in historic Lot 43 and the two-story dwelling in historic Lot 38 (Figure 22). By 1919, the modern block designations have been introduced to the Dutch Kills area with Block 65 becoming Block 371. The 1928 Hyde map provides the first indication of the modern Lot 38 boundaries (Figure 23). By this time, the building configurations within the lot have changed. A one-story square brick garage building occupies the central portion of the lot. Two frame structures, a one-story building and a two-story building sit within the western portion of Lot 38. A small one-story brick building is also depicted in the extreme northeast corner. By this time, Vahan and Anna Buchakian had acquired title to the entirety of Lot 38 (Liber 2965, Page 120037; see Table 6).

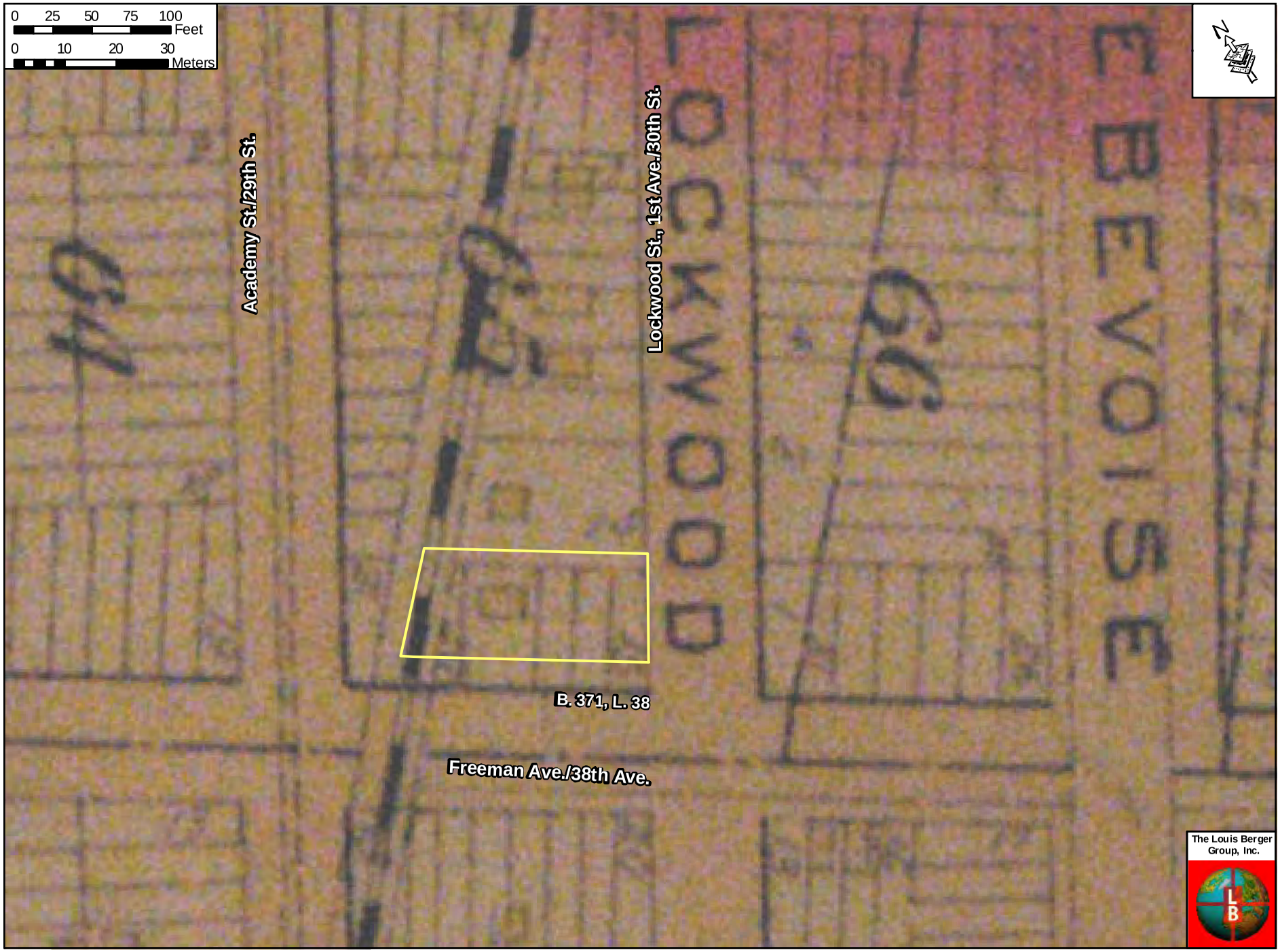

Figure 19: Block 371, Lot 38 in 1891

SOURCE: Wolverton 1891

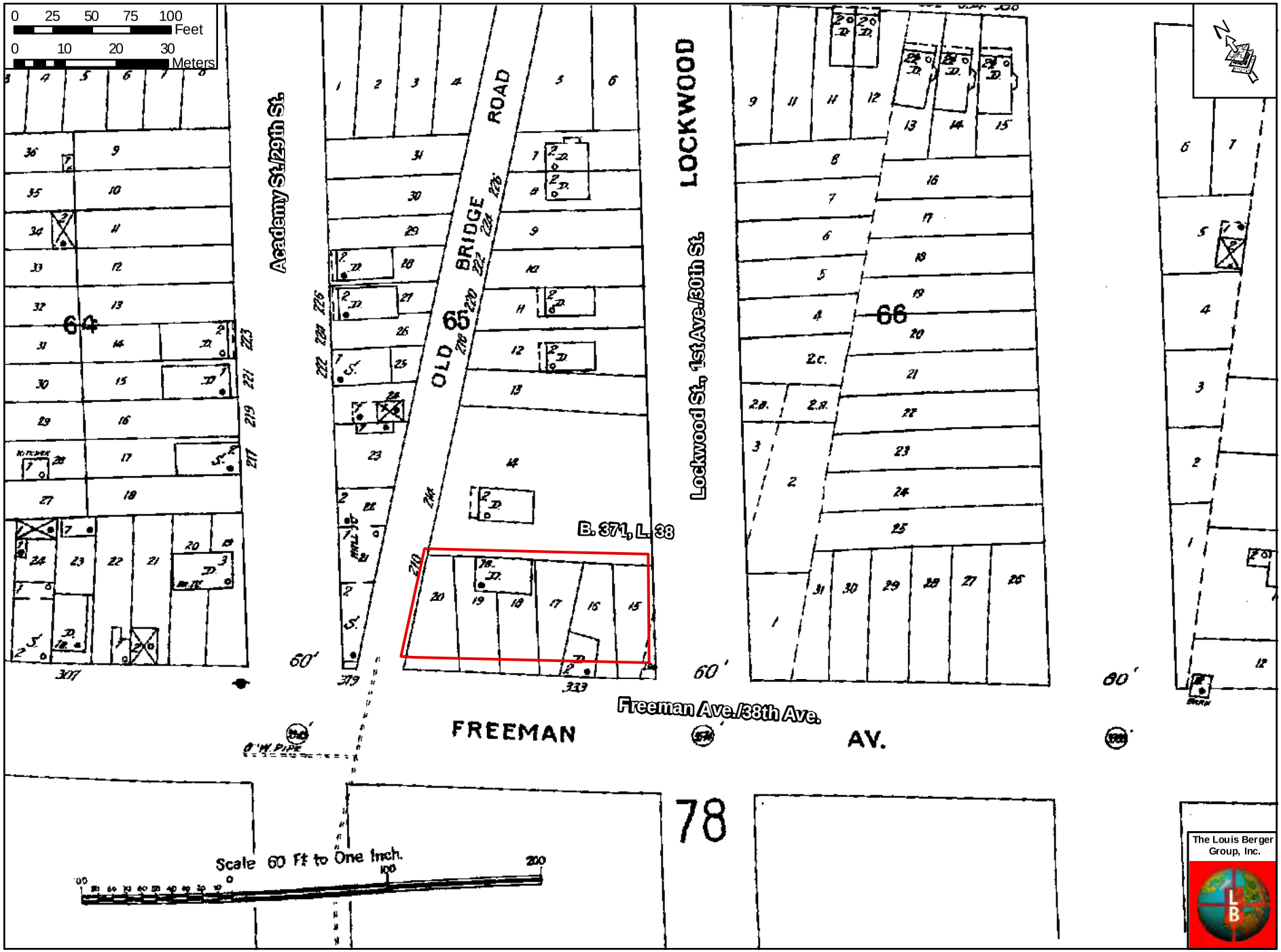

Figure 20: Block 371, Lot 38 in 1898

SOURCE: Sanborn 1898

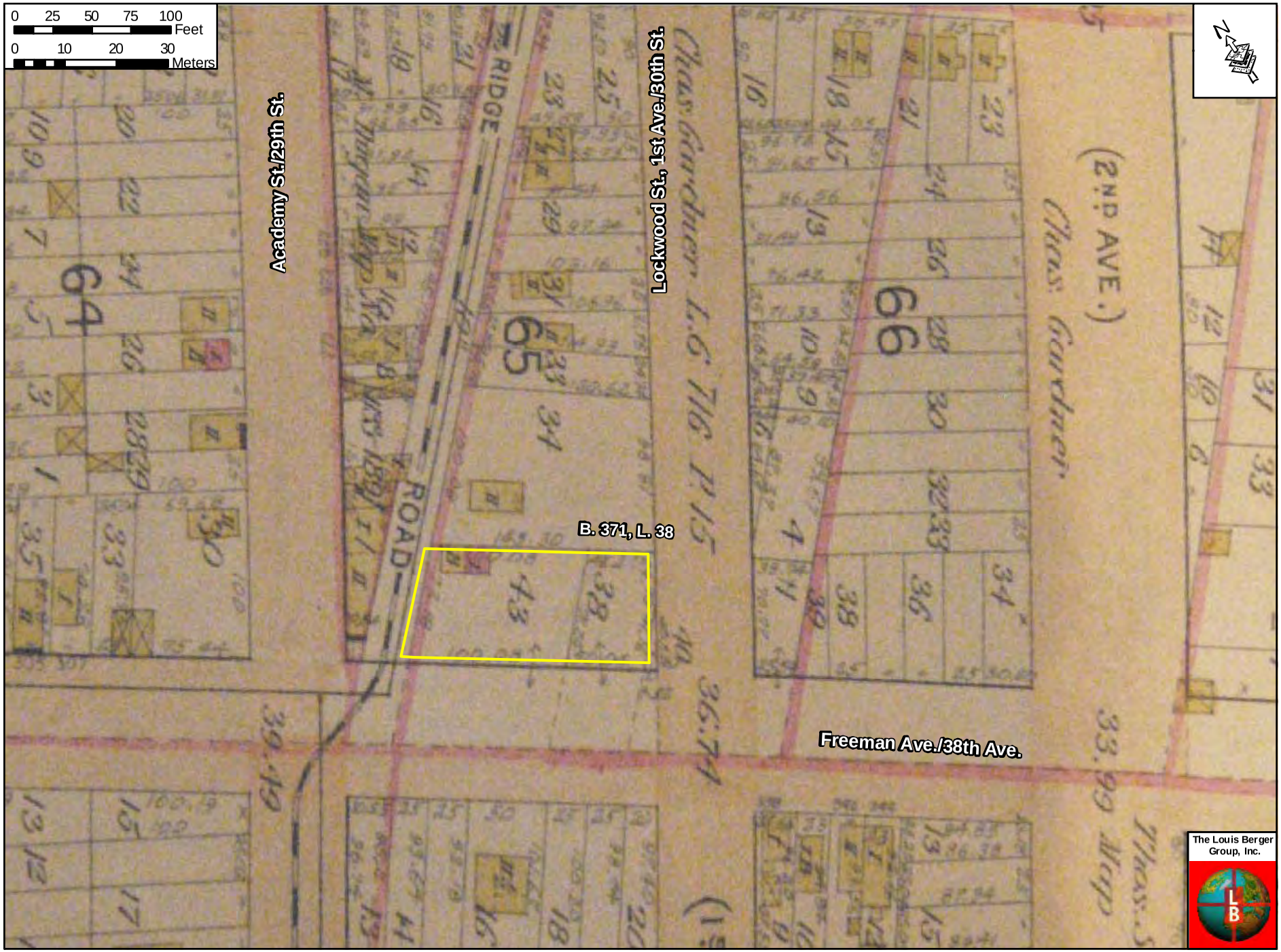

Figure 21: Block 371, Lot 38 in 1903

SOURCE: Hyde 1903

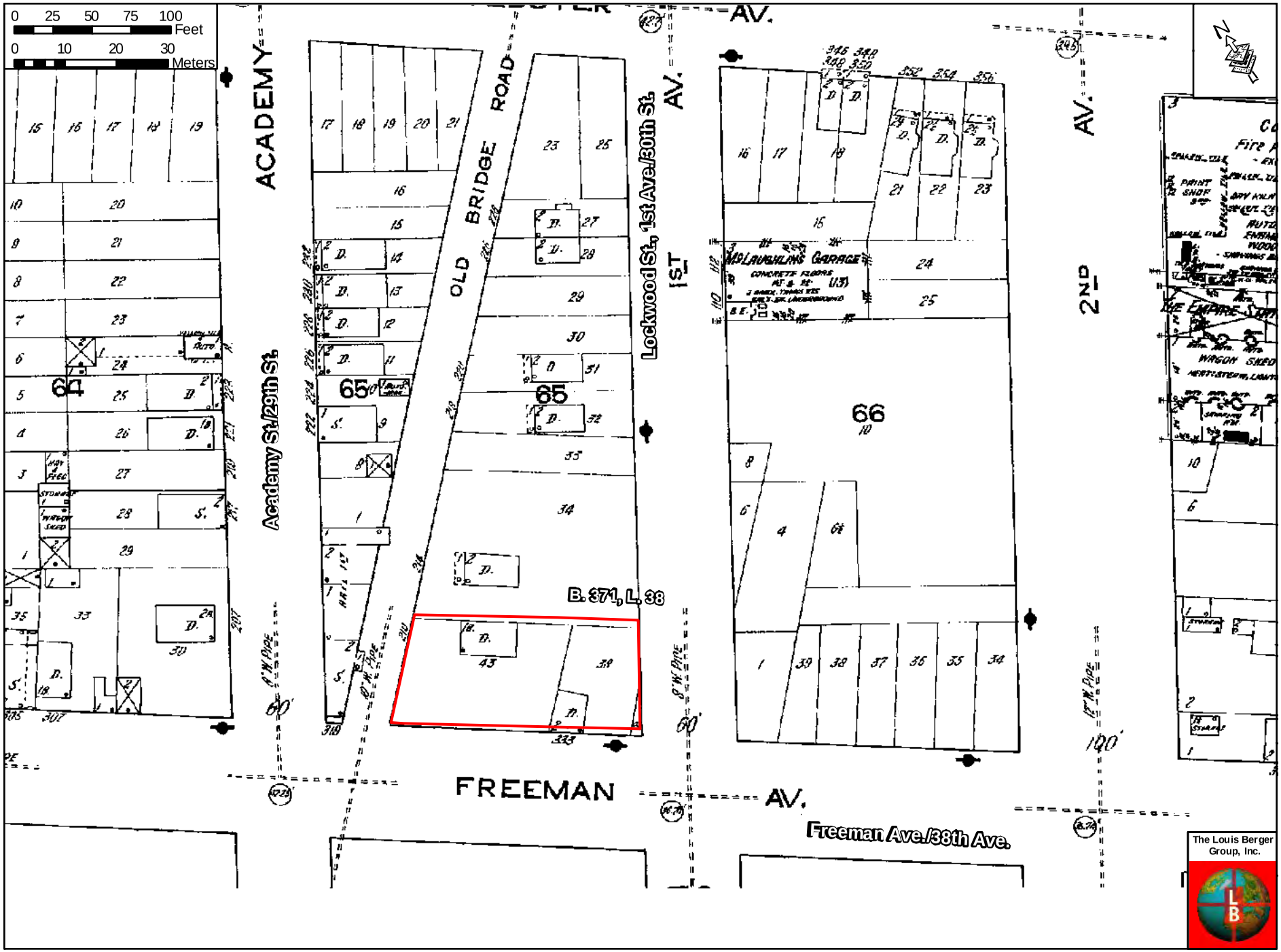

Figure 22: Block 371, Lot 38 in 1915

SOURCE: Sanborn 1915

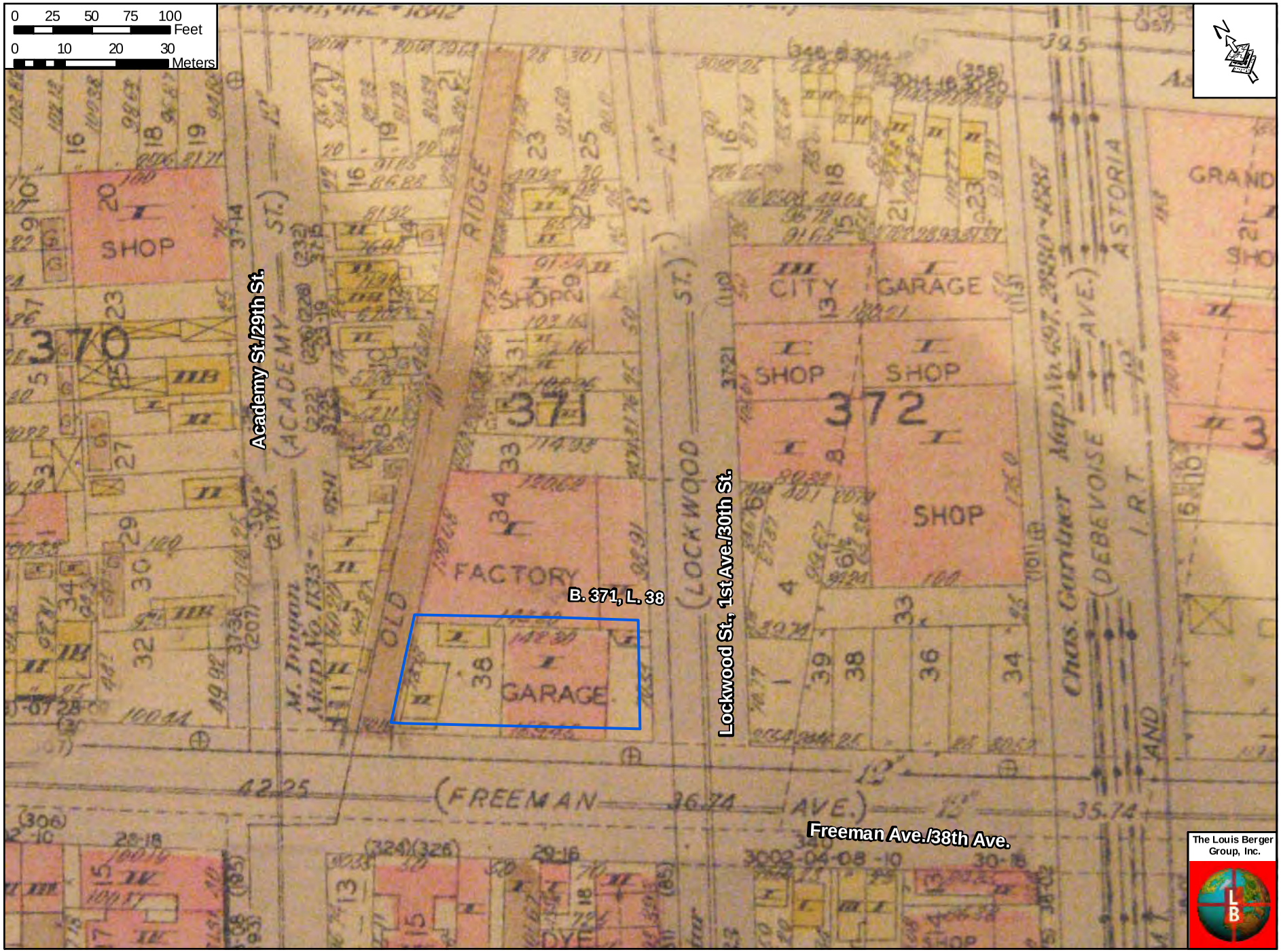

Figure 23: Block 371, Lot 38 in 1928

SOURCE: Hyde 1928

Table 7: Federal Census Data for Block 371, Lot 38

Census Year	Family Name	Listed Address	Lot According to Sanborn 1898
1900	Vincent Ulrich, head, male, white, 58, woodcarver, Emma Ulrich, wife, female, white, 57, Edward Ulrich, son, male, white, 27, mason, Joseph Ulrich, son, male, white, 21, brass finisher, Blanche Ulrich, daughter, female, white, 19, piano teacher, Burtha Ulrich, daughter, female, white, 16, music teacher	333 Freeman	Block 65 Lot 16
1910	Joseph Ulrich, head, male, white, 30, brass chandelier maker, Mary Ulrich, wife, female, white, 26, Mary Ulrich, daughter, female, white, 7, Frederick Ulrich, son, male, white, 4, Etta (?), daughter, female, white, <1, Vincent Ulrich, father, male, white, 64; Johanna Warren, mother-in-law, female, white, 58, Josephine Warren, sister-in-law, female, white, 23, basketmaker (?)	333 Freeman	Block 65 Lot 16
1910	August Feiser, Jr., head, male, white, 24, sewing machine machinist, Anna Feiser, wife, female, white, 25, Russell Feiser, son, male, white, 7, Clarence Feiser, son, male, white, 3	210 Old Ridge Road	Block 65 Lot 20 (?)

The 1936 Sanborn map indicates a different arrangement within modern Lot 38 (Figure 24). According to this map, designated Lot 43 comprised the majority of the modern lot. Two dwellings are still depicted on the western edge Old Bridge (Ridge) Road frontage of the lot. It appears that a one-story garage extension may have been added or proposed for the one-story dwelling occupying the northwestern corner. The garage structure depicted in 1928 has been converted to Kashan Carpet Cleaning and appears to have a gas tank within its southwestern corner. The far eastern portions of modern Lot 38 are designated as Lot 38 and Lot 40 by the 1936 Sanborn. Two gas tanks and a small one-story structure are depicted within designated Lot 38. In 1933, Vahan Buchakian leased the eastern portion of the modern lot to Standard Oil Company of New York (Liber 3639, Page 9705; see Table 6). The gas tanks and structure depicted within Lot 38 most likely relate to the Standard Oil lease.

The 1950 Sanborn indicates little change to the configuration of buildings within Lot 38 (Figure 25). By this time, the lot appears to have its modern dimensions. Two dwellings continue to occupy the western portion of the lot and a carpet cleaning business resides within the central and eastern portions. The small one-story structure in the northeast corner of Lot 38 is identified as a filling station. A 1945 certificate of occupancy for Lot 38 indicates that the one-story carpet cleaning plant contained a cellar with a boiler room (COQ32953). By this time, George Norhadian had acquired Lot 38 from Anna and Anton Buchakian (Liber 4999, Page 384; see Table 6). Norhadian retained the title to the property until 1964. The Alpert Holding Corporation acquired Lot 38 in 1967 and continues to own the property today (see Table 6).

The 1972 Sanborn map reflects no change or additional development within Lot 38. A 1989 certificate of occupancy indicates that the two-story dwelling located at 29-05 38th Avenue has a cellar and open yard area for the sale of new and used motor vehicles (COQ210955). This structure most likely represents the two-story dwelling residing within the southwest corner of Lot 38. An alteration permit for Lot 38 proposes to change the function of the carpet cleaning plant on the premises to an auto repair shop (Alt400364556). The carpet cleaning plant is described as a two-story building with a boiler room. The blueprints for the building suggest that it has a four-foot (1.2-meter) foundation or cellar cut. A 1994 certificate of occupancy for the lot indicates that the carpet plant was

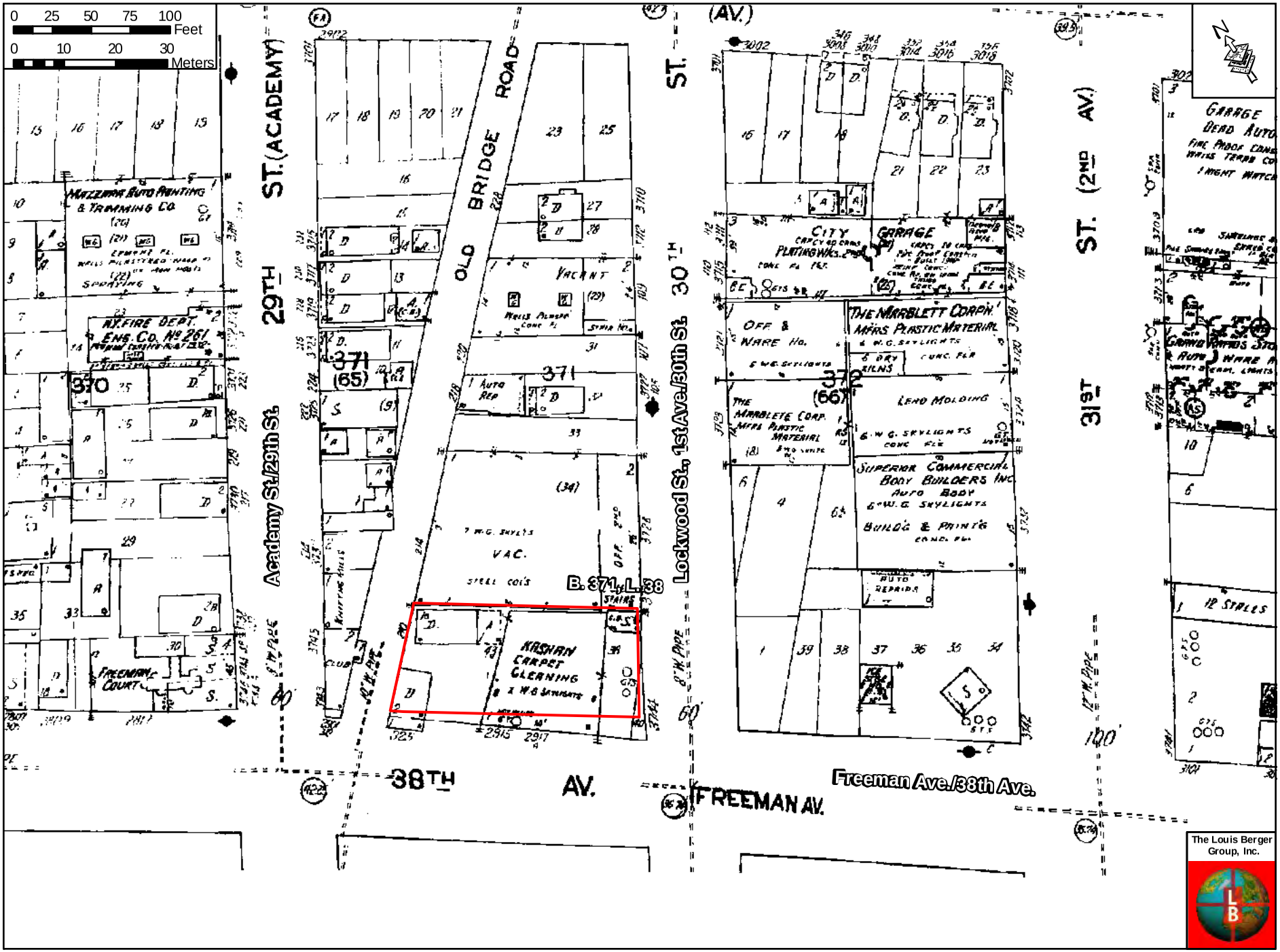

Figure 24: Block 371, Lot 38 in 1936

SOURCE: Sanborn 1936

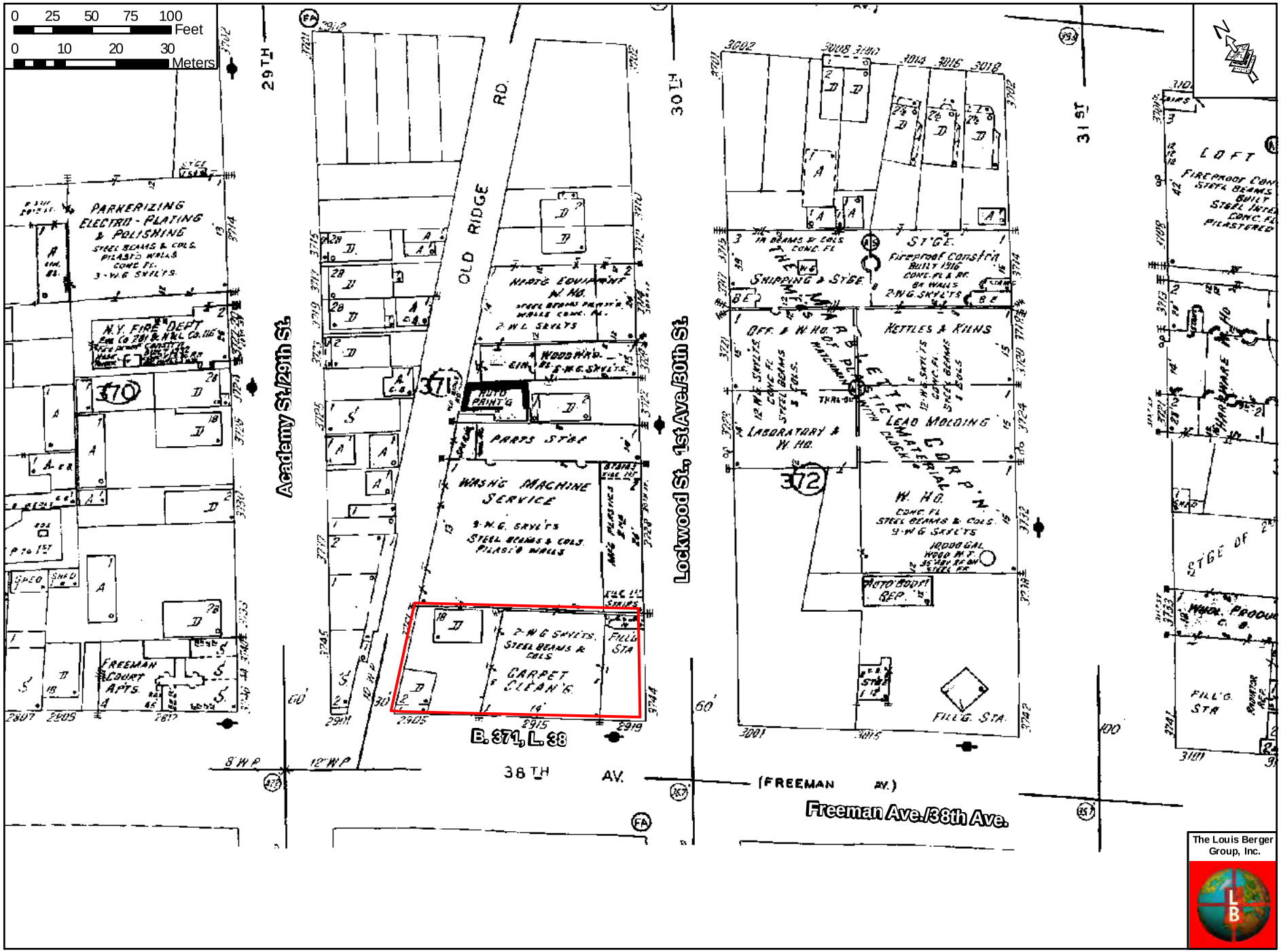

Figure 25: Block 371, Lot 38 in 1950

SOURCE: Sanborn 1950

converted to an auto repairs and auto storage building with an upstairs office (COG400364556). The building also has an accessory parking area. Currently, Lot 38 has a two-story taxi garage building with an adjacent parking area on its eastern extent and a two-story domestic structure bordering a paved driveway/alleyway on its western extent. The DOB classifies Lot 38 as a garage/gas station.

Summary and Conclusions

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 (Sanborn 1898)) suggests that this area most likely experienced extensive subsurface disturbance. Therefore, this portion of Lot 38 is not considered sensitive for intact archaeological resources (Figure 26).

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 (1.2 meters) 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 (Geismar 1993). 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 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 70 meters (230 feet) from the primary dwelling (Muir n.d.: 51). He also estimated that privy deposits could be found within 18 to 24 meters (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 (Figure 26).

With respect to the late nineteenth century occupation of historic Lots 16, 18, and 19 (Sanborn 1898), 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 (Louis Berger & Associates 1992; McCann and Ewing 2001-2002). These patterns suggest that the southern portions of historic Lots 18, 19, and 20,

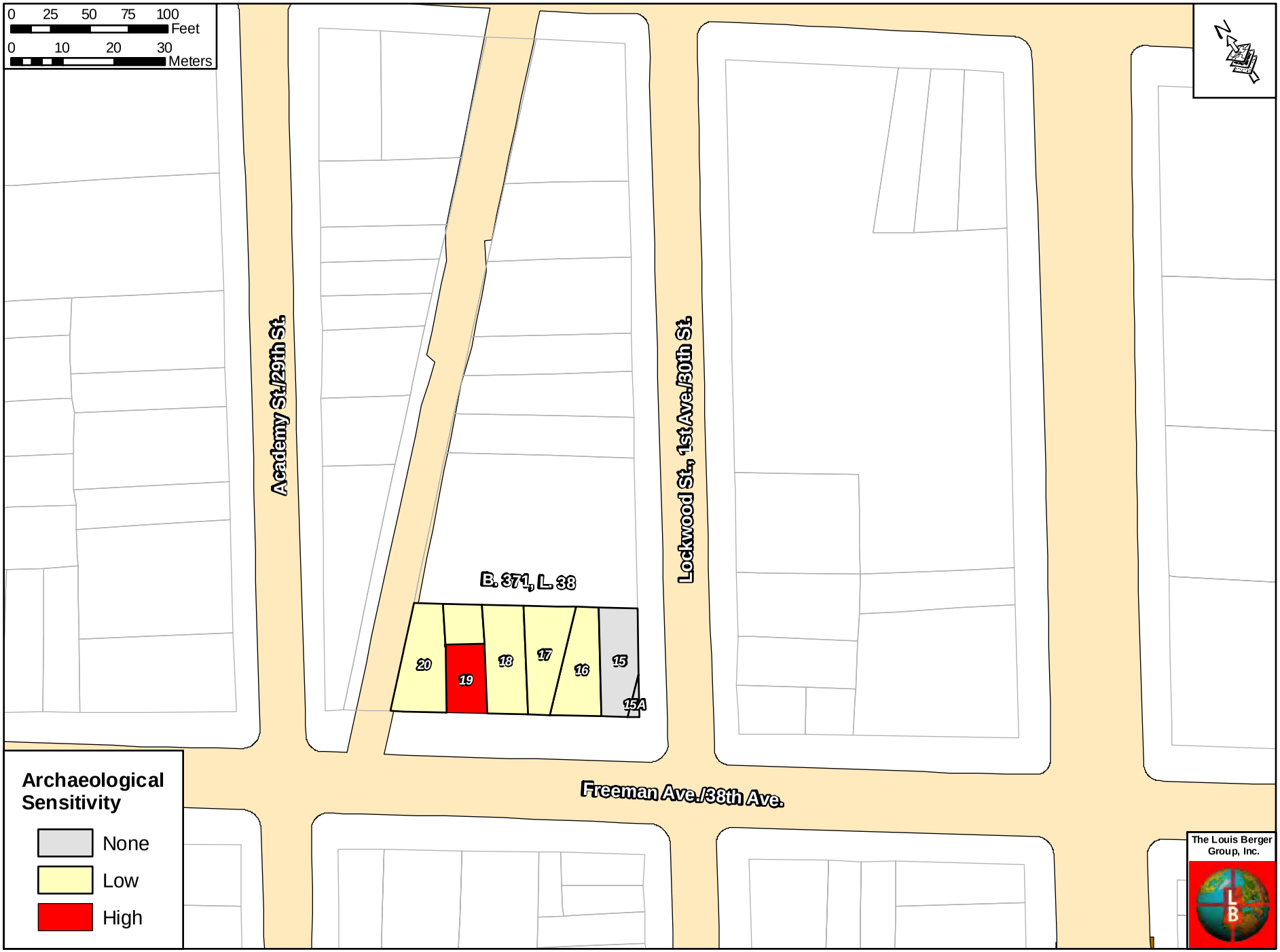

Figure 26: Areas Sensitive for Historic Period Archaeological Resources within Block 371, Lot 38 (Historic Lots Italicized)

SOURCE: Berger 2008

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 26). 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 (457.2 meters) 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.

