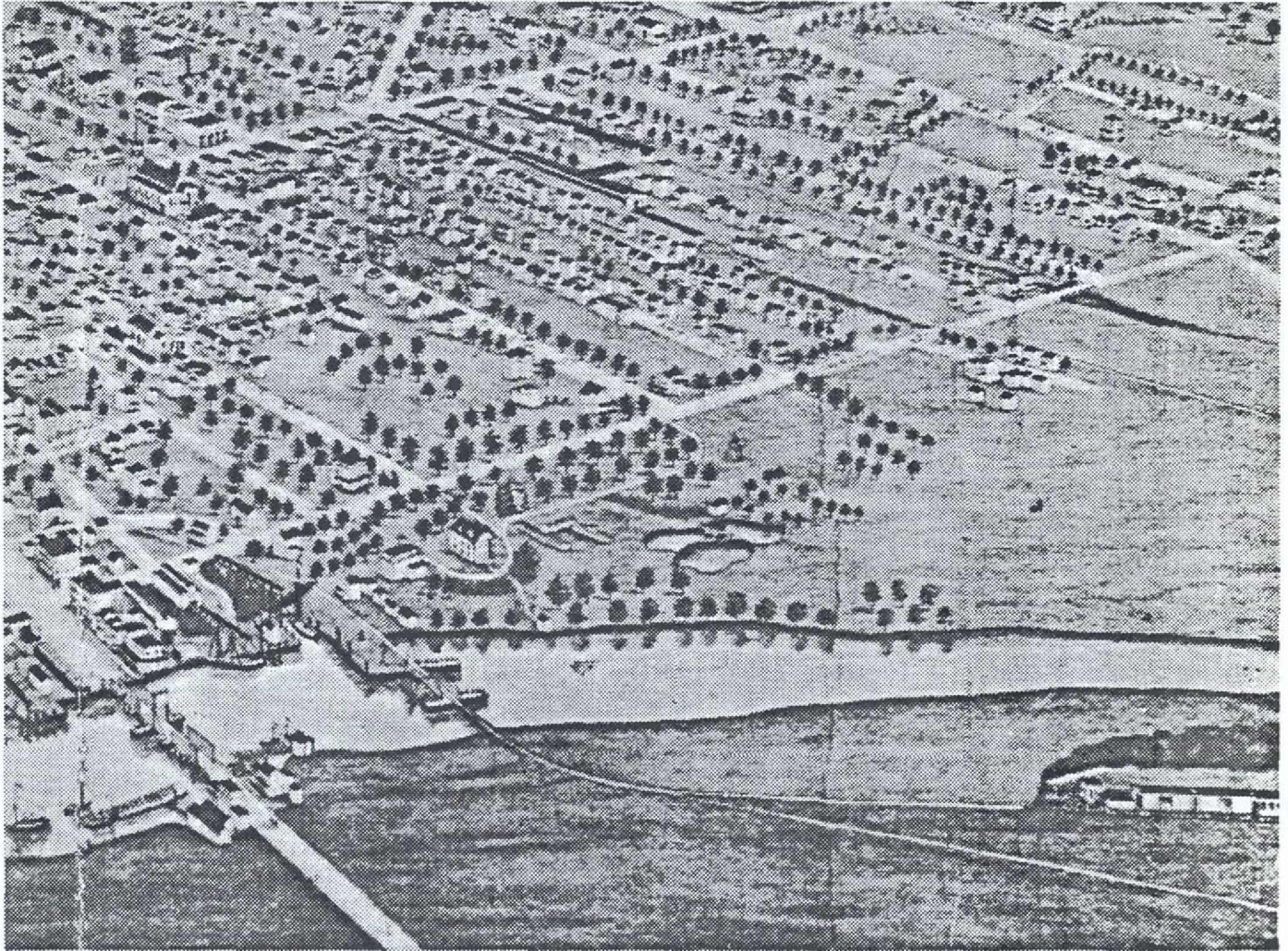


267Q
**1A Archaeological Assessment Downtown Flushing Rezoning Project
Flushing, Queens County, New York—Soft Sites A3, B1, B2, C1, C2**

95 DCP 052Q

CEQR No.DCP-052Q



Flushing c. 1872

Prepared for the New York City Department of City Planning
Prepared through Urbitran Associates, Inc.
Prepared by Joan H. Geismar, Ph.D.

January 25, 1996

541

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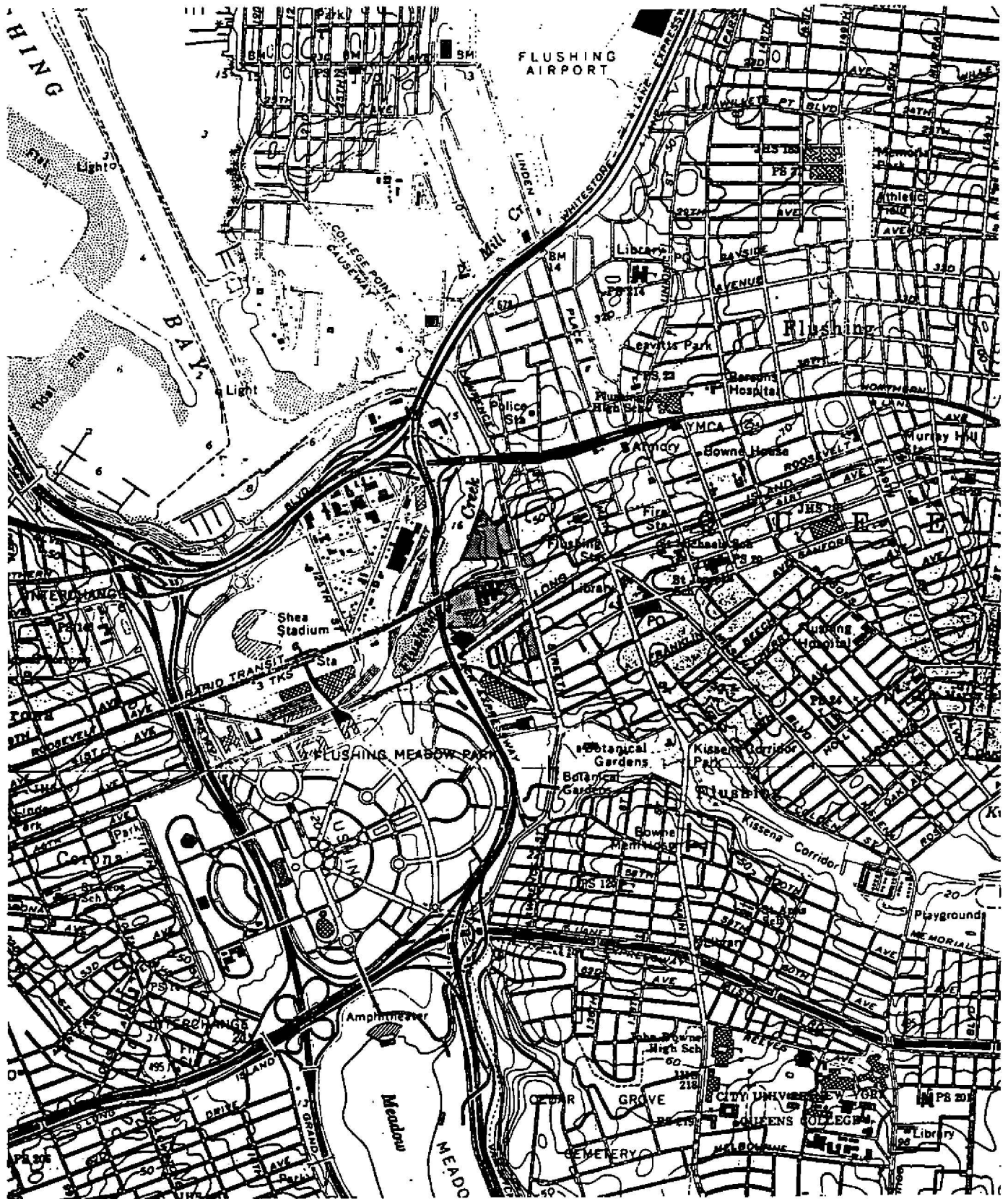
INTRODUCTION

This report presents the findings of Phase 1a documentary research undertaken for five of eight¹ "soft sites" that are part of the Downtown Flushing Rezoning Study, a project located in Flushing, Queens County, New York (Exhibit 1). The research was carried out through Urbitran Associates, Inc., as part of an environmental review (CEQR No. DCP 052Q) undertaken for the New York City Department of City Planning (DCP). "Soft sites" are those with development potential that are currently either vacant land, vacant buildings, gas stations, parking lots, or sites where development is less than 50% of the floor area allowed on a lot (Floor Area Ratio, or FAR) under existing zoning (DCP 1995:Appendix B-1). Designated Area A Site 3, Area B Sites 1 and 2, and Area C Sites 1 and 2 (A3, B1 and B2, and C1 and C2 in this report), the five soft sites with possible archaeological potential cover approximately 21 acres. All are located in what was the historic village of Flushing, an early Long Island settlement where prehistoric and historic-era archaeological sensitivity are considerations. The potential for prehistoric sensitivity was initially identified in a document prepared by the Department of City Planning in November 1994 (Candrea 1994); the potential for historic-era sensitivity was identified by New York City Landmarks Preservation Commission archaeologists. Both potential sensitivities were confirmed by this study.