4.4 Block 398, Lot 1

Block 398 is bounded 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 (105.9 meters) to the north. From this point, the lot extends 100.10 feet (30.5 meters) to the east and from there it moves south 171.98 feet (52.4 meters). At this point, the lot extends east 100.10 feet (30.5 meters) to 29th Street. Along 29th Street, the lot moves 25 feet (7.6 meters) to the south and then extends to the west 100.10 feet (30.5 meters). At this point, Lot 1 turns to the south and extends 75.01 feet (22.9 meters) at which point it turns to the east and extends 100.10 feet (30.5 meters) to 29th Street. The lot then proceeds south 100.13 feet (30.5 meters) to the northwest corner of 40th Avenue and 29th Street. Along 40th Avenue, Lot 1 extends for a width of 200.20 feet (61.0 meters) 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 Avenue (New York City Department of Finance 2008). A large school building with a northern extension occupies the western portion of Lot 1 along 28th Street (Photo 12). 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 (Photo 13). 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 (Photo 14). A paved parking area occupies the northeastern arm, the 25-foot (7.6-meter) extension, of Lot 1 (Photo 15).

Photo 12: Western Portion of Block 398, Lot 1, View Southwest.

Photo 13: Southwest Corner of Block 398, Lot 1, View Northeast.

Photo 14: Southeast Corner of Block 398, Lot 1, View Northwest.

Photo 15: Northeastern Extension of Block 398, Lot 1, View Northwest.

Lot History

Lot 1 was first developed during the mid-nineteenth century. By 1844, the southwestern corner of the lot sat immediately east of an unnamed structure (see Figure 6). This corner appears to fall within the northeastern portion of the parcel associated with the building. A historic roadway, most likely the Old Ridge Road/Road to Williamsburgh, extends across the central portion of the lot. At this time, Lot 1 appears to be situated on a small knoll with meadowland sitting to the west and northeast. Agricultural land lies to the north of the lot and the Dutch Kills Creek and its surrounding marshland sit to the southeast.

Riker's 1852 map places a structure identified with Abraham Payntar[4] in the southwestern corner of Lot 1 (see Figure 18). The slight shift in the location of Lot 1 with respect to this structure and to the historic roadway between the 1844 and the 1852 maps most likely reflects incompatibilities and inaccuracies with respect to past mapping techniques and the process of georeferencing modern coordinates to such historic records. The 1852 map has the historic road passing through the eastern portion of Lot 1. Federal Census records from the mid-nineteenth century document the continuous presence of an Abraham Payntar within Newtown (see Table 8).

Table 8: Federal Census Data for Block 398, Lot 1

Census Year	Family Name	Listed Address	Real Estate Value/Personal Estate Value
1840	Abraham Payntar Household: 1 white male<5, 1 white male 10-15, 1 white male 40-50, 1 white male 70-80, 2 white females 10-15, 1 white female 30-40, 1 white female 60-70, 1 free black male 35-55	Newtown	
1850	Abraham Paynter, head, male, white, 46, Maria Paynter, female, white, 35, William Paynter, male, white, 17, John Paynter, male, white, 15, Ann Paynter, female, white, 14, Charity Paynter, female, white, 12, Abraham Paynter, male, white, 5, Isaac Paynter, male, white, 2 Daniel Paynter, male, white, 10; Margaret Wright, female, white, 18, Ireland, Frederick Kosel, male, white, 25, Ireland	Newtown	$1000
1860	Abraham Paynter, head, male, white, 56, farmer, Maria Paynter, female, white, 47, William Paynter, male, white, 26, farmer, John Paynter, male, white, 24, farmer, Ann E. Paynter, female, white, 22, Sarah Paynter, female, white, 20, Daniel Paynter, male, white, 19, farmer, Abraham Paynter, male, white, 15, Isaac Paynter, male, white, 11, Sarah M. Paynter, female, white, 7; Mary A. Webb, female, white, 26	Newtown	$10,000/$500

The 1863 Dripps map also documents the continued presence of a Payntar household in the immediate vicinity of Lot 1 (see Figure 8). The Dripps map appears to associate two structures with the Payntar family, one immediately west of Lot 1 and a second structure further to the west. The historic road also appears to cut through the eastern portion of the lot. An examination of Curtin's Directory of Long Island (1864-1865) did not reveal an Abraham Payntar residing within Newtown. Furthermore, by 1870, the Abraham Payntar household is no longer listed in the Federal Census for Newtown, Queens. During the 1870s, Abraham and Maria Payntar sold the majority of Lot 1 to

[4] Historical accounts differ on the spelling of the Payntar/Paynter name. This discussion will consistently use the Payntar spelling unless directly citing a source which uses an alternate spelling.

Victor Friedrich (Liber 326, Page 319, Liber 352, Page 248, Liber 383, Page 409, and Liber 417, Page 488; Table 9). The only portion of Lot 1 that was not included within these transactions was the extreme northwestern corner.

Table 9: Recorded Land Transfers Within for Block 398, Lot 1

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
P. Bragaw	J. Fryerson/ Ryerson	1789[5,6]			
Fyerson/ Ryerson	Larremores	1789-1801[7]			
Larremores	Payntars	1801[8]			
Abraham and Maria Payntar	Victor Friedrich	5/6/1870	326: 319	92: 1, 2, 31, *32*, *33*	92: 1 & 9 (partial), *39*
Abraham and Maria Payntar	Victor Friedrich	7/22/1871	352: 248	92: 34, 35, 36, 37, 38	92: 1 (partial)
Abraham and Maria Payntar	Victor Friedrich	5/22/1872	383: 409	92: 40, 39	92: 8; 1 (partial)
Abraham and Maria Payntar	Victor Friedrich	4/4/1873	417: 488	92: 3, 4, 5, 6, *27*, *28*, 29, *30*	92: 9, 13, *35*, *36*, 37, *38*
Rachel Peters, Minnie F. Schrodelsecker, Caroline Friedrich	Minnie F. Schrodelsecker	5/5/1896	1118:97	92: 29	92: 37
Rachel Peters, Minnie F. Schrodelsecker, Caroline Friedrich	St. Patrick's Church in Long Island City	5/5/1896	1109:343	92: 1, 2, 3, 4, 33, 34, 35, 36, 37, 38, 39, 40	92: 1, 8, 9
Rachel Peters, Minnie F. Schrodelsecker, Caroline Friedrich	Caroline Friedrich	5/5/1896	1118:95	92: 5, 6, 7, 8	92: 13
Caroline Friedrich	Rachel Peters	5/21/1898	1190:135	92: 5, 6, 7, 8	92: 13
Rachel Peters	St. Patrick's Church Long Island City	8/5/1903	1312:339	92: 5, 6, 7, 8	92: 13
Minnie F. Schrodelsecker	Mary Currie	9/4/1902	1285:303	92: *28*, 29	92: *36*, 37
Mary Currie	Josephine A. Burns	4/23/1907	1501:468	92: 29	92: 37
George J. and Emma Vogt	St. Patrick's Church	11/13/1923	2566:86135	92: 29	92: 37
Rudolph Schaeffer	Katie Cytryn	5/15/1920	2281:171	92: 10	92: 18
Katie Cytryn	Anthony Mandia	7/27/1921	2358:226	92: 10	92: 18
Louis Mandia	Betty M. Lazaro	4/21/1942	4554:159	92: 10	92: 18

[5] Source 1935 Topographic Bureau *1800 Map of the Borough of Queens*.
[6] Source: Seyfried, Vincent (1984) *300 Years of Long Island City, 1630-1930.* Edgian Press, Garden City, NY.
[7] Source: Seyfried, Vincent (1982) *Queens, a Pictoral History.* Donning, Norfolk, Va.
[8] Source: Seyfried, Vincent (1984) *300 Years of Long Island City, 1630-1930.* Edgian Press, Garden City, NY.

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
Betty M. Lazaro	John P. McGee	9/13/1950	6019:419	92: 10	92: 18
John P. McGee	St. Patrick's Church in Long Island City	11/17/1950	6059:454	92: 10	92: 18
Charles and Meta Holzerland	Donato and Maria Giuseppe Bove	6/30/1928	3194:58875	92: 9	92: 17
Donato and Maria Giuseppe Bove	John J. Clarke	11/16/1928	3243:105792	92: 9	92: 17
John J. Clarke	Florence Aitken	10/14/1930	3432:61729	92: 9	92: 17
Florence Aitken	St. Patrick's Church	10/17/1930	3433: 62912	92: 9	92: 17

Italicized lot numbers indicate those which do not fall within Modern Lot 1.

A review of the available 1870s editions of Curtin's residential directories reveals a Victor Frederick, lager, listed at an address of Academy (29th Street) corner Payntar (40th) Avenue from 1872 to 1877. The 1877 Hunerbein survey indicates that several buildings were located within Lot 1; however, no structure is depicted on the corner of Academy (29th Street) and Payntar (40th Avenue) within the lot (see Figure 10). According to the survey, several structures were located along the southern corners of Academy (29th Street) and Payntar (40th Avenue). Victor Friedrich may have resided within one of these buildings. It appears that by 1877 a complex of four buildings once occupied Lot 1. The arrangement of these buildings with respect to the drawn street and lot lines on the Hunerbein map suggests that the buildings were constructed prior to the extension of the formal street and grid system into the area. The building complex includes: a structure in the southwestern corner of the lot, a square building which spans designated Lots 2 and 3, a long rectilinear building which spans designated Lots 3 and 30, extending outside the boundaries of modern Lot 1, and a T-shaped structure oriented on a diagonal with respect to the drawn lot lines which also extends outside the boundaries of modern Lot 1. A single structure also appears within the 28th Street roadway and may have been associated with the assemblage of structures to the northeast. Georeferencing modern lot dimensions to this historic image further indicates that the trajectory of Payntar (40th) Avenue has changed over time or that the Hunerbein map depicted proposed roadways prior to their installation. The historic roadway which previously ran across the eastern portion of the lot is not depicted on the Hunerbein survey suggesting that the road may have been diverted or filled by this time. The former trajectory of this road may have affected the arrangement and orientation of buildings within Lot 1. The 1870 and 1880 Federal Census records do not have a listing for Victor Friedrich within Newtown or Long Island City, Queens.

The 1891 Wolverton map depicts dramatic change in the development of Lot 1 which was a part of the newly delineated Block number 92 (Figure 27). By this time, the complex of buildings previously residing within the lot have been replaced by a large *Hot Ho.* (hothouse) structure which spans the western extent and expands into the central portion of the lot. A small structure also stands immediately north of the southeastern portion of Lot 1 within modern Lot 39.

A hothouse is a type of greenhouse which is artificially heated. The heat may come from a gas or electric source or it could be generated by composting manure. These structures are primarily glass paneled buildings. During Victorian Times,

> a hothouse or stove, intended for tropical plants, was kept constantly at a warm temperature…At first these structures were heated with open fires, but the fumes damaged the plants. The problem was eventually solved by enclosing the fire or placing the fire box outside the building with flues to carry the heat through the hothouse…Beds of fermenting manure or tan-bark were successful in maintaining the moist atmosphere required by many tropical plants [Woodhead 1998: 183].

In addition to an enclosed fire or external fire box, some hothouses, Victorian hothouses in particular, were heated from an underground boiler system (Winsford Walled Garden 2007). It is unclear from the Wolverton depiction as to what type of heating system or utilities may have been associated with the hothouse located within Lot 1. The

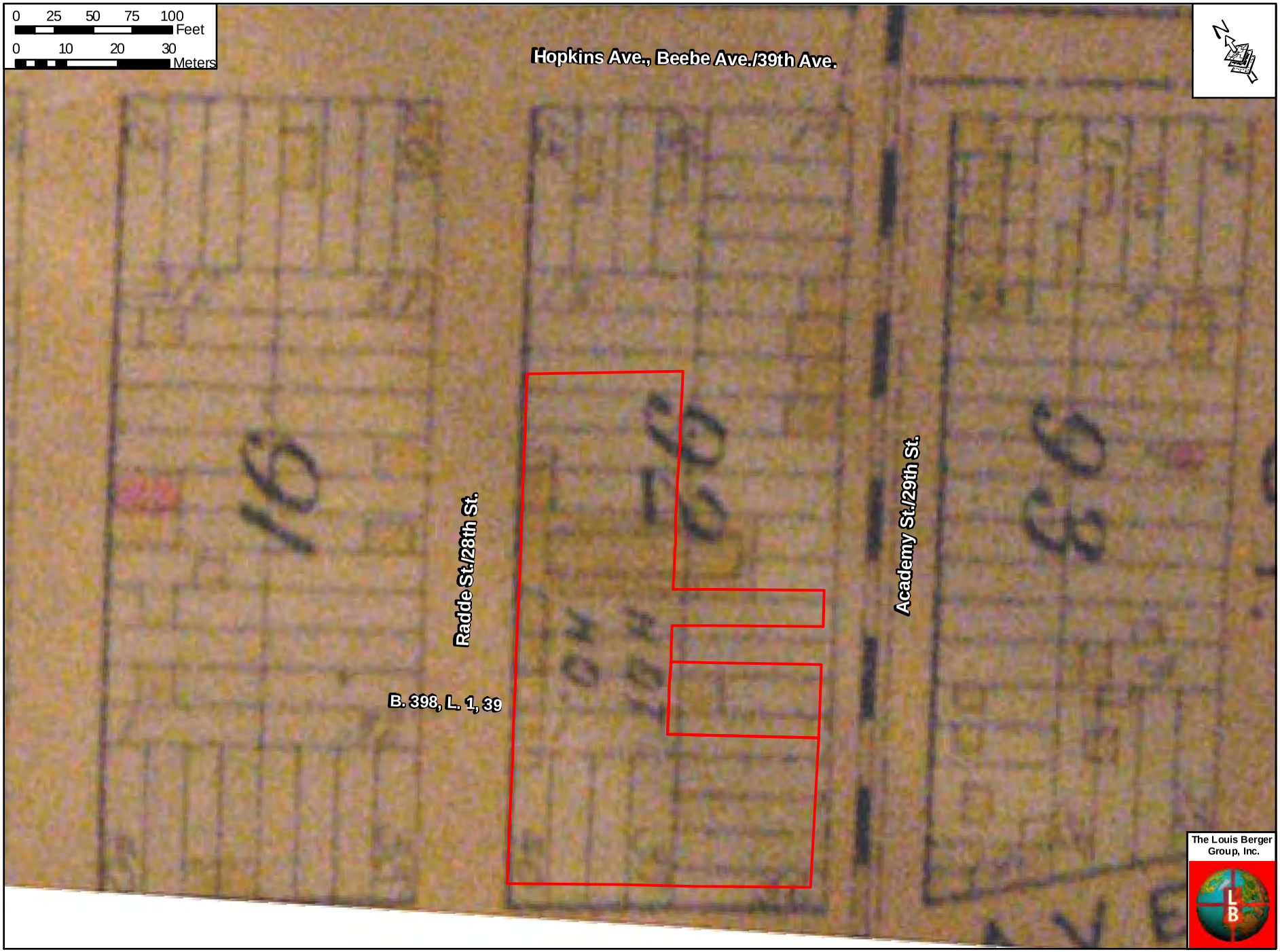

Figure 27: Block 398, Lot 1 and Lot 39 in 1891

SOURCE: Wolverton 1891

Star Directory Of Long Island City (1888-1889) lists Victor Friedrich as a florist residing at the corner of Abraham Street and Payntar (40th Avenue) (Todd 1889). Given that Friedrich's address was previously listed as Academy (29th) Street and Payntar (40th Avenue), it is possible that the Star address is incorrect. Regardless, Friedrich continued to own the majority of Lot 1 until his death and the subsequent sale of his property by his heirs in 1896 (see Table 9). It is possible that the hothouse within Lot 1 was a part of Friedrich's florist operation.

The 1898 Sanborn map shows additional development within Lot 1 (Figure 28). By this time, St. Patrick's Roman Catholic Church was in the process of being constructed across the southeastern portion of Lot 1, encompassing designated historic Lots 33, 34, 35, 36, 37, and 38. The hothouse structure appears to have been removed and replaced by a smaller stable with one-story extensions that span historic Lots 4, 5, 6, and 7. Two domestic structures, each a two-story dwelling, have been built along the far northwestern extent of modern Lot 1—historic Lots 9 and 10, at 184 and 186 Radde (28th) Street. Water lines have also been extended across Radde (28th) Street and Payntar (40th) Avenue by this time. Unlike many of the residential structures located within this block, those dwellings within Lots 9 and 10 do not have associated one-story buildings within their rear yards. This lack of an associated structure with the dwellings in the northwestern portion of modern Lot 1 suggests that the dwellings within Lots 9 and 10 may postdate the installation of utilities and, therefore, that from their initial occupation they were hooked up to the municipal water lines.

By 1896, St. Patrick's Roman Catholic Church had acquired the southern portion of the Lot 1 along with the southeastern portion of the lot (Liber 1109, Page 343; see Table 9). It is unclear who may have owned historic Lots 9 and 10 at this time. The historic deed research was unable to identify the owners of either of these lots prior to 1920 (see Table 9). In 1901-1902, Leonard Schneider, a printer, is listed as residing at 186 Radde Street (Trow 1900-1912). Schneider does not appear at this address in subsequent years, nor does he appear within the 1900 or 1910 Federal Census for Long Island City, Queens.

In 1902, construction of the Old Bryant High School at the corner of 29th Street and 41st Avenue uncovered a gravestone at a depth of six feet (1.8 meters) below grade beneath a fill deposit (Seyfried 1984). This discovery indicates that extensive filling had occurred to the south of Block 398 prior to the twentieth century. It is presently unclear whether similar fill deposits were introduced into Block 398. At the time of this background research, soil boring data could not be identified for Lot 1. Such data would provide information relating to past land manipulation within the area, in particular, as to what extent past episodes of filling and/or grading may have occurred.

By 1903, St. Patrick's Roman Catholic Church had acquired more land along the northwestern portion of modern Lot 1 (Liber 1312, Page 339; see Table 9). The 1903 Hyde Map illustrates further expansion and development of the church property (Figure 29). By this time, the large church building in the southeast corner of Lot 1 appears to have been completed and a smaller rectory building has been constructed in the southwest corner, designated Lot 8. Designated Lots 9, 13, and 37, all portions of modern Lot 1, are still undeveloped. On the far northwestern extent of Lot 1, two dwellings still stand within designated Lots 17 and 18. These lots were not owned by the church at this time. The northeastern arm of modern Lot 1, Lot 37 on the Hyde 1903 map, was sold to several private land owners in the early 1900s (see Table 9). The historic deed research indicates that St. Patrick's Church purchased this parcel in 1923 (Liber 2566, Page 86135; see Table 9).

In 1904, a fire broke out in the rectory at the corner of Radde (28th) Street and Payntar (40th) Avenue (New York Times 1904). The electrical fire destroyed all but the walls of the four-story brick building, killing the assistant pastor, Reverend Father Herman J. Ernst, and two domestic servants. According to the Times article, the rectory and adjacent St. Patrick's Church were newly built. The fire also burned the sacristy of the church and threatened the church building, ultimately causing about 3000 dollars worth of damage to the structure (New York Times 1904).

The 1915 Sanborn indicates further consolidation of the church property, with the majority of modern Lot 1, except historic Lots 17, 18, and 37, having been encapsulated into designated Lot 1 (Figure 30). By this time, the rectory building which formerly stood at the southwest corner of the lot has been removed and a new rectory building stands immediately north of the northwest corner of Lot 1, within modern Lot 39. An L-shaped 2 ½-story dwelling, 180 Radde (28th) Street, has developed along the northwestern corner of the church property. Two-story dwellings remain within designated Lots 17 and 18, and Lot 37 is still undeveloped.

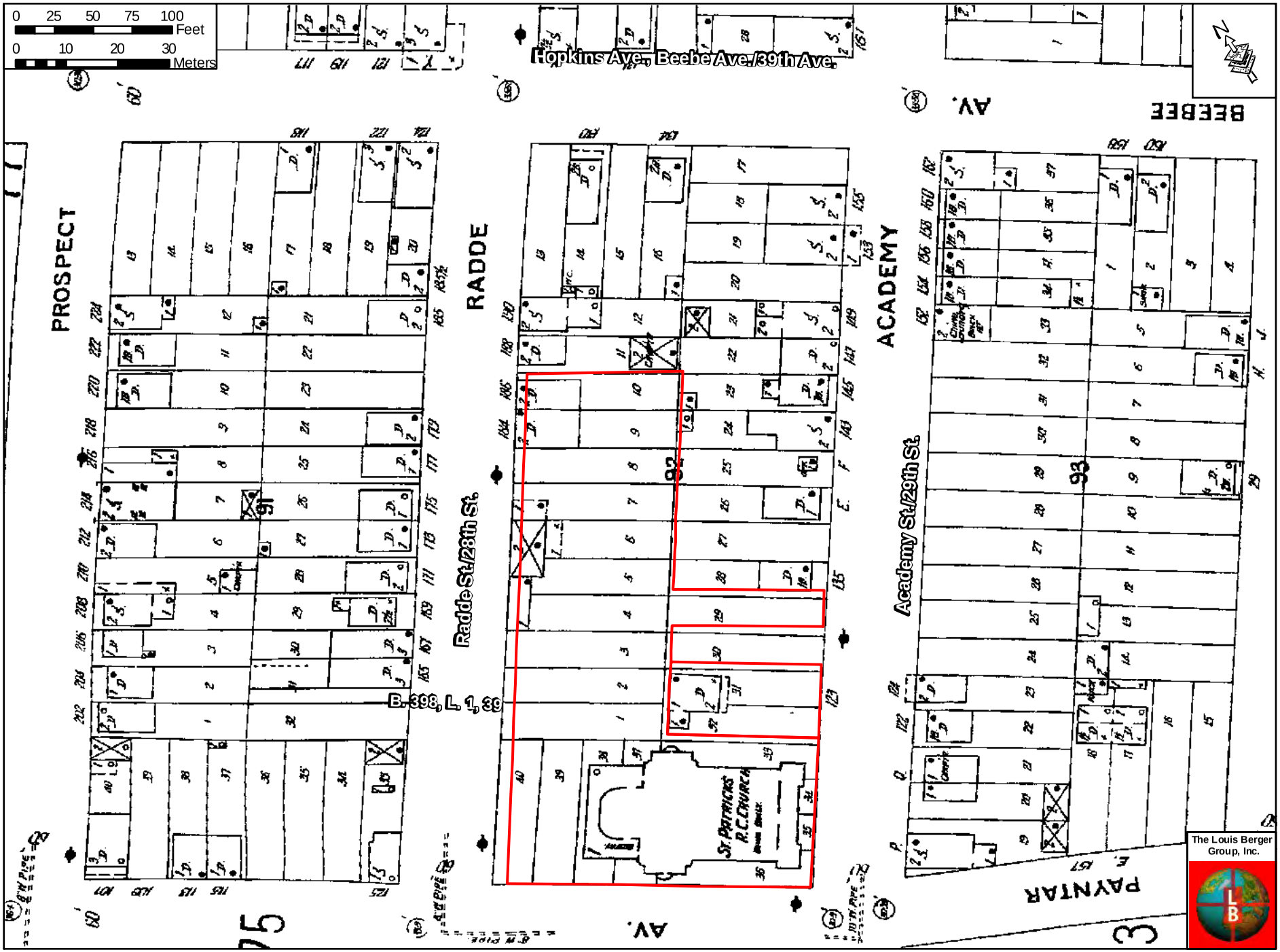

Figure 28: Block 398, Lot 1 and Lot 39 in 1898

SOURCE: Sanborn 1898

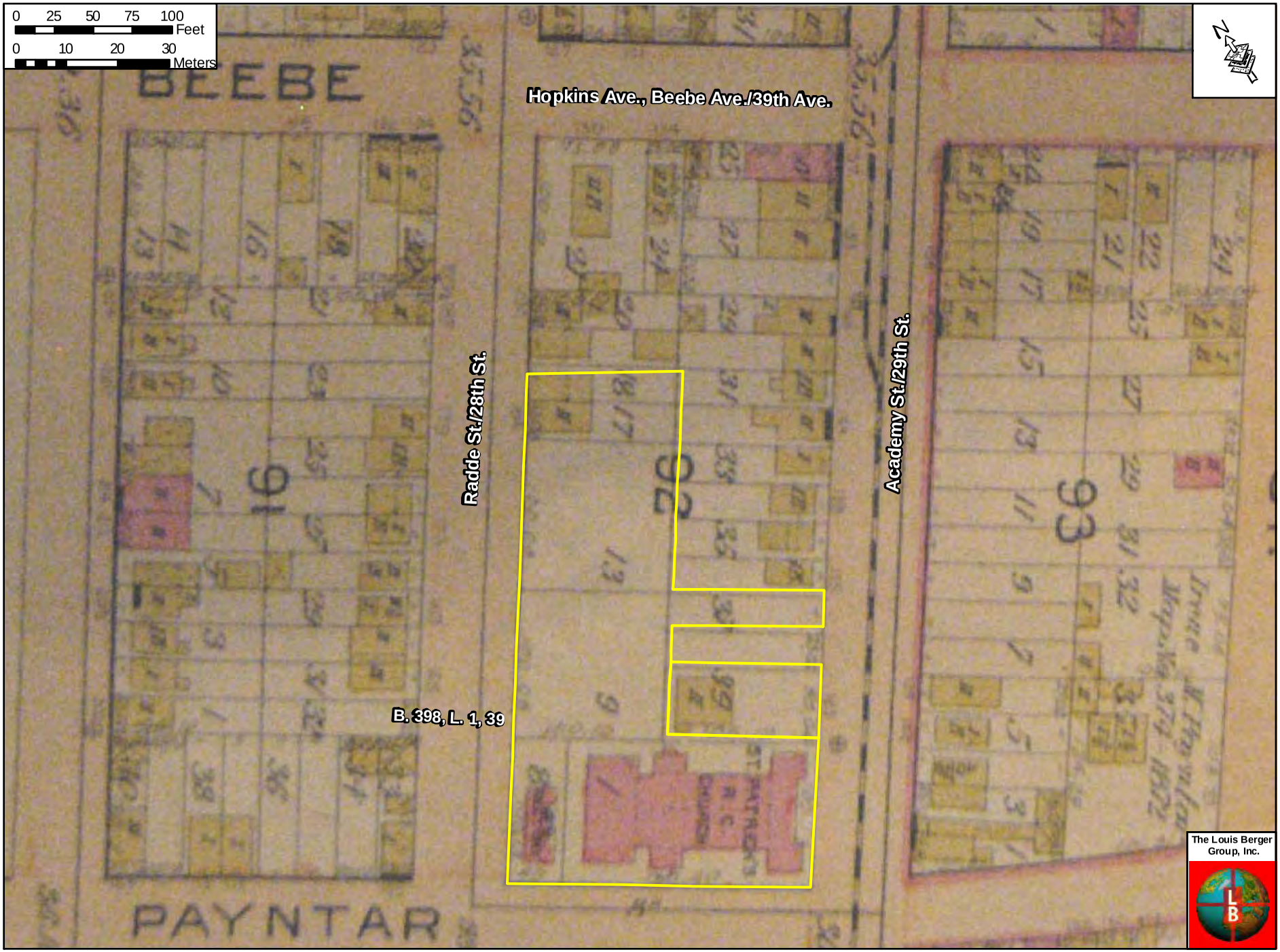

Figure 29: Block 398, Lot 1 and Lot 39 in 1903

SOURCE: Hyde 1903

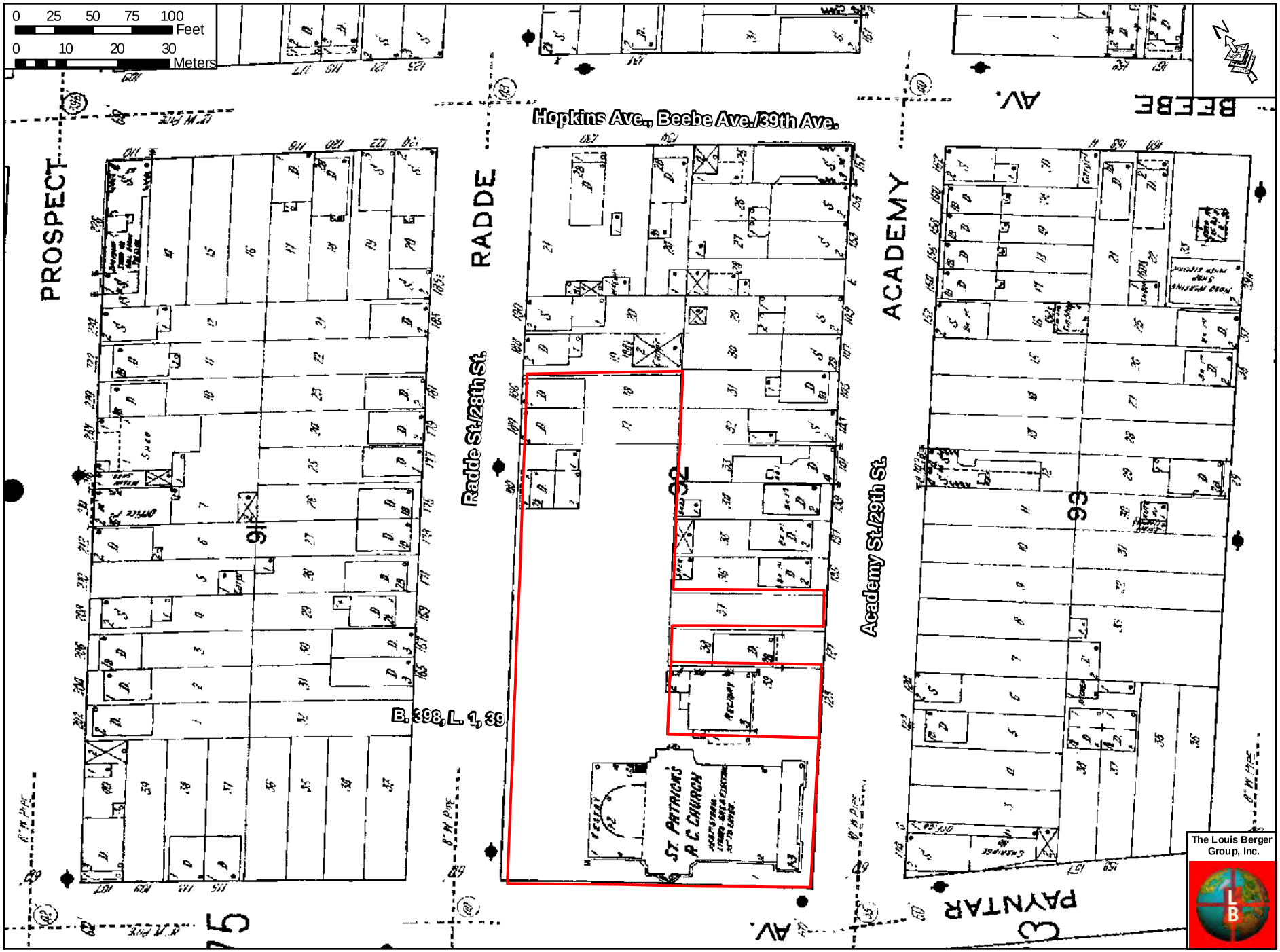

Figure 30: Block 398, Lot 1 and Lot 39 in 1915

SOURCE: Sanborn 1915

New building permits on file at the DOB indicate that St. Patrick's constructed two new buildings in 1923 and 1924. The first structure was a two-story brick school building on the east side of Radde (28th) Street, 120 feet (36.6 meters) north of Payntar (40th) Avenue (NB17168). The school building also had a basement and foundation cut that extended six feet (1.8 meters) below the curb. A three-story brick convent with basement was also built on the northeast corner of Radde (28th) Street and Payntar (40th) Avenue (NB19656-23). According to the building permit, the foundation of the convent was set over eight feet (2.4 meters) below the curb. The 1928 Hyde map illustrates the newly built school and convent buildings (Figure 31). The map also indicates the presence of shed structures in the rear lots of the dwellings within Lots 17 and 18. Previously designated Lot 37, the northeastern extension of modern Lot 1, is still undeveloped.

By 1930, St. Patrick's Church acquired title to 184 Radde (28th) Street, historic Lot 17 (Liber 3433, Page 62912; see Table 9). Despite the church's purchase of Lot 17, the 1936 and 1950 Sanborn maps reflect the same 1928 building complex within the church grounds. With respect to historic Lots 17 and 18, the rear sheds depicted on the Hyde map are not represented on either Sanborn map, although the domestic dwellings continue to occupy each lot. A new building permit on file at the DOB indicates that a one car metal garage was constructed within Lot 1 in 1931 (NB151-31). This building was set on a concrete slab foundation. The 1936 Sanborn map does not illustrate the presence of a garage within Lot 1 suggesting that this structure may not have been built despite the submitted permit. Alternatively, the structure may have been overlooked during the Sanborn property assessment.

In 1950, St. Patrick's Church purchased historic Lot 18, acquiring all of the property within modern Lot 1 (Liber 6059, Page 454; see Table 9). The property profile for Lot 1 indicates that two demolition permits were filed in 1956 (DOB 2008; DP 489-56, DP 490-56). These permits could not be found within the property file at the Queens DOB. Therefore, it is unclear what, if any, structures may have been demolished within the lot during the 1950s. The 1972 Sanborn map reflects the further expansion and development of the church property (Figure 32). An extension has been added to the previous parochial school building fronting 28th Street, extending into historic Lot 17. According to the map, the new school wing was constructed in 1966. There are no structures within historic Lot 18. A garage building is also illustrated to the east of the earlier school building immediately west of Lot 38.

Presently, modern Lot 1 appears to reflect few if any alterations from its 1972 building complex. A school building with modern extension occupies the majority of the western portion of the lot with a smaller three-story convent building sitting at the southwest corner. Paved parking surfaces sit to the immediate east of the school buildings dividing these structures from the buildings fronting 29th Street. A large church occupies the southeast corner of Lot 1 with frontages on 40th Avenue and 29th Street. The northeastern extent of Lot 1 consists of an asphalt-paved driveway and parking area which appears to provide rear access to the school building. In the spring of 1994, the St. Patrick's School was closed due to low enrollment (New York Times 1995). The Renaissance School in Astoria, a public school for kindergarten and fifth- through ninth-grade classes, rented the St. Patrick's School for use during the 1996 school year. Upon the completion of its new school building in Jackson Heights, the Renaissance School vacated St. Patrick's property. As of 2008, the parochial school was still closed and vacant.