METHOD

The goal of research was to create development histories of the five "soft sites" and to evaluate their archaeological potential. In addition to several site visits, sources of information for this assessment included the previously mentioned report prepared by the Department of City Planning (Candrea 1994), the published writings of early-20th century archaeologists, among them Arthur C. Parker (1920) and Reginald P. Bolton (1922, 1934), and historians as well as unpublished reports on file with the New York City Landmarks Preservation Commission. The archives of the Topographical Bureau of the Queens Borough President's Office were researched (with the kind assistance of Al Clarke and Wayne Borchert), as were

¹Development on three of the eight sites had eliminated them from consideration prior to this study.



■ site location

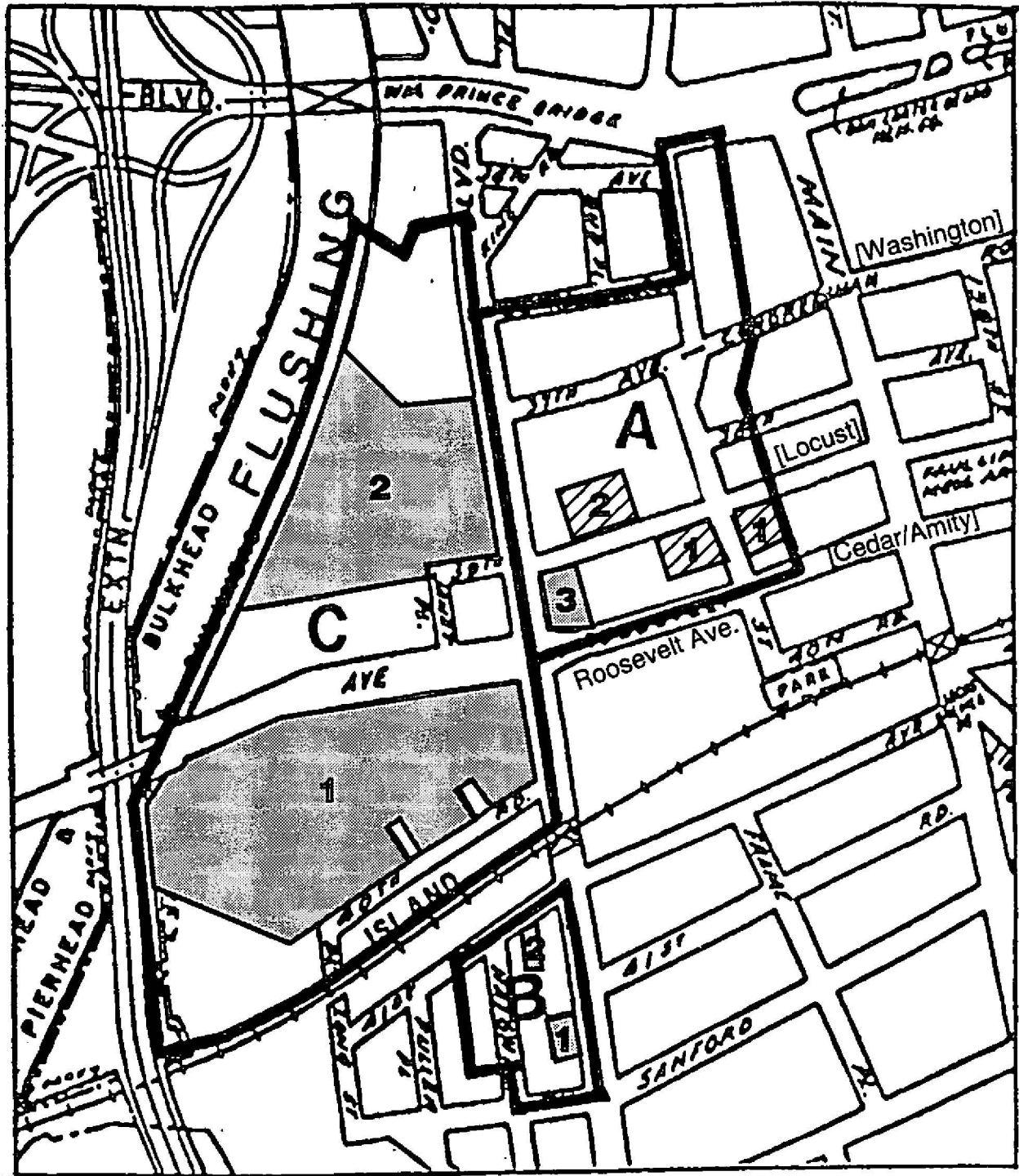




other municipal, state, and federal records. These included deeds, wills, tax and building department records, and state and federal census manuscripts. The records maintained by the Municipal Archives (Kenneth Cobb, the director of the Archives, and his staff, kindly provided their expertise) and the collections of the Queensborough Public Library (with the able assistance of William Asadorian and others in the Long Island Room) were researched, as were the holdings of the New York Public Library, The New York Society Library, the New York Historical Society, and the Morton Pennypacker collection in the East Hampton Library (Ms. Dorothy King, Librarian of the Long Island Collection at the East Hampton Library, provided invaluable assistance). Soil boring logs in the collection of the New York City Department of General Services Subsurface Exploration Section were consulted with the kind assistance of Michael Greenman, Assistant Chief.

EXISTING CONDITIONS

The project sites include commercial, industrial, residential, and vacant properties within the core of the original 17th-century settlement of Flushing. The study area is bounded on the west by Flushing Creek that now separates Flushing from Flushing Meadows and Corona. This is a tidal stream named and cited as the western boundary in the original 1643 Flushing charter (e.g., Waller 1899:231). The northern site limit lies just south of Northern Boulevard (formerly Bridge Street where it crosses Flushing Creek and Broadway to the east). Main Street runs beyond the study area to the east, and the southern limit is defined by Sanford Avenue. College Point Boulevard (originally Lawrence Street or Avenue opened below Northern Boulevard in 1873) runs through the center of the study area from north to south, and Roosevelt Avenue (formerly Cedar and then Amity Street) bisects it east to west. The sites under consideration are broadly separated by College Point Boulevard and the Long Island Railroad (see Exhibit 2).

Although several historical and landmarked properties are located beyond the immediate project area, none are found on the project sites. To the east, at the juncture of 38th Avenue and Main Street, is St. George's Episcopal Church (135-32 38th Avenue) a local landmark. Built in 1854, the structure is the third church erected on the site for St. George's parish (Waller 1899:199; Field 1996:personal communication). To the northeast are the RKO Keith's Flushing Theater (135-29 to 135-454 Northern Boulevard) built in 1927-1928, the Flushing Town Hall (137-2



 1 selected soft sites, assessed
 1 selected soft sites, not assessed

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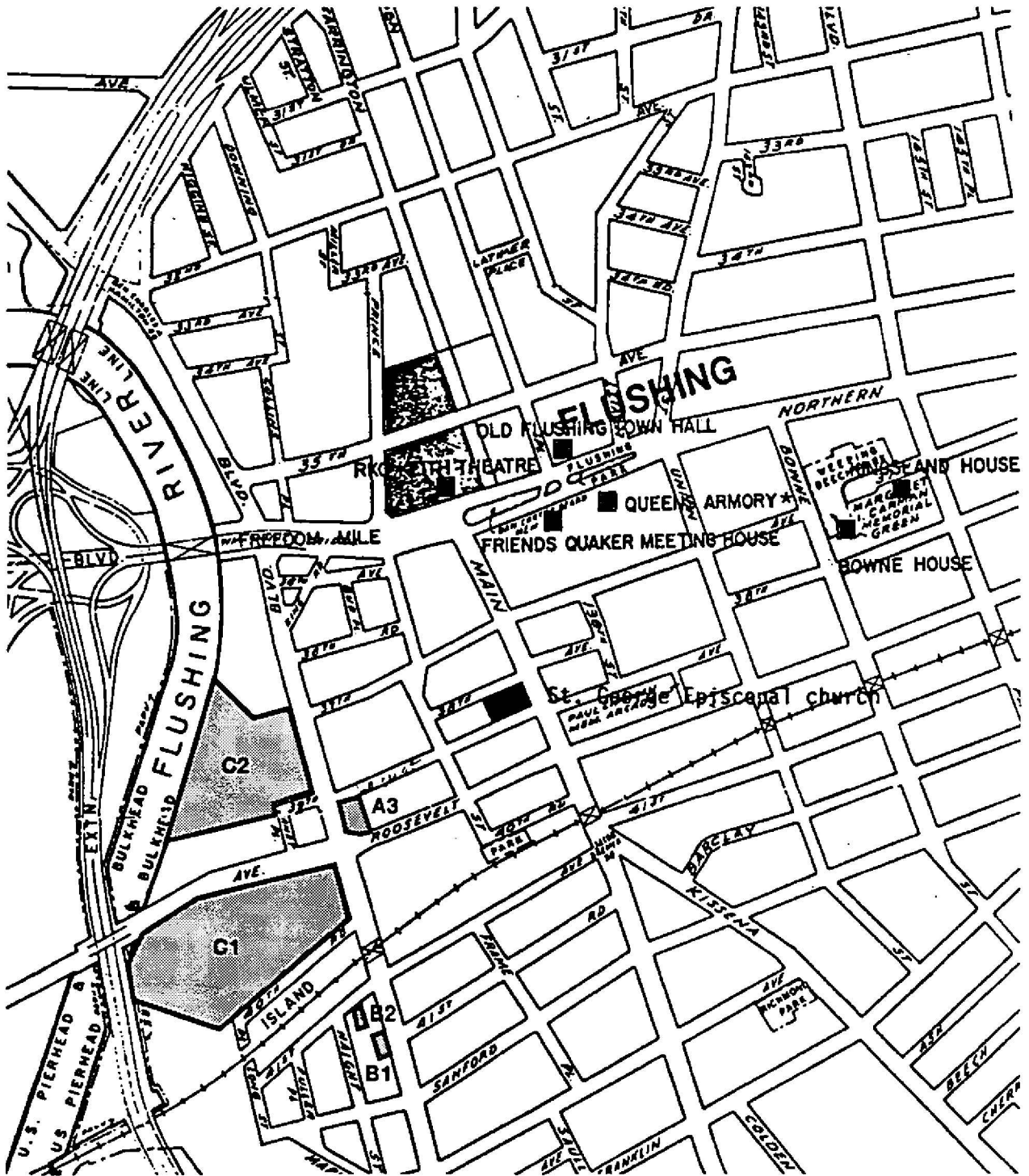
35 Northern Boulevard) dating to 1862, the Friends (Quaker) Meeting House (137-16 Northern Boulevard), built in 1694 with additions made between 1716 and 1719, the John Bowne house (37-01 Bowne Street), originally built in 1661 with additions dating from 1680, 1690, and 1830, and the Kingsland Homestead (143-35 37th Avenue) built in 1785. All but St. George's Church are designated New York City Landmarks (in the case of the RKO Keith's Theater, only the interior is landmarked) (Dolkart 1992:192, 193, 198). In addition to these properties, the Flushing Armory (137-58 Northern Boulevard; referred to as the Queens Armory on Exhibit 3), built in 1904, is a local historical site (Dolkart 1996:personal communication). In recent years it has served as a meeting place for many community groups (Candrea 1994:6), among them a homeless shelter and a refuge for battered women (see Candrea 1994 for more specific details about these properties and Exhibit 3 for locations).

As noted in the introduction, of the eight potential development sites within the study area, five were identified for archaeological considerations (DCP 1995; see Exhibit 2). These sites, A3, B1 and B2, and C1 and C2, represent most types of development found within the study area.

Site A3 (Block 4793, Lots 1 and 6; Exhibit 4), lies on the east side of College Point Boulevard between 39th Street (formerly Locust Street) and Roosevelt Avenue. On the site are an abandoned, one-story, L-shaped, cinder block auto body shop (Lot 6) and an active filling station (Lot 1; Exhibit 5). The former auto body shop appears to be founded on a cement slab, and a 550 gallon underground storage tank was recently removed from the vacant corner portion of the lot adjacent to the building (Dresdner Robin 1995:9; Dresdner 1996:personal communication).

Site B1 on the west side of College Point Boulevard (Block 5063, until recently, Lot 20, but according to a current tax map, now Lots 19, 20, 21, 22, and 23; Exhibit 6) was part of a former rail right-of-way and remains undeveloped (Exhibit 7). Site B2, located on 41st Avenue (Block 5063 Lots 4 and 5; see Exhibit 6), is the location of two house lots with standing residential structures (131-60 and 131-64 41st Street; Exhibit 8).

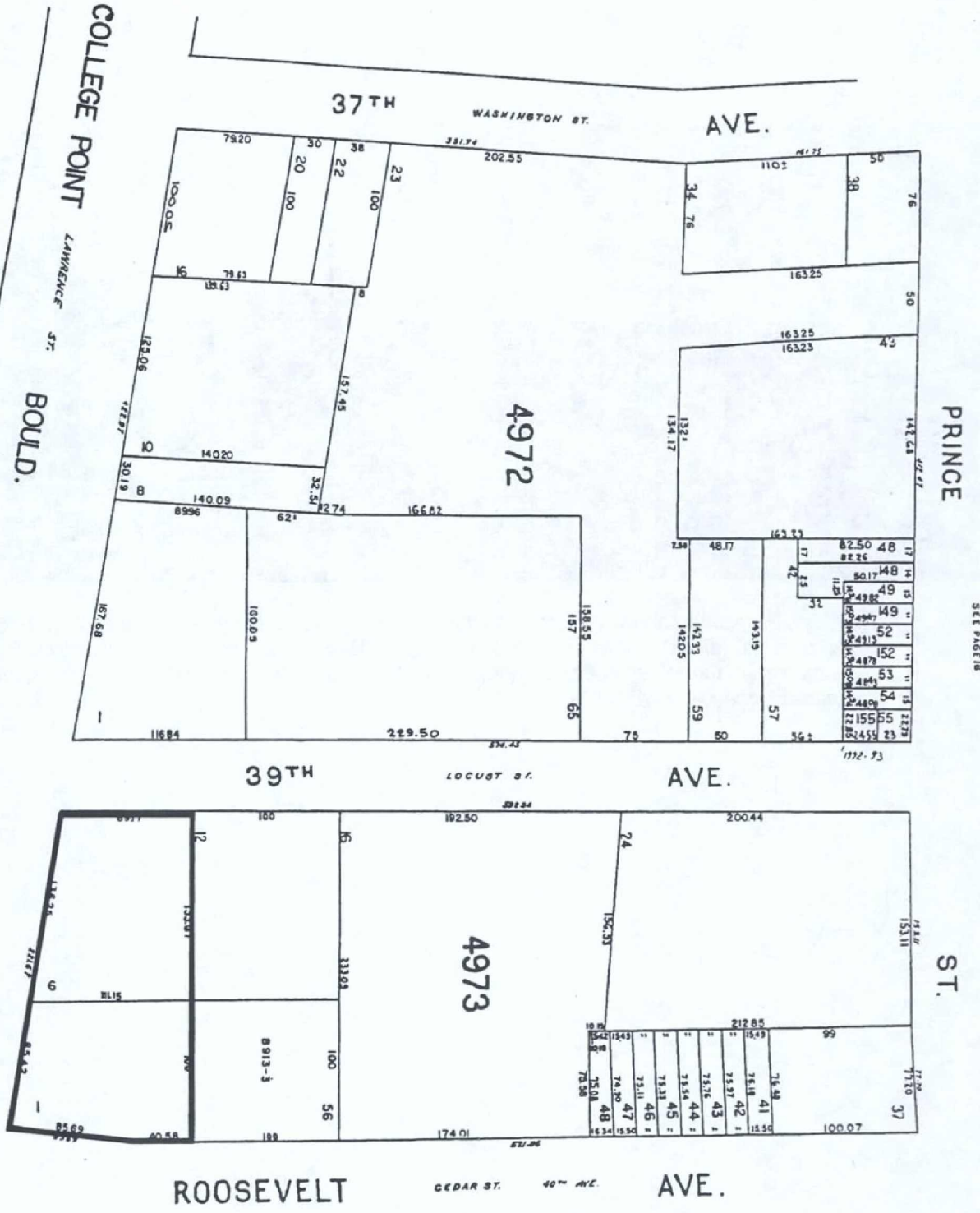
Sites C1 (Block 5066 Lot 1; Exhibit 9) and C2 (Block 4963 Lots 65, 75, and