Summary and Conclusions

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 (Sanborn 1898). 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

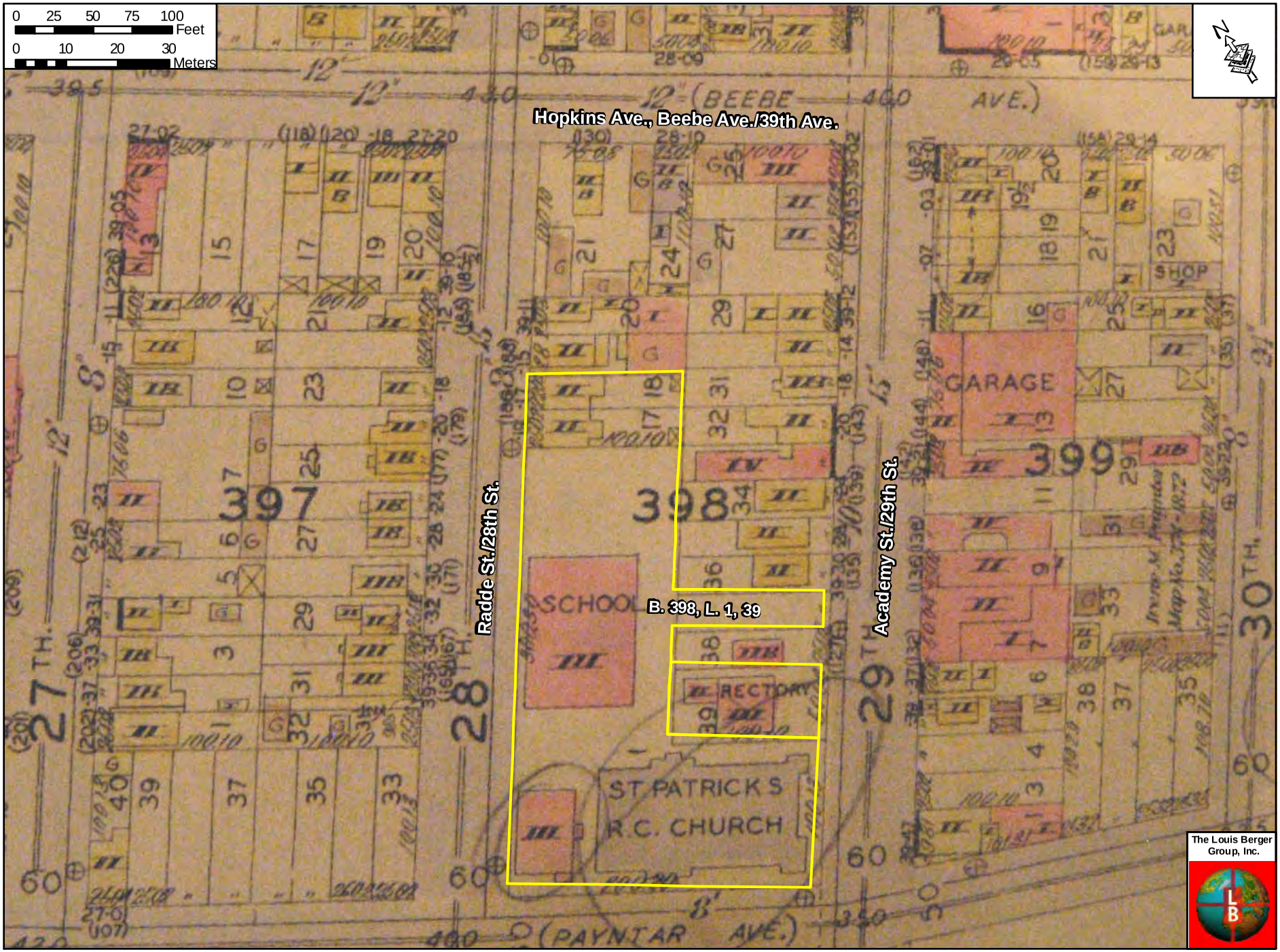

Figure 31: Block 398, Lot 1 and Lot 39 in 1928

SOURCE: Hyde 1928

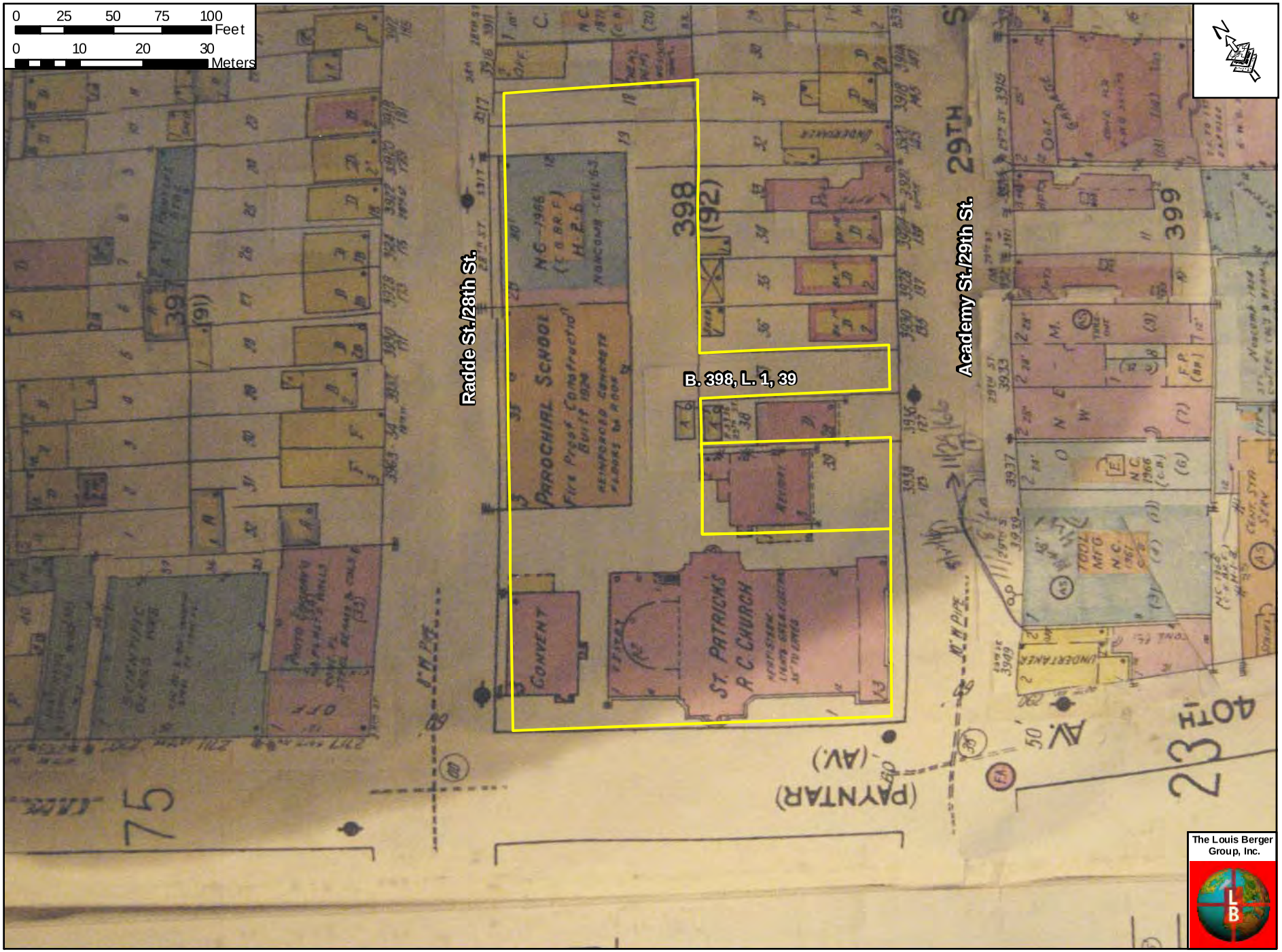

Figure 32: Block 398, Lot 1 and Lot 39 in 1972

SOURCE: Sanborn 1972

basement and foundation cuts extending to depths of at least six to eight feet (1.8 to 2.4 meters) 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 (Sanborn 1898) with respect to the 1877 building complex suggests that these areas would be sensitive for historic deposits (Figure 38). 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 (Muir n.d.: 51). 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 (Sanborn 1898), which fall within the interior of the building complex, have to potential to have contained historic archaeological deposits relating to the nineteenth century farmstead (Figure 33). Additionally, with historic Lots 4, 5, 6, 7, and 8 (Sanborn 1898) 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 (1.8 to 2.4 meters) 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 (Sanborn 1898), and the western portions of historic Lots 1 and 2 (Sanborn 1898) may also be sensitive for historic period archaeological deposits.

The 1844 United States Coast Survey indicates that prior to urban development Lot 1 was situated on a small knoll approximately 620 feet (189 meters) 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

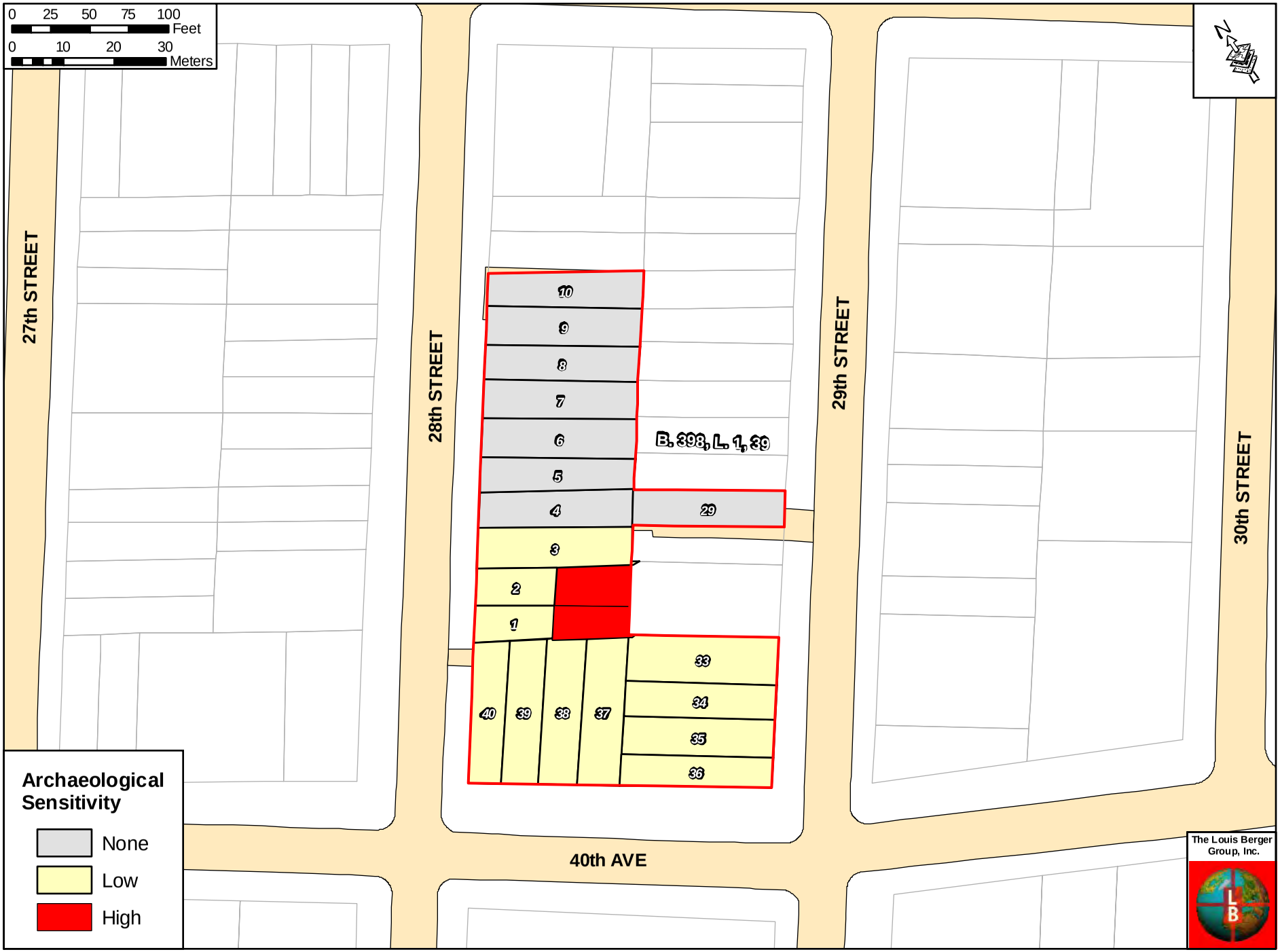

Figure 33: Areas Sensitive for Historic Period Archaeological Resources within Block 398. Lot 1 (Historic Lots Italicized) *SOURCE: Berger 2008*

becomes available conclusions regarding the potential for intact prehistoric and historic period archaeological deposits within the lot should be reevaluated.

4.5 Block 398, Lot 39

Block 398 is bounded 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 (30.5 meters) north of the northwest corner of 40th Avenue and 29th Street. The lot measures 50.04 feet (15.3 meters) in length along 29th Street and 100.10 feet (30.5 meters) 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 (DOB 2008). A three-story rectory building with a one-story exterior brick extension occupies the lot (Photo 16). 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.

Photo 16: Block 398, Lot 39, View Northwest.

Lot History

Development in the vicinity of Lot 39 began during the mid-nineteenth century. By 1844, an unnamed structure and its associated parcel sat to the southwest of the lot (see Figure 6). Lot 39 also appears to have fallen immediately east of a historic roadway, most likely the Old Ridge Road/Road to Williamsburgh. At this time, Lot 39 was situated at the northeastern edge of a rise due west of a descending slope. The lot appears to sit within agricultural lands which were bordered by rural property to the north and south, by meadowland to the west, and by the Dutch Kills Creek and its associated marshes to the southeast.

The 1852 Riker map places Lot 39 to the northeast of the Abraham Payntar house (see Figure 18). The historic road also appears to cut across the lot. The slight shift in the location of Lot 39 with respect to the nearby structure and to the historic roadway between the 1844 and the 1852 maps most likely reflects incompatibilities and inaccuracies with respect to past mapping techniques and the process of georeferencing modern coordinates to such historic records. The Dripps 1863 map also places Lot 39 to the east of the Payntar buildings and within the historic road. Aside from the historic roadway, the lot appears undeveloped by this time (see Figure 8). Historic deed research indicates that this parcel was included within the larger estate of Abraham Payntar until the 1860s (Table 10).

Table 10: Recorded Land Transfers Within for Block 398, Lot 1

Grantor	Grantee	Date Recorded	Liber: Page	Sanborn 1898 Lot Number	Hyde 1903 Lot Number
P. Bragaw	J. Fryerson/ Ryerson	1789[9][10]			
Fyerson/ Ryerson	Larremores	1789-1801[11]			
Larremores	Payntars	1801[12]			
Abraham and Maria Payntar	Victor Friedrich	5/6/1870	326: 319	92: 1, 2, 31, 32, 33	92: 1 & 9 (partial), 39
Rachel Peters, Minnie F. Schrodelsecker, Caroline Friedrich	Rachel Peters	5/5/1896	1118:99	92: 31, 32	92: 39
Rachel Peters	*St. Patrick's Church Long Island City*	*8/5/1903*	*1312:339*	*92: 5, 6, 7, 8*	*92: 13*

Italicized entry indicates land transfer potentially within Block 398, Lot 39.

In 1870, Abraham and Maria Payntar sold Lot 39 along with other property to Victor Friedrich (Liber 326, Page 319; see Table 10). A review of the available 1870s residential directories for Long Island reveals Victor Friedrich at an address at the corner of Academy (29th Street) and Payntar (40th) Avenue (Curtin 1872-1877). This address situates Friedrich south of Lot 39. The 1877 Hunerbein survey indicates that several buildings were located within the vicinity of Lot 39, with two structures extending into the modern lot boundaries (see Figure 10). These structures include a long rectangular building which extends from modern Lot 1 to the west into the northern portion of Lot 39. A T-shaped building sits at an angle within the southeastern corner of Lot 39 extending to the south and west into modern Lot 1. These buildings appear to be part of a larger complex of structures situated within the southern portion of modern Lot 1. They may represent portions of the earlier Payntar farmstead complex. The orientation of the buildings along with the georeferenced location of the modern lot boundaries onto the 1877 map indicates that these structures predate the extension of the formal street and grid based system into this area. The historic road depicted on the mid-nineteenth century maps is no longer present suggesting that it may have been filled or its orientation altered by this time.

[9] Source 1935 Topographic Bureau *1800 Map of the Borough of Queens*.
[10] Source: Seyfried, Vincent (1984) *300 Years of Long Island City, 1630-1930.* Edgian Press, Garden City, NY.
[11] Source: Seyfried, Vincent (1982) *Queens, a Pictoral History.* Donning, Norfolk, Va.
[12] Source: Seyfried, Vincent (1984) *300 Years of Long Island City, 1630-1930.* Edgian Press, Garden City, NY.

By 1891, the 1877 complex of buildings is no longer extant (see Figure 27). Block and grid designations appear to have been assigned to the area with Lot 39 falling into Block 92. A large linear hothouse structure has been constructed to the west and north of Lot 39. A single unidentified structure is situated in the southwest corner of the lot. It is unclear whether this structure represents a domestic dwelling or another type of occupation. The Star Directory Of Long Island City (1888-1889) lists Victor Friedrich as a florist residing at the corner of Abraham Street and Payntar (40th Avenue); this address places Friedrich outside of Lot 39 (Todd 1889). In 1896, the property of Victor Friedrich was sold and divided amongst his heirs with Rachel Peters acquiring the title to Lot 39 (Liber 1118, Page 99; see Table 10).

The 1898 Sanborn map indicates the presence of a two-story domestic structure with a one-story southern extension in the western portion of Lot 39, historic Lots 31 and 32 (see Figure 28). It is unclear whether this represents the same building depicted by the 1891 map. Water lines had been extended to Academy (29th) Street by this time. There is no indication on the Sanborn map that outbuildings or any other structures were associated with the two-story dwelling. As discussed in the preceding section, given that those structures on the 1898 Sanborn which were extant in 1891 have one-story rear structures or designated water closets associated with them, the lack of such a structure in the vicinity of the Lot 39 dwelling suggests that this structure was built after the availability of municipal water and sewage. Thus, it appears that this building was most likely connected to municipal utilities from the onset of its occupation. By 1898, St. Patrick's Roman Catholic Church was being constructed to the south of Lot 39. The 1903 Hyde map also illustrates a two-story frame dwelling within the western portion of Lot 39 (see Figure 29).

A 1905 new building permit on file at the Queens DOB proposes the construction of a rectory with cellar within Lot 39 (NB59-05). The permit does not offer any other description for the rectory building, but does list the owner of the property as St. Patrick's Roman Catholic Church. This suggests that the church purchased this parcel between 1898 and 1905. Historic deed research could not identify the specific transaction within which the title to this property was transferred over to St. Patrick's (see Table 10). The 1915 Sanborn map confirms that Lot 39 has been encapsulated into the property owned by St. Patrick's Church (see Figure 30). By 1915, a three-story rectory building occupies the western portion of Lot 39. This building is situated in the same location as the earlier two-story structure. It is unclear whether the 1915 rectory building represents additions or extensions to the preceding building or whether the earlier structure was removed and replaced with the three-story building. The 1928 Hyde map indicates that the rectory consists of a three-story brick building (see Figure 31). Given that the 1903 Hyde map depicts the two-story dwelling within Lot 39 as a frame construction, it appears that the brick rectory represents a new building (see Figure 29).

From 1928 to 1972, the rectory building within Lot 39 remained unchanged according to the cartographic resources (see Figure 31 and Figure 32). This structure has remained extant and in its location into the present-day. The front lawn of the rectory consists of a landscaped surface which descends from the rise of the building down to the curb level. The raised elevation of the modern day rectory building with respect to the elevation of 29th Street resembles a historic image of the Webster (37th) Avenue streetscape during the twentieth century urbanization of the area (see Photo 7). This photo indicates that the two featured historic dwellings were built prior to the grading of the street (Greater Astoria Historical Society 2007b: 55). The similarity of the location of these structures to the situation of the rectory suggests that Lot 39 may not have been graded in the past and that the modern situation of the building represents its early twentieth century location.

Summary and Conclusions

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.

5.0 HISTORIC ARCHITECTURAL SURVEY

A historic architectural survey has been conducted to assess the potential of the proposed Dutch Kills rezoning project to affect historic architectural resources. This section has been prepared in accordance with the City Environmental Quality Review (CEQR) guidelines, which requires that city agencies consider the affects of their actions on historic properties. Pursuant to CEQR guidelines, historic architectural resources that have been designated or determined to meet the eligibility requirements for local, state, or national designation have been identified. This section also identifies those architectural resources that appear to meet these eligibility requirements.

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 has been undertaken.

5.1 Methodology

Historic architectural resources are those properties that are National Historic Landmarks (NHLs), listed in or determined eligible for listing in the State and National Registers of Historic Places, designated New York City Landmarks (NYCLs) and historic districts, and properties found by the New York City Landmarks Preservation Commission (LPC) to appear eligible for designation, considered for designation ("heard") by LPC at a public hearing, or calendared for consideration at such a hearing (these are "pending" NYCLs).

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 on 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 construction blasting or 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 project construction or operation. The *CEQR Technical Manual* indicates 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 (physical) and indirect (contextual) impacts, the architectural APE consists of the projected and potential development sites outlined in the proposed project and an area that extends approximately 400 feet (121.9 meters) beyond the perimeter of those sites.

Once the architectural APE has been determined, an inventory of previously listed, eligible, or potentially eligible properties within the study area was compiled. Criteria for listing on the National Register are outlined in the Code of Federal Regulations, Title 36, Part 63, and the LPC 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 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 younger than 50 years of age are ordinarily not eligible, unless they have achieved exceptional significance. Eligibility determinations are made by the Office of Parks, Recreation and Historic Preservation (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. Buildings, properties, 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 officially recognized in the architectural APE, an inventory was compiled of other buildings within the architectural APE 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 architectural APE 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 (DOB), and the Greater Astoria Historical Society.

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

5.2 Identification and Evaluation of Historic Properties within the Architectural APE

5.2.1 *Previously Listed or Eligible Historic Properties within the Architectural APE*

The identification of previously listed or eligible architectural resources was conducted in consultation with the New York City Landmarks Preservation Commission (LPC). In correspondence dated March 6, 2008, the LPC found that no officially designated LPC or State/National Register listed or eligible properties are located within the Dutch Kills project area; however, as a result of a preliminary resource assessment of the projected and potential development sites, one resource, the A. Garside & Sons Shoe Factory at 35-02 37th Avenue, was considered by LPC as potentially eligible for listing on the State and National Registers of Historic Places. As the A. Garside & Sons Shoe Factory has no previous formal designation, this resource is included within the discussion of previously undocumented historic properties below.

5.2.2 *Previously Undocumented Historic Properties within the Architectural APE*

The following historic architectural resources were identified within the historic architectural APE and appeared to be 50 years in age or greater (30 years in age or greater for New York City Landmarks) (Figure 34; Table 11). The resources described below were assessed for their potential to be listed in the State and National Registers of Historic Places using the criteria outlined above.

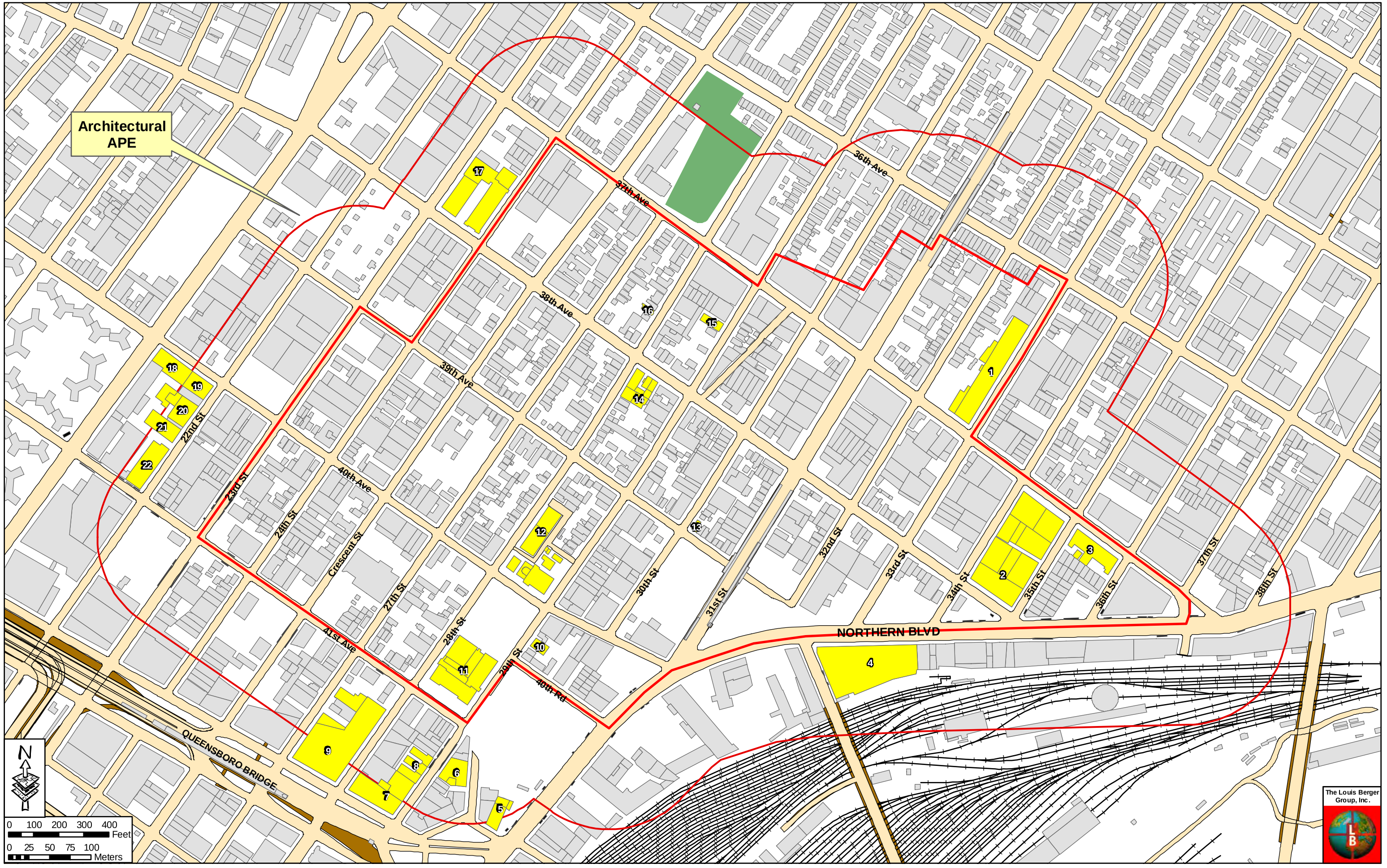

FIGURE 34: Historic Architectural Resources Surveyed for this Project

SOURCE: NYCEMap GIS; Berger Field Data 2008

Table 11: Historic Architectural Resources Surveyed for the Dutch Kills Rezoning Project

Map No.	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)	34-01 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 – 28-10 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

New York Consolidated Card Company, Block 601, Lot 1 (#1; Photos 17-18)

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 (139 meters) 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 (Real Estate Record Builder's Guide 1914:736; 1915:73). 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 (RERBG) 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 forms and steel reinforcement were in the proper condition to receive the concrete, they were sprayed with steam prior to starting work [RERBG 1915:73].

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. According to Bradley, by the 1920s, the organization employed architects, engineers, appraiser, economists, and business consultants (1999:22). The firm also produced plans for workers and company housing and federal housing projects in addition to industrial building. Their industrial building projects included the construction of a company town for the American Viscose Company in Marcus Hook, PA, 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. During World War I, the firm maintained a 125-person office in New York City (Tatman 2008a; 2008b). Additionally, the firm published a number of books based on their work (Tatman 2008c).

Walter F. Ballinger was born in Pennsylvania. After his father's death, the family moved to Woodstown, New Jersey. While the young Ballinger worked during the day, he attended various evening classes, eventually enrolling in business school at the Drexel Institute. In 1889, Ballinger joined the Philadelphia firm of Geissinger & Hales and worked in the business office. In 1895, Ballinger became a principal at the firm (Hales & Ballinger). Edward Hales retired in 1901 and the chief draftsman, Emile G. Perrot, became a partner (Ballinger & Perrot). Ballinger was a co-inventor of the "Super-Span" saw-tooth roof construction, and also the author of a book on reinforced concrete, published in 1909 (Tatman 2008b).

Emile G. Perrot was an architect, engineer, and inventor. Born in Philadelphia, he studied architectural drawing at the Spring Garden Institute and the Franklin Institute, and received a Certificate of Proficiency in Architecture with special commendation from the University of Pennsylvania in 1895. According to his biography written by Sandra Tatman, Perrot completed his Bachelor's of Science Degree in Architecture in 1897 and was awarded the degree in 1922. While attending school, he apprenticed with several individuals such as architect, George Plowman, contractor, Charles C. Haines, and Catholic Church architect, E. F. Durang. Perrot joined the firm of Hales & Ballinger, where he worked his way to chief draftsman. Perrot had a long interest in the applications of reinforced concrete in industrial buildings and concrete and stucco in residential buildings. He invented the unit girder system for reinforced concrete. He also traveled to England in 1911 to study industrial villages. This knowledge was then

applied to the firms work with industrial villages in the United States. In 1920, Perrot left Ballinger & Perrot and worked independently until his death in 1954. His later work focused on Catholic university projects, such as those at Immaculata College and Fordham University (Tatman 2008c).

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 (Bradley 1999:22; Cleveland State University 2008).

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 large-scale 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. In a letter dated April 14, 2008, LPC determined that the New York Consolidated Card Company appears eligible for listing in the S/NR.

Photo 17: New York Consolidated Card Company, View North.

Photo 18: New York Consolidated Card Company, View North.

Pierce-Arrow Building (Harrolds Motor Car Company), Block 376, Lot 1 (#2, Photos 19-20)

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 (61 meters) by 200 feet (61 meters), 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 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 (15.2 meters) 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 (Newsweek 2002). 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 (Greater Astoria Historical Society 2004:71). 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) (Collins 2005:138; New York Times 1911a). 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 (New York Times 1922). 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 (New York Times 1921; 1922).

The Pierce-Arrow Building (Harrolds Motor Car Company) was previously recommended not eligible for State and National Register by LPC in their correspondence dated January 31, 2008 and March 6, 2008. This ruling was reversed in April 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. The Pierce-Arrow Building (NYCL eligible, 2008) is significant under Criteria A and C in the areas of transportation (automobile service and sales) and architecture. In a letter dated April 14, 2008, LPC determined that the Pierce-Arrow Building appears eligible for NYCL designation and S/NR listing.

Photo 19: Pierce-Arrow Building, View North.

Photo 20: Detail, Pierce-Arrow Building, View North.

A. Garside & Sons Shoe Factory, Block 377, Lot 13 (#3; Photo 21)

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 competed 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 (RERBG 1916a, 1916b; DOB various).

Frank Hill Smith was born Francis Fay Hill Smith in Massachusetts in 1879 to Frank (Francis) Hill Smith and Clara Montfort Fay (L. Kaufman, personal communication 2008). 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. According to the author of *Frank Hill Smith and the Dayton Hydraulic Company*, he was refused admittance to engineering laboratory, industrial management, and heating and ventilating courses which suggests that Smith was not awarded the degree he sought (Houk 2001:59). Academic issues aside, Smith was not deterred and successfully pursued a career in engineering. After leaving school, Smith worked for the Pennsylvania Railroad in the motive power department in Columbus, Ohio. In 1906, he moved to Dayton, Ohio where he started a mechanical engineering consulting business. He was joined for a period by his brother, Montfort, who was an architect. In the suburb of Oakland, Smith built a residence for himself, as well as several other residences, possibly in collaboration with Montfort (Houk 2001:61).

Home building was a sideline for Smith, however, his engineering practice continued to grow. First listed as a mechanical engineer in the 1909-1910 Dayton City Directory, Smith later changed his title to consulting engineer. The 1916 Dayton Directory listing reads "Frank Hill Smith, Inc. with offices in Dayton and at 120 Broadway in New York City, specializing in the design and construction, usually in reinforced concrete, of large commercial and industrial buildings" (Houk 2001:64). Smith maintained an office in New York for several years and undertook a number of industrial projects in New York, New Jersey, and New England, such as large cotton mills in New Jersey and Massachusetts, a window shade factory in Camden, New Jersey, a large manufacturing facility for the International Time Recording Company in Endicott, New York, and a six story warehouse on Long Island. According to Houk, "these projects displayed his extensive and innovative use of reinforced concrete," a technology that was relatively new (Houk 2001:63). A notable example of his "pioneering application of this building system" is the Gould & Eberhardt Company factory in Irvington, New Jersey (Houk 2001:63). His application of reinforced concrete in a building of this scale was indicative of the direction of his later work. Buildings of reinforced concrete construction were fireproof and strong. More importantly, they could be constructed quickly (Houk 2001:63). This construction system also allowed for large expanses of windows, which provided an important source of light and ventilation, and was a noted feature that characterized many of Smith's industrial and warehouse buildings.

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 (Houk 2001:67).

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. In correspondence dated April 14, 2008, LPC determined that the A. Garside & Sons Shoe Factory appears eligible for listing in the S/NR.

Photo 21: A. Garside & Sons Shoe Factory, View Southeast.

Ford Motor Company Service Plant, Block 214, Lot 210 (#4, Photos 22-24)

The Ford Motor Company Service Plant is located at 32-10 Northern Boulevard at the corner of Honeywell Street. The building reflects two stages of construction. The original building, constructed in 1912, extends along Honeywell Street and is three bays deep on the Northern Boulevard facade. The building, designed by Albert Kahn, was initially planned as a three story factory. In 1910, these plans were revised and a larger building was proposed. In 1912, an eight story facility, approximately 70 feet (21.3 meters) by 225 feet (68.6 meters), was completed at the corner of Honeywell Street and Northern Boulevard (DOB various). The following year plans were underway to expand the building with an addition four times its original size. The new addition was constructed extending the facade facing Northern Boulevard with a frontage of 325 feet (99.1 meters). When finished, the facility contained over 1,000,000 square feet of space (New York Times 1914b). Architect, John Graham, designed the addition to follow the "original structure closely in general treatment of the exterior" (RERBG 1914a:446). Built with reinforced concrete and steel construction, the facades of both sections of the Ford Motor Company service building and assembly plant are finished in red brick with terra cotta trim. Ornamentation of the earliest portion is more elaborate than the later section with floriated arches at the first story. Use of contrasting belt courses, arches, and rosette blocks was used on both the earlier and later sections of the building. The fenestration throughout the building is consistent with bays of tripartite windows. A "fire tower stairway opening on balconies" is located at a central bay of the Northern Boulevard facade (RERBG 1914a:446). Other measures added to enhance the building's fireproof construction include five additional stairways, enclosed by fireproof partitions with self-closing doors and direct access to an exterior exit. The building, which is bounded by the Sunnyside Rail Yards, was built connecting to a spur line and large cranes to unload and lift materials to the various floors.

Both of the building's architects, Albert Kahn and John Graham, served as Ford Motor Company architects. Albert Kahn, noted as "the most prominent American architect to specialize in industrial building design," in *The Works: The Industrial Architecture of the United States*, designed a number of automobile plants for Ford and others during his career. Kahn became internationally renowned for his significant contributions to the construction industry (Bradley 1999:255). Having designed more than 2,000 factories, Kahn "led the development of a new architecture that had a profound effect on the profession as well as society. He became one of the country's most innovative and influential architects. His rise coincided with and actually propelled the growth of U.S. industry, particularly for the

auto industry in Detroit" (Albert Kahn Associates 2008). In 1880, Kahn, at the age of 11, arrived in Detroit with his family. The son of poor German immigrants, he had to work to help support the family and was unable to continue his formal education. At the age of 15 he took a job, initially without pay, with the architectural firm of Mason & Rice where he learned to draft and sketch. Kahn won a one year scholarship to study aboard, where he traveled to Italy, France, Belgium, and Germany, sketching buildings. In 1895, Kahn founded Albert Kahn Associates and soon designed the first large auto plant built in Detroit for the Packard Motor Car Company. His design of the first concrete-reinforced auto factory, the tenth building Kahn designed for Packard, brought him recognition. Not only was reinforced concrete construction strong, fireproof, and less expensive to erect, but offered open, unobstructed spaces, unlike the dangerous and inefficient timber or mill framed factories. Soon Kahn had the attention of Henry Ford who introduced Kahn to assembly line production. Kahn designed the famous Highland Park plant for the Ford Motor Company, "the first of more than 1,000 commissions that began the lifelong collaboration of Albert Kahn and Henry Ford" (Albert Kahn Associates 2008).