* Flushing Armory

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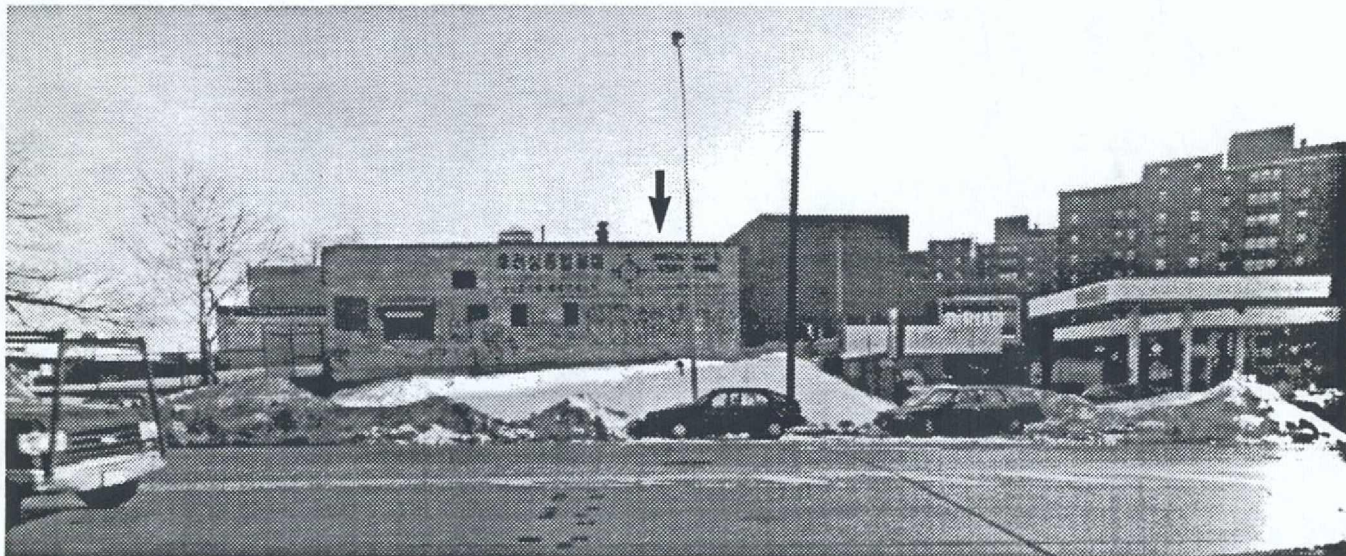
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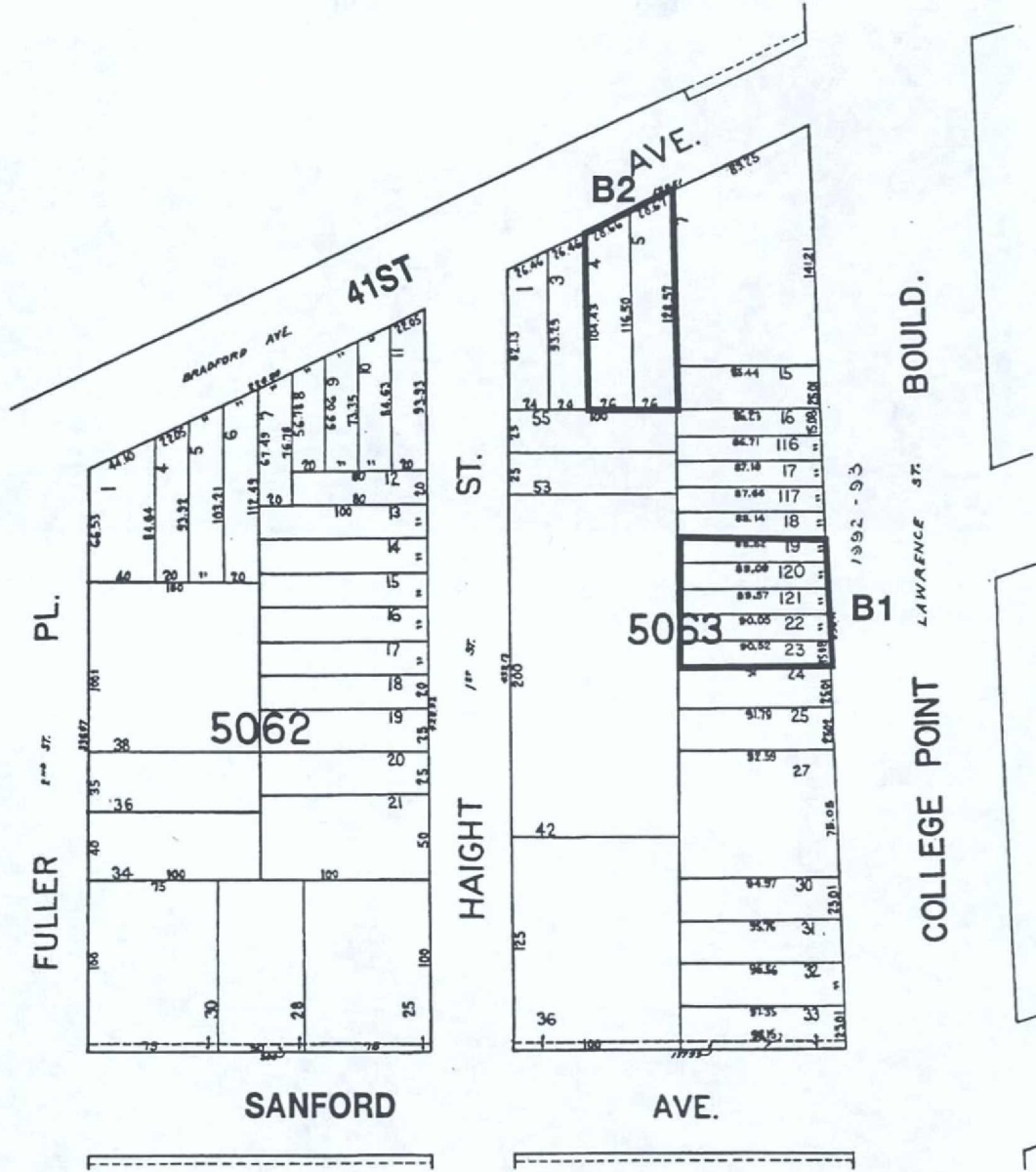
SEE PAGE 8

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5 Site A3 from the west side of College Pt. Blvd. The one-story abandoned auto body shop on Lot 6 (arrow) extends to 39th Ave. (left) but leaves the corner of the lot vacant. This was the site of the Henry A. Bogert house. A Mobil gas station is located to the right on the corner of Roosevelt Ave. (1/96)



B1

no scale

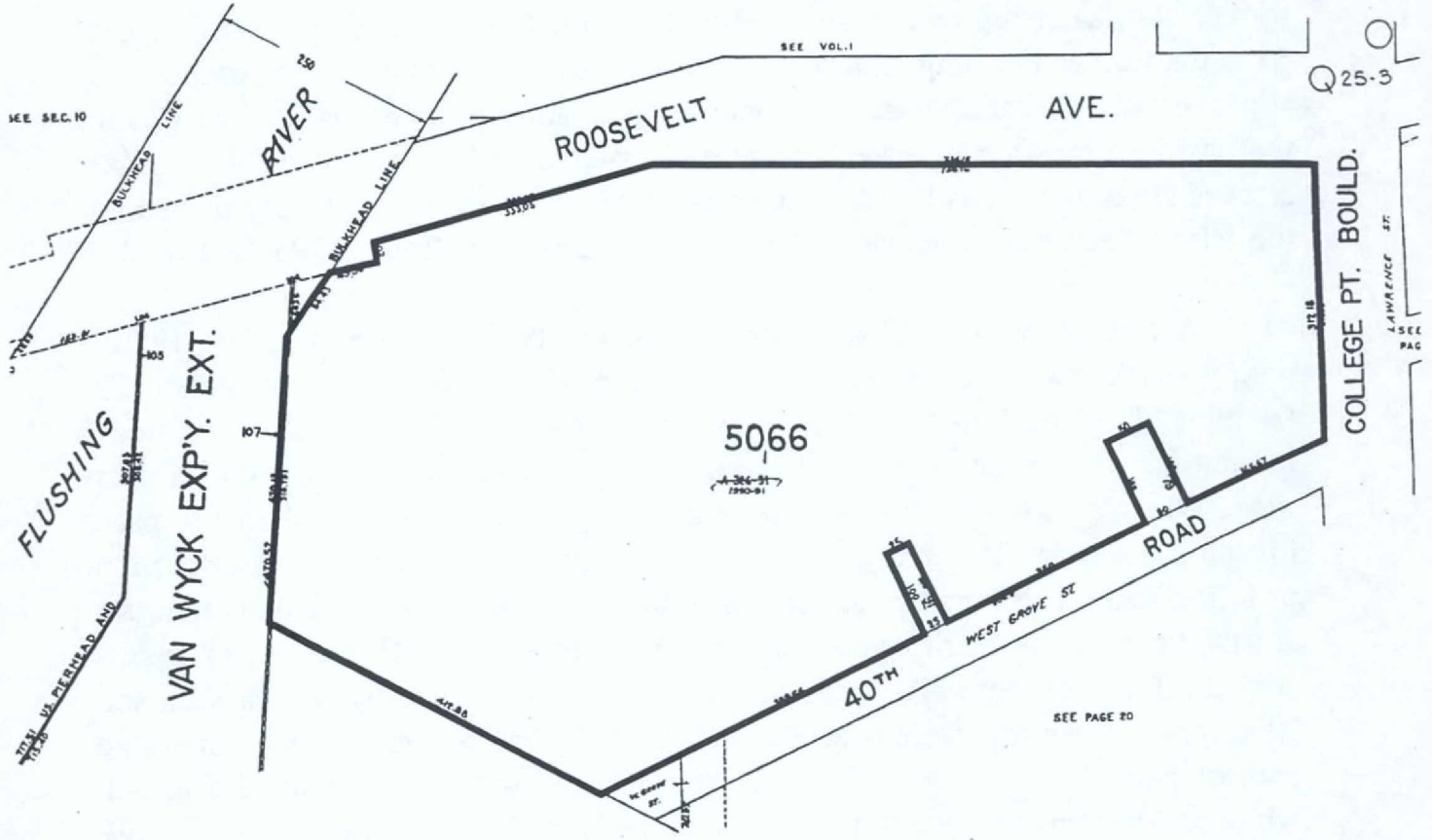




7 Site B1, a fenced vacant lot (arrow). View is from the east side of College Pt. Blvd. near 41st Rd. (formerly Prospect St.). (1/96)