John Graham, was an English architect, born in Liverpool, England, who moved to the United States and established an architectural practice in Seattle, Washington, in 1900. Initially, the firm focused on residential commissions. By 1911, the firm had expanded to commercial and institutional work and in 1920, the firm added staff engineers. After design of the Ford Motor Company's Seattle plant in 1929 (now a Seattle Landmark), Graham was selected as a Ford company architect. He moved his family to Detroit and designed more than 30 assembly plants in the United States and Canada over the period of three years (DLR 2008; Emporis 2008).

In 1914, the Ford Motor Company Service Plant was touted as one of the most important new factories under construction in Long Island City. At the time, the company was constructing a large addition to the Jackson Avenue and Honeywell Street plant, built only two years earlier. The building, which would have the capacity for 1,200 workers when completed, was one of the new, large industrial facilities in Long Island City (New York Times 1914b). The development of the Ford Motor Company Service Plant illustrates the industrial boom taking place in Long Island City during the 1910s, a typical factory that quickly expanded to meet the growing demands. The building is also representative of the works of two prolific architects known for their affiliation with Henry Ford; Kahn was particularly well known as the preeminent industrial architect of this period. The Ford Motor Company Service Plant (NYCL eligible, 2008) is significant under Criteria A and C as an integral component of Long Island City's industrial boom and in the area of architecture for the building's association with Albert Kahn and John Graham. In a letter dated April 14, 2008, LPC determined that the Ford Motor Company Service Plant appears eligible for NYCL designation and S/NR listing.

Photo 22: Ford Motor Company corner of Honeywell Street and Northern Boulevard, View Southeast.

Photo 23: Architectural Detail, Ford Motor Company.

Photo 24: Architectural Detail, Ford Motor Company.

Bank of Manhattan Company Clock Tower Building, Block 403, Lot 21 (#5; Photos 25-26)

Commonly known as The Clock Tower Building, the Bank of Manhattan Company building rises 14 stories above Queens Plaza at Northern Boulevard. The building was designed by architect Morrell Smith in 1925 and was completed in 1926 (DOB various; New York Times 1925; New York Times 1928). The firm of C.P. Wills Company of Manhattan was awarded the construction contract for the Clock Tower Building. The clock tower rests on a three story base and is faced with brown brick and contrasting buff brick. The verticality of the narrow building is emphasized by the recessed bays and piers of contrasting brick. Each corner is anchored by a crenulated bay topped with a decorative panel that bears the initials BM, presumably for the Bank of Manhattan. The crenulated tower is centered at the front facade and houses a four-face clock, which was recently restored (Greater Astoria Historical Society 2004:93). The windows consist of one-over-one double hung sash. Originally, the base consisted of a tripartite door and window arrangement, extending two stories in height, centered in the primary facade. These openings have been incorporated into a large expanse of glass.

Morrell Smith, a New York City architect who designed a number of bank branches for the Bank of Manhattan Company (Abramson 2001:38). Smith, who is listed as an architect from 1929 to 1940 with offices in Manhattan, lived for many years in Queens and later, Nassau County (Ward 1989:72; U.S. Bureau of the Census 1910, 1930). Smith also worked in collaboration with other architects on bank projects, such as on the design of the interior spaces, in consultation with Walker & Gillette, within the Manhattan Company Building at 40 Wall Street. Additionally, Smith undertook other commissions such as offices for the Queensboro Corporation and the Jamaica Savings Bank, a NYCL. Smith's designs received awards from the Queens Chamber of Commerce and he also served on the Chamber's Committee on Awards, responsible for selection of notable architectural works in Queens (New York Times 1928b; New York Times 1929; New York Times 1930).

Smith's Bank of Manhattan Company Clock Tower Building occupies a prominent spot near Queens Plaza. During the boom years of the 1910s and 1920s, this area of Long Island City became a banking and commercial center. Since the construction of the Bank of Manhattan's clock tower, the building has been a visible anchor along the plaza. The Manhattan Bank Company Clock Tower Building (NYCL eligible, 2008) is significant in the area of

architecture under Criterion C. In a letter dated April 14, 2008, LPC determined that the Manhattan Company Clock Tower Building appears eligible for NYCL designation and S/NR listing.

Photo 25: Bank of the Manhattan Company, View East.

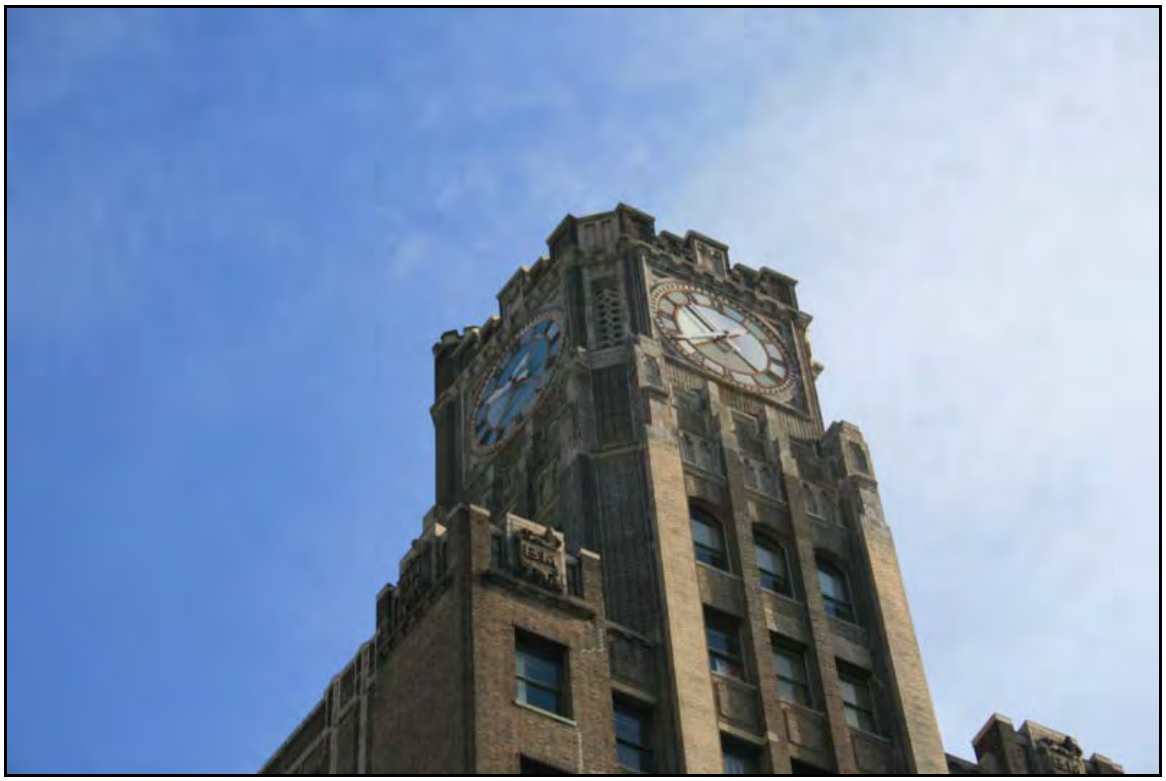

Photo 26: Detail Clock Tower, View East.

Realty Construction Corporation Office Building, Block 418, Lot 14 (#6; Photos 27-29)

When completed in 1928, this 12 story Romanesque style office building at 41-15 29th Street was the largest and tallest commercial building in the Borough of Queens. The building has buff-color brick facing, limestone, granite, and terra cotta detailing. Designed by architects Shampan & Shampan with two fronts, the building extends through the block, fronting on both 29th Street and 41st Avenue. Due to the irregular lot dimensions, the 29th Street facade is 92 feet (28 meters) wide and the 41st Avenue side is 98 feet (30 meters) wide. Both of the primary facades have a two story limestone base and setbacks above the eighth floor. The setbacks are edged with embellished panels. The flag pole appears to be original. The building, which is currently undergoing renovations, originally had double-leaf entrances finished with marble and bronze and commercial storefronts at the first story. The storefronts have been removed and the first story refaced. A foliated continuous spandrel with animal motifs extends the full width of the building between the second and third stories. The windows are a mixture of earlier three-over-three double-hung sash and new three part casements. The building was constructed in the Queens Plaza commercial district by the Realty Construction Corporation at a cost of about $1,500,000. The interior layout was designed to provide insurance, real estate, law, and medical offices with the first floor planned for a bank, title, trust company. The first floor was occupied for a period by the National Bank and Trust Company.

The architectural firm Shampan & Shampan, formed by two brothers, Joseph Shampan (c. 1886-1961) and Louis Shampan, opened in Brooklyn in 1907. The firm produced plans for many apartment buildings, commercial buildings, and taxpayers throughout New York City. According to the LPC, the brothers were also real estate investors who developed a number of the buildings that they designed and retained many of them as income–producing properties. Their work can be found in Brooklyn Heights, Cobble Hill, Clinton Hill, Crown Heights North, and Noho East Historic Districts. They also constructed buildings on the Lower East Side (Manhattan) and within the Pratt Institute Campus. The firm also designed the Veterans Temple of Peace at the 1939-1940 New York World's Fair. Shampan & Shampan remained in practice until approximately 1960 (LPC 4/24/2007).

The Realty Construction Corporation Office Building was designed to impress and project an image of Queens, as evidenced by the mix of tenants intended to occupy the office space. Although many of the windows and doors have been altered, the building continues to retain its original feel, scale, and ornamentation. The building is significant under Criteria A and C in the areas of commerce and architecture. In a letter dated April 14, 2008, LPC determined that the Realty Construction Corporation Office Building appears eligible for listing in the S/NR.

Photo 27: Realty Construction Corporation Office Building, View South.

Photo 28: Detail, View East.

Photo 29: Detail, View East.

Queens Court Plaza, Block 417, Lot 2 (#7; Photos 30-31)

The Queens Court Plaza at 28-01 Queens Plaza North, although designed to support a 12 story building, was initially constructed in 1912 as a four story office building. The upper section, consisting of the fifth to ninth stories, was added in 1927. Built by the Queens Plaza Court Company, a syndicate composed of W. Elmer Payntar, president, William H. Williams, and J. A. Wigmore, the building has steel and concrete construction. The first four stories are clad with white terra cotta above a granite base; the upper section has brick facing (New York Times 1911b; New York Times 1912a). The first story has a centrally located entrance with a classical entablature supported by pilasters and paired marble columns with ionic capitals. The first story is currently undergoing renovations. The original large tripartite window openings are being covered with green panels. The second story bays have colonnaded bays with ionic columns framed by pilasters with Greek key embellished friezes. At the third and fourth stories, groupings of four windows occupy each of the seven center recessed bays. These central bays of the upper section terminate with arched lights at the eighth story. Most of the windows are one-over-one double-hung sash. Corbelled arches topped by with dentils and cornice crown the building. A large metal framework for a sign stands diagonally across the roof.

Built overlooking Queens Plaza as an office building, Queens Court Plaza was one of the first office/commercial buildings that helped to shape this growing financial center. The design of the building to accommodate 12 stories, while reaching only four at the time of construction, reflects the early twentieth century optimism for the future of the area (RERBG 1912; New York Times 1912a). It was also considered one of the most modern office buildings at the time of its construction. Department of Buildings (DOB) records did not reveal the name of the architect. Initially, the building housed the First Mortgage Guarantee Company, the Queens County Trust Company, the Long Island City Savings Bank, and other professional businesses, such as architectural offices (New York Times 1912a; New York Times 1916a). By 1920, it became the home of the New York & Queens Electric Light & Power Company, followed by National City Bank on the first floor and the Pan American World Airways System offices at the upper floors (New York Times 1920; Sanborn 1915, 1936, 1950). Queens Plaza Court, which occupies an entire block front and one of the most prominent locations along Queens Plaza, exemplifies the financial buildings which fronted the plaza during the early twentieth century. The building is unusual in its design approach, engineered with the structural capacity to accommodate additional stories. It is significant under Criterion C in the area of architecture. In a letter dated April 14, 2008, LPC determined that the Queens Court Plaza building appears eligible for listing in the S/NR.

Photo 30: Queens Court Plaza, View East.

Photo 31: Entrance Facing Queens Plaza North.

Plaza Apartments, Block 417, Lots 28, 30, 32 (#8; Photos 32-33)

The Plaza Apartments at 41-18 – 41-24 29th Street, built in 1911, represent a charming group of three buildings, five stories in height and faced with buff-color brick and stone. Matched bracketed metal cornices crown the buildings. These buildings are six bays wide with fire escapes at the center two bays. The building at 41-24 is the only one of the three buildings to have storefronts at the first floor and retains partial cast iron surrounds and the intermediate cornice on the northeast side. Both of storefronts have been replaced. The brickwork gives the look of rusticated stone at the first and fifth stories and quoins at the ends of the facades. The windows consist of double-hung one-over-one replacement sash and are set in segmental arch openings at the first through fourth floors. First floor windows have decorative keystones, while the second through fourth stories have flat keystone arches. Entrances are centrally located with hoods supported by brackets. The entrances are framed by rusticated surrounds and have carved arches and keystones.

This group of apartments was designed by John Boese for Rose Wilson, a Manhattan resident (DOB various). Boese was in practice in Queens and Manhattan from about 1892 through approximately 1935 (Francis 1979:16; Ward 1989:8). During the 1900s, he produced plans for several apartment buildings and taxpayers in New York City. Around the turn of the century, he designed at least three German churches around West 45th Street (Dunlap 2004:51). The Plaza Apartments consists three buildings that are representative of early twentieth century five-story apartments and stores. With the exception of replacement windows, two of the three buildings are intact. The first story of the third building at 41-24 29th Street has been modified, is missing a section of the cornice over the first story and has replaced storefronts. Therefore, the Plaza Apartments are recommended not eligible.

Photo 32: Plaza Apartments, View Northwest.

Photo 33: Detail Plaza Apartments.

Brewster Company Building, Block 416, Lot 10 (#9; Photos 34-36)

The Brewster Company Building at 27-01 Queens Plaza North, constructed in 1910, is seven stories in height and has a basement with an irregular L-plan. The building, which was the most expensive industrial structure in Queens when it was constructed, extends 200 feet (61 meters) along Queens Plaza North, with 170 feet (52 meters) of frontage on 27th Street and over 350 feet (107 meters) on 28th Street. Built as a factory for the Brewster Company from plans produced by the firm of Stephenson & Wheeler, this structure has fireproof concrete construction with red brick facing, stone and ornamental iron work. Construction was undertaken by the firm of Tucker & Vinton. According to a description of the then recently finished factory, the building rests on 1,400 concrete piles that extend to an average depth of 30 feet (9.1 meters). Although the building was built on what was considered high ground, quicksand was found a few feet below ground level, necessitating the added structural intervention. The tower, considered by the architects to be an expression of "modern French style," the base is finished with ornamental brickwork that provides a rusticated effect, stone keystones top multi-story arched window bays, and recessed ironwork spandrels (New York Times 1910). Brick piers with limestone bases separate the bays at the upper section of the building and terminate at a limestone cornice lined with dentils. The original lighted clock tower with its careful tracery detailing, distinguished this building from other factories. The building with its distinctive tower was described by Christopher Gray as a "[reflection] of the Secession style explored in factory and industrial architecture and public works in northern Europe around that time" (Gray 2001). The tower was removed by a subsequent owner in the 1950s. Recently, operable replacement windows were installed, the damaged limestone cornices were cutback, and a new elevator core was added by the Brause Realty Company (Gray 2001).

The firm of Stephenson & Wheeler consisted of Robert S. Stephenson and Herbert H. Wheeler. Stephenson, who held memberships with the American Institute of Architects (AIA), the New York Chapter of AIA, and the Architectural League of New York was in practice from about 1886 through 1921. Between 1891 and 1900, Stephenson was part of the firm of Stephenson & Greene (Ernest, also spelled Green) where Wheeler was the firm's head draughtsman. Trinity Congregational Church in East Orange, New Jersey is listed as a representative work of Stephenson & Greene (Francis 1979:72). About 1909, the firm changed to Stephenson & Wheeler and remained in practice until about 1921. Wheeler continued architecture until approximately 1934 (Ward 1989:74, 84). Although the firm maintained an office in Manhattan, a search did not yield examples their work in that borough (Office for

Metropolitan History 2008; White and Willensky 2000). In addition to industrial buildings, Stephenson & Wheeler also designed large country houses, such as the Long Island home of John A. Garver (Howe 1915:75).

Brewster & Company was founded in 1810 as a carriage factory on Broome Street in Manhattan. In the 1870s, the company moved to 47th Street and Broadway to the area (now known as Times Square) which was developing as a "center of the vehicle industry" (Gray 2001). In 1905, when Brewster & Company assembled its first automobile, Times Square was evolving into the familiar theater and hotel district and carriage companies and newly formed automobile businesses were moving northward. In 1910, Brewster built their new factory facing Queens Plaza in Long Island City and moved into a new showroom on Fifth Avenue at 53rd Street. The 400,000 square foot building is reported to have had a main entrance, facing the, then, park-like plaza, which led into a marble foyer and hall with broad stairs that led to the showrooms and general offices on the second floor. Showroom floors were concrete finished with red tile (New York Times 1910). Large turntables were believed to occupy the corners on the fifth floor and it is also thought that the company may have stored summer and winter vehicles for their richest clients at the site—open body styles for summer use and hardtop, enclosed vehicles for winter (Gray 2001).

In addition to creating the Brewster automobile, the company was also an agent for Rolls-Royce. In 1925, Brewster & Company expanded from sales to production when Rolls-Royce acquired a controlling interest. However, Rolls-Royce discontinued the alliance during the Depression; Brewster & Company went bankrupt in 1937. Brewster also had an aviation division that produced the "Brewster Buffalo," a monoplane used at the Battle of Midway. After the close of the War, the company folded (Gray 2001). The Brewster Company Building is significant under criteria A and C in the areas of transportation (automobile production and sales) and architecture. In a letter dated April 14, 2008, LPC determined that the Brewster Company Building appears eligible for listing in the S/NR.

Photo 34: Brewster Company Building, View Northwest.

Photo 35: Brewster Company Building, View South.

Photo 36: Brewster Company Building, View Southwest.

(First) Reformed Church, Block 402, Lot 22 (#10; Photos 37-39)

This nearly forgotten church at 40-11 29th Street is a remnant of the nineteenth century Dutch Kills community. The church was built in two sections, the first of which was built in 1875 and is a wood frame building, three bay wide and four bays deep that was set back from the street (Munsell & Co. 1882; date stone). In 1921, the church was expanded by the construction of the brick addition across the front facade, thus extending the building closer to the street. The church is one story in height above a partially exposed stone foundation (above ground at the rear of the building). This vernacular building has a gable front roof with a small cupola and a brick chimney. A modest cornice with egg-and-dart molding and bracketed cornice returns outlines the gable. The side facades are covered with faux brick asphalt, while clapboard appears to cover the rear facade. This modest church has charming stained glass widows with floral designs worked into panels that echo their gothic arch outline. The use of stained glass is repeated in the buildings main facade, which is dominated by a central double-leaf entrance in a classical arch surrounded with fluted ionic columns supporting an entablature featuring a triglyph-decorated frieze and Greek key molding. Above the entablature, an elaborate stained glass fanlight is set over a carved paned frieze, all topped by a keystone. Two smaller arched openings, one on each side, flank the central entrance. These narrow openings have grille-covered rectangular windows at the base, carved spandrels, and arched lights at the top within a brick arch with keystones. A stone tablet with carved angles is inset in the gable above the entrance and reads, "First Reformed Church." A date stone, located at the front of the brick section is inscribed "1875-1921".

According to the historical accounts of the area, early residents of Dutch Kills were affiliated with the Reformed Church of Newtown. As the population grew, so did the desire to form a local congregation. Prior to the construction of the church, a Sunday school was formed which met in a nearby school house. However, with the formation of the city charter and appointment of school trustees, the use of public school property for religious education and services was no longer permitted. Through the combined efforts of John Van Neste and a member of the Payntar family, the present church was built and the congregation of the Reformed Church (of Dutch Kills) was formed in 1875. Funds were raised through subscription and Mr. Payntar donated the lot for the church, 75 feet (23 meters) wide, on Academy Street (present day 29th Street). The church was dedicated on April 12, 1875 and the first pastor, the Reverend William Perry, was installed the same day. In 1881, the church had a membership of 115 people and boasted a 300-volume library. Sunday school was held in the church basement which was renovated for that use (Munsell & Co. 1882). In 1921, the church was expanded with a front addition. An adjacent building, now located on a separate lot, was most likely built sometime after the construction of the church. Over the years, this building has been expanded and a narrow entrance connects the two buildings. The building is currently the Korean Philappo Presbyterian Church.

The (First) Reformed Church is one of the oldest extant church buildings in the study area, and possibly the oldest to remain at its original site in the former hamlet of Dutch Kills. This building has suffered from unfortunate alterations, such as the loss of the original front doors and inappropriate materials over the building's original siding. Given the history of the building and its potential significance, additional research to determine the date of the windows, and a survey of the interior, which was not accessible at the time of our field visit, is warranted. It would also be of interest to determine whether the original windows and surround were incorporated into the 1921 addition. In its present condition, the building does not retain sufficient architectural integrity to adequately meet the criteria for eligibility.

Photo 37: (First) Reformed Church, View Southeast.

Photo 38: Entrance, (First) Reformed Church, View Southeast.

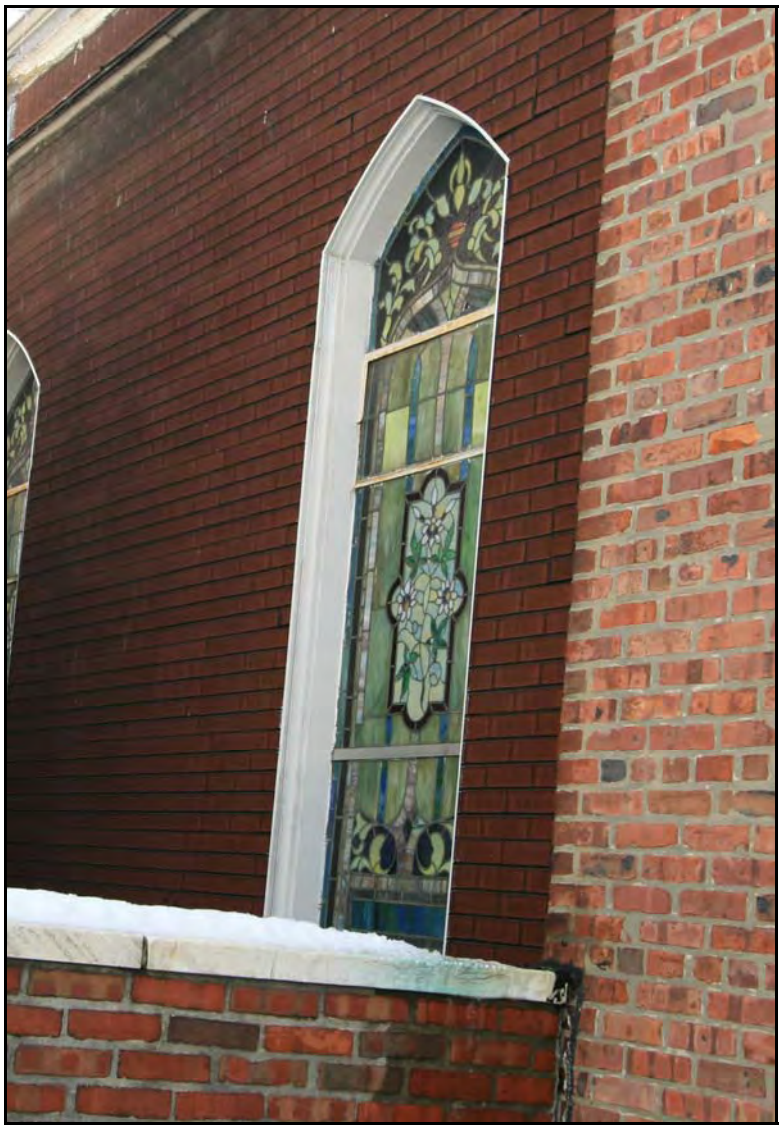

Photo 39: Stained Glass Window, View South.

Bryant High School, Block 404, Lot 1 (#11; Photos 40-41)

The Bryant High School at 28-01 41 Avenue, constructed from 1902 to 1906, is a reinforced concrete and brick Baroque Revival school with stone trim. The school has four stories above a stone foundation. Facades are trimmed with quoins. The windows, many of which are tripartite multi-light sash, have flat arches. Continuous spandrels are located above the third and fourth story windows. Each of the three street-facing facades has a centrally located entrance. The primary entrance located on 41st Avenue has an elaborate surround with a compound arch, a key stone consisting of an owl resting on a tablet at the inner archway, and a vestibule leading to solid metal double leaf doors. Stairs with pipe railings, at each side of the entrance, ascend to a landing. Originally, an intermediate cornice, between the third and fourth stories, and elaborate cornices with gables over several of the bays crowned the building; however both cornices have been removed. Formerly, there were also heavy interior chimneys which appear to have been previously altered or removed. The school was named for William Cullen Bryant. Subsequent additions include the auditorium wing on 28th Street and a wing equal in height to the original school on 29th Street. An iron fence surrounds the property.

Around 1930, Bryant High School moved to 31st Avenue and the building was renamed the Long Island City High School. In 1995, it became the H.S. 555 Newcomers High School: Academy for New Americans, a school that introduces new immigrants into the American educational system (Greater Astoria Historical Society 2007b;

Insideschools.org 2008). The removal of the elaborate cornices from the facades has greatly diminished the architectural integrity of the building. The building is therefore, considered not eligible for listing on the State and National Registers.

Photo 40: Bryant High School, View North.

Photo 41: Bryant High School Prior to Modern Alterations. (Source: Greater Astoria Historical Society 2007b: 77).

St. Patrick's Church Complex, Block 398, Lots 1, 39, 38 (#12; Photos 12-16; 42-46)

The St. Patrick's Church Complex consists of the church at the corner of 40th Avenue and 29th Street, the rectory and adjacent house on 29th Street, a convent at the corner of 40th Avenue and 28th Street, and the school on 28th Street. Construction began on this Italian Renaissance Revival style church in 1898. The church featured deep red brick facades with low towers crowned by heavy cornices, corbelled quoins, brick and terra cotta arches, and rusticated brick between the towers at the first story. Architectural treatment of the windows and doors include segmental pediments, blind arches, arched lights. A series of three double-leaf raised panel doors dominated the first story of the 29th Street façade. In recent years, the church has been covered with stucco and the cornices and decorative details removed from the towers. The towers were never finished, which resulted in their diminished height. Subsequent losses of architectural features combined with the addition of stucco and paint have greatly altered the character of this church (Munsell & Co. 1882; Greater Astoria Historical Society 2007b:67).

The adjacent rectory, located on 29th Street, replaced an earlier rectory at the corner of 40th Avenue and 28th Street, the scene of a devastating fire in 1904. The rectory is three stories in height, is covered in stucco and has exterior chimneys. Three bays wide, the windows consist of one-over-one double hung replacement sash. Windows at the second story are set in blind arches. The entrance occupies the center bay protected by a portico. A single-leaf wood panel door with a light in the upper section has an arched surround with side lights. The adjacent house at 39-36 29th Street, built between 1903 and 1917 and located north of the rectory, was not part of the original church property. This house has two stories on a raised basement and is three bays wide. A deep bracketed metal cornice crowns the buff brick second story and rusticated terra cotta faced first story. Brick stairs lead to the entrance. Flat keystone arches top the second story windows. The windows of this house are replacement double-hung sash. During the twentieth century, a convent and school were added to the church property on 28th Street. The convent is a brick building, three stories in height, with a flat roof. The fenestration includes arched and rectangular openings with double-hung windows and flat keystones. Columns support a portico at the primary entrance. The adjacent school was built in two sections. The original portion dates from 1924 (Sanborn 1936). The school remained in operation until the spring of 1994. The following year the school building was used as the temporary home of the Renaissance School in Astoria (Reference).

Founded around 1869, the Dutch Kills congregation built their first church at the corner of William and Henry Streets in the early 1870s (Seyfried 1984; Munsell & Co. 1882) The present site is the located of the congregation's third church. The complex has grown and changed significantly since its nineteenth century beginnings. The church has lost its architectural integrity through subsequent renovations, such as the addition of stucco and loss of architecture details. Interior access to the buildings was not permitted at the time of the survey. Although the church is a dominant fixture in the Dutch Kills community, the complex does not adequately meet eligibility criteria for listing on the State and National Registers.

Photo 42: Saint Patrick's Roman Catholic Church, View North.

Photo 43: Rectory, Saint Patrick's Roman Catholic Church, View Northwest.

Photo 44: House, 39-36 29th Street, View Northwest.

Photo 45: Convent, Saint Patrick's Roman Catholic Church, View Southeast.

Photo 46: School, Saint Patrick's Roman Catholic Church, View East.

Dwelling, 30-01 39th Avenue Block 383, Lot 32 (#13; Photo 47)

The dwelling at the corner of 30th Street and 39th Avenue is a stone and tile clad building, two stories in height, with a flat roof. Built circa 1910, this Beaux-Arts style building is first depicted with this footprint on the 1915 Sanborn map, and appears to have replaced an earlier wood building at this same location. The facade has contrasting rough cut, rusticated blocks with smooth wall surfaces above. A semi-circular window bay, topped with a balustrade faces 39th Avenue. The windows have hood molds and replacement double-hung sash. The primary entrance has a classically styled hood surround and double leaf doors. A raised stoop is accessed by steps edged with an ornate iron railing.

The building appears to have been primarily used as a residence; however, a certificate of occupancy revealed that the (raised) basement floor was the location of a restaurant around 1920, with a single dwelling unit at the first and second stories (Reference). Research into the history of the structure did not reveal the building's architect. Row houses located on the same block reflect similarities in design style. The building, although not typical of the extant houses in the project area, has no known historical significance.

Photo 47: Dwelling, 30-01 39th Avenue, View Northeast.

Tin Shop & Residence, 28-08 – 28-10 38th Avenue and 38-09 28th Street, Block 385, Lot 9 (#14; Photos 48-51)

The Tin Shop & Residence property is located at the south corner of 38th Avenue and 28th Street and consists of a series of building constructions that form a U-shape. The earliest buildings were those on 38th Avenue, beginning with the three story tin shop and rear additions, built between 1898 and 1915 (Sanborn 1898, 1915). The tin shop at 28-10 is a brick building, three stories in height and three bays wide with contrasting belt courses at the first story. The building is topped by a heavy bracketed cornice with dentils and semicircular parapet. An intermediate dentilated cornice separates the first story from the upper stories. The two outer bays each have an elaborate Beaux-Arts style bull's-eye window at the first story, one containing a double leaf door and the other a rectangular window. The first story's center bay appears to have contained freight or garage-type doors at one time and currently has glass block infill with a single leaf doorway. The windows are one-over-one double-hung replacement sash with scroll keystones at the third story. The adjacent dwelling, also three stories in height, was added after 1915 and replaced an existing one story residence. This building has less ornamentation than the tin shop, but has a matching cornice, and may also have had an intermediate cornice at one time. The fenestration consists of two bays most of which have paired replacement sash. The entrance is centrally located and has double leaf wood doors with a transom. A two story projecting bay window is located at the southeast facade with metal work that is most likely representative of the owner/builders craft.

Beginning around 1945 and again around 1950, the tin shop buildings at the back of 28-10 38th Avenue were expanded to the adjacent lot fronting on 28th Street. Constructed in a least two sections, the single story building is faced with brick on the street-facing facades. The building has metal multi-light windows, garage doors, and two sets of pedestrian doors.

Very little information was found on the history of the buildings on this property and the name of the architect could not be determined (DOB various). The Sanborn maps indicate that the buildings were associated with a tin shop through 1950 and the dwelling was eventually divided into flats. The elaborate use of tin architectural

embellishment on the residential looking "tin shop" on 38th Avenue with the words "cornice & skylights" embossed on the lower cornice and bay windows of the adjacent residence indicates that the buildings were designed to impress. The tin shop represents a three dimensional advertisement of the proprietor's craft. The property, even with alterations, continues to catch the eye, while the U-arrangement helps to frame the tin shop and residence.

Photo 48: Tin Shop & Residence 28-08 – 28-10 38th Avenue Buildings, View Southwest.

Photo 49: Decorative Details, Tin Shop.

Photo 50: Tin Shop & Residence, 28-08 – 28-10 38th Avenue Buildings, View South.

Photo 51: Shops at 38-09 28th Street, View East.

FDNY Engine Company 261, Hook & Ladder 116 Block 370, Lot 23 (#15; Photo 52)

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. The Depression-era FDNY Engine Company 261, Hook & Ladder 116 is significant under Criterion C in the area of architecture. In a letter dated April 14, 2008, LPC determined that the FDNY Engine Company 261, Hook & Ladder 116 building appears eligible for listing in the S/NR.

Dwelling, 37-32 28th Street Block 369, Lot 25 (#16; Photo 53)

This building, located on the northwest side of 28th Street, is Renaissance Revival style dwelling, two stories high. The dwelling has a characteristic light, buff brick facade, metal cornice with foliated fascia. One-over-one replacement windows have stone face lintels and sill courses. The fenestration consists of full-height bays windows and a side hall entrance bay. An entrance with double leaf doors is crowned by a hood supported by brackets and topped with a ball finial. Iron railings are located along the sidewalk and along the steps leading to the raised stoop. The dwelling at 37-32 28th Street is an intact surviving example of a typical house form built in urban/suburban areas. Although this dwelling is a rare example within the study area, it does not appear to adequately meet significance criteria.

Photo 52: FDNY Engine Company 261, Hook & Ladder 116, View Northwest.

Photo 53: Dwelling 37-32 28th Street, View Northwest.

Scalamandre Silks Block 366, Lot 1 (#17; Photos 54-56)

The Scalamandre Silks buildings at 37-24 24th Street, constructed circa 1929 to 1936, 1943 to 1949, and in 1950, are a series of connected brick faced mill buildings constructed in several stages between the circa 1930 and the 1950s. The buildings total approximately 115,000 square feet fronting 23rd and 24th Streets and are connected by a bridge at the second floor. The mill, office, and warehouse buildings fronting on 24th Street are three stories in height above a basement. The oldest section is the mill at the corner of 38th Avenue and 24th Street. Faced with deep red brick (the corner towers are painted red), the mill has a steel floor and roof beams, corner stair towers, and saw-tooth skylights (Sanborn 1943; Time Equities 2008). A tall brick chimney rises from the roof near the north tower. Decorative elements included corbelled brick lintels above the third story windows, a corbelled cornice, contrasting coping, and a central parapet that reads, "Home of Scalamandre Silks." The towers contain double- and triple-leaf entrances. Immediately adjacent to these buildings on 24th Street are an office and warehouse, built between 1943 and 1949, seven bays wide with aligning floors and corresponding corner towers (Sanborn 1943, 1949). Both buildings have piers separating tall windows and form a continuous facade along the street. In 1950, the building on 23rd Street was built at the corner of 38th Avenue. Labeled as "FABRIC PRTG" (fabric printing), this building was later extended along 23rd Street. Two stories in height (the first floor is partially below grade), the 23rd Street building is faced with cinder block at the first story with brick above. Other features include a flat roof, steel columns, concrete floors, multi-light metal windows, and plastered walls. Typical of low industrial buildings constructed during the mid-twentieth century, the 23rd Street building has no exterior ornamentation. Block letters at the center of the 23rd Street facade spell out the company name. The company is in the process of moving its textile manufacturing facilities to a plant in South Carolina; however the trim division, archives, and studio offices are to remain at the Long Island City mill (New York Times 2004; Toscano 2004).

Scalamandre Silks, a preeminent decorative fabric and textile company, was established in 1929 by Franco Scalamandre and his wife, Flora Baranzelli Scalamandre. After completion of a doctoral degree in engineering from the Royal Polytechnic School of Naples, Mr. Scalamandre immigrated to the United States in 1924. He worked as a draftsman for the Westinghouse Electric Company in Newark, New Jersey and later taught architectural drawing at the E.A. Seeley School of Decoration in Paterson, New Jersey. In 1929, the couple married and established the company that same year. Mrs. Scalamandre was an artist and designer. After receiving her degree from the Parsons School of Design, she received a scholarship and studied at the Sorbonne in Paris. Upon her return to New York, she assisted her father, Gino Baranzelli, with designs for the exterior of the Waldorf-Astoria Hotel (New York Times 1987; New York Times 1988).

The Scalamandres made handmade silk fabrics, wall coverings, upholstery, and other furnishings for prestigious properties and historic restorations. Mr. Scalamandre was active in research and reproduction of historical fabrics both from museum collections and old documents, enabling the company to provide a variety of historical textile reproductions to its clients. Scalamandre also maintained its own museum of historic textiles at their New York showroom (New York Times 1988). The mill housed "examples of every type of loom, from spinning wheels and rope walks to state-of-the-art automated systems" (Greater Astoria Historical Society 2004:65). At the mill, the process of converting silk into textiles was carried out, often by skilled immigrant laborers who retained textile skills developed from working in the mills in their native countries. The process was described in a recent New York Times article:

> The… mill… contains about 200 specialty looms and other machinery for converting raw, sticky silk stands from Brazilian and Chinese silkworm farms into refined fabric with patterns that have vibrant color and depth.
>
> Skeins of raw silk are boiled and cleaned and dyed in the basement and then converted into finely wound thread on spinning flywheels called swifts. Spools of it are then placed on warping machines, which collate up to 1,000 strands at a time across the room onto a large flywheel. On the first floor, women seated at long tables hand-stitch ornamental trim with rich brocades and hand-woven tassels. A half-dozen old wooden looms powered by worn wooden pedals resemble the 1786 winding machine (said to belong to Marie Antoinette) on display in the reception room [New York Times 2004].

The company won many honors such as awards from the National Trust for Historic Preservation and the American Society of Interior Designers, among others. Scalamandre textiles have been used in the White House by each

administration since Herbert Hoover, at the William Randolph Hearst castle in San Simeon, California, at Gracie Mansion, Monticello, as well as within museums and theaters around the world (New York Times 10/13/1988, New York Times 2004; Greater Astoria Historical Society 2004:65). According to the Greater Astoria Historical Society, Scalamandre Silks is to textiles what Steinway is to pianos (2004:65). Scalamandre Silks is significant under Criteria A and C for its contribution to American textile production and in the area of architecture as a textile mill that has been in continuous use from the 1930s through the present. In a letter dated April 14, 2008, LPC determined that the Scalamandre Silks plant appears eligible for listing in the S/NR.

Photo 54: Scalamandre Silks 24th Street and 38th Avenue, View North.

Photo 55: Mill, Office and Warehouse, Scalamandre Silks, View East.

Photo 56: Scalamandre Silks, 23rd Street and 38th Avenue, View Northeast.

Factory/Loft 21-02 40th Avenue Block 410, Lot 25 (#18; Photos 57 and 58)

The building at the corner of 21st Street and 40th Avenue is a brick and mill construction factory/loft building, five stories in height with a basement. The building, which fronts on 40th Avenue, is utilitarian in form with a combination of six-over-six double hung sash and replacement double-hung windows, and stone lintels and sills. The building has no architectural ornamentation. Built circa 1912, this factory is believed to be one of several factory and loft buildings on this block designed by H.S. Karp and built by Touroff & Karp between 1911 and 1915 (DOB various; New York Times 1914a; New York Times 1916b; Sanborn 1915). Brick mill construction lofts, factories, and warehouses were a popular construction type during the nineteenth century. Once concrete construction methods provided for safer and better lit buildings at an economical cost, mill construction was replaced by reinforced concrete buildings. Individually, this factory is not historically significant, and therefore not individually eligible for listing on the State and National Registers. However, as a group of factory and loft buildings (see Nos. 19-22 below), they are representative of the industrial building expansion which took place in Long Island City during its industrial boom years of the 1910s through the 1920s (New York Times 1914b, 1916a). The Factory at 21-02 40th Avenue is significant in the area of industry as a contributing resource in the Factory/Loft Historic District. In a letter dated April 14, 2008, LPC determined that this building appears eligible for S/NR listing as a property in the Factory/Loft Historic District.

Factory/Loft 21-22 40th Avenue Block 410, Lot 25 (#18; Photo 57)

The building at the corner of 40th Avenue and 22nd Street is a five-story brick and mill construction factory/loft building. The building is utilitarian in form with stone lintels and sills and no ornamentation. The windows are a combination of six-over-six double hung sash and one-over-one replacement windows. Built in 1911, this factory is believed to be one of four factory and loft buildings that extend the length of the block between 40th and 41st Avenues and was designed by H.S. Karp and built by Touroff & Karp between 1911 and 1915 (DOB various; New York Times 1914a; New York Times 1916b; Sanborn 1915). The 100 feet (30.5 meters) by 70 feet (21.3 meters) factory/loft building housed the Alder Veneer Company. Karp & Touroff appear to have been associated with most of the buildings on this block. Brick mill construction lofts, factories, and warehouses were a popular construction type during the nineteenth century. Once concrete construction methods provided for safer and better lit buildings at an economical cost, mill construction was replaced by reinforced concrete buildings. Individually, this factory is not historically significant, and therefore not individually eligible for listing on the State and National Registers. However, as a group of factory and loft buildings (see Nos. 18-22), they are representative of the industrial building expansion which took place in Long Island City during its industrial boom years of the 1910s through the 1920s (New York Times 1914b, 1916a). The Factory at 21-22 40th Avenue is significant in the area of industry as a contributing resource in the Factory/Loft Historic District. In a letter dated April 14, 2008, LPC determined that this building appears eligible for S/NR listing as a property in the Factory/Loft Historic District.

Photo 57: Factory/Loft 21-22 – 21-02 40th Avenue, View Northeast.

Photo 58: Factory/Loft 21-02 40th Avenue, View Northeast.

Factory/Loft 40-18 22nd Street Block 410, Lot 30 (#19; Photo 59)

Built in 1915 by Karp & Touroff, this factory/loft has reinforced concrete construction and is five stories in height with concrete piers, concrete spandrels, and multi-light metal casement windows. A narrow, single-bay, three story office with the date, MDCCCCXV, embossed on the central parapet, has been installed in the space between this building and the adjacent structure at 40-24 22nd Street. The office's first story is an open passageway to the area behind the building. At the first story, the piers are scored to resemble rusticated masonry units and simple etched blocks cap the piers below the roof. A molded belt course separates the first and second stories. This building is one of four factory and loft buildings that extend the length of the block between 40th and 41st Avenues and was designed H.S. Karp and built by Touroff & Karp between 1911 and 1915 (DOB various; New York Times 1914a; New York Times 1916b; Sanborn 1915). Individually, this factory is not historically significant, and therefore not eligible for listing on the State and National Registers. However, as a group of factory and loft buildings (see No. 18 above, see Nos. 20-21 below), they are representative of the industrial building expansion which took place in Long Island City during its industrial boom years of the 1910s through the 1920s (New York Times 1914b, 1916a). The Factory at 40-18 22nd Street is significant in the area of industry as a contributing resource in the Factory/Loft Historic District. In a letter dated April 14, 2008, LPC determined that this building appears eligible for S/NR listing as a property in the Factory/Loft Historic District.

Factory/Loft 40-24 22nd Street Block 410, Lot 35 (#20; Photo 60)

This brick factory/loft, built circa 1911 by Touroff & Karp, is five stories in height with brick belt courses, brick dentils, and a cast stone cornice. Fenestration consists of bays of paired multi-light casement windows with continuous cast stone lintels and sills and fluted piers between the windows. At the front facade, small segmental arched windows, some of which are filled with brick, puncture the facade between the larger bays. Sanborn maps indicate that bridges once connected this building to back buildings and to the building at 40-18 22nd Street. A metal and wood works firm, Manhattan Grille & Fret Company, previously occupied the property (DOB various, Sanborn 1915). This building is one of four factory and loft buildings that extend the length of the block between 40th and 41st Avenues and was designed by H.S. Karp and built by Touroff & Karp between 1911 and 1915 (DOB various; New York Times 1914a; New York Times 1916b; Sanborn 1915). Individually, this factory is not historically significant, and therefore not eligible for listing on the State and National Registers. However, as a group of factory and loft buildings (see Nos. 18-19 above, No. 21 below), they are representative of the industrial building expansion which took place in Long Island City during its industrial boom years of the 1910s through the 1920s (New York Times 1914b, 1916a). The Factory at 40-24 22nd Street is significant in the area of industry as a contributing resource in the Factory/Loft Historic District. In a letter dated April 14, 2008, LPC determined that this building appears eligible for S/NR listing as a property in the Factory/Loft Historic District.

Photo 59: Factory/Loft 40-18 22nd Street Avenue, View Northeast.

Photo 60: Factory/Loft 40-24 22nd Street Avenue, View Northeast.

Factory/Loft 40-36 22nd Street Block 410, Lot 38 (#21; Photo 61)

Built between 1913 and 1914 at the corner of 41st Avenue and 22nd Street, this factory/loft building is of fireproof, reinforced concrete construction employing Kahn system piers, enclosed by curtain walls (Sanborn 1915). Rising five stories in height, continuous brick faced piers divide the facades into bays of casement windows and solid spandrels. The piers sit on bases and are capped by raised panel blocks. Metal grilles cover the basement windows. The building, which is believed to be another Touroff & Karp project designed by H.S. Karp, housed the Walters Piano Factory (DOB various, New York Times 1914b). Individually, this factory is not historically significant, and therefore not eligible for listing on the State and National Registers. However, as a group of factory and loft buildings (see Nos. 18-20 above), they are representative of the industrial building expansion which took place in Long Island City during its industrial boom years of the 1910s through the 1920s (New York Times 1914b, 1916a). The Factory at 40-36 22nd Street is significant in the area of industry as a contributing resource in the Factory/Loft Historic District. In a letter dated April 14, 2008, LPC determined that this building appears eligible for S/NR listing as a property in the Factory/Loft Historic District.

Photo 61: Factory/Loft 40-36 22nd Street Avenue, View Northeast.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Archaeology

As a function of the Draft Environmental Impact Statement (DEIS) for the proposed Dutch Kills rezoning project, an assessment for potential archaeological resources was undertaken. In accordance with City Environmental Quality Review (CEQR) guidelines, the initial task established the archaeological Area of Potential Effect (APE) that may be affected by the various components of the proposed action. The New York City Landmarks Preservation Commission (LPC) identified five lots within the proposed project area possessing potential for intact archaeological deposits. A Documentary Study was conducted charting the ownership and occupation history of each lot within the archaeological APE. The five LPC-selected lots consist of the following Blocks and Lots:

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);
Block 398, Lot 39 (Part of Potential Development Site 47)

The documentary study concluded that each of these lots or portions of each of these lots had the potential for intact archaeological deposits (see Table 12).

Table 12: 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 26).
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 33).
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.

Conclusions regarding the potential for intact archaeological deposits within the five LPC-selected 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 five lots within the archaeological APE. 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.

Although development of the projected development sites could result in adverse physical impacts to potential archaeological resources through construction, these potential impacts would not be mitigable adverse impacts. If potential archaeological resources exist on these five lots, then they would not be excavated as the result of private development, which would not require further discretionary approvals. The impacts would be unavoidable adverse impacts, because there are no mechanisms available to require that subsequent private as-of-right development to 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.

6.2 Historic Architecture

Table 13: Historic Architectural Resources for the Dutch Kills Rezoning Project

Map No.	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)	34-01 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
9	Brewster Company Building	27-01 Queens Plaza North	416/10	Eligible S/NR
15	FDNY Engine Company 261 Hook & Ladder 116	37-20 29th Street	370/23	Eligible S/NR
17	Scalamandre Silks Building	37-24 24th Street	366/1	Eligible S/NR
18-22	Factory/Loft Historic District	21-02 40th Avenue 21-22 40th Avenue 40-18 22nd Street 40-24 22nd Street 40-36 22nd Street	410/19 410/25 410/30 410/35 410/38	Eligible S/NR

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 recommended eligible for listing in the State and National Registers (Table 13). In correspondence dated April 14, 2008, LPC also determined that three of these properties appear eligible for NYCL designation.

It is anticipated that all or most of the projected development sites and some of the potential development sites would be redeveloped and, as a result, be the location of future development. Development on the projected and

potential development sites under the proposed actions could have potential adverse impacts on historic properties from direct physical impacts—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.

Potential Impacts

Of the eligible historic architectural properties identified in this study, only four individual buildings are located on or in close enough proximately to the proposed actions' development sites, which could potentially lead to direct and/or indirect significant adverse impacts due to the proposed actions. Those structures are:

- (#1) The New York Consolidated Card Company (S/NR eligible) at 32-15 37th Avenue.
- (#2) The Pierce Arrow Building (S/NR eligible) at 34-01 38th Avenue.
- (#3) The A. Garside & Sons Shoe Factory (S/NR eligible) at 35-02 37th Avenue.
- (#15) The FDNY Engine Company 261, Hook & Ladder 116 building (S/NR eligible) at 37-02 29th Street.

One historic architectural property, the S/NR-eligible A. Garside & Sons Shoe Factory (#3) at 35-02 37th Avenue is located within Projected Development Site No. 7, which is expected to be zoned M1-3/R7X under the proposed action. The M1-3/R7X zoning allows for a maximum height of 125 feet, which could be constructed on this site or adjacent sites. The property may also be demolished or substantially altered as part of the projected development. As a result, the proposed action could result in a direct significant adverse impact to the A. Garside & Sons Shoe Factory.

One historic architectural property, the NYCL-eligible and S/NR-eligible Pierce Arrow Building (# 2) at 34-01 38th Avenue is located on Potential Development Site No. 155 and is expected to be zoned M1-3/R7X. In the proposed M1-3/R7X zone, a building with a maximum height of 125 feet could be constructed on this site or adjacent sites. The Pierce Arrow Building is also adjacent to the potential development lots in zone M1-2/R6A. The Pierce Arrow Building may result in direct significant adverse impact if this lot is developed as a result of the proposed rezoning and subsequent development of this lot.

The New York Consolidated Card Company is not located directly on a development site; however it is located adjacent to or otherwise in close proximity to Potential Development Site Nos. 69, 70, 121, and 233. Any construction activities associated with one or more of these could result in direct significant adverse impacts 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 adjacent and nearby Projected Development Site No. 34 and Potential Development Site Nos. 42 and 185.

As noted, the four historic architectural resources listed above are presently eligible for listing on the S/NR and could incur significant adverse impacts as the result of the proposed actions. In addition, the 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 that are 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 is generally 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 historic architectural resources, specifically the *New York City Department of Buildings Technical Policy and Procedure Notice (TPPN) #10/88 (Procedures for the Avoidance of Damage to Historic Strictures),* 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, as a result of implementation of the proposed actions, 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 the four identified architectural resources noted above.

The remaining historic properties identified in this report are located outside of the proposed rezoning and redevelopment area and are not within close proximity to potential or projected development sites and therefore, would not be impacted by the proposed action.

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APPENDIX A –

CORRESPONDENCE WITH LANDMARKS PRESERVATION COMMISSION

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/08DCP021Q 11/16/2007

Project number **Date received**

Project: Dutch Kills Rezoning

Comments:

LPC review of archaeological sensitivity models, reports and historic maps indicates that there is potential for the recovery of remains from 19th Century occupation on the following Borough, Block and Lots (BBL) 4003670023, 4003680011, 4003710038, 4003980001, and 4003980039. BBL 4004040001 is recorded as being the location of the c. 1798, Ryerson Family Burial Ground (Inskeep 2000:152). There may also be potential for the recovery of remains from Native American occupation and possible burial site(s) within the project area, however, the precise location could not be determined. The approximate location of the Arthur C. Parker (1922) site identified by Eugene J. Boesch (1997, Queens, Archaeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of Queens, New York) lies near Crescent Street. Accordingly, the Commission recommends that an archaeological documentary report be performed for the BBL locations specified as follows: (4003670023, 4003680011, 4003710038, 4003980001, and 4003980039 19th century residential occupation; 4004040001 c. 1798, Ryerson Family Burial Ground) to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2001).

With the exception of the 19th century residential and cemetery sites identified above, the other Borough, Block and Lots within the study area appear to be disturbed by 19th and/or 20th c. construction and to have low archeological potential. There are no further archeological concerns for these lots as listed below provided that additional information on potential for recovery of remains from occupation by Native American settlement as indicated above is not discovered.

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12/26/2007

SIGNATURE DATE

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THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/08DCP021Q 1/22/2008

Project number **Date received**

Project: DUTCH KILLS REZONING

The following property may possess architectural significance:

Comments: The LPC is in receipt of photographs dated 1/18/08 of projected and potential sites in the project area. In order to complete the review, please provide the architect, date and client of Site #7, 35-02 37th Ave., block 377, lot 13.

1/31/2008

SIGNATURE DATE

24169_FSO_GS_01312008.doc

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/08DCP021Q 3/3/2008

Project number **Date received**

Project: DUTCH KILLS REZONING

37-06 36 ST. BBL 4003770013

The following properties possess architectural or archaeological significance:

Comments: The LPC is in receipt of additional information for this site. The property appears eligible for S/NR listing.

3/6/2008

SIGNATURE DATE

24169_FSO_GS_03062008.doc

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/08DCP021Q 4/8/2008

Project number **Date received**

Project: Dutch Kills Rezoning

Comments: Archaeology comments only.

The LPC is in receipt of, "The Phase 1A Cultural Resource Assessment for Dutch Kills Rezoning Project, Dutch Kills, Long Island City, New York," prepared by Louis Berger Group, Inc and dated April 2008.

The LPC notes that the study analyzed B 367, L 23; B 368 L 11; B 371 L 38; B 393 L 1; and B 398 L 39 and concluded that all of them all have the potential to contain significant archaeological resources. The LPC concurs.

Please submit another bound color copy of the report to the LPC for the City Hall Library.

4/14/2008

SIGNATURE DATE

24169_FSO_ALS_04142008.doc

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION
1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING/08DCP021Q 4/14/2008

Project number **Date received**

Project: DUTCH KILLS REZONING PROJECT

The following properties possess architectural significance:

Comments: Architectural comments only. Archaeology comments under separate cover. The LPC is in receipt of, "The Phase 1A Cultural Resource Assessment for Dutch Kills Rezoning Project, Dutch Kills, Long Island City, New York," prepared by Louis Berger Group, Inc and dated April 2008.

Regarding Table 11, "Historic Architectural Resources Surveyed for the Dutch Kills Rezoning Project" on page 87, the following changes are needed. For Map #2, the Pierce Arrow Building: due to the additional information presented in this report, the LPC is reversing its original finding of no significance. The property appears LPC and S/NR eligible. Map #4, Ford Motor Company, and map #5, Bank of the Manhattan Company, both appear LPC and S/NR eligible. Map # 15, Engine Company 261, appears S/NR eligible. Map #16, dwelling at 37-32 28 St., does not appear S/NR eligible. Map numbers 18 through 22, "Factory/Loft", appear S/NR eligible as an historic district.

The text should be revised to address alternatives to destruction of any of these properties, impacts to these properties, and mitigation for properties that may be demolished. Additionally, the phrase on page 130, second paragraph: "...no mechanism exists under CEQR that requires further environmental or historic review for private development." should be removed as it is erroneous and misleading.

4/17/2008

SIGNATURE DATE

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APPENDIX B –

LIST OF PROJECTED AND POTENTIAL DEVELOPMENT SITES INCLUDING CORRESPONDING BLOCK AND LOTS

Table 1-3
Projected Development Sites

SITE INFORMATION			EXISTING CONDITIONS							FUTURE NO-ACTION					FUTURE WITH ACTION							INCREMENT			
Development Site	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Community Facility Parking	Industrial Floor Area (sf)	Proposed Zoning	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)
1	402	18	M1-3D	2800	5.00	0		0	0	0	0	0	0	0	M1-3/R7X	14		0	0	0	14	0	0	0
1	402	16	M1-3D	5600	5.00	0		0	0	0	0	0	0	5000	M1-3/R7X	28		0	0	0	28	0	0	-5000
1 Total				8400		0	0	0	0	0	0	0	0	5000		42	8	0	0	0	42	0	0	-5000
2	402	28	M1-3D	5550	5.00	0		0	4	4	0	0	0	0	M1-3/R7X	28		0	0	0	24	0	0	0
2	402	30	M1-3D	5750	5.00	2397		7052	0	0	2397	0	0	7052	M1-3/R7X	29		0	0	0	29	-2397	0	-7052
2 Total				11300		2397	0	7052	4	4	2397	0	0	7052		57	11	0	0	0	53	-2397	0	-7052
3	402	1	M1-3D	22300	5.00	0		0	0	0	11150	0	0	0	M1-3/R7X	93		18955	0	0	93	7805	0	0
3	402	12	M1-3D	9000	5.00	0		0	0	0	0	0	0	9000	M1-3/R7X	37		7650	0	0	37	7650	0	-9000
3	402	32	M1-3D	11760	5.00	2100		17300	0	0	2100	0	0	17300	M1-3/R7X	49		9996	0	0	49	7896	0	-17300
3	402	35	M1-3D	3207	5.00	0		0	0	0	1604	0	0	0	M1-3/R7X	13		2726	0	0	13	1122	0	0
3 Total				46267		2100	0	17300	0	0	14854	0	0	26300		192	38	39327	0	0	192	24474	0	-26300
4 Total	400	5	M1-3D	83066	5.00	0		15404	0	0	0	0	0	15404	M1-3/R7X	345	69	70606	0	0	345	70606	0	-15404
5 Total	382	29	M1-3D	8800	5.00	0		0	0	0	0	17600	0	0	M1-3/R7X	36	7	0	8000	0	36	0	-9600	0
6 Total	379	1	M1-3D	9200	5.00	0		1875	0	0	0	0	0	1875	M1-3/R7X	38	8	7820	0	0	38	7820	0	-1875
7 Total	377	13	M1-3D	20000	5.00	0		80200	0	0	80200	0	0	0	M1-3/R7X	72	17	10000	0	0	72	-70200	0	0
8 Total	408	5	M1-3D	8519	5.00	0		1800	0	0	0	0	0	1800	M1-2/R6A	18		7241	0	0	18	7241	0	-1800
9	406	1	M1-3D	2523	5.00	1025		1475	2	2	1025	0	0	1475	M1-2/R6A	5		2145	0	0	3	1120	0	-1475
9	406	2	M1-3D	15000	5.00	3250		6500	0	0	3250	0	0	6500	M1-2/R6A	32		12750	0	0	32	9500	0	-6500
9	406	8	M1-3D	2505	5.00	0		0	0	0	1253	0	0		M1-2/R6A	5		2129	0	0	5	877	0	0
9	406	9	M1-3D	2505	5.00	0		0	0	0	1253	0	0		M1-2/R5D	3		2129	0	0	3	877	0	0
9	406	10	M1-3D	2505	5.00	0		0	0	0	1253	0	0		M1-2/R5D	3		2129	0	0	3	877	0	0
9	406	11	M1-3D	2254	5.00	0		0	0	0	1127	0	0		M1-2/R5D	3		1916	0	0	3	789	0	0
9	406	38	M1-3D	2505	5.00	0		0	0	0	1253	0	0		M1-2/R5B	2		2129	0	0	2	877	0	0
9	406	40	M1-3D	5000	5.00	0		0	2	2	0	0	0	0	M1-2/R5B	4		4250	0	0	2	4250	0	0
9 Total				34797		4275	0	7975	4	4	10412	0	0	7975		57		29577	0	0	53	19165	0	-7975
10	405	5	M1-3D	2505	5.00	780		1420	0	0	12525	0	0	0	M1-2/R6A	8		0	0	0	8	-12525	0	0
10	405	6	M1-3D	2505	5.00	0		0	0	0	12525	0	0	0	M1-2/R6A	8		0	0	0	8	-12525	0	0
10 Total				5010		780	0	1420	0	0	25050	0	0	0		15		0	0	0	15	-25050	0	0
11 Total	383	9	M1-3D	4773	5.00	0	0	0	0	0	0	0	0	2000	M1-2/R6A	14		0	0	0	14	0	0	-2000
12	368	34	M1-3D	5785	5.00	1440	0	3760	0	0	1440	0	0	3760	M1-2/R6A	17		0	0	0	17	-1440	0	-3760
12	368	36	M1-3D	1887	5.00	850	0	0	1	1	850	0	0	0	M1-2/R6A	6		0	0	0	5	-850	0	0
12 Total				7672		2290	0	3760	1	1	2290	0	0	3760		23		0	0	0	22	-2290	0	-3760
13 Total	370	29	M1-3D	7355	5.00	0	0	0	0	0	0	0	0	0	M1-2/R6A	22		0	0	0	22	0	0	0
14 Total	371	38	M1-3D	10600	5.00	1200		4950	1	1	1200	0	0	4950	M1-2/R6A	23		9010	0	0	22	7810	0	-4950
15	367	15	M1-3D	8860	5.00	0		8850	0	0	0	0	0	8850	M1-2/R6A	12		0	15062	0	12	0	15062	-8850
15	367	17	M1-3D	5150	5.00	0		2250	0	0	0	0	0	2250	M1-2/R6A	7		0	8755	0	7	0	8755	-2250
15	367	23	M1-3D	4680	5.00	0		0	0	0	0	0	0	4680	M1-2/R6A	6		0	7956	0	6	0	7956	-4680
15 Total				18690		0	0	11100	0	0	0	0	0	15780		24		0	31773	0	24	0	31773	-15780
16 Total	370	12	M1-3D	20420	5.00	2800		17600	0	0	2800	0	0	17600	M1-2/R6A	61		0	0	0	61	-2800	0	-17600
17 Total	375	18	M1-3D	8275	5.00	0	0	7880	0	0	0	0	0	7880	M1-2/R6A	25		0	0	0	25	0	0	-7880
18	600	111	M1-1	2725	1.00	0	0	0	0	0	0	5450	0	0	M1-2/R6A	8		0	0	0	8	0	-5450	0
18	600	8	M1-1	6900	1.00	0		0	0	0	0	13800	0	0	M1-2/R6A	21		0	0	0	21	0	-13800	0
18 Total				9625		0	0	0	0	0	0	19250	0	0		29		0	0	0	29	0	-19250	0

Table 1-3
Projected Development Sites

SITE INFORMATION			EXISTING CONDITIONS							FUTURE NO-ACTION					FUTURE WITH ACTION						INCREMENT			
Development Site	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Community Facility Parking	Industrial Floor Area (sf)	Proposed Zoning	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)
19	407	27	M1-3D	4975	5.00	836		0	0	0	836	0		0	M1-2/R5D	10		0	0	0	10	-836	0	0
19	407	29	M1-3D	2504	5.00	0		0	0	0	0	0		0	M1-2/R5D	5		0	0	0	5	0	0	0
19 Total				7479		836	0	0	0	0	836	0		0		15		0	0	0	15	-836	0	0
20 Total	405	26	M1-3D	7563	5.00	1820		1820	0	0	1820	0		1820	M1-2/R5D	15		0	0	0	15	-1820	0	-1820
21	397	33	M1-3D	5000	5.00	500	0	4240	0	0	500	0		4240	M1-2/R5D	10		0	0	0	10	-500	0	-4240
21	397	35	M1-3D	10000	5.00	1000	0	7170	0	0	1000	0		7170	M1-2/R5D	20		0	0	0	20	-1000	0	-7170
21 Total				15000		1500	0	11410	0	0	1500	0		11410		30		0	0	0	30	-1500	0	-11410
22	387	32	M1-3D	4291	5.00	0		0	1	1	0	0		0	M1-2/R5D	9		0	0	0	8	0	0	0
23	405	36	M1-3D	2505	5.00	0	0	0	0	0	1253	0		0	M1-2/R5B	4		0	0	0	4	-1253	0	0
23	405	37	M1-3D	2523	5.00	0	0	0	1	1	0	0		0	M1-2/R5B	4		0	0	0	3	0	0	0
23 Total				5028		0	0	0	1	1	1253	0		0	M1-2/R5B	8		0	0	0	7	-1253	0	0
24 Total	398	1	M1-3D	47200	5.00	0	0	0	0	0	0	39600	0	0	Split M1-2/R5B/ R5D	79		0	0	0	79	0	-39600	0
25 Total	398	19	M1-3D	2823	5.00	0	0	480	2	2	0	0		480	M1-2/R5B	5		0	0	0	3	0	0	-480
26	399	6	M1-3D	2523	5.00	0		7000	0	0	0	0		7000	M1-2/R5D	4		0	0	0	4	0	0	-7000
26	399	7	M1-3D	4950	5.00	0		4250	0	0	0	0		4250	M1-2/R5D	8		0	0	0	8	0	0	-4250
26	399	9	M1-3D	2582	5.00	0		4000	0	0	0	0		4000	M1-2/R5D	4		0	0	0	4	0	0	-4000
26 Total				10055		0	0	15250	0	0	0	0		15250		17		0	0	0	17	0	0	-15250
27 Total	388	18	M1-3D	2510	5.00	0		0	0	0	0	5020	0	0	M1-2/R5D	5		0	0	0	5	0	-5020	0
28	387	9	M1-3D	5009	5.00	2000		5500	0	0	2000	0		5500	M1-2/R5D	10		0	0	0	10	-2000	0	-5500
28	387	7	M1-3D	2675	5.00	0		0	2	2	0	0		0	M1-2/R5D	5		0	0	0	3	0	0	0
28	387	8	M1-3D	2700	5.00	0		0	2	2	0	0		0	M1-2/R5D	5		0	0	0	3	0	0	0
28 Total				10384		2000	0	5500	4	4	2000	0		5500		21		0	0	0	17	-2000	0	-5500
29	385	4	M1-3D	2505	5.00	0	0	2475	0	0	0	0		2475	M1-2/R5B	4		0	0	2475	4	0	0	0
30 Total	385	5	M1-3D	5021	5.00	0	0	0	2	2	0	0		0	M1-2/R5B	8		0	0	0	6	0	0	0
31 Total	367	33	M1-3D	13730	5.00	0		0	0	0	6865	0		0	M1-2/R5D	27		0	0	0	27	-6865	0	0
32 Total	368	11	M1-3D	8721	5.00	0		0	0	0	43605	0		0	M1-2/R5D	17		0	0	0	17	-43605	0	0
33 Total	370	3	M1-3D	3450	5.00	0	0	0	2	2	0	0		0	M1-2/R5B	6		0	0	0	4	0	0	0
34	370	26	M1-3D	5000	5.00	0		0	0	0	0	0		0	M1-2/R5B	8		0	0	0	8	0	0	0
34	370	28	M1-3D	2500	5.00	0		0	0	0	0	0		0	M1-2/R5B	4		0	0	0	4	0	0	0
34 Total				7500		0	0	0	0	0	0	0		0		12		0	0	0	12	0	0	0
35	371	34	M1-3D	13050	5.00	0	0	17000	0	0	0	0		17000	Split M1-2/R6A/R5B	22		0	0	0	22	0	0	-17000
35	371	33	M1-3D	2990	5.00	0	0	2900	0	0	0	0		2900	M1-2/R5B	5		0	0	0	5	0	0	-2900
35 Total				16040		0	0	19900	0	0	0	0		19900		26		0	0	0	26	0	0	-19900
36 Total	600	34	M1-1	11250	1	2700		8800	0	0	2700	0		8800	M1-2/R5B	19		0	0	0	19	-2700	0	-8800
37 Total	399	34	M1-3D	14000	5	10000		10000	0	0	70000	0		0	Split M1-3/R7X	84	17	0	0	0	84	-70000	0	0
38	399	13	M1-3D	7510	5	1500	0	7500	2	0	15020	0	0	0	M1-2/R5D	23	5	0	0	0	23	-15020	0	0
38	399	26	M1-3D	7510	5	0	0	0	0	0	37500	0	0	0	M1-3/R7X	38	8	0	0	0	38	-37500	0	0
38 Total				15020		1500	0	7500	2	0	52520	0	0	0		61	12	0	0	0	61	-52520	0	0
39 Total	387	31	M1-3D	4750	5	0	0	0	0	0	23750	0	0	0	M1-2/R5B	8	0	0	0	0	8	-23750	0	0
40 Total	388	23	M1-3D	5000	5	0	0	0	0	0	25000	0	0	0	M1-2/R5B	8	0	0	0	0	8	-25000	0	0
TOTAL				**542,089**		**36,198**	**0**	**261,451**	**24**	**22**	**371,052**	**81,470**	**0**	**183,011**		**1,577**	**187**	**173,582**	**39,773**	**2,475**	**1,555**	**-197,470**	**-41,697**	**-180,536**