8 Site B2 (arrows) two 2-family homes on 41st Ave. (formerly Bradford St.). (11/95)



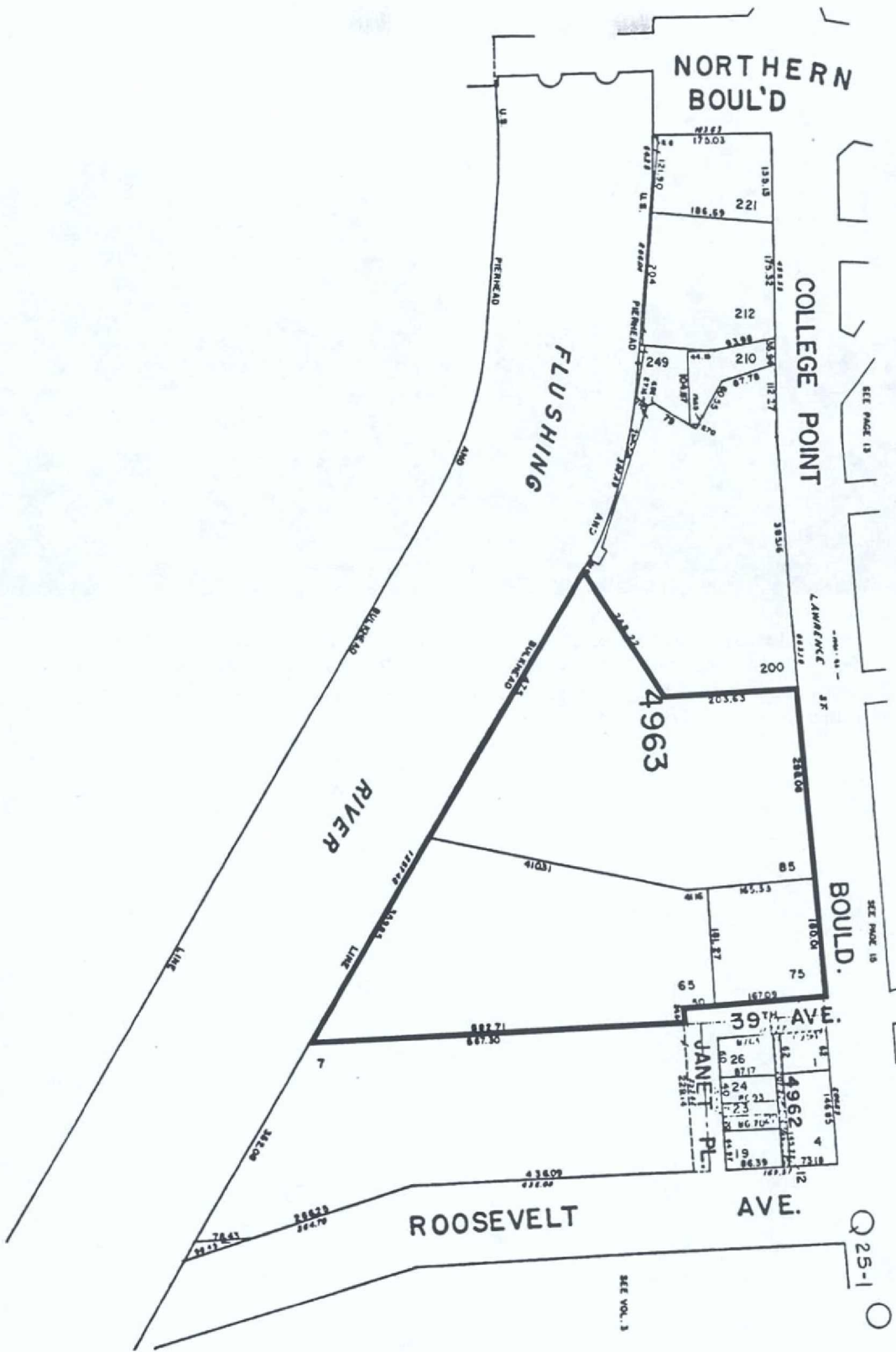
85; Exhibit 10), which lie between College Point Boulevard and Flushing Creek, are the largest sites under consideration. Both are commercial properties comprising industrial buildings and vacant land (e.g., Exhibits 11-16). The vacant land found on Site C1 includes lawn and parking lots adjacent to buildings that house light industry. More extensive vacant land is found on Site C2. It is also the site of a former car dealership and an adjacent parking lot. The Korea Town Plaza on Lot 65 is the former Flushing Annex post office renovated to house large produce and super markets. What appears to be undeveloped land on Lot 85 is now, or was in the past, the location of several large underground and ground level oil and gas storage tanks as well as buildings associated with a bulk storage facility owned by the Island Petroleum Company (Sanborn 1990; Dresdner Robin 1995:12-15).

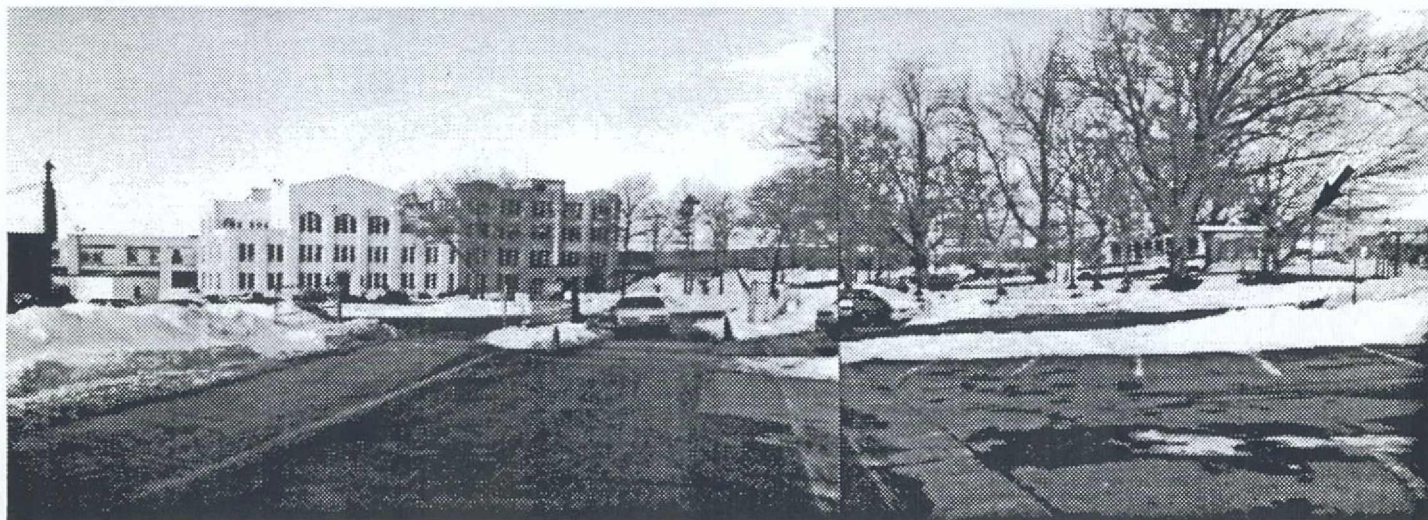
A former W. & J. Sloane furniture factory built in the mid to late 1920s, with a clock tower that served as a local landmark, stands just north of Site C2 (Exhibit 17). This commercial property, now a U-Haul office, storage, and truck leasing facility, exemplifies the changes that have occurred in the study area over time. What is found at this writing is a far cry from what existed in the past. Flushing was initially a mid-17th century agricultural settlement and the location of a tree and shrub nursery established in the early 18th century. This enterprise, at first the Prince Nurseries and later Prince Linnaean Botanic Garden, was purportedly the first tree nursery on this continent. Others--specifically the Parsons and Bloodgood Nurseries--were later established nearby but beyond the study area (the earliest part of the Prince nursery may have been located just north of Site A3, while an 1841 map suggests it included part of Site C1 in the mid-19th century). What is difficult to envision today is the bucolic setting that existed for the 19th-century homes or retreats of the wealthy and middle class as well as the richness of the resources available to Native American hunters and gatherers prior to European settlement.

GEOLOGY AND PRE-DEVELOPMENT CONDITIONS

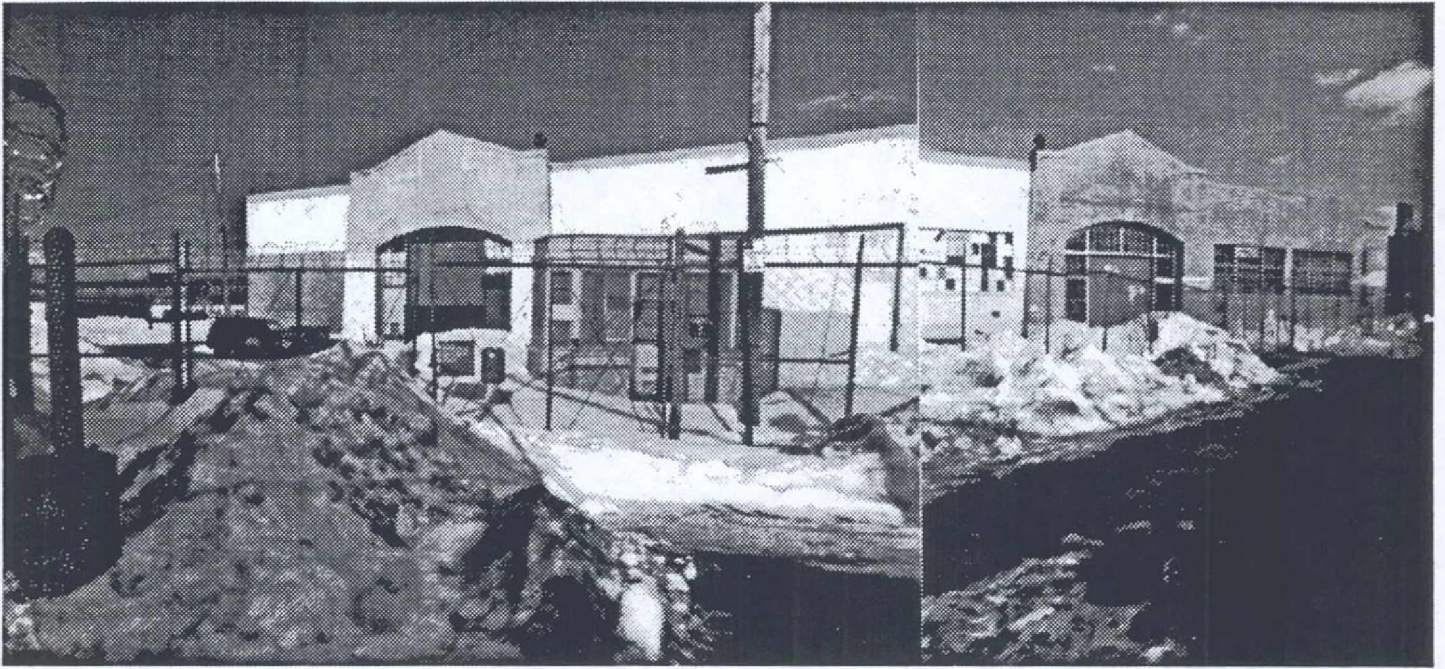
Geology

The geology of the project area is described in the draft Hazardous Site Screening report prepared by Dresdner Robin Environmental Management Inc. (1995:2-3) which notes that: "the Project Area is located in the Atlantic Coastal





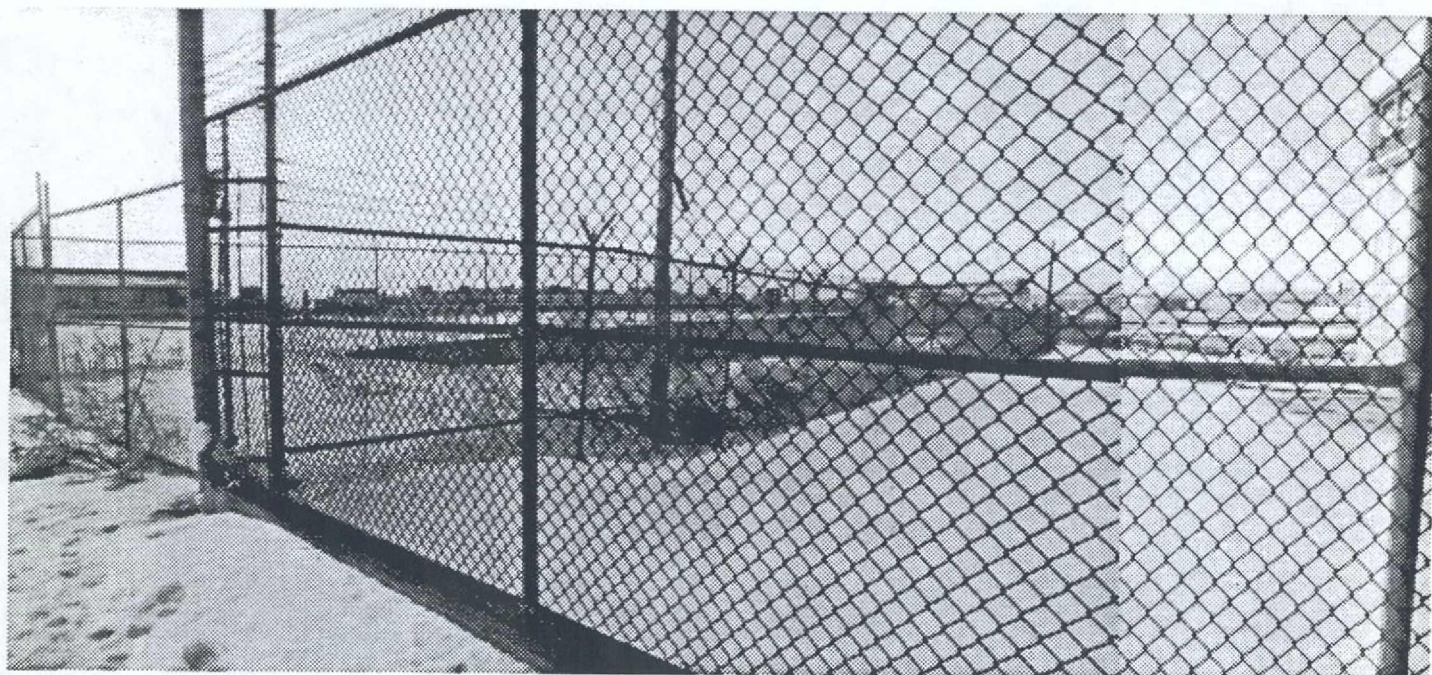
11 Composite view of Site C1 looking northwest from the corner of College Pt. Blvd. and 40th Rd. Note the expansive parking area in front of the building housing small industries. The northern part of the site, just south of the BMT tracks on Roosevelt Ave. (arrow) has apparently been raised by filling. (1/96)



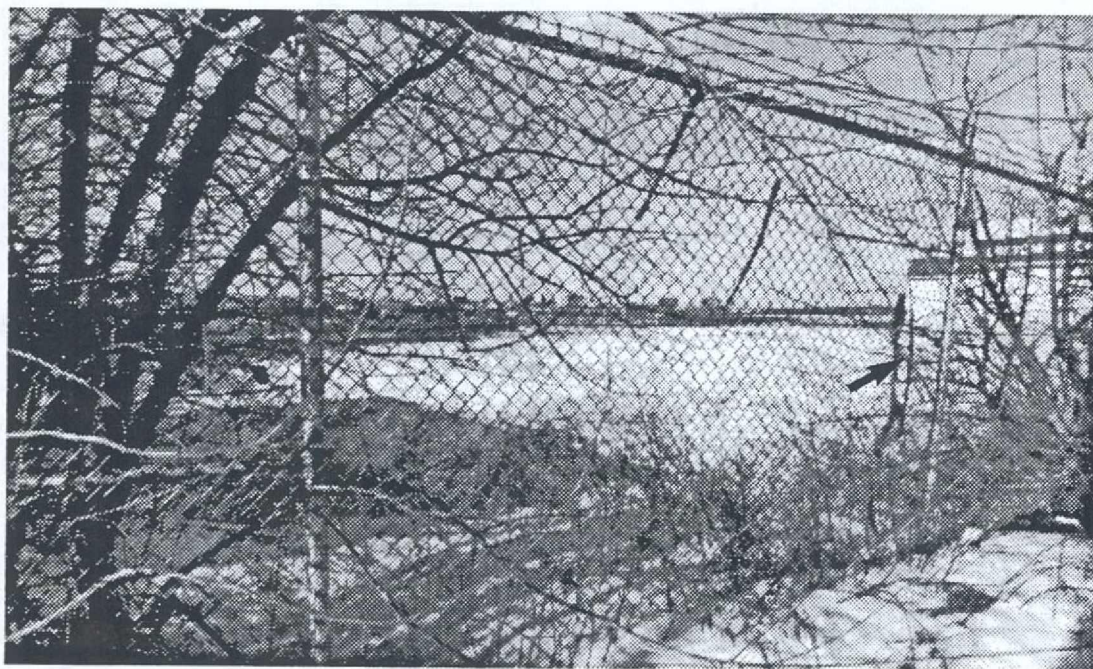
12 Composite view of the southwestern corner of Site C1, an abandoned garage.
(1/96)