Table 1-4
Potential Development Sites

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)							INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)				
41	342	2	M1-1	24400	1	3875	24400	0	0	3875	0	24400	M1-2/R6A	73	0	0	0	0	73	-3875	0	-24400				
41 Total				**24400**		**3875**	**24400**	**0**	**0**	**3875**	**0**	**24400**		**73**	**0**	**0**	**0**	**0**	**73**	**-3875**	**0**	**-24400**				
42	370	6	M1-3D	4000	5	0	8000	0	0	0	0	8000	M1-2/R5B	7	0	0	0	0	7	0	0	-8000				
42	370	7	M1-3D	2507	5	0	5000	0	0	0	0	5000	M1-2/R5B	4	0	0	0	0	4	0	0	-5000				
42 Total				**6507**		**0**	**13000**	**0**	**0**	**0**	**0**	**13000**		**11**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**-13000**				
43	372	35	M1-3D	8000	5	1300	3100	0	0	1300	0	3100	M1-2/R6A	24	0	0	0	0	24	-1300	0	-3100				
43	372	33	M1-3D	2450	5	2075	0	0	0	2075	0	0	M1-2/R6A	7	0	0	0	0	7	-2075	0	0				
43 Total				**10450**		**3375**	**3100**	**0**	**0**	**3375**	**0**	**3100**		**31**	**0**	**0**	**0**	**0**	**31**	**-3375**	**0**	**-3100**				
44	375	5	M1-3D	4885	5	0	4850	0	0	0	0	4850	M1-2/R5D	10	0	0	0	0	10	0	0	-4850				
44	375	1	M1-3D	4880	5	0	4850	0	0	0	0	4850	M1-2/R5D	10	0	0	0	0	10	0	0	-4850				
44 Total				**9765**		**0**	**9700**	**0**	**0**	**0**	**0**	**9700**		**20**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**-9700**				
45	380	9	M1-3D	4400	5	624	4398	0	0	624	0	4398	M1-2/R6A	13	0	0	0	0	13	-624	0	-4398				
45	380	8	M1-3D	2264	5	1920	0	0	0	1920	0	0	M1-2/R6A	7	0	0	0	0	7	-1920	0	0				
45	380	7	M1-3D	2296	5	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0				
45 Total				**8960**		**2544**	**4398**	**2**	**2**	**2544**	**0**	**4398**		**27**	**0**	**0**	**0**	**0**	**25**	**-2544**	**0**	**-4398**				
46	381	21	M1-3D	11175	5	0	0	0	0	5588	0	0	M1-3/R7X	46	9	9499	0	0	46	3911	0	0				
46	381	26	M1-3D	2816	5	0	0	0	0	1408	0	0	M1-3/R7X	12	2	2394	0	0	12	986	0	0				
46	381	27	M1-3D	5085	5	0	0	0	0	2543	0	0	M1-3/R7X	21	4	4322	0	0	21	1779	0	0				
46 Total				**19076**		**0**	**0**	**0**	**0**	**9539**	**0**	**0**		**79**	**15**	**16215**	**0**	**0**	**79**	**6676**	**0**	**0**				
47	398	39	M1-3D	5008	5	4800	0	0	0	4800	0	0	M1-2/R5B	8	0	0	0	0	8	-4800	0	0				
47	398	38	M1-3D	2500	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0				
47 Total				**7508**		**4800**	**0**	**1**	**1**	**4800**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**11**	**-4800**	**0**	**0**				
48	382	127	M1-3D	2250	5	0	0	2	2	0	0	0	M1-3/R7X	11	2	0	0	0	9	0	0	0				
48 Total				**2250**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**11**	**2**	**0**	**0**	**0**	**9**	**0**	**0**	**0**				
49	381	16	M1-3D	2900	5	2000	3800	0	0	2000	0	3800	M1-2/R6A	9	0	0	0	0	9	-2000	0	-3800				
49	381	5	M1-3D	26476	5	10000	20000	0	0	10000	0	20000	Split M1-3/R7X/ M1-2/R6A	99	20	0	0	0	99	-10000	0	-20000				
49 Total				**29376**		**12000**	**23800**	**0**	**0**	**12000**	**0**	**23800**		**108**	**20**	**0**	**0**	**0**	**108**	**-12000**	**0**	**-23800**				
50	408	9	M1-3D	5375	5	400	7256	0	0	400	0	7256	M1-2/R5B	9	0	0	0	0	9	-400	0	-7256				
50	408	109	M1-3D	505	5	0	0	0	0	0	0	0	M1-2/R5B	1	0	0	0	0	1	0	0	0				
50 Total				**5880**		**400**	**7256**	**0**	**0**	**400**	**0**	**7256**		**10**	**0**	**0**	**0**	**0**	**10**	**-400**	**0**	**-7256**				
51	368	15	M1-3D	4750	5	375	4532	0	0	375	0	4532	Split M1-2/R6A/R5B	14	0	0	0	0	14	-375	0	-4532				
51	368	17	M1-3D	2295	5	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0				
51 Total				**7045**		**375**	**4532**	**2**	**2**	**375**	**0**	**4532**		**21**	**0**	**0**	**0**	**0**	**19**	**-375**	**0**	**-4532**				
52	368	24	M1-3D	4041	5	0	0	2	2	0	0	0	M1-2/R5B	7	0	0	0	0	5	0	0	0				
52	368	26	M1-3D	1833	5	0	0	3	3	0	0	0	M1-2/R5B	3	0	0	0	0	0	0	0	0				
52 Total				**5874**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**				
53	369	32	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R6A	8	0	0	0	0	6	0	0	0				
53	369	33	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R6A	8	0	0	0	0	6	0	0	0				
53 Total				**5000**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**16**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**				
54	369	3	M1-3D	2125	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0				
54	369	2	M1-3D	2125	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0				
54 Total				**4250**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**				
55	369	23	M1-3D	2154	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0				
55	369	24	M1-3D	2063	5	0	0	2	2	0	0	0	M1-2/R5B	3	0	0	0	0	1	0	0	0				
55 Total				**4217**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**7**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**				
56	369	121	M1-3D	2060	5	0	2050	0	0	0	0	2050	M1-2/R5B	3	0	0	0	0	3	0	0	-2050				
56	369	22	M1-3D	2115	5	0	0	1	1	0	0	0	M1-2/R5B	3	0	0	0	0	2	0	0	0				
56 Total				**4175**		**0**	**2050**	**1**	**1**	**0**	**0**	**2050**		**6**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**-2050**				
57	369	119	M1-3D	2004	5	0	0	0	0	0	0	0	M1-2/R5B	3	0	0	0	0	3	0	0	0				
57	369	20	M1-3D	2025	5	0	0	3	3	0	0	0	M1-2/R5B	3	0	0	0	0	0	0	0	0				
57 Total				**4029**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**				
58	373	1	M1-3D	13865	5	3000	10800	0	0	3000	0	10800	M1-2/R6A	42	0	0	0	0	42	-3000	0	-10800				
58	373	47	M1-3D	6907	5	0	7000	0	0	0	0	7000	M1-2/R6A	21	0	0	0	0	21	0	0	-7000				
58 Total				**20772**		**3000**	**17800**	**0**	**0**	**3000**	**0**	**17800**		**63**	**0**	**0**	**0**	**0**	**63**	**-3000**	**0**	**-17800**				
59	373	6	M1-3D	14250	5	0	14100	0	0	0	0	14100	M1-2/R6A	43	0	0	0	0	43	0	0	-14100				
59	373	45	M1-3D	2600	5	0	2717	0	0	0	0	2717	M1-2/R6A	8	0	0	0	0	8	0	0	-2717				
59 Total				**16850**		**0**	**16817**	**0**	**0**	**0**	**0**	**16817**		**51**	**0**	**0**	**0**	**0**	**51**	**0**	**0**	**-16817**				
60	407	9	M1-3D	2007	5	0	0	2	2	0	0	0	M1-2/R5B	3	0	0	0	0	1	0	0	0				
60 Total				**2007**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**3**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**				

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
61	599	41	M1-1	4500	1	3000	1500	0	0	3000	0	1500	M1-2/R6A	14	0	0	0	0	14	-3000	0	-1500		
61	599	40	M1-1	2250	1	0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0		
61 Total				**6750**		**3000**	**1500**	**1**	**1**	**3000**	**0**	**1500**		**21**	**0**	**0**	**0**	**0**	**20**	**-3000**	**0**	**-1500**		
62	600	1	M1-1	3752	1	3420	0	0	0	3420	0	0	M1-2/R6A	11	0	0	0	0	11	-3420	0	0		
62	600	2	M1-1	1725	1	0	0	1	1	0	0	0	M1-2/R6A	5	0	0	0	0	4	0	0	0		
62 Total				**5477**		**3420**	**0**	**1**	**1**	**3420**	**0**	**0**		**16**	**0**	**0**	**0**	**0**	**15**	**-3420**	**0**	**0**		
63	600	50	M1-1	4171	1	0	0	3	3	0	0	0	M1-2/R5B	7	0	0	0	0	4	0	0	0		
63	600	49	M1-1	1440	1	0	0	1	1	0	0	0	M1-2/R5B	2	0	0	0	0	1	0	0	0		
63 Total				**5611**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
64	600	3	M1-1	2178	1	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
64	600	4	M1-1	2079	1	0	0	2	2	0	0	0	M1-2/R6A	6	0	0	0	0	4	0	0	0		
64 Total				**4257**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**13**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**		
65	600	5	M1-1	3074	1	0	0	2	2	0	0	0	M1-2/R6A	9	0	0	0	0	7	0	0	0		
65	600	6	M1-1	2884	1	0	0	2	2	0	0	0	M1-2/R6A	9	0	0	0	0	7	0	0	0		
65	600	7	M1-1	2929	1	0	0	3	3	0	0	0	M1-2/R6A	9	0	0	0	0	6	0	0	0		
65 Total				**8887**		**0**	**0**	**7**	**7**	**0**	**0**	**0**		**27**	**0**	**0**	**0**	**0**	**20**	**0**	**0**	**0**		
66	600	20	M1-1	3300	1	0	3920	0	0	0	0	3920	M1-2/R6A	10	0	0	0	0	10	0	0	-3920		
66	600	19	M1-1	2250	1	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
66 Total				**5550**		**0**	**3920**	**2**	**2**	**0**	**0**	**3920**		**17**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**-3920**		
67	600	16	M1-1	9000	1	0	9000	0	0	0	0	9000	M1-2/R6A	27	0	0	0	0	27	0	0	-9000		
67	600	41	M1-1	3000	1	0	0	4	4	0	0	0	M1-2/R5B	5	0	0	0	0	1	0	0	0		
67 Total				**12000**		**0**	**9000**	**4**	**4**	**0**	**0**	**9000**		**32**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**-9000**		
68	600	14	M1-1	5738	1	0	0	2	2	0	0	0	M1-2/R6A	17	0	0	0	0	15	0	0	0		
68	600	43	M1-1	3267	1	0	0	2	2	0	0	0	M1-2/R5B	5	0	0	0	0	3	0	0	0		
68 Total				**9005**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**22**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**		
69	601	26	M1-1	2700	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
69	601	25	M1-1	2500	1	0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
69 Total				**5200**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
70	601	28	M1-1	2521	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
70	601	27	M1-1	2300	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
70 Total				**4821**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
71	601	29	M1-1	2521	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
71	601	30	M1-1	2500	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
71 Total				**5021**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
72	387	5	M1-3D	2625	5	0	2500	0	0	0	0	2500	M1-2/R5D	5	0	0	0	0	5	0	0	-2500		
72	387	6	M1-3D	2650	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
72 Total				**5275**		**0**	**2500**	**2**	**2**	**0**	**0**	**2500**		**10**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-2500**		
73	384	7	M1-3D	2500	5	0	0	0	0	0	0	0	M1-2/R5B	4	0	0	0	0	4	0	0	0		
73	384	8	M1-3D	2624	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
73 Total				**5124**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
74	386	4	M1-3D	2060	5	0	0	1	1	0	0	0	M1-2/R5B	3	0	0	0	0	2	0	0	0		
74	386	3	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
74 Total				**4583**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**7**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
75	386	15	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R6A	8	0	0	0	0	6	0	0	0		
75	386	14	M1-3D	1665	5	0	0	2	2	0	0	0	M1-2/R6A	5	0	0	0	0	3	0	0	0		
75 Total				**4165**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**13**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**		
76	386	20	M1-3D	6685	5	0	0	5	5	0	0	0	M1-2/R5B	11	0	0	0	0	6	0	0	0		
76	386	19	M1-3D	2133	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
76 Total				**8818**		**0**	**0**	**7**	**7**	**0**	**0**	**0**		**15**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
77	386	31	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
77	386	30	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
77 Total				**5000**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
78	386	33	M1-3D	4040	5	0	576	0	0	0	0	576	M1-2/R5D	8	0	0	0	0	8	0	0	-576		
78	386	32	M1-3D	2500	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
78 Total				**6540**		**0**	**576**	**2**	**2**	**0**	**0**	**576**		**13**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**-576**		
79	386	23	M1-3D	4563	5	0	0	2	2	0	0	0	M1-2/R5B	8	0	0	0	0	6	0	0	0		
79	386	25	M1-3D	2356	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
79 Total				**6919**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
80	385	2	M1-3D	2310	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
80	385	3	M1-3D	2510	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
80 Total				**4820**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
81	385	22	M1-3D	5000	5	0	0	1	1	0	0	0	M1-2/R5B	8	0	0	0	0	7	0	0	0		
81	385	21	M1-3D	2340	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
81 Total				**7340**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**		
82	383	19	M1-3D	2250	5	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
82	383	20	M1-3D	2254	5	0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0		
82 Total				**4504**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
83	383	16	M1-3D	2250	5	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
83	383	17	M1-3D	2250	5	0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0		
83 Total				**4500**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		
84	382	11	M1-3D	9100	5	0	11000	0	0	0	0	11000	M1-2/R6A	27	0	0	0	0	27	0	0	-11000		
84	382	8	M1-3D	2487	5	0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0		
84 Total				**11587**		**0**	**11000**	**1**	**1**	**0**	**0**	**11000**		**34**	**0**	**0**	**0**	**0**	**33**	**0**	**0**	**-11000**		
85	382	14	M1-3D	2209	5	0	0	0	0	0	0	0	M1-2/R6A	5	0	1878	0	0	5	1878	0	0		
85	382	15	M1-3D	2242	5	0	0	2	2	0	0	0	M1-2/R6A	5	0	1906	0	0	3	1906	0	0		
85	382	13	M1-3D	2190	5	0	2000	0	0	0	0	2000	M1-2/R6A	5	0	1862	0	0	5	1862	0	-2000		
85 Total				**6641**		**0**	**2000**	**2**	**2**	**0**	**0**	**2000**		**15**	**0**	**5645**	**0**	**0**	**13**	**5645**	**0**	**-2000**		
86	382	22	M1-3D	2250	5	0	0	2	2	0	0	0	M1-3/R7X	11	2	0	0	0	9	0	0	0		
86	382	21	M1-3D	2252	5	0	0	2	2	0	0	0	M1-3/R7X	11	2	0	0	0	9	0	0	0		
86 Total				**4502**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**23**	**0**	**0**	**0**	**0**	**19**	**0**	**0**	**0**		
87	394	48	M1-3D	3505	5	0	0	0	0	0	1219	0	M1-2/R5D	7	0	0	0	0	7	0	-1219	0		
87	394	47	M1-3D	2502	5	900	0	0	0	900	0	0	M1-2/R5D	5	0	0	0	0	5	-900	0	0		
87 Total				**6007**		**900**	**0**	**0**	**0**	**900**	**1219**	**0**		**12**	**0**	**0**	**0**	**0**	**12**	**-900**	**-1219**	**0**		
88	394	45	M1-3D	2594	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
88	394	46	M1-3D	2510	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
88 Total				**5104**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
89	395	26	M1-3D	3763	5	3763	3763	0	0	3763	0	3763	M1-2/R5D	8	0	0	0	0	8	-3763	0	-3763		
89	395	17	M1-3D	2504	5	0	2500	0	0	0	0	2500	M1-2/R5B	4	0	0	0	0	4	0	0	-2500		
89 Total				**6267**		**3763**	**6263**	**0**	**0**	**3763**	**0**	**6263**		**12**	**0**	**0**	**0**	**0**	**12**	**-3763**	**0**	**-6263**		
90	396	21	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
90	396	22	M1-3D	2521	5	0	0	3	3	0	0	0	M1-2/R5D	5	0	0	0	0	2	0	0	0		
90 Total				**5042**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
91	397	1	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
91	397	2	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
91 Total				**5046**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
92	397	3	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
92	397	4	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
92 Total				**5046**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
93	397	10	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
93	397	7	M1-3D	7510	5	2250	1500	2	2	2250	0	1500	M1-2/R5B	12	0	0	0	0	10	-2250	0	-1500		
93 Total				**10033**		**2250**	**1500**	**4**	**4**	**2250**	**0**	**1500**		**16**	**0**	**0**	**0**	**0**	**12**	**-2250**	**0**	**-1500**		
94	397	11	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
94	397	12	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
94 Total				**5046**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
95	397	17	M1-3D	2521	5	0	2500	0	0	0	0	2500	M1-2/R5D	5	0	0	0	0	5	0	0	-2500		
95	397	18	M1-3D	2521	5	0	0	3	3	0	0	0	M1-2/R5D	5	0	0	0	0	2	0	0	0		
95 Total				**5042**		**0**	**2500**	**3**	**3**	**0**	**0**	**2500**		**10**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**-2500**		
96	397	22	M1-3D	5000	5	0	0	2	2	0	0	0	M1-2/R5B	8	0	0	0	0	6	0	0	0		
96	397	21	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
96 Total				**7521**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
97	397	25	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
97	397	24	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
97 Total				**5042**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
98	397	26	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
98	397	27	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
98 Total				**5042**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
99	397	29	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
99	397	28	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
99 Total				**5042**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
100	398	34	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
100	398	35	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
100 Total				**5046**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
101	398	31	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
101	398	32	M1-3D	2505	5	1000	0	1	1	1000	0	0	M1-2/R5B	4	0	0	0	0	3	-1000	0	0		
101 Total				**5028**		**1000**	**0**	**3**	**3**	**1000**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**-1000**	**0**	**0**		
102	398	22	M1-3D	7575	5	0	0	2	2	0	0	0	M1-2/R5D	15	0	0	0	0	13	0	0	0		
102	398	24	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
102 Total				**10096**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**20**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**0**		
103	407	11	M1-3D	5600	5	0	5600	0	0	0	0	5600	M1-2/R5B	9	0	0	0	0	9	0	0	-5600		
103	407	13	M1-3D	2510	5	0	2500	0	0	0	0	2500	M1-2/R5B	4	0	0	0	0	4	0	0	-2500		
103 Total				**8110**		**0**	**8100**	**0**	**0**	**0**	**0**	**8100**		**13**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**-8100**		
104	375	29	M1-3D	3065	5	0	3000	0	0	0	0	3000	M1-2/R5D	6	0	0	0	0	6	0	0	-3000		
104	375	30	M1-3D	4880	5	0	4880	0	0	0	0	4880	M1-2/R5D	10	0	0	0	0	10	0	0	-4880		
104 Total				**7945**		**0**	**7880**	**0**	**0**	**0**	**0**	**7880**		**16**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**-7880**		

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
105	408	31	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
105	408	32	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
105 Total				**5046**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
106	408	34	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
106	408	33	M1-3D	2523	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
106 Total				**5046**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
107	408	25	M1-3D	2521	5	0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
107	408	24	M1-3D	2521	5	616	0	2	2	616	0	0	M1-2/R5D	5	0	0	0	0	3	-616	0	0		
107 Total				**5042**		**616**	**0**	**3**	**3**	**616**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**7**	**-616**	**0**	**0**		
108	408	26	M1-3D	5000	5	5000	0	0	0	5000	0	0	M1-2/R5D	10	0	0	0	0	10	-5000	0	0		
108	408	28	M1-3D	2500	5	0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
108 Total				**7500**		**5000**	**0**	**1**	**1**	**5000**	**0**	**0**		**15**	**0**	**0**	**0**	**0**	**14**	**-5000**	**0**	**0**		
109	407	34	M1-3D	2504	5	0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
109	407	33	M1-3D	2504	5	0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
109 Total				**5008**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**		
110	406	12	M1-3D	45200	5	4000	19840	0	0	4000	0	19840	M1-2/R5D	90	0	0	0	0	90	-4000	0	-19840		
110	406	29	M1-3D	2521	5	0	0	3	3	0	0	0	Split M1-2/R65D/ M1-2/R5B	5	0	0	0	0	2	0	0	0		
110 Total				**47721**		**4000**	**19840**	**3**	**3**	**4000**	**0**	**19840**		**95**	**0**	**0**	**0**	**0**	**92**	**-4000**	**0**	**-19840**		
111	405	10	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
111	405	9	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
111 Total				**5042**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
112	405	17	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
112	405	16	M1-3D	2521	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
112 Total				**5042**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
113	405	34	M1-3D	4146	5	0	4146	0	0	0	0	4146	M1-2/R5B	7	0	0	0	0	7	0	0	-4146		
113	405	33	M1-3D	2439	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
113 Total				**6585**		**0**	**4146**	**2**	**2**	**0**	**0**	**4146**		**11**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**-4146**		
114	405	32	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
114	405	31	M1-3D	2523	5	0	0	1	1	0	0	0	M1-2/R5B	4	0	0	0	0	3	0	0	0		
114 Total				**5046**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
115	371	19	M1-3D	4985	5	0	4985	0	0	0	0	4985	M1-2/R6A	15	0	0	0	0	15	0	0	-4985		
115	371	17	M1-3D	3360		0	3280	0	0	0	0	3280	M1-2/R6A	10	0	0	0	0	10	0	0	-3280		
115 Total				**8345**		**0**	**8265**	**0**	**0**	**0**	**0**	**8265**		**25**	**0**	**0**	**0**	**0**	**25**	**0**	**0**	**-8265**		
116	408	21	M1-3D	3529	5	0	0	2	2	0	0	0	M1-2/R5D	7	0	0	0	0	5	0	0	0		
116	408	23	M1-3D	2521		0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
116 Total				**6050**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
117	368	22	M1-3D	4980	5	0	4980	0	0	0	0	4980	M1-2/R6A	15	0	0	0	0	15	0	0	-4980		
117	368	21	M1-3D	2800		0	2500	0	0	0	0	2500	M1-2/R6A	8	0	0	0	0	8	0	0	-2500		
117 Total				**7780**		**0**	**7480**	**0**	**0**	**0**	**0**	**7480**		**23**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**-7480**		
118	382	24	M1-3D	6840	5	2000	8000	0	0	2000	0	8000	M1-3/R7X	34	7	0	0	0	34	-2000	0	-8000		
118	382	27	M1-3D	2250		0	0	2	2	0	0	0	M1-3/R7X	11	2	0	0	0	9	0	0	0		
118 Total				**9090**		**2000**	**8000**	**2**	**2**	**2000**	**0**	**8000**		**45**	**9**	**0**	**0**	**0**	**43**	**-2000**	**0**	**-8000**		
119	383	24	M1-3D	4500	5	1750	5000	0	0	1750	0	5000	M1-2/R6A	14	0	0	0	0	14	-1750	0	-5000		
119	383	26	M1-3D	2250		1800	800	0	0	1800	0	800	M1-2/R6A	7	0	0	0	0	7	-1800	0	-800		
119 Total				**6750**		**3550**	**5800**	**0**	**0**	**3550**	**0**	**5800**		**21**	**0**	**0**	**0**	**0**	**21**	**-3550**	**0**	**-5800**		
120	387	24	M1-3D	4033	5	0	0	3	3	0	0	0	M1-2/R6A	12	0	0	0	0	9	0	0	0		
120	387	25	M1-3D	1770		0	0	3	3	0	0	0	M1-2/R6A	5	0	0	0	0	2	0	0	0		
120 Total				**5803**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**17**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		
121	601	19	M1-1	1683	1	0	0	2	2	0	0	0	M1-2/R5B	3	0	0	0	0	1	0	0	0		
121	601	20	M1-1	1717	1	0	0	1	1	0	0	0	M1-2/R5B	3	0	0	0	0	2	0	0	0		
121 Total				**3400**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
122	397	31	M1-3D	5475	5	0	0	3	3	0	0	0	Split M1-2/R5D/ R5B	11	0	0	0	0	8	0	0	0		
122	397	30	M1-3D	2017		0	0	3	3	0	0	0	Split M1-2/R5D/ R5B	4	0	0	0	0	1	0	0	0		
122 Total				**7492**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**15**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**		
123	408	38	M1-3D	7509	5	2904	0	0	0	2904	0	0	M1-2/R5B	12	0	0	0	0	12	-2904	0	0		
123	408	37	M1-3D	2523		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
123 Total				**10032**		**2904**	**0**	**3**	**3**	**2904**	**0**	**0**		**16**	**0**	**0**	**0**	**0**	**13**	**-2904**	**0**	**0**		
124	367	40	M1-3D	4210	5	800	0	3	3	800	0	0	M1-2/R6A	13	0	0	0	0	10	-800	0	0		
124	367	42	M1-3D	2500		0	0	0	0	0	2500	0	M1-2/R6A	8	0	0	0	0	8	0	-2500	0		
124 Total				**6710**		**800**	**0**	**3**	**3**	**800**	**2500**	**0**		**21**	**0**	**0**	**0**	**0**	**18**	**-800**	**-2500**	**0**		
125	407	16	M1-3D	2533		0	2500	0	0	0	0	2500	M1-2/R5B	4	0	0	0	0	4	0	0	-2500		
125	407	17	M1-3D	2504		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
125 Total				**5037**		**0**	**2500**	**3**	**3**	**0**	**0**	**2500**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**-2500**		
126	369	113	M1-3D	1500		0	0	3	3	0	0	0	M1-2/R6A	5	0	0	0	0	2	0	0	0		
126	369	211	M1-3D	1406		0	0	3	3	0	0	0	M1-2/R6A	4	0	0	0	0	1	0	0	0		
126 Total				**2906**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
127	407	35	M1-3D	2504		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
127	407	36	M1-3D	2504		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
127 Total				**5008**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
128	398	29	M1-3D	2523		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
128	398	30	M1-3D	2523		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
128 Total				**5046**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
129	396	23	M1-3D	2521		0	0	1	1	0	0	0	M1-2/R5D	5	0	0	0	0	4	0	0	0		
129	396	24	M1-3D	2500		7500	0	0	0	7500	0	0	M1-2/R5B	4	0	0	0	0	4	-7500	0	0		
129 Total				**5021**		**7500**	**0**	**1**	**1**	**7500**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**8**	**-7500**	**0**	**0**		
130	395	1	M1-3D	1502		0	0	2	2	0	0	0	M1-2/R5D	3	0	0	0	0	1	0	0	0		
130	395	2	M1-3D	1502		0	0	2	2	0	0	0	M1-2/R5D	3	0	0	0	0	1	0	0	0		
130 Total				**3004**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**		
131	395	3	M1-3D	1502		0	0	2	2	0	0	0	M1-2/R5D	3	0	0	0	0	1	0	0	0		
131	395	4	M1-3D	1502		0	0	2	2	0	0	0	M1-2/R5D	3	0	0	0	0	1	0	0	0		
131	395	5	M1-3D	1502		0	0	2	2	0	0	0	M1-2/R5D	3	0	0	0	0	1	0	0	0		
131 Total				**4506**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
132	395	30	M1-3D	2504		638	0	1	1	638	0	0	M1-2/R5B	4	0	0	0	0	3	-638	0	0		
132	395	31	M1-3D	2504		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
132 Total				**5008**		**638**	**0**	**3**	**3**	**638**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**-638**	**0**	**0**		
133	388	19	M1-3D	2504		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
133	388	20	M1-3D	1606		0	0	1	1	0	0	0	M1-2/R5B	3	0	0	0	0	2	0	0	0		
133 Total				**4110**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**7**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
134	386	12	M1-3D	1665		0	0	2	2	0	0	0	M1-2/R6A	5	0	0	0	0	3	0	0	0		
134	386	13	M1-3D	1665		0	0	2	2	0	0	0	M1-2/R6A	5	0	0	0	0	3	0	0	0		
134 Total				**3330**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
135	386	16	M1-3D	2019		0	0	2	2	0	0	0	M1-2/R6A	6	0	0	0	0	4	0	0	0		
135	386	17	M1-3D	2094		0	0	2	2	0	0	0	M1-2/R6A	6	0	0	0	0	4	0	0	0		
135 Total				**4113**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
136	384	5	M1-3D	2622		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
136	384	6	M1-3D	2500		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
136 Total				**5122**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
137	383	11	M1-3D	2149		0	0	3	3	0	0	0	M1-2/R6A	6	0	0	0	0	3	0	0	0		
137	383	12	M1-3D	2149		0	0	1	1	0	0	0	M1-2/R6A	6	0	0	0	0	5	0	0	0		
137 Total				**4298**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**		
138	383	33	M1-3D	1691		0	0	2	2	0	0	0	M1-2/R6A	5	0	0	0	0	3	0	0	0		
138	383	1	M1-3D	2251		0	0	2	2	0	0	0	M1-2/R5D	5	0	0	0	0	3	0	0	0		
138 Total				**3942**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
139	381	11	M1-3D	2315		4950	0	0	0	4950	0	0	M1-2/R6A	7	0	0	0	0	7	-4950	0	0		
139	381	12	M1-3D	2296		0	0	3	3	0	0	0	M1-2/R6A	7	0	0	0	0	4	0	0	0		
139 Total				**4611**		**4950**	**0**	**3**	**3**	**4950**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**11**	**-4950**	**0**	**0**		
140	380	5	M1-3D	2155		1000	0	2	2	1000	0	0	M1-2/R6A	6	0	0	0	0	4	-1000	0	0		
140	380	6	M1-3D	2296		0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
140 Total				**4451**		**1000**	**0**	**4**	**4**	**1000**	**0**	**0**		**13**	**0**	**0**	**0**	**0**	**9**	**-1000**	**0**	**0**		
141	374	48	M1-3D	2117		0	0	2	2	0	0	0	M1-2/R6A	6	0	0	0	0	4	0	0	0		
141	374	49	M1-3D	2117		0	0	3	3	0	0	0	M1-2/R6A	6	0	0	0	0	3	0	0	0		
141 Total				**4234**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**		
142	374	50	M1-3D	2167		0	0	3	3	0	0	0	M1-2/R6A	7	0	0	0	0	4	0	0	0		
142	374	51	M1-3D	2167		0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
142 Total				**4334**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**		
143	374	46	M1-3D	2069		0	0	3	3	0	0	0	M1-2/R6A	6	0	0	0	0	3	0	0	0		
143	374	47	M1-3D	2094		0	0	3	3	0	0	0	M1-2/R6A	6	0	0	0	0	3	0	0	0		
143 Total				**4163**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**12**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**		
144	372	3	M1-3D	1865		1850	1850	0	0	1850	0	1850	M1-2/R6A	6	0	0	0	0	6	-1850	0	-1850		
144	372	4	M1-3D	3470		0	1600	0	0	0	0	1600	M1-2/R6A	10	0	0	0	0	10	0	0	-1600		
144 Total				**5335**		**1850**	**3450**	**0**	**0**	**1850**	**0**	**3450**		**16**	**0**	**0**	**0**	**0**	**16**	**-1850**	**0**	**-3450**		
145	370	34	M1-3D	2354		0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
145	370	35	M1-3D	2317		0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0		
145 Total				**4671**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		
146	368	9	M1-3D	2712		0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
146	368	10	M1-3D	2647		0	0	3	3	0	0	0	M1-2/R5B	4	0	0	0	0	1	0	0	0		
146 Total				**5359**		**0**	**0**	**5**	**5**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**		
147	600	22	M1-1	1980		0	0	3	3	0	0	0	M1-2/R6A	6	0	0	0	0	3	0	0	0		
147	600	23	M1-1	1590		972	0	3	3	972	0	0	M1-2/R6A	5	0	0	0	0	2	-972	0	0		
147 Total				**3570**		**972**	**0**	**6**	**6**	**972**	**0**	**0**		**11**	**0**	**0**	**0**	**0**	**5**	**-972**	**0**	**0**		
148	600	24	M1-1	1590		0	0	3	3	0	0	0	M1-2/R6A	5	0	0	0	0	2	0	0	0		
148	600	25	R5	1590		0	0	3	3	0	0	0	M1-2/R6A	5	0	0	0	0	2	0	0	0		
148 Total				**3180**		**0**	**0**	**6**	**6**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
149	600	39	M1-1	2250		0	0	6	6	0	0	0	M1-2/R5B	4	0	0	0	0	-2	0	0	0		
149	600	48	M1-1	1440		0	0	1	1	0	0	0	M1-2/R5B	2	0	0	0	0	1	0	0	0		
149 Total				**3690**		**0**	**0**	**7**	**7**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**-1**	**0**	**0**	**0**		
150	600	116	M1-1	290		0	0	0	0	0	0	0	M1-2/R6A	1	0	0	0	0	1	0	0	0		
150	600	148	M1-1	1440		0	0	1	1	0	0	0	M1-2/R5B	2	0	0	0	0	1	0	0	0		
150 Total				**1730**		**0**	**0**	**1**	**1**	**0**	**0**	**0**		**3**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**		
151	369	14	M1-3D	2440		800	0	2	2	800	0	0	M1-2/R6A	7	0	0	0	0	5	-800	0	0		
151	369	15	M1-3D	2440		0	3020	0	0	0	0	3020	M1-2/R6A	7	0	0	0	0	7	0	0	-3020		
151 Total				**4880**		**800**	**3020**	**2**	**2**	**800**	**0**	**3020**		**14**	**0**	**0**	**0**	**0**	**12**	**-800**	**0**	**-3020**		
152	380	11	M1-3D	2500	5	1375	0	2	2	1375	0	0	M1-2/R6A	8	0	0	0	0	6	-1375	0	0		
152 Total				**2500**		**1375**	**0**	**2**	**2**	**1375**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**6**	**-1375**	**0**	**0**		
153	407	10	M1-3D	2425	5	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
153 Total				**2425**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**4**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**		
154	368	1	M1-3D	4500	5	9000	0	0	0	9000	0	0	M1-2/R6A	14	0	0	0	0	14	-9000	0	0		
154 Total				**4500**		**9000**	**0**	**0**	**0**	**9000**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**14**	**-9000**	**0**	**0**		
155	376	1	M1-3D	82000	5	0	218000	0	0	218000	0	0	M1-3/R7X	325	78	20500	0	0	325	-197500	0	0		
155 Total				**82000**		**0**	**218000**	**0**	**0**	**218000**	**0**	**0**		**325**	**78**	**20500**	**0**	**0**	**325**	**-197500**	**0**	**0**		
156	385	1	M1-3D	3550	5	700	0	3	3	700	0	0	M1-2/R5D	7	0	0	0	0	4	-700	0	0		
156 Total				**3550**		**700**	**0**	**3**	**3**	**700**	**0**	**0**		**7**	**0**	**0**	**0**	**0**	**4**	**-700**	**0**	**0**		
157	408	1	M1-3D	10000	5	0	17320	0	0	23980	0	0	M1-2/R6A	20	0	0	0	0	20	-23980	0	0		
157 Total				**10000**		**0**	**17320**	**0**	**0**	**23980**	**0**	**0**		**20**	**0**	**0**	**0**	**0**	**20**	**-23980**	**0**	**0**		
158	383	2	M1-3D	9050	5	0	20250	0	0	20250	0	0	M1-2/R5D	20	0	0	0	0	20	-20250	0	0		
158 Total				**9050**		**0**	**20250**	**0**	**0**	**20250**	**0**	**0**		**20**	**0**	**0**	**0**	**0**	**20**	**-20250**	**0**	**0**		
159	387	2	M1-3D	6500	5	0	5520	0	0	0	0	5520	M1-2/R5D	13	0	0	0	0	13	0	0	-5520		
159 Total				**6500**		**0**	**5520**	**0**	**0**	**0**	**0**	**5520**		**13**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**-5520**		
160	399	1	M1-3D	3200	5	0	0	0	0	0	0	0	M1-2/R5D	6	0	0	0	0	6	0	0	0		
160	399	3	M1-3D	7500	5	1835	7326	0	0	1835	0	7326	M1-2/R5D	15	0	0	0	0	15	-1835	0	-7326		
160 Total				**10700**		**1835**	**7326**	**0**	**0**	**1835**	**0**	**7326**		**21**	**0**	**0**	**0**	**0**	**21**	**-1835**	**0**	**-7326**		
161	370	4	M1-3D	3509	5	0	0	2	2	0	0	0	M1-2/R5B	6	0	0	0	0	4	0	0	0		
161 Total				**3509**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		
162	383	5	M1-3D	7000	5	1695	6030	0	0	1695	0	6030	M1-2/R5D	14	0	0	0	0	14	-1695	0	-6030		
162 Total				**7000**		**1695**	**6030**	**0**	**0**	**1695**	**0**	**6030**		**14**	**0**	**0**	**0**	**0**	**14**	**-1695**	**0**	**-6030**		
163	397	5	M1-3D	5046	5	0	0	3	3	0	0	0	M1-2/R5B	8	0	0	0	0	5	0	0	0		
163 Total				**5046**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**8**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**		
164	407	5	M1-3D	5000	5	2000	5800	0	0	2000	0	5800	M1-2/R6A	15	0	0	0	0	15	-2000	0	-5800		
164 Total				**5000**		**2000**	**5800**	**0**	**0**	**2000**	**0**	**5800**		**15**	**0**	**0**	**0**	**0**	**15**	**-2000**	**0**	**-5800**		
165	395	6	M1-3D	17500	5	4600	31500	0	0	4600	0	31500	Split M1-2/ M1-2/R5D//R5B	35	0	0	0	0	35	-4600	0	-31500		
165 Total				**17500**		**4600**	**31500**	**0**	**0**	**4600**	**0**	**31500**		**35**	**0**	**0**	**0**	**0**	**35**	**-4600**	**0**	**-31500**		
166	384	22	M1-3D	12500	5	0	36973	0	0	36973	0	0	M1-2/R5D	25	0	10625	0	0	25	-26348	0	0		
166 Total				**12500**		**0**	**36973**	**0**	**0**	**36973**	**0**	**0**		**25**	**0**	**10625**	**0**	**0**	**25**	**-26348**	**0**	**0**		
167	405	7	M1-3D	5042	5	864	2000	3	3	864	0	2000	M1-2/R6A	15	0	0	0	0	12	-864	0	-2000		
167 Total				**5042**		**864**	**2000**	**3**	**3**	**864**	**0**	**2000**		**15**	**0**	**0**	**0**	**0**	**12**	**-864**	**0**	**-2000**		
168	374	8	M1-3D	7805	5	0	6000	0	0	0	0	6000	M1-2/R5D	16	0	0	0	0	16	0	0	-6000		
168 Total				**7805**		**0**	**6000**	**0**	**0**	**0**	**0**	**6000**		**16**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**-6000**		
169	381	9	M1-3D	4685	5	0	0	3	3	0	0	0	M1-2/R6A	14	0	0	0	0	11	0	0	0		
169 Total				**4685**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		
170	374	12	M1-3D	20500	5	0	18100	0	0	0	0	18100	M1-2/R5D	0	0	0	41000	0	0	0	41000	-18100		
170 Total				**20500**		**0**	**18100**	**0**	**0**	**0**	**0**	**18100**		**0**	**0**	**0**	**41000**	**0**	**0**	**0**	**41000**	**-18100**		
171	600	12	M1-1	5800	1	0	0	2	2	0	0	0	M1-2/R6A	17	0	0	0	0	15	0	0	0		
171 Total				**5800**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**17**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**		
172	405	13	M1-3D	12500	5	7700	1500	0	0	7700	0	1500	M1-2/R5B	21	0	0	0	0	21	-7700	0	-1500		
172 Total				**12500**		**7700**	**1500**	**0**	**0**	**7700**	**0**	**1500**		**21**	**0**	**0**	**0**	**0**	**21**	**-7700**	**0**	**-1500**		
173	383	14	M1-3D	4400	5	0	5795	0	0	0	0	5795	M1-2/R6A	13	0	0	0	0	13	0	0	-5795		
173 Total				**4400**		**0**	**5795**	**0**	**0**	**0**	**0**	**5795**		**13**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**-5795**		
174	408	14	M1-3D	4292	5	0	4258	0	0	0	0	4258	M1-2/R5B	7	0	0	0	0	7	0	0	-4258		
174 Total				**4292**		**0**	**4258**	**0**	**0**	**0**	**0**	**4258**		**7**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**-4258**		
175	371	15	M1-3D	3820	5	0	3615	0	0	0	0	3615	Split M1-2/R6A/R5B	11	0	0	0	0	11	0	0	-3615		
175 Total				**3820**		**0**	**3615**	**0**	**0**	**0**	**0**	**3615**		**11**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**-3615**		
176	382	17	M1-3	4473	5	0	0	2	2	0	0	0	M1-2/R6A	13	0	0	0	0	11	0	0	0		
176 Total				**4473**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**13**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**		
177	387	17	M1-3D	3940	5	0	3940	0	0	0	0	3940	M1-2/R6A	12	0	0	0	0	12	0	0	-3940		
177 Total				**3940**		**0**	**3940**	**0**	**0**	**0**	**0**	**3940**		**12**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**-3940**		
178	368	18	M1-3D	4450	5	0	0	0	0	0	0	0	M1-2/R6A	13	0	0	0	0	13	0	0	0		
178 Total				**4450**		**0**	**0**	**0**	**0**	**0**	**0**	**0**		**13**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**		
179	374	18	M1-3D	4940	5	520	0	5	5	520	0	0	M1-2/R6A	15	0	0	0	0	10	-520	0	0		
179 Total				**4940**		**520**	**0**	**5**	**5**	**520**	**0**	**0**		**15**	**0**	**0**	**0**	**0**	**10**	**-520**	**0**	**0**		

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION				FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT			
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)
180	385	18	M1-3D	5000	5	0	14000	0	0	0	0	14000	M1-2/R6A	15	0	0	0	0	15	0	0	-14000
180 Total				**5000**		**0**	**14000**	**0**	**0**	**0**	**0**	**14000**		**15**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**-14000**
181	396	18	M1-3D	7500	5	1600	7500	0	0	1600	0	7500	M1-2/R5D	15	0	0	0	0	15	-1600	0	-7500
181 Total				**7500**		**1600**	**7500**	**0**	**0**	**1600**	**0**	**7500**		**15**	**0**	**0**	**0**	**0**	**15**	**-1600**	**0**	**-7500**
182	382	19	M1-3D	4750	5	2000	6400	0	0	2000	0	6400	M1-2/R6A	14	0	0	0	0	14	-2000	0	-6400
182 Total				**4750**		**2000**	**6400**	**0**	**0**	**2000**	**0**	**6400**		**14**	**0**	**0**	**0**	**0**	**14**	**-2000**	**0**	**-6400**
183	387	19	M1-3D	7570	5	2000	5500	0	0	2000	0	5500	M1-2/R6A	23	0	0	0	0	23	-2000	0	-5500
183 Total				**7570**		**2000**	**5500**	**0**	**0**	**2000**	**0**	**5500**		**23**	**0**	**0**	**0**	**0**	**23**	**-2000**	**0**	**-5500**
184	407	19	M1-3D	5008	5	0	7500	0	0	0	0	7500	M1-2/R5B	8	0	0	0	0	8	0	0	-7500
184 Total				**5008**		**0**	**7500**	**0**	**0**	**0**	**0**	**7500**		**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-7500**
185	370	20	M1-3D	15000	5	5625	21340	0	0	5625	0	21340	M1-2/R5B	25	0	0	0	0	25	-5625	0	-21340
185 Total				**15000**		**5625**	**21340**	**0**	**0**	**5625**	**0**	**21340**		**25**	**0**	**0**	**0**	**0**	**25**	**-5625**	**0**	**-21340**
186	374	20	M1-3D	7525	5	0	0	0	0	0	0	0	M1-2/R6A	23	0	0	0	0	23	0	0	0
186 Total				**7525**		**0**	**0**	**0**	**0**	**0**	**0**	**0**		**23**	**0**	**0**	**0**	**0**	**23**	**0**	**0**	**0**
187	375	20	M1-3D	9900	5	0	19660	0	0	0	0	19660	M1-2/R6A	30	0	0	0	0	30	0	0	-19660
187 Total				**9900**		**0**	**19660**	**0**	**0**	**0**	**0**	**19660**		**30**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**-19660**
188	407	21	M1-3D	5000	5	2000	8000	0	0	2000	0	8000	M1-2/R5D	10	0	0	0	0	10	-2000	0	-8000
188 Total				**5000**		**2000**	**8000**	**0**	**0**	**2000**	**0**	**8000**		**10**	**0**	**0**	**0**	**0**	**10**	**-2000**	**0**	**-8000**
189	383	22	M1-3D	6754	5	750	6000	0	0	750	0	6000	M1-2/R6A	20	0	0	0	0	20	-750	0	-6000
189 Total				**6754**		**750**	**6000**	**0**	**0**	**750**	**0**	**6000**		**20**	**0**	**0**	**0**	**0**	**20**	**-750**	**0**	**-6000**
190	371	23	M1-3D	6210	5	1920	6210	0	0	1920	0	6210	M1-2/R6A	19	0	0	0	0	19	-1920	0	-6210
190 Total				**6210**		**1920**	**6210**	**0**	**0**	**1920**	**0**	**6210**		**19**	**0**	**0**	**0**	**0**	**19**	**-1920**	**0**	**-6210**
191	374	23	M1-3D	5700	5	1200	5700	0	0	1200	0	5700	M1-2/R6A	17	0	0	0	0	17	-1200	0	-5700
191 Total				**5700**		**1200**	**5700**	**0**	**0**	**1200**	**0**	**5700**		**17**	**0**	**0**	**0**	**0**	**17**	**-1200**	**0**	**-5700**
192	377	23	M1-3D	20530	5	0	6500	0	0	123180	0	0	M1-3/R7X	103	21	0	0	0	103	-123180	0	0
192 Total				**20530**		**0**	**6500**	**0**	**0**	**123180**	**0**	**0**		**103**	**21**	**0**	**0**	**0**	**103**	**-123180**	**0**	**0**
193	395	23	M1-3D	5008	5	0	5000	0	0	0	0	5000	M1-2/R5D	10	0	0	0	0	10	0	0	-5000
193 Total				**5008**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**10**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**-5000**
194	406	24	M1-3D	12500	5	12500	0	0	0	12500	0	0	M1-2/R6A	38	0	0	0	0	38	-12500	0	0
194 Total				**12500**		**12500**	**0**	**0**	**0**	**12500**	**0**	**0**		**38**	**0**	**0**	**0**	**0**	**38**	**-12500**	**0**	**0**
195	380	13	M1-3D	3729	5	0	0	0	0	1865	0	0	M1-3/R7X	15	3	3170	0	0	15	1305	0	0
195 Total				**3729**		**0**	**0**	**0**	**0**	**1865**	**0**	**0**		**15**	**3**	**3170**	**0**	**0**	**15**	**1305**	**0**	**0**
196	367	27	M1-3D	18276	5	2000	16170	0	0	2000	0	16170	Split M1-2/R6A/R5B	55	0	0	0	0	55	-2000	0	-16170
196 Total				**18276**		**2000**	**16170**	**0**	**0**	**2000**	**0**	**16170**		**55**	**0**	**0**	**0**	**0**	**55**	**-2000**	**0**	**-16170**
197	371	27	M1-3D	4279	5	4285	8570	0	0	4285	0	8570	M1-2/R5B	7	0	0	0	0	7	-4285	0	-8570
197 Total				**4279**		**4285**	**8570**	**0**	**0**	**4285**	**0**	**8570**		**7**	**0**	**0**	**0**	**0**	**7**	**-4285**	**0**	**-8570**
198	398	27	M1-3D	5046	5	1343	0	2	2	1343	0	0	M1-2/R5D	10	0	0	0	0	8	-1343	0	0
198 Total				**5046**		**1343**	**0**	**2**	**2**	**1343**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**8**	**-1343**	**0**	**0**
199	384	28	M1-3D	7500	5	0	7620	0	0	0	0	7620	M1-2/R5D	15	0	0	0	0	15	0	0	-7620
199 Total				**7500**		**0**	**7620**	**0**	**0**	**0**	**0**	**7620**		**15**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**-7620**
200	387	28	M1-3D	3597	5	0	0	3	3	0	0	0	M1-2/R5B	6	0	0	0	0	3	0	0	0
200 Total				**3597**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**
201	368	29	M1-3D	4940	5	0	4940	0	0	0	0	4940	M1-2/R5B	8	0	0	0	0	8	0	0	-4940
201 Total				**4940**		**0**	**4940**	**0**	**0**	**0**	**0**	**4940**		**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-4940**
202	371	29	M1-3D	4905	5	3868	4868	0	0	3868	0	4868	M1-2/R5B	8	0	0	0	0	8	-3868	0	-4868
202 Total				**4905**		**3868**	**4868**	**0**	**0**	**3868**	**0**	**4868**		**8**	**0**	**0**	**0**	**0**	**8**	**-3868**	**0**	**-4868**
203	405	29	M1-3D	5000	5	2500	6500	0	0	2500	0	6500	M1-2/R5B	8	0	0	0	0	8	-2500	0	-6500
203 Total				**5000**		**2500**	**6500**	**0**	**0**	**2500**	**0**	**6500**		**8**	**0**	**0**	**0**	**0**	**8**	**-2500**	**0**	**-6500**
204	408	29	M1-3D	7139	5	0	15500	0	0	0	0	15500	Split M1-2/R5B, M1-2/R5D	12	0	0	0	0	12	0	0	-15500
204 Total				**7139**		**0**	**15500**	**0**	**0**	**0**	**0**	**15500**		**12**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**-15500**
205	372	23	M1-3D	2784	5	0	5508	0	0	0	0	5508	M1-2/R6A	8	0	0	0	0	8	0	0	-5508
205	372	21	M1-3D	2295	5	0	0	1	1	0	0	0	M1-2/R6A	7	0	0	0	0	6	0	0	0
205	372	22	M1-3D	2663	5	0	621	1	1	0	0	621	M1-2/R6A	8	0	0	0	0	7	0	0	-621
205 Total				**7742**		**0**	**6129**	**2**	**2**	**0**	**0**	**6129**		**23**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**-6129**
207	399	31	M1-3D	7500	5	0	7400	0	0	0	0	7400	M1-2/R7X	38	8	0	0	0	38	0	0	-7400
207 Total				**7500**		**0**	**7400**	**0**	**0**	**0**	**0**	**7400**		**38**	**8**	**0**	**0**	**0**	**38**	**0**	**0**	**-7400**
208	385	32	M1-3D	4983	5	0	0	2	2	0	0	0	M1-2/R5D	10	0	0	0	0	8	0	0	0
208 Total				**4983**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**10**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**
209	374	33	M1-3D	16143	5	0	8602	0	0	0	0	8602	M1-2/R5D	32	0	0	0	0	32	0	0	-8602
209 Total				**16143**		**0**	**8602**	**0**	**0**	**0**	**0**	**8602**		**32**	**0**	**0**	**0**	**0**	**32**	**0**	**0**	**-8602**
210	395	33	M1-3D	5000	5	0	5000	0	0	0	0	5000	M1-2/R5D	10	0	0	0	0	10	0	0	-5000
210 Total				**5000**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**10**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**-5000**
211	375	33	M1-3D	22276	5	11500	14316	0	0	11500	0	14316	M1-2/R6A	24	0	0	0	14316	24	-11500	0	0
211 Total				**22276**		**11500**	**14316**	**0**	**0**	**11500**	**0**	**14316**		**24**	**0**	**0**	**0**	**14316**	**24**	**-11500**	**0**	**0**
212	386	5	M1-3D	2018	5	0	0	2	2	0	0	0	M1-2/R5B	3	0	0	0	0	1	0	0	0
212	386	6	M1-3D	1800	5	0	0	2	2	0	0	0	M1-2/R5B	3	0	0	0	0	1	0	0	0
212 Total				**3818**		**0**	**0**	**4**	**4**	**0**	**0**	**0**		**6**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**

SITE INFORMATION			EXISTING CONDITIONS						FUTURE NO-ACTION					FUTURE WITH ACTION (Inclusionary Housing)						INCREMENT				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area (sf)	Maximum Floor Area Ratio (FAR)	Commerical Floor Area (sf)	Industrial Floor Area (sf)	Dwelling Units	Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	PROPOSE_ ZONING	Total Dwelling Units	Affordable Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	Total Dwelling Units	Commerical Floor Area (sf)	Community Facility Floor Area (sf)	Industrial Floor Area (sf)		
213	377	1	M1-3D	4800	5	5150	0	0	0	24000	0	0	M1-3/R7X	20	4	4080	0	0	20	-19920	0	0		
213	377	5	M1-3D	9900	5	0	0	0	0	49500	0	0	M1-3/R7X	41	8	8415	0	0	41	-41085	0	0		
213	377	9	M1-3D	10098	5	0	0	0	0	50490	0	0	M1-3/R7X	42	8	8583	0	0	42	-41907	0	0		
213	377	40	M1-3D	2300	5	0	0	0	0	11500	0	0	M1-3/R7X	10	2	1955	0	0	10	-9545	0	0		
213 Total				**27098**		**5150**	**0**	**0**	**0**	**135490**	**0**	**0**		**112**	**22**	**23033**	**0**	**0**	**112**	**-112457**	**0**	**0**		
214	395	35	M1-3D	5008	5	0	5000	0	0	0	0	5000	M1-2/R5D	10	0	0	0	0	10	0	0	-5000		
214 Total				**5008**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**10**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**-5000**		
215	408	35	M1-3D	5046	5	0	5000	0	0	0	0	5000	M1-2/R5B	8	0	0	0	0	8	0	0	-5000		
215 Total				**5046**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-5000**		
216	370	36	M1-3D	4730	5	0	0	2	2	0	0	0	M1-2/R6A	14	0	0	0	0	12	0	0	0		
216 Total				**4730**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**14**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**		
217	367	38	M1-3D	5420	5	0	0	1	1	0	0	0	M1-2/R6A	16	0	0	0	0	15	0	0	0		
217 Total				**5420**		**0**	**0**	**1**	**1**	**0**	**0**	**0**		**16**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**		
218	396	39	M1-3D	5004	5	0	4750	0	0	0	0	4750	M1-2/R5D	10	0	0	0	0	10	0	0	-4750		
218 Total				**5004**		**0**	**4750**	**0**	**0**	**0**	**0**	**4750**		**10**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**-4750**		
219	395	40	M1-3D	5000	5	5000	5000	0	0	5000	0	5000	M1-2/R5D	10	0	0	0	0	10	-5000	0	-5000		
219 Total				**5000**		**5000**	**5000**	**0**	**0**	**5000**	**0**	**5000**		**10**	**0**	**0**	**0**	**0**	**10**	**-5000**	**0**	**-5000**		
220	395	126	M1-3D	6250	5	0	10000	0	0	0	0	10000	M1-2/R5D	13	0	0	0	0	13	0	0	-10000		
220 Total				**6250**		**0**	**10000**	**0**	**0**	**0**	**0**	**10000**		**13**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**-10000**		
221	384	9	M1-3D	5320	5	0	0	2	2	0	0	0	M1-2/R5B	9	0	0	0	0	7	0	0	0		
221 Total				**5320**		**0**	**0**	**2**	**2**	**0**	**0**	**0**		**9**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**		
222	378	1	M1-3D	29918	5	8700	21200	0	0	8700	0	21200	M1-3/R7X	124	25	25430	0	0	124	16730	0	-21200		
222 Total				**29918**		**8700**	**21200**	**0**	**0**	**8700**	**0**	**21200**		**124**	**25**	**25430**	**0**	**0**	**124**	**16730**	**0**	**-21200**		
223	408	16	M1-3D	4292		300	3950	0	0	300	0	3950	M1-2/R5B	7	0	0	0	0	7	-300	0	-3950		
223 Total				**4292**		**300**	**3950**	**0**	**0**	**300**	**0**	**3950**		**7**	**0**	**0**	**0**	**0**	**7**	**-300**	**0**	**-3950**		
224	407	37	M1-3D	10000		2000	8000	0	0	2000	0	8000	M1-2/R5B	17	0	0	0	0	17	-2000	0	-8000		
224 Total				**10000**		**2000**	**8000**	**0**	**0**	**2000**	**0**	**8000**		**17**	**0**	**0**	**0**	**0**	**17**	**-2000**	**0**	**-8000**		
226	387	4	M1-3D	3500		2935	945	0	0	2935	0	945	M1-2/R5D	7	0	0	0	0	7	-2935	0	-945		
226 Total				**3500**		**2935**	**945**	**0**	**0**	**2935**	**0**	**945**		**7**	**0**	**0**	**0**	**0**	**7**	**-2935**	**0**	**-945**		
227	384	11	M1-3D	5000		0	5000	0	0	0	0	5000	M1-2/R5B	8	0	0	0	0	8	0	0	-5000		
227 Total				**5000**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-5000**		
228	375	24	M1-3D	19500		13200	6300	0	0	13200	0	6300	M1-2/R5D	39	0	0	0	0	39	-13200	0	-6300		
228 Total				**19500**		**13200**	**6300**	**0**	**0**	**13200**	**0**	**6300**		**39**	**0**	**0**	**0**	**0**	**39**	**-13200**	**0**	**-6300**		
229	386	7	M1-3D	11000		0	0	0	0	0	0	0	M1-2/R5B	18	0	0	0	0	18	0	0	0		
229 Total				**11000**		**0**	**0**	**0**	**0**	**0**	**0**	**0**		**18**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**		
230	372	7	M1-3D	5204		5200	5200	0	0	5200	0	5200	M1-2/R6A	16	0	0	0	0	16	-5200	0	-5200		
230 Total				**5204**		**5200**	**5200**	**0**	**0**	**5200**	**0**	**5200**		**16**	**0**	**0**	**0**	**0**	**16**	**-5200**	**0**	**-5200**		
231	405	41	M1-3D	5005		0	5000	0	0	0	0	5000	M1-2/R5B	8	0	0	0	0	8	0	0	-5000		
231 Total				**5005**		**0**	**5000**	**0**	**0**	**0**	**0**	**5000**		**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**-5000**		
232	599	48	M1-1	8955	1	0	8900	0	0	0	0	8900	M1-2/R6A	27	0	0	0	0	27	0	0	-8900		
232	599	46	M1-1	2280	1	0	0	2	2	0	0	0	M1-2/R6A	7	0	0	0	0	5	0	0	0		
232 Total				**11235**		**0**	**8900**	**2**	**2**	**0**	**0**	**8900**		**34**	**0**	**0**	**0**	**0**	**32**	**0**	**0**	**-8900**		
233	601	17	M1-1	2175	1	0	0	2	2	0	0	0	M1-2/R5B	4	0	0	0	0	2	0	0	0		
233	601	18	M1-1	1649	1	0	0	1	1	0	0	0	M1-2/R5B	3	0	0	0	0	2	0	0	0		
233 Total				**3824**		**0**	**0**	**3**	**3**	**0**	**0**	**0**		**7**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**		

APPENDIX C—

RESUMES OF KEY PERSONNEL

TINA FORTUGNO, RPA
The Louis Berger Group, Inc.
Archaeologist

EDUCATION

- M.A., Anthropology, University of Arizona, 2002.
- B.A., magna cum laude, Anthropology, Columbia University, 1998.

TECHNICAL TRAINING

- *Health and Safety Training for Archaeologists*, Panamerican Consultants, Inc., and the New York State Occupational Safety and Health Training and Educational Program, 2006.

PROFESSIONAL REGISTRATION

- Register of Professional Archaeologists (RPA)

PROFESSIONAL EXPERIENCE

Ms. Fortugno's background includes archaeological investigations at precontact sites and historic sites dating to the eighteenth through the early twentieth centuries in the Northeast. As Principal Investigator she is responsible for the design and execution of archaeological research projects involving historic and precontact resources. Her responsibilities include implementing surveys and excavations, performing background and site-specific research, analysis and interpretation of archaeological data and artifacts, preparation of technical reports, and consultation with regulatory agencies. Her specialties include urban archaeology and public interpretation, information, and education. Since joining The Louis Berger Group, Inc., Ms. Fortugno's major projects have included the following.

- **Phase IA Cultural Resource Assessment, Proposed New Primary/Intermediate School at PS/IS 48, William Wordsworth School, Queens, New York**. Served as archaeologist conducting historic research, on-site evaluation, and co-authored assessment report for proposed construction of a new primary/intermediate school adjacent to PS 48 in Queens, New York. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, Replacement of the Central Avenue Bridge over Blind Brook (BIN 2225280), Rye, New York**. Archaeologist for background research, on-site evaluation, limited field testing, and co-authored assessment report for proposed replacement of the Central Avenue Bridge. For the City of Rye, New York.

- **Phase I Archaeological Investigation, Frazee House and Grounds, Scotch Plains, Union County, New Jersey**. As part of a holistic approach to the preservation of the eighteenth-century Frazee House, served as Principal Investigator/Field Director for systematic subsurface excavations and controlled test unit excavations in the front, side, and rear yards of Frazee House. Testing in the rear and side yards of the property revealed extensive disturbance as a result of twentieth-century land manipulation and use. The historic ground surface had been severely disturbed or, in some places, completely effaced by more recent activities. Investigations in the front yard of Frazee House revealed that this area has not been as severely manipulated and exposed fairly intact historic deposits. A light domestic scatter of historic ceramics, including creamware, pearlware, yellow-slipped redware, and Staffordshire slipped sherds, kaolin pipe stem fragments, and bottle glass, was recovered from the front yard. For the Fanwood/Scotch Plains Rotary/the Aunt Betty Frazee Project.

- **Phase II Archaeological Investigation for Proposed Improvements to the Woodloch Intersection of SR590 and SR0408, Lackawanna Township, Pike County, Pennsylvania**. Crew Chief for Phase II archaeological fieldwork at a potentially multicomponent (Middle Archaic to Late Woodland) precontact site. Provided additional supervisory support for the excavation of more than 40 1x1-meter test units to delineate the boundaries and evaluate the National Register eligibility of the site. For the Pennsylvania Department of Transportation, Engineering District 4-0, Dunmore, Pennsylvania.

- **Supplemental Phase IB Archaeological Survey for Proposed Improvements to SR 0706, Susquehanna County, Pennsylvania**. Field Director for the archaeological survey of newly proposed alterations to the SR 0706 corridor in Susquehanna County, which identified a precontact archaeological deposit in the vicinity of previously recorded precontact sites. For Pennsylvania Department of Transportation, Engineering District 4-0.

- **Phase IA Cultural Resource Assessment, Lehman College New Science Facility Project, Lehman College, Bronx, New York**. Archaeologist for background research, on-site evaluation, and co-author of assessment report for proposed construction of a new science facility at the Lehman College Campus in Bronx, New York. For the Dormitory Authority of the State of New York.

- **Phase I Archaeological Investigation, Stream Restoration and Related Work in the Sweet Brook Bluebelt, Annadale, Staten Island, New York**. Principal Investigator/Field Director for archaeological investigations in advance of the restoration and alteration of two sites along the Sweet Brook Bluebelt and its associated wetlands in Annadale, Staten Island, New York. The Sweet Brook Bluebelt area is owned by the New York City Department of Environment Protection and regulated by the New York State Department of Environmental Conservation. This investigation involved an assessment of past ground disturbance and of the potential for historic archaeological resources within the project area. For the JRC Construction Corporation.

- **Phase I/II Cultural Resource Investigations Along County Road No. 13 (Chase Road), Luzerne County, Pennsylvania**. Served as editor and prepared graphics for synthetic report of Phase I and Phase II archaeological investigations along County Road No. 13 in Luzerne County, Pennsylvania. Work was originally conducted by Ecoscience, Inc. in 1995, 1997, and 1999. Synthetic report was created by Berger for the Pennsylvania Department of Transportation, Engineering District 4-0.

- **Phase I/II Cultural Resource Investigations Along County Road No. 16 (Chase Road), Luzerne County, Pennsylvania**. Served as editor and prepared graphics for synthetic report of Phase I and Phase II archaeological investigations along County Road No. 16 in Luzerne County, Pennsylvania. Work was originally conducted by Ecoscience, Inc. in 1995, 1997, and 1999. Synthetic report was created by Berger for the Pennsylvania Department of Transportation, Engineering District 4-0.

- **Phase IB Archaeological Survey, Eagle Academy for Young Men, Block 2923, Lots 17, 23, & 26, Bronx, New York**. Principal Investigator/Field Director for archaeological trenching at a proposed New York City school location situated in the Tremont section of the Bronx. Excavations identified, evaluated, and mitigated a buried historic trash scatter and bottle dump feature dating to the early to mid-twentieth century. For the New York City School Construction Authority.

PREVIOUS PROFESSIONAL EXPERIENCE

Historical Perspectives, Inc., Westport, Connecticut. *Field Director/Research Specialist.* Directed and supervised crew in Phase IB, Phase II, and Phase III archaeological investigations. Conducted primary and secondary research for Phase IA projects in New York, New Jersey, and Connecticut. Authored and contributed to final client reports and memos, including creating and editing figures, tables, and photographs. Processed, cataloged, and inventoried recovered precontact and historic material. Coordinated efforts between a large interagency research project and integrated resulting data. Completed site walkovers and disturbance assessments in both urban and rural settings. 2003-2007. Selected publications and reports are listed below.

- **Phase IA Archaeological Assessment, Mountainview at Valhalla, Westchester County, Mount Pleasant, New York**. Prepared for Mountainview NY, LLC, Scarsdale, New York. 2007.

- **Phase III Archaeological Data Recovery, Tuxedo Reserve Quartz Quarry (OPRHP 00PR04426), Tuxedo, New York**. Prepared for R.H. Tuxedo Development and The Related Companies, L.P. 2007

- **Phase IA/IB Archaeological Investigation, Tartikov Rabbinical Project, Pomona, New York** (Julie Abell Horn and Tina Fortugno). Prepared for Saccardi and Schiff, Inc., White Plains, New York. 2007.

- **Phase II Archaeological Investigation, Westgate Farms, Greenburgh, New York**. Prepared for Saccardi and Schiff, Inc., White Plains, New York. 2006.

- **Phase IB Archaeological Field Testing, Yeshiva of the Telshe Alumni, Campagna Mansion Site, Bronx, New York**. Prepared for the Yeshiva of the Telshe Alumni. 2006.

- **Monitoring Report Empire Fulton Ferry State Park, Brooklyn New York** (Tina Fortugno and Sara Mascia). Prepared for the New York State Parks Department. 2006.

- **Phase IA Archaeological Assessment, Serenity Hills, Hyde Park, New York**. Prepared for Malt, Serenity Hills, LLC. 2006.

- **Phase IA Archaeological Assessment and Phase IB Field Testing and Phase II Field Investigation, Somers Estates Development, Somers, New York** (Julie Horn and Tina Fortugno). Prepared for Bajraktari Management Corp., Bronx, New York. 2006.

- **Phase IA Archaeological Assessment and Phase IB Field Investigation, Westgate Farms Development Project Site, Dobbs Ferry Road, Greenburgh, New York** (Julie Abell Horn and Tina Fortugno). Prepared for Saccardi & Schiff, Inc., White Plains, New York. 2005.

- **Stage IB Archaeological Field Testing, Campus at Field Corners, Southeast, New York**. Prepared for Putnam Seabury Partners, L.P., White Plains, New York. 2005.

- **Phase I Archaeological Reconnaissance Survey of 26 Diamond Hill Road, Redding, Connecticut** (Tina Fortugno and Cece Saunders). Prepared for Robert and Diane Abshire, Redding, Connecticut. 2004.

- **Phase I Archaeological Reconnaissance Survey of the Wiacek Farm Estates, Shelton, Connecticut** (Tina Fortugno and Cece Saunders). Prepared for Wiacek Farms, LLC, Shelton, Connecticut. 2004.

- **Cultural Resource Assessment, New Croton Aqueduct Rehabilitation Shaft Sites Westchester, Bronx, and New York County, New York** (Sara Mascia, Faline Schneiderman-Fox, Cece Saunders, and Tina Fortugno). Prepared for Joint Venture of Metcalf & Eddy of New York, Inc., and Hazen and Sawyer, P.C., New York. 2004.

- **Topic Intensive Archaeological Study: World Trade Center Memorial Redevelopment Project, Southern Site Block 54 Lot 1, Bounded by Greenwich, Liberty, Washington, and Albany Streets and Block 56, Lots 15, 20, and 2, Bounded by Liberty, Washington, Cedar, and West Streets, New York, New York** (Tina Fortugno, Julie Abell Horn, Nancy Dickinson, and Sara Mascia). Prepared for AKRF, Inc., New York. 2004.

- **Topic Intensive Archaeological Study: World Trade Center Memorial and Redevelopment Project Site Block 58 Lot 1, Bounded by Church, Vesey, Liberty, and West Streets, New York, New York** (Julie Abell Horn, Nancy Dickinson, Sara Mascia, and Tina Fortugno). Prepared for AKRF, Inc., New York. 2004.

National Forest Service, Black Mesa District. *Forest Service Archaeologist, GS-7.* Conducted archaeological rehabilitation efforts in response to the Rodeo-Chediski fire. Completed systematic survey and site walkovers in assessing damage to previously recorded precontact and historic period sites. July-August 2002.

University of Arizona Field School, Silver Creek Archaeological Project. *Teaching Assistant.* Developed protocol and paperwork for documenting vandalism to archaeological sites. Supervised field school students in the damage assessment of a large scale Puebloan site on the White Mountain Apache Reservation. June-July 2002.

University of Arizona, Arizona State Museum-Borderlands Lab, Tucson, Arizona. *Research Assistant.* Conducted primary and secondary research on artifact and photographic collections. Contributed to project-specific databases; compiled and edited paperwork and reports. Participated in the development and implementation of the traveling *Adriel Heisey Photography Exhibit*, and served as liaison between various divisions within the museum. Supervised student workers and volunteers in curation activities, and developed protocol and procedural manuals for some laboratory procedures. 1999-2002.

University of Arizona/Arizona State Museum Marana Archaeological Field School. *Teaching Assistant.* Directed research and supervised college students in excavation of a precontact archaeological site and in preliminary analysis and curation of recovered artifacts. Supervised photographic documentation of fieldwork activities. January-May 2001.

OTHER WORK EXPERIENCE

Kids on Campus—Diggin' Archaeology, Naugatuck Valley Community College, Waterbury, Connecticut. *Co-Instructor*. Taught and developed curriculum for children ages 9-14 in continuing education class. August 2003.

University of Arizona, Social & Behavioral Sciences Research Institute, Tucson, Arizona. *Assistant to Director*. Participated in the collection and organization of internal grant applications, distributed grant

applications to review committee, and tracked the process of review. Created, maintained, and updated budgets for grant recipients. Managed daily activities at the Research Institute; served as point person for workshop and grant application information. October-December 2002.

National Park Service, Western Archaeological Conservation Center, Tucson, Arizona. *Staff Photographer*. Photographed archaeological and ethnological materials. Compiled spreadsheets tracking monthly photo documentation status. Downloaded and edited digital images, and selected archival images for permanent curation. June-August 2001.

Archaeological Field School, Brown University, Kotzebue, Alaska. July-August 1997.

PAPERS AND PRESENTATIONS

- Frazee House: An Archaeological Investigation. Presented at the Fanwood, Scotch-Plains Rotary, Scotch Plains, New Jersey, August 2007.

DEBORAH VAN STEEN
The Louis Berger Group, Inc.
Architectural Historian

EDUCATION

- M.S., Historic Preservation, Columbia University, 2003. Concentration in History.
- B.A., magna cum laude, Liberal Studies: History and Design, minor in Business, Pace University, 1998.
- Certificate, Interior Design, Pace University, 1998.

AWARDS

- Columbia University Historic Preservation Program, Outstanding Thesis Award, 2003. For *The Architecture of Calvin Pollard (1797-1850).*
- Columbia University Preservation Alumni, Inc., Cleo and James Marston Fitch Thesis Grant, 2002.

PROFESSIONAL AFFILIATIONS

- National Trust for Historic Preservation, Forum
- Society of Architectural Historians
- Association for Preservation Technology
- Preservation Alumni, Columbia University
- Preservation League of New York State
- Connecticut Trust for Historic Preservation
- Preservation New Jersey
- Village of Ossining Historic Review Commission, 2000-Present.
- Ossining Historical Society Museum, 1997-Present. President, 2003-2006 Vice President 2006-Present; Board of Trustees, 1997-Present.

PROFESSIONAL EXPERIENCE

Ms. Van Steen joined The Louis Berger Group, Inc., as an Architectural Historian in 2007. She possesses 10 years professional experience in providing an array of cultural resource management services to transportation agencies and municipal governments. As a consultant she has provided historic preservation services for federal and state-funded transportation projects in New York and New Jersey in compliance with Section 106 of the National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969, Section 14.09 of the New York State Historic Preservation Act of 1980, and New York's State Environmental Quality Review Act. These undertakings have ranged from small rehabilitation planning projects to large corridor studies and have required the documentation and evaluation of a wide variety of historic properties, including college campus, transportation, residential, agricultural, urban, and rural properties. She has managed architectural and cultural resource identification surveys and historical research, conducted determination of eligibility and project effects and impacts analyses, prepared project documentation, and HABS/HAER narrative reports. In addition, while serving on the Ossining Historical Society Museum's Board of Trustees, Ms. Van Steen wrote and administered several historic preservation grants for the conservation treatment of historic objects and buildings, and a historic landscape report. She has also prepared educational materials, brochures, and pamphlets.

Since joining Berger in 2007, Ms. Van Steen's major projects have included the following.

- **Draft of Standard Rehabilitation Treatment Specifications for Department of Defense Structures.** Prepared a series of "best practice" specifications translating the Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings into concise treatment statements incorporating state-of-the-art preservation and conservations techniques and existing technical data. For Naval Facilities Engineering Command.

- **Investigations at the Garden State Parkway, Interchanges 9, 10, and 11, Middle Township, Cape May County, New Jersey.** Assessed historic architecture within the APE for the proposed improvements to Interchanges 9, 10, and 11 along the Garden State Parkway between mile markers 8 and 12. For New Jersey Turnpike Authority and Federal Highway Administration.