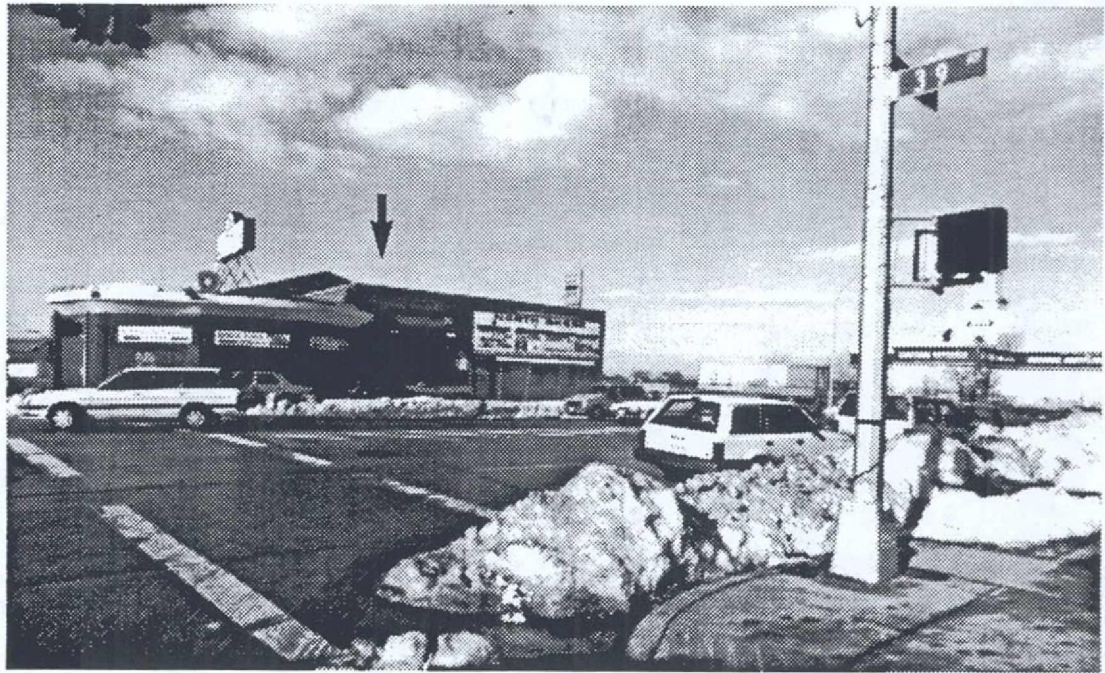
13 View east on 40th Rd. from abandoned garage on Site C1, looking toward College Pt. Blvd. (11/95)



14 Composite view of Site C2, looking southeast from College Pt. Blvd. toward Flushing Creek. The vacant site was formerly the location of the Island Petroleum Co. (1/96)



15 View north across part of Site C2, with the U-Haul facility in the background to the right (arrow) not part of the study site. (1/96)



16 Southern part of Site C2. The parking lot and building of the Korea Town Plaza (arrow) where 2 markets are housed in the rennovated Flushing Annex post office building. View is looking north on College Pt. Blvd. to the U-Haul facility to the right beyond the site. (1/96)



17 U-Haul office, storage, and truck leasing facility, formerly the W. & J. Sloane furniture factory built in the 1920s on the site of "Willow Bank," the John Watson Lawrence home. The building is north of Site C2. (11/95)

Plain, a major physiographic province that extends from Long Island south to Florida and Texas." It goes on to say that Queens, situated on the western end of Long Island, and more specifically, the project area, is located in a northeast linear trend "formed by an abrupt junction between the hill sections of northern Brooklyn and Queens and the gently sloping, almost flat areas to the southeast." It is a trend that "generally parallels the orientation of the length of Long Island and the strike of the sedimentary layers and the glacial moraines that compose the island." The underlying sedimentary layers "appear at or near the surface in the vicinity of Long Island Sound, where differential erosion has left relatively tough sands and clays at elevations more than 60 feet above sea level." Northward flowing streams "carved a series of short, steep valleys" that were subsequently widened and deepened by glacial erosion and flooded by rising sea levels to form Flushing and Little Neck Bays. "The Project Area rests on morainal till that is underlain by Cretaceous sands and clays which were deposited over the basement metamorphic rock which is approximately 150 to 200 feet below the ground surface." The higher elevations found in the area were created by glacial debris deposited atop these underlying sands and clays.

Pre-Development Conditions

Relevant to the archaeological assessment is the pre-development terrain found in the project area. This is glowingly described by Daniel Denton, a Long Islander, in his essay entitled *A Brief Description of New York* published in England in 1670. Denton, who left Long Island to settle the Puritan colony in Elizabeth, New Jersey, in 1664, offers the first detailed description of the former Dutch colony of New Netherlands. His essay, which was undoubtedly meant to promote settlement by the English, offers a vivid picture of the natural richness of the study area that is confirmed by later writers.

Denton comments on the variety of pelt animals to be found, the rich timber stands, the streams and bays teeming with fish, and the fertile, agricultural land. He describes the western end of Long Island, which included the village of Flushing:

The island is most of it of very good soil, and very natural for all sorts of English Grain which they sow and have very good crease of, besides all other Fruits and Herbs common in England, as also Tobac[co], Hemp,

Pumpkins, Melons, &c. The Fruits natural to the Island, are Mulberries, Posimons(?),² Grapes great and small, Huckleberries [sic], Cramberris [sic], Plums of several sorts, Rosberries [Raspberries] and Strawberries, of which last is such abundance in June, that the Fields and Woods are died red...the island is full of timber...Oaks white and red, Walnut-trees, Chestnut-trees [which provide feed for swine]...also Maples, Saxifrage [Sassafras?], Beach [sic], Birch, Holly, Hazel, with many sorts more (1670:3-4).

He goes on to list a multitude of herbs and notes that the woods and fields are bedecked with roses and other "delightful" flowers in May. He also remarks that the variety of herbs is so great that the virtue of many remains to be discovered. However, their efficacy is acknowledged: "Many are of the opinion, and the Natives do affirm, that there is no disease common to the Countrey (sic), but may be cured without material from other Nations" (Denton 1670:4).

Denton notes the several navigable and fish-stocked rivers and bays on the north side of the island and the sand bars and shoals that offer protection from attack by sea on the south side, beyond the project area. While commenting on the superb conditions found for growing grass from English seed and raising imported domestic animals, he also lists the variety of wild animals available, including deer, bear, wolves, foxes, raccoons, otters, muskrats (?), and skunks. Wild fowl included turkeys, heath hens, quails, partridges, pigeons, cranes, geese of several sorts, brants, ducks, widgeon (?), teal, and "diverse others," as well as song birds and frogs. He also mentions whales and seals, but this, again, is a resource beyond the project area (1670:4-6).

In summary, Denton's description of late-17th century western Long Island documents an area rich in the resources sought by prehistoric and early historic-era Native American populations and the first European settlers.

PREHISTORIC CONSIDERATIONS

Denton's 1670 description noted above describes just how attractive the project area would have been to prehistoric and early historic-era Native Ameri-

²Possibly persimmon, but this is a tropical fruit.

cans. As mentioned elsewhere (Geismar 1990:14), it is important to determine the location of identified prehistoric sites since a proximity to known sites is one of the parameters used to determine potential archaeological sensitivity. A one-mile radius is the accepted criterion. Also relevant is the site's past and present topography, and the availability of water for human and animal consumption and as a source of fish, shellfish, and other aquatic foods.

The project area, which lies adjacent to Flushing Creek and comprises upland and filled marsh, was undoubtedly an area of Native American food gathering and perhaps camping, and is considered to have a high potential for prehistoric and early European-era sites (Wellman 1996:personal communication). Based on burial and camp sites noted in early archaeological surveys, this assessment is well founded.

The Indian presence is documented in 17th-century land deeds between various Native American representatives and Flushing's Dutch and English settlers (e.g., Waller 1899:11, 17, 53). The last such land transaction was executed on April 14, 1684, when agents of the freeholders of the town of Flushing received a deed from representatives of 'the true owners and proprietors of the land'; the grantors reserved the 'privilege of cutting bulrushes forever, within said tract' (Waller 1899:79-80 quoting Mandeville 1860).

The Native American presence is also documented in other historical sources. For example, the Long Island historian and lawyer, Gabriel Furman, writing in 1874, noted that eleven human skeletons placed within a 30-ft. circle, all of them facing east, were uncovered when a road was cut through the Prince family's Linnaean Garden, their long-established nursery, in July 1841 (Furman 1874:97-98). It has been assumed that these skeletons were Native Americans, but the presence of "nails and musket-balls" with the burials indicates that at least some, if not all, occurred after European contact.³ As discussed below, this burial site appears to have been located north of the study area, but within a zone of potential archaeological sensitivity that includes the project site.

³Thompson, writing in 1918, remarks that the presence of "leaden bullets" (?) among the bones makes it highly probable that these burials were related to the Revolutionary War era (Thompson III 1918:327), although no battles are documented nearby..

Prehistoric site potential in the vicinity of the study area is discussed in a recent report prepared for a nearby Flushing development site (Grossman 1993:4-5, 14-18). The surveys and findings made by early archaeologists (Beauchamp 1900, Parker 1920, and Bolton 1922, 1934) are noted, as are the sites listed in the files of the Office of Parks, Recreation, and Historic Preservation (OPRHP) at Peebles Island and the New York State Museum (NYSM) in Albany, the two state agencies that maintain site files. It should be noted that the early surveys are based mainly on archival and historical sources.