- **Investigations at the Goethals Bridge, Staten Island New York / New Jersey**. Evaluated National Register eligibility and potential impacts for historic architectural resources within the APE in New York and New Jersey for the proposed replacement of the Goethals Bridge. Assisted in the Alternatives Analysis and the Environmental Impact Statement. For The Port Authority of New York and New Jersey.

- **Proposed Improvements to the Woodloch Intersection of SR 590 and SR 0408, Lackawanna Township, Pike County, Pennsylvania**. Evaluated National Register eligibility and potential impacts for historic architectural resources and the historic ruins of a former mill with associated raceways and residence located within/adjacent to the proposed right-of-way for the project. For Pennsylvania Department of Transportation, Engineering District 4-0.

- **Jail Hill, SR 0171 at Lanesboro, Susquehanna County, Pennsylvania.** Assessed historic architecture in association with the proposed improvements along SR 0171 at Lanesboro in Susquehanna County, Pennsylvania. This study resulted in the identification of three properties eligible for listing in the National Register. For Pennsylvania Department of Transportation, Engineering District 4-0

- **Cultural Resource Services, Lehman College New Science Facility, Environmental Review, Bronx, New York**. Evaluating National Register eligibility and potential impacts for historic architectural resources adjacent to the proposed science building at Lehman College with emphasis on survey and evaluation of the twentieth-century college campus buildings. For Dormitory Authority of the State of New York.

- **Cultural Resource Services, Second Avenue Subway, Phase 1, New York, New York**. Evaluated historic architectural resources adjacent to the proposed station locations for Second Avenue Subway, from East 63rd to East 99th Streets, for National Register eligibility. For New York City Transit.

- **Cultural Resource Services, NJ Turnpike Widening Interchange 6-8A, Phase 1, Burlington, Mercer, and Middlesex Counties, New Jersey**. Evaluating National Register eligibility and potential impacts for historic architectural resources and historic corridors adjacent to and/or that cross the NJ Turnpike in the area between Exits 6 and 8A. For New Jersey Turnpike Authority.

- **Cultural Resource Services, Sentinel Pipeline Expansion Project, Cultural Resource Survey, New Jersey**. Evaluating National Register eligibility and potential impacts for historic architectural resources adjacent to the proposed metering station locations and pipeline expansion for the Sentinel Pipeline in Bergen, Burlington, Mercer, Middlesex, Somerset, and Union counties. For Transcontinental Gas Pipe Line Corporation.

- **Cultural Resource Constraints Technical Memo, Dinky Right-of-Way Route 1 BRT Project, Princeton Township, Princeton Borough, and West Windsor Township, Mercer County, New Jersey**. Provided a summary of the potential cultural resource constraints identified within the Dinky right-of-way project area of the proposed Route 1 Bus Rapid Transit Project. Conducted field reconnaissance of historic architectural resources adjacent to the proposed BRT right-of-way. For New Jersey Transit.

PREVIOUS PROFESSIONAL EXPERIENCE

Architectural Historian, Lynn Drobbin & Associates, Pelham, New York. Managed and conducted historic preservation compliance studies for federal- and state-funded rail transportation projects in New York, New Jersey, and Pennsylvania. Prepared historic architectural resource background studies and effects assessments in compliance with federal and state historic preservation regulations. Identified and documented buildings, objects, structures, and districts as part of National and State Register eligibility determinations. Prepared HABS/HAER documentations. Selected projects included the following.

- **Northern Branch Corridor Rail Project, New Jersey**. Prepared Draft Environmental Impact Statement (DEIS) historic resource analysis and effects assessment. For New Jersey Transit.

- **Metro-North Railroad Stations Assessment Project, Westchester, Bronx, and Dutchess counties, New York**. Identified and documented historic features of five railroad stations. For Metro-North Railroad, Metropolitan Transit Authority.

- **Monmouth-Ocean-Middlesex Counties Rail Corridor Study, New Jersey**. Historic resource survey and eligibility analysis and preparation of DEIS chapters for planned restoration of rail service. For New Jersey Transit.

- **Poughkeepsie Station Improvement Project, Dutchess County, New York**. Historic resource and effects analysis for Section 106 compliance review of historic rail station listed in the National Register. For Metro-North Railroad, Metropolitan Transit Authority.

- **East 180th Street Station Rehabilitation, New York, New York**. Impacts analysis for rehabilitation of historic rail station listed in the National Register and adjacent subway station. For New York City Transit, Metropolitan Transit Authority.

- **West Trenton Passenger Line Restoration, Mercer County, New Jersey**. Historic resource survey and eligibility analysis for proposed restoration of rail service. For New Jersey Transit.

- **Park Avenue Bridge Replacement Project, New York, New York**. Historic research and documentation for historic bridge replacement and preparation of HAER report. For Metro-North Railroad, Metropolitan Transit Authority.

- **Lower Hack Vertical Lift Bridge Rehabilitation Project, Jersey City, New Jersey**. Effects assessment for rehabilitation of historic concrete and steel lift bridge. For New Jersey Transit.

- **Pelham Station Adaptive Reuse Project, Pelham, New York**. Assessment of project impacts for proposed alterations and improvements to historic railroad station. For Metro-North Railroad, Metropolitan Transit Authority.

- **Lackawanna Cutoff Passenger Restoration Project, New Jersey and Pennsylvania**. Field survey and historic resource eligibility analysis for proposed restoration of rail service. For New Jersey Transit.

Historian & Historic Preservation Consultant, Ossining, New York. Provided research on local properties through local land records, historic maps, newspapers, census records, photographs, early tax records and genealogical information. Clients included Charles Lockwood, author of *Bricks and Brownstone*, expert and consultant on restoration of historic townhouse facades and interiors.

Teaching Assistant, Columbia University Graduate School of Architecture, Planning and Preservation. Assisted professor teaching "Architectural History Before 1876" graduate class. Planned and organized lower Hudson valley architectural field study.

Graduate Intern, Historic Districts Council (HDC), New York, New York. Researched and wrote additional text for new edition of Historic Districts Council's (New York City historic preservation advocacy agency) publication *Creating an Historic* District. Updated Certification of Appropriateness database. Previewed historic district applications prior to submittal for NYC Landmarks Preservation Commission review.

Program Development Assistant, Ossining Heritage Area Tourism Committee, Ossining, New York. Partnered with Village and Town of Ossining to develop tourism initiative at Sing Sing Prison encompassing the riverfront, the downtown New York State Heritage Area, and historic portions of the downtown as portion of viable economic development plan. Plan proposed establishment of a museum facility at the prison in the original cell block (built 1825-1828) and former power plant.

Economic Development Assistant, The Alliance for Downtown Ossining (ADO), Ossining, New York. Organized and facilitated informational program emphasizing the benefits of historic preservation as a municipal economic revitalization tool. Identified historic preservation components of economic development plan including historic districts, levels of preservation, sympathetic renovation, and historic building adaptive reuse. Outlined aesthetic and developmental aspects of the Crescent, Ossining's historic downtown area listed in the National Register. Produced educational brochure on Ossining's historic districts and buildings. Represented the ADO as advocate for economic growth, historic preservation and increased pedestrian presence in the central business district.

PAPERS AND PRESENTATIONS

- "Early Chilmark Park" House & Garden Tour. Organized event, wrote tour booklet, and conducted tours. Ossining, New York, 2004.

- The Architecture of Calvin Pollard (1797-1850). Study of a prolific and little-known New York City architect in practice during the second quarter of the nineteenth century. Historic Preservation Thesis, Columbia University, 2003.

- Historic Homes Tour 2000. Photographed and presented photographic tour of Ossining's historic residences. The presentation included over 20 houses and featured building interiors and exteriors documenting Ossining's architectural styles from pre-Revolutionary era through 1920s Neoclassical revival. Ossining Historical Society and Ossining Public Library, 2000 and 2001.

- Downtown. Program on the historical development, growth and entrepreneurs of downtown Ossining during the nineteenth and early twentieth centuries. Ossining Historical Society, 2000.

- *Images of America: Ossining Remembered*, "Architectural Treasures," Carl Oechsner, ed. Arcadia: Charleston, 2006 (Second Edition). Overview of mansions and estates of Ossining in the nineteenth century.

- Ossining, New York: Journey from Urban Renewal to Historic Preservation. Pace University, 1998.
- Historic Destinations & Tourism of the Hudson River Town of Westchester. Pace University, 1998.
- S. Marvin McCord, Ossining Architect. Pace University, 1997.

ZACHARY J. DAVIS
The Louis Berger Group, Inc.
Principal Archaeologist

EDUCATION

- Interdepartmental Doctoral Program in Anthropological Science, State University of New York at Stony Brook, 2000-2005
- M.A., Anthropology, State University of New York at Stony Brook, 2000
- M.A., Archaeology, Institute of Archaeology, University of London, 1994
- B.A., Archaeological Studies, Boston University, 1993

PROFESSIONAL REGISTRATIONS

- Register of Professional Archaeologists (RPA)

TECHNICAL TRAINING

- 8-Hour refresher for Hazardous Waste Operations and Emergency Response, Emilcott Associates, Inc., April 9, 2007
- Cultural Resources Best Practices Workshop, 7-Hour Training Program, New Jersey Historic Preservation Office, October 27, 2006
- 40-Hour H&S for Hazardous Waste Operations and Emergency Response meeting the training requirements of 29 CFR 1910.120. Emilcott Associates, Inc., March 15, 2004
- Trenching and Excavation Safety—OSHA Construction Industry Standards, Subpart P (29 CFR 1926.650-652). Emilcott Associates, Inc., February 19, 2004
- Introduction to Section 106 Review (Ralston Cox, instructor), February 20-21, 2002
- Introduction to GPS using the Trimble Pro XR (Mike Popoloski, instructor), March 19, 2001

PROFESSIONAL AFFILIATIONS

- Society for American Archaeology
- Millburn-Short Hills Historical Society

PROFESSIONAL EXPERIENCE

Mr. Davis's background includes archaeological investigations at prehistoric sites dating to the Paleoindian through the Late Woodland period and historic sites dating to the seventeenth century through the early twentieth century. As Principal Archaeologist, he is responsible for client interaction, preparation of innovative research designs, and overall technical supervision and implementation of research and field projects. He also prepares technical reports and agreement documents in compliance with Section 106 of the National Historic Preservation Act (1966), Section 4(f) of the Department of Transportation Act of 1966, as well as state and local regulations for projects in the metropolitan New York City area and the Northeast and Mid-Atlantic. In addition, Mr. Davis has extensive experience with lithic material analysis and Geographic Information Systems database development and analysis for cultural resources. Since joining Berger, Mr. Davis's major projects include the following.

- **Cultural Resource Services, Second Avenue Subway, Phase 1, New York, New York.** Oversight and coordination of cultural resource compliance for final design and construction of Phase 1 of the Second Avenue Subway, from East 63rd to East 99th Streets. Responsible for drafting the archaeological field

testing plans, archaeological monitoring and implementing archaeological field work in advance of and during construction. Coordinated historic architectural resource evaluations of properties adjacent to the proposed ancillary structures associated with the new subway station. For New York City Transit.

- **Phase IA Cultural Resource Assessment, Proposed New Primary/Intermediate School at PS/IS 48, William Wordsworth School, Queens, New York**. Project Manager for the cultural resource assessment of a new primary/intermediary school adjacent to a historic school building. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, Lehman College New Science Facility Project, Lehman College, Bronx, New York.** Project Manager for the cultural resource assessment conducted for the proposed construction of a new science facility at the Lehman College Campus in Bronx, New York. For the Dormitory Authority of the State of New York.

- **Phase I Archaeological Investigation, Stream Restoration and Related Work in the Sweet Brook Bluebelt, Annadale, Staten Island, New York.** Project Manager for archaeological investigations in advance of the restoration and alteration of two sites along the Sweet Brook Bluebelt and its associated wetlands in Annadale, Staten Island, New York. For the JRC Construction Corporation.

- **Phase IB Archaeological Survey, Eagle Academy for Young Men, Block 2923, Lots 17, 23, & 26, Bronx, New York**. Project Manager for archaeological field testing at a proposed New York City school location in the Tremont section of the Bronx. Excavations identified, evaluated, and mitigated a buried historic trash scatter and bottle dump feature dating to the early to mid-twentieth century. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, Burlington Sod Farm, Springfield Township, Burlington County, New Jersey.** Project Manager for a Phase IA cultural resource assessment of a 640-acre agricultural property slated to become a new county fairgrounds. This study involved historic and cartographic research including the identification and analysis of past disturbances and/or prior settlement and land use, and the assessment of the property regarding its potential to contain historic and/or prehistoric archaeological resources. For the Freeholders of Burlington County.

- **Phase IA Archaeological Assessment, Alcan Aluminum Corporation Focused Remedial Investigation Project, Oswego County, New York**. Project Manager for a Phase IA archaeological assessment under SEQRA for the Alcan Facility prior to the execution of a project designed to mitigate contaminated soils. For ARCADIS/BBL.

- **Phase IB Archaeological Survey, Jamaica Avenue School, Block 4102, Lots 19, 27, 33, 35 & 36**, **Cypress Hills, Brooklyn, Kings County, New York**. Project Manager for archaeological trenching at a proposed New York City school location, situated in the Cypress Hills section of Brooklyn. Excavations identified, evaluated and mitigated extensive backyard deposits dating to the late nineteenth through early twentieth centuries. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, Proposed Eagle Academy for Young Men, East 176th Street, Block 2923, Lots 17, 23, 26, Bronx, New York.** Project Manager for a Phase IA archaeological assessment for a proposed school building in Bronx, New York. This study involved historic and cartographic research including the identification and analysis of past disturbances and/or prior settlement

and land use, and the assessment of the property regarding its potential to contain historic and/or prehistoric archaeological resources. For New York City School Construction Authority.

- **Phase IB Archaeological Survey, Rockaway Boulevard Site, Rockaway Boulevard & Nassau Expressway, Block 14260, Lot 1, Jamaica, Queens County, New York**. Principal Investigator for an archaeological survey of a proposed New York City Transit Bus parking facility, located adjacent to JFK International Airport. Survey consisted of excavation of shovel test pits across the project area. For New York City Transit.

- **Phase IB Archaeological Survey, World Trade Center PATH Terminal, New York City**. Project Manager for archaeological investigations in advance of construction of the new WTC PATH Terminal. Coordinated the excavation of a 170-foot long trench to 15 feet below the surface and within OSHA safety regulations. Identified, evaluated for National Register eligibility, and mitigated late eighteenth- and early nineteenth-century backyard residential archaeological features. For the Port Authority of New York and New Jersey.

- **Phase IA Archaeological Assessment, Rockaway Boulevard Site, Rockaway Boulevard & Nassau Expressway, Block 14260, Lot 1, Jamaica, Queens County, New York**. Principal Investigator for an archaeological resource assessment of a proposed New York City Transit Bus parking facility, located adjacent to JFK International Airport. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New York City Transit.

- **Phase I Cultural Resource Assessment, Trenton-Morrisville Toll Bridge Rehabilitation and One Auxiliary Northbound Lane, Morrisville, Pennsylvania, and Trenton, New Jersey**. Project Manager for a cultural resource assessment of improvements to interchanges and the Trenton-Morrisville Toll Bridge spanning the Delaware River. Study involved archaeological assessment of proposed ground disturbance and historic architectural assessment of proposed interchange improvements to local structures, including the National Historic Landmark Delaware Division of the Pennsylvania Canal. For the Delaware River Joint Toll Bridge Commission.

- **Archaeological Monitoring, Condominiums at Cooke Mill, Market and Jersey Streets, Block H0850, Lot 21, City of Paterson, Passaic County, New Jersey**. Principal Investigator for an archaeological monitoring project at the former location of the Cooke Locomotive and Machine Works, which manufactured locomotives from 1852 until 1926. For Silk Mills Ventures, LLC and the City of Paterson Historic Preservation Commission.

- **Phase IA Archaeological Assessment, Jamaica Avenue School, Block 4102, Lots 19, 27, 33, 35 & 36**, **Cypress Hills, Brooklyn, Kings County, New York**. Principal Investigator for an archaeological resource assessment of a proposed New York City school location, situated in the Cypress Hills section of Brooklyn. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For the New York City School Construction Authority.

- **Phase IA Archaeological Assessment, Remedial Options Pilot Study, Grasse River Study Area, Alcoa-Massena, Massena, New York**. Principal Investigator for the Phase IA archaeological assessment of an early twentieth-century Alcoa fabricating, ingot and extrusion and smelting plant under the jurisdiction of the U.S. EPA as a Superfund Site. Study involved the research and analysis of past

disturbances and potential for historic archaeological resources associated with the industrial use of the project area. For Blasland, Bouck and Lee, Inc.

- **Contextual Study, 153rd Street Pedestrian Bridge Access at Fort Washington Park, Manhattan, New York**. Served as Principal Investigator to assist with the completion of the required environmental documentation for a new pedestrian bridge to provide access from Riverside Drive and 151st Street to Fort Washington Park, crossing over rail lines and the Henry Hudson Parkway (Route 9A). As part of the environmental documentation, a contextual study of the project area was completed, which included an inventory of all historic properties listed and eligible for listing on the state and national registers. For New York State Department of Transportation.

- **Phase IA Archaeological Assessment, Hebrew Academy of Brooklyn/Yeshiva R'tzahd, 965 East 107th Street, Block 8215, Lots 12 & 21, Brooklyn, Kings County, New York**. Principal Investigator for an archaeological resource assessment of a proposed New York City school location, situated in the Canarsie section of Brooklyn. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, East Orange Demonstration Project, Pre-K to 12th Grade School for the Performing Arts, City of East Orange, Essex County, New Jersey**. Principal Investigator for a cultural resource assessment of a proposed new school to be constructed at the present location of the c.1910 East Orange High School. Determined the project's potential to affect potential archaeological resources and coordinated the determination of the East Orange High School's National Register eligibility and the recordation of the school prior to demolition. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Archaeological Assessment, Proposed Vent Plant Installation, West 21st Street and Sixth Avenue, New York, New York**. Principal Investigator for an archaeological resource assessment of a proposed vent plant installation, located in Chelsea. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New York City Transit.

- **Phase IA Cultural Resource Assessment, Proposed Oakwood Avenue Elementary School Addition, City of Orange, Essex County, New Jersey**. As part of the E.O. 215 process, served as the Principal Investigator for a cultural resource assessment of an addition to the existing c. 1888 Oakwood Avenue School. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Cultural Resource Assessment, Proposed Peshine Avenue School, Elementary School Replacement, City of Newark, Essex County, New Jersey**. Principal Investigator for a cultural resource assessment of a proposed new school to be constructed at the present location of the c.1911 Peshine Avenue Elementary School. Determined the project's potential to affect potential archaeological resources through the use of GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Archaeological Assessment, Hudson Yards/Number 7 Subway Line Extension, New York, New York**. Assisted with the analysis of archaeological resource potential for 39 lots on the Westside of Manhattan and determined the potential effect of alternatives on cultural resources. For New York City Department of City Planning and New York City Transit.

- **Phase IB Archaeological Survey, Proposed Vent Plant Installation, Chrystie and Stanton Streets, New York, New York**. Principal Investigator for an archaeological survey consisting of a back-hoe trench excavated to assess the presence or absence of late nineteenth- and early twentieth-century front yard archaeological resources. For New York City Transit.

- **Phase IA Cultural Resource Assessment, Proposed Grove Street Elementary School Replacement, City of Irvington, Essex County, New Jersey**. As part of the E.O. 215 process, served as the Principal Investigator for a cultural resource assessment of a proposed new elementary school to be constructed within an existing residential neighborhood. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Cultural Resource Assessment, Proposed Burnet-Warren Elementary School Replacement, City of Newark, Essex County, New Jersey**. As part of the E.O. 215 process, served as Principal Investigator for a cultural resource assessment of a proposed new elementary school to be constructed within the limits of the James Street Commons Historic District, a National Register listed historic district. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Cultural Resource Eligibility/Effects Investigations for the Proposed Tuckahoe Road (C.R. 557) Bridge Over Cape May Branch Rail Line Replacement, Atlantic County, New Jersey**. Principal Investigator for Section 106 compliance activities for NJDOT's proposed improvements to the Tuckahoe Road Bridge. Project involved subsurface archaeological investigation and historic architectural survey within the area of potential effect (APE). The architectural survey indicated that the Tuckahoe Road Bridge had previously been determined not eligible for inclusion in the National Register of Historic Places. The Cape May Rail Line, also located within the APE, was determined to be potentially eligible for inclusion in the National Register of Historic Places as an historic district owing to its role in the development of New Jersey's rail transportation system and in the growth of the state's seashore tourist resort communities. Based on the review of project plans, Berger concluded that the proposed bridge replacement project would not have an adverse effect on the National Register of Historic Places-eligible Cape May Branch Rail Line.

- **Phase IA Archaeological Assessment, Proposed Fan Plant Rehabilitation, 52nd Street and Sixth Avenue, New York, New York**. Principal Investigator for an archaeological resource assessment of a proposed fan plant rehabilitation, located in midtown Manhattan. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New York City Transit.

- **New Embassy Compound, Baghdad, Iraq**. Research assistant for cultural resource investigations associated with construction of a new embassy compound in Baghdad, Iraq. Tasks included securing historic maps of Baghdad, georeferencing historic maps to modern mapping and drafting portions of the report's historic background section. For the U.S. Department of State, Overseas Buildings Operation.

- **Cultural Resource Screening, Proposed Middle School Replacement, City of Irvington, Essex County, New Jersey**. As part of the Environmental Assessment process, served as the Principal Investigator for a cultural resource assessment of a proposed new elementary school to be constructed within an existing residential neighborhood. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Archaeological Assessment, New South Ferry Terminal, New York, New York**. Responsible for the archaeological resource assessment of a proposed subway terminal project in Battery Park. Required extensive cartographic research documenting the historic evolution of the Lower Manhattan shoreline. Employed GIS technology to georeference numerous historic maps in order to trace potential historic archaeological resources within the project area. Coordinated review with New York City Landmarks Commission and New York State Office of Parks, Recreation and Historic Preservation. Drafted portions of the Memorandum of Agreement and the entirety of the Archaeological Resource Management Plan to be enacted during construction. For New York City Transit.

- **Phase IA Archaeological Assessment, Proposed Fulton Street Transit Center, Fulton Street and Broadway, New York, New York**. Principal Investigator for an archaeological resource assessment of the proposed downtown transit facility, located at Fulton Street and Broadway. Reviewed historic maps and documents and summarized past disturbances to the project area to calculate the project area's potential for archaeological resources. Drafted portions of the project's Programmatic Agreement. For New York City Transit.

- **Phase IA Archaeological Assessment, Proposed Fan Plant Rehabilitation, Lafayette and Flatbush Avenues, Brooklyn, New York**. Principal Investigator for an archaeological resource assessment of a proposed fan plant rehabilitation, located in Fort Green, Brooklyn. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New York City Transit.

- **Triborough Bridge Rehabilitation Project, Randall's and Ward's Islands, New York, New York**. Principal Investigator. A strong possibility for human burials from the Manhattan Psychiatric Center necessitated archaeological monitoring by an RPA-certified Berger archaeologist during all geotechnical borings for the project. Fieldwork included the observation of soil stratigraphy, inspection for human remains, and recordation of archaeological materials. No human remains were identified during the testing, however; specifications related to archaeological issues and the potential for human remains were drafted and incorporated into the bid documents for the construction contracts.

- **Phase IA Archaeological Assessment, Proposed Vent Plant Installation, Chrystie and Stanton Streets, New York, New York**. Principal Investigator for an archaeological resource assessment of a proposed vent plant installation, located in Manhattan's Lower East Side. Employed GIS technology to georeference historic maps to trace potential historic archaeological resources within the project area. For New York City Transit.

- **Phase IA Archaeological Assessment, Niagara Mohawk, Hudson (Water Street) Site, City of Hudson, New York**. Principal Investigator for the Phase IA archaeological assessment of a late nineteenth-/early twentieth-century coal-to-gas generating facility located on the banks of the Hudson

River. Study involves the research and analysis of past disturbances and potential for historic archaeological resources associated with the industrial use of the project area. For Blasland, Bouck and Lee, Inc.

- **Phase I Archaeological Investigation, Sweet Brook Drainage Area, Carlton Boulevard, Annadale, Staten Island, New York**. Principal Investigator for a Phase I archaeological survey for sewage installation project along the Sweet Brook in southern Staten Island. For JRC Construction Corporation at the request of NYC DEP.

- **Phase I Archaeological Survey, Luzerne County Road No. 9, Jackson, Lehman, and Dallas Townships, Luzerne County, Pennsylvania**. Documented the results of a previously conducted road-way survey, located along Luzerne County Road 9, designed to assess the project's potential impact on late historic period archaeological deposits. For Pennsylvania Department of Transportation Engineering District 4-0.

- **Cultural Resource Constraints Assessment, Route 9 and Garden State Parkway, Cape May County, New Jersey**. Conducted background research on archaeological and historic architectural resources within the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the South Jersey Transportation Planning Organization.

- **Stage IA Archaeological Assessment, Cross Harbor Freight Improvement Project, Greenville Yards, Jersey City, New Jersey**. Co-Principal Investigator for the Phase IA archaeological assessment of the Greenville Yard. Study involved the research and analysis of past disturbances and potential for prehistoric and historic period resources. For Allee King Rosen & Fleming, Inc. in association with New York City Economic Development Corporation (NYCEDC).

- **Cultural Resource Constraints Assessment, Route 17, Bergen County, New Jersey**. Conducted background research on archaeological and historic architectural resources within the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.

- **Cultural Resource Constraints Assessment, Route 22, Essex and Union Counties, New Jersey**. Conducted background research on archaeological and historic architectural resources within the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.

- **Cultural Resource Constraints Assessment, Route 57 , Warren County, New Jersey**. Conducted background research on archaeological and historic architectural resources within the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.

- **Phase IA Archaeological Assessment, East 126th Street Bus Garage, New York, New York**. Responsible for the archaeological and architectural site file review at New York City Landmarks Commission (LPC), background research, and archaeological assessment for the half block project area. For New York City Transit.

- **Cultural Resource Eligibility/Effects Documentation for Final Scope Development of Routes 1 and 9 at North Avenue, City of Elizabeth, New Jersey**. Principal Investigator for the identification and evaluation of archaeological resources (Phase I/II) and historic architectural properties (eligibility/effect) within the proposed project area for roadway improvements. Also conducted all background research and prepared archaeological report. For the New Jersey Department of Transportation.

- **Hudson Energy Project, Hudson River Bulkhead at Pier 92, Manhattan, New York**. Responsible for the archaeological and architectural site file review at New York City Landmarks Commission (LPC), background research, and field inspection of the study area from the bulkhead at Pier 92 to the ConEd substation at West 94th Street in Manhattan. For Genpower Hudson Energy.

- **New Jersey Cellular Telecommunications**. Principal Investigator for several Phase IA Archaeological Assessments and Historic Architectural Resource assessments for proposed Nextel cell tower installation in Essex, Berger, Morris, Sussex, Warren, Hunterdon, Somerset, Middlesex and Monmouth counties. For IVI Environmental, Inc.

- **La Tourette Park, Staten Island, New York**. Principal Investigator for a Historic Architectural Resource assessment of a proposed Omnipoint cell tower installation in Richmond County, New York. For Goodkind and O'Dea, Inc.

- **U.P.N. Pallet Co. Cell Tower, Penns Grove, New Jersey**. Principal Investigator for a Phase IB archaeological assessment of a proposed AT&T cell tower installation in Salem County, New Jersey. For Rescom Environmental Corporation.

- **Clayton Cell Tower, Clayton, New Jersey**. Principal Investigator for a Phase IB archaeological assessment of a proposed AT&T cell tower installation in Gloucester County, New Jersey. For Rescom Environmental Corporation.

- **Peach County Cell Tower, Mantua, New Jersey**. Principal Investigator for a Phase IB archaeological assessment of a proposed AT&T cell tower installation in Gloucester County, New Jersey. For Rescom Environmental Corporation.

- **P.S. 234-Q, Long Island City, Queens, New York**. Principal Investigator for a Phase IB archaeological assessment for a proposed New York City public school in Astoria, Queens. For Parsons Brinckerhoff, Inc and the New York City School Construction Authority (SCA).

- **Arthur Kill Road Bus Maintenance Facility, Staten Island, New York**. Principal Investigator for a Phase IB archaeological survey for prehistoric and historic resources. For New York City Transit.

- **Arbutus Avenue Sewer Project, Staten Island, New York**. Principal Investigator for a Phase I archaeological survey for sewage installation project along the Arbutus Creek. For JRC Construction Corporation.

- **Two Bridges Road Bridge, Lincoln Park, Wayne and Fairfield, New Jersey**. Principal Investigator for cultural resource screening of archaeological and historic architectural properties, including five known prehistoric Native American sites, several historic residences pre-dating 1950, and the 1887 National

Register-eligible steel truss bridge. Project involved assessing archaeological sensitivity for the area surrounding the confluence of the Passaic and Pompton rivers. For the County of Passaic.

- **Interchange 142 (Garden State Parkway and I-78), Hillside, Irvington, and Union, New Jersey**. Principal Investigator for a Phase IB archaeological survey along the Garden State Parkway at Exit 142, straddling the Union/Essex County line. For the New Jersey Highway Authority.

- **Interchange 142 (Garden State Parkway and I-78), Hillside, Irvington, and Union, New Jersey**. Contributed to the Historic Architectural Evaluation with background research on and evaluation of the Elizabeth River Park, a National Register-eligible park in Union County. For the New Jersey Highway Authority.

PREVIOUS PROFESSIONAL EXPERIENCE

- **Calverton Naval Weapons Industrial Reserve, Calverton, New York**. Geographic Information Systems analyst. Integrated GIS analysis with lithic analysis to interpret prehistoric activity patterns.

- **PS 56R Site, Staten Island, New York**. Lab Director. Analysis, curation, and data entry for cultural material derived from the mitigation of a primarily Late Archaic prehistoric site.

- **Calverton Naval Weapons Industrial Reserve, Calverton, New York**. Field Supervisor. Cultural resource survey of 6,000-acre parcel with several early mid-twentieth-century buildings and several Late Archaic and Late Woodland prehistoric sites.

- **Russian Mission, The Bronx, New York**. Lithic Analyst. Cultural resource survey of a Late Archaic/Woodland quartz quarry site.

- **Long Island College Hospital, Brooklyn, New York**. Excavator. Monitoring heavy machine excavation of eighteenth-, nineteenth-, and twentieth-century historical archaeological deposits for the construction of a parking garage along Atlantic Avenue.

- **Robin's Island, Southold, New York**. Field Supervisor and Lithic Analyst. Survey of 450-acre island located in the Peconic Bay, revealing several prehistoric and historic sites.

- **Hudson Valley Rod & Gun Club, Pawling, New York**. Excavator. Mitigation of a Middle and Late Archaic prehistoric site.

- **Umm el Tlel, Syria**. Excavator. Long-term excavations of an open-air site containing cultural material from the terminal Lower Palaeolithic, through the Middle, Upper, and Epi-Palaeolithic, to the Neolithic.

- **Abri Castanet, Sergeac (Perígord), France**. Excavator. Long-term excavations of an early Upper Palaeolithic rockshelter in the southwest of France.

- **Le col de Jiboui, Haut-Diois (Drôme), France**. Excavator. Salvage excavations of an open-air Middle Palaeolithic site in the French Alps.

- **Fouilles Préhistoriques à Cagny, Cagny (Nord), France**. Excavator. Excavation of two open-air Lower Palaeolithic sites located in northern France.

- **African Meeting House, Nantucket, Massachusetts**. Excavator. Assisted with the excavation and interpretation of archaeological deposits surrounding this early nineteenth-century structure, the second constructed African Meeting House in America. Supervisor: Mary Beaudry, Boston University.

- **Spencer-Pierce-Little Farm, Newbury, Massachusetts**. Excavator. Boston University archaeological field school at a late seventeenth-century homestead. Supervisor: Mary Beaudry, Boston University.

ACADEMIC POSITIONS

Graduate Teaching Associate, Department of Anthropology, SUNY at Stony Brook. Primary Instructor: Anthropology 402, Problems in Archaeology - Landscape exploitation strategies in the Eurasian Palaeolithic.

Graduate Teaching Assistant, Department of Anthropology, SUNY at Stony Brook. Primary Teaching Assistant for Anthropology 102, Introduction to Cultural Anthropology; Primary Teaching Assistant for Anthropology 356, Urban Anthropology; Primary Teaching Assistant for Anthropology 104, Introduction to Archaeology; Primary Teaching Assistant for Anthropology 290, Ancient Science and Technology.

Graduate Teaching Assistant, Department of Anthropology, SUNY at Stony Brook. Lab Instructor for Anthropology 418, Lithic Technology; Lab Instructor for Anthropology 420, Geographic Information Systems in Environmental Analysis.

HONORS/AWARDS

- Graduate Council commendation for excellence in teaching by a graduate student, SUNY at Stony Brook
- General grant for thesis research, L.S.B. Leakey Foundation
- Grant for thesis research, Geological Society of America
- Grant for thesis related research, IDPAS, SUNY at Stony Brook
- Travel grant to the Annual Meeting of the Paleoanthropology Society, Columbus
- Travel grant to the 63rd Annual Meeting of the Society for American Archaeology, Seattle
- Travel grant for summer fieldwork, Sigma Xi Research Foundation
- General research grant, IDPAS, SUNY at Stony Brook
- Travel grant to the 62nd Annual Meeting of the Society for American Archaeology, Nashville

PUBLICATIONS

- Controlled Experiments with Middle Paleolithic Spear Points: Levallois Points. By Shea, J. J., K. S. Brown and Z. J. Davis, In *Experimental Archaeology: Replicating Past Objects, Behaviors, and Processes*, edited by J. R. Mathieu, pp. 55-72. British Archaeological Reports, International Series 1035, Oxford. 2002

- Experimental Test of Middle Palaeolithic Spear Points Using a Calibrated Crossbow. By J.J. Shea, Z.J. Davis, and K.S. Brown. *Journal of Archaeological Science* 28:807-816. 2001.

- Quantifying Lithic Curation: An Experimental Test of Dibble and Pelcin's Original Flake-Tool Mass Predictor. By Z.J. Davis and J.J. Shea. *Journal of Archaeological Science* 25:603-610. 1998.

PAPERS PRESENTED

- Paleoindian Lithic Foragers in the Delaware Water Gap: Integrating Lithic Resource Distribution and Lithic Technological Strategies. Paper presented at the January 2003 meeting of the Archaeological Society of New Jersey, Trenton, New Jersey. 2003.

- Costs and Benefits of Levallois Flake Production: An Economic Perspective on the Variability in Middle Palaeolithic Stone Tool Assemblages. Paper presented at the 65th Annual Meeting of the Society for American Archaeology, Philadelphia. 2000.

- Levantine Mousterian Mobility Patterns: The View from Mt. Carmel, Israel. Paper presented at the 1999 Paleoanthropology Society Meetings, Columbus. 1999.

- Experimental Test of Middle Paleolithic Hunting Weapons: Preliminary Results. Paper presented at the 64th Annual Meeting of the Society for American Archaeology, Chicago. 1999 (with J.J. Shea and K.S. Brown).

- The Analytical Potential of Refitting Studies: History and Synthesis of Applications. Paper presented at the 63rd Annual Meeting of the Society for American Archaeology, Seattle. 1998.

- The PS 56R Site: A Vosburg Habitation on Staten Island, New York. Paper presented at the 62nd Annual Meeting of the Society for American Archaeology, Nashville. 1997 (with A.M. Pappalardo).

CONFERENCE SYMPOSIA ORGANIZED

- Refitting Studies in New and Old World Lithic Analyses. Symposium organized for the 63rd Annual Meeting of the Society for American Archaeology, Seattle. 1998.