The report also considers the later findings and surveys of two field archaeologists, Ralph Solecki (1941 cited in Smith 1950) and Carlyle S. Smith (1950). In addition, it notes three College Point sites listed in the files of the Nassau County Museum: the Graham Court site (No. 194, the same as old NYSM No. 519); the Tallman's Island site on the shore of the East River (No. 128); and the Powell's Cove site (No. 101), which was located on high ground between 7th and 9th Avenues and 130th Street that borders a marsh (Grossman 1993:18). These, and several of the other sites considered in the report, lie well beyond the study area but are part of the archaeological record regarding coastal Native American populations.

These surveys and archival sources identified sixteen Native American sites, many of them duplicates, that total eleven sites relevant to the current study, six of them within the 1-mile radius of the study area (Grossman 1993:Table 1; see Table 1 and Exhibit 20 this report and Appendix A). Three of the eleven were burial sites: two at what is now College Point, and the third one discovered when the road was cut through Prince's Linnaean Garden in 1841.

A total of six documented sites are relevant to the study area. Five listed in the files of the New York State Museum are near, but not in, the study area, as is one documented in Carlyle Smith's study. These include NYSM Nos. 4524 (the Linnaean Garden Burial site); 4526, another burial ground east of Flushing (e.g., Bolton 1934:149 No. 126); 4542 and 4544, identified as "camp site or other indications covering a small area" and 4545, "traces of occupation" (Parker 1920:279 and Plate 208; see Exhibit 19; Wellman 1996: personal communication). Smith examined the multi-component Grantville site at College Point that had originally been identified by Bolton as "probably an oystering camp" (e.g., 1934:150 No. 130).

Table 1. **FLUSHING** Prehistoric Site Reference Key (adapted from Grossman 1993:Table 1)

Figure 37*	Beauchamp, 1900	Parker, 1920	New York State Museum	Bolton, 1922; 1934	Smith, 1944; 1950	SHPO	Nassau County Museum
A-1	Site 1 Linnaean Garden	Site 1	4524				
A-2				Linnaean Garden			
B	Site 2 Thomas P. Duryea Farm	Site 2	4525	Thomas P. Duryea Farm			
C		Site 3	4526	Site 126			
D		Site 4	4527	Site 129	Site 18		
E				Flushing Bay	Grantville	A-081-01-0133	# 79 Grantville
F					Site 20 Wilkins		# 100 Wilkins Site
G					Site 32 Clearview		
H		Camp Site "X"	4544				
I	Shell Heaps	"Traces of occupation"	4541	Site 128, Fishing Camp			
J		"Traces of occupation"	4545				
K	Site 3 Douglas Pt. (Not Shown)						
L			4540				
M		Campsite "X"	4542	Site 127			
N			old # 719				# 94 Graham Court
O							# 128 Tallman's Island
P							# 101 Powell's Cove

Note: Grossman's Sites A-1 and A-2 are same site (Prince's Linnaean Garden Burial Site)

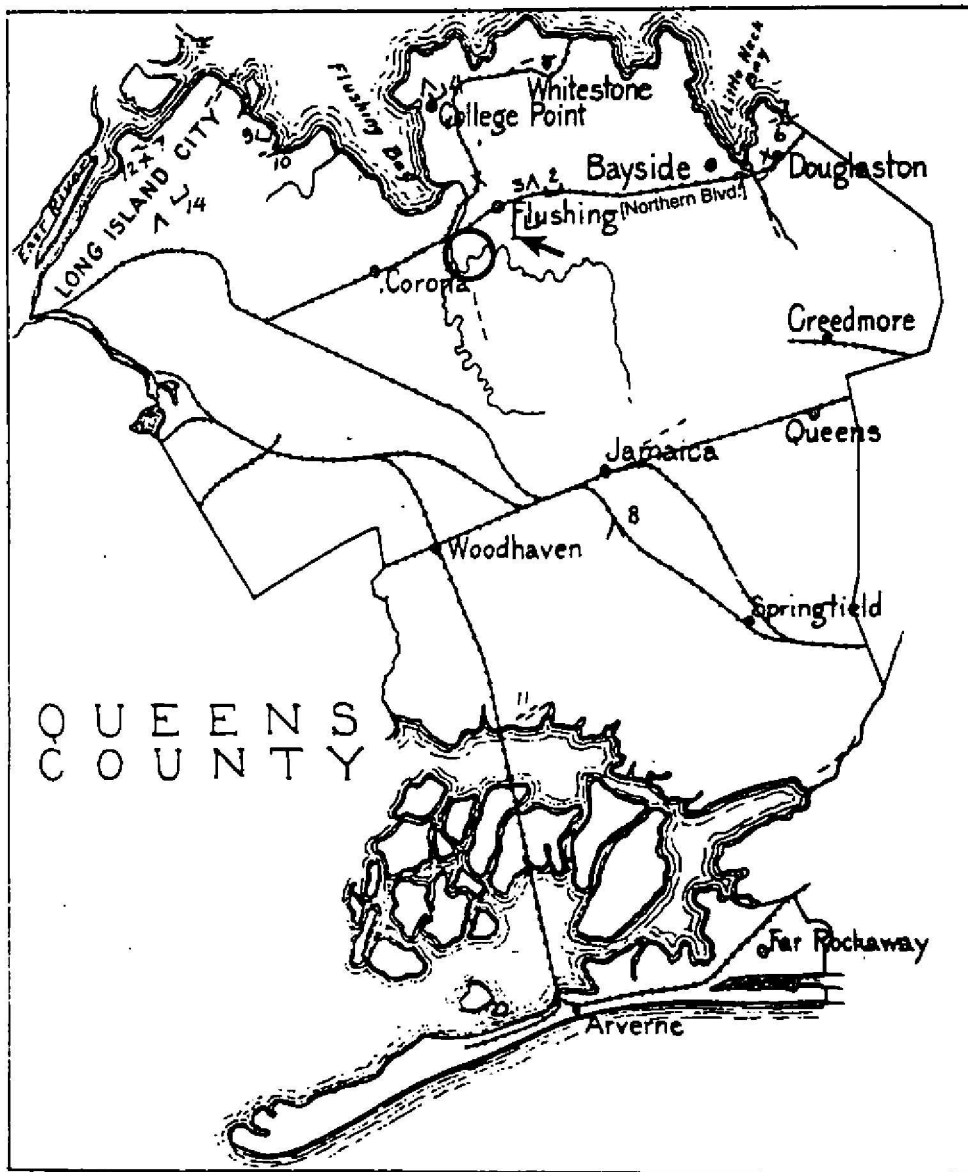
* site designation in Grossman 1993

☐ sites within 1 mile of study area; each highlighted box represents one site with its various identifications

Later excavators at this promontory site, situated between the bay and a swamp, were M. C. Schreiner, who investigated the 1-ft. deep cultural deposit, and Ralph Solecki, who excavated a nearby refuse pit, in the 1940s (Smith 1950:173-176).

Several of the early archaeological surveys locate the same sites differently, as do the two state site files, and most are vaguely and possibly incorrectly placed. A case in point is the site most relevant to the current study, the above-mentioned Prince's Linnaean Garden burial site. According to the Grossman report, Beauchamp (1900) identifies it as Site 1 Linnaean Garden, Parker (1920) as Site 1, Bolton (1922 and 1934) as Linnaean Garden [listed in Bolton 1934 as site No. 127], and the New York State Museum as NYSM No. 4524 (Grossman 1993:Table 1). According to Parker (Exhibit 18), Bolton (e.g., 1934, Exhibit 19), and the New York State Museum (Exhibit 20), which bases most of its sites on these surveys, the site was on or south of Northern Boulevard. Grossman, noting discrepancies in placement, opted to show two/ possible locations for this site (1993:15; Figure 37 A1 and A2).

Linnaeus Street, where the burials were discovered, was later North Prince Street (Waller 1899:185). An 1841 map shows Linnaeus Street, located north of Broadway (now Northern Boulevard), as a paper street (Smith 1841; Exhibit 21). This map was made when it had either just been, or was about to be, graded and the burials discovered. Linnaeus Street is also shown on an 1854 map after much of the nursery property had been sold (*Flushing Journal* 1842; Hatheway 1854; Exhibit 22). According to the 1859 Walling map (see Exhibit 27), Linnaeus Street had by then become Prince Street north of Broadway. Based on this information, the site of the eleven burials can quite confidently be placed north of Northern Boulevard (in the vicinity of Grossman's A2; see Exhibit 20 this report) and, therefore, north of the study area. It should be noted that a fresh water spring, one of two near, but not on, the project site, is shown in the vicinity of Linnaeus Street on the 1852 Dripps map (see Exhibit 26 for the location of these two springs). This may have had a bearing on the location of the nearby burial ground. Although no springs are identified directly within the study area, there were one or more fish or duck ponds on the John W. Lawrence estate that may have been fed by undocumented springs (see Exhibit 29). The Lawrence estate included some of Site C1 and all of Site C2 of the project sites (Sites C1 and C2 below).



○ project site area, approx.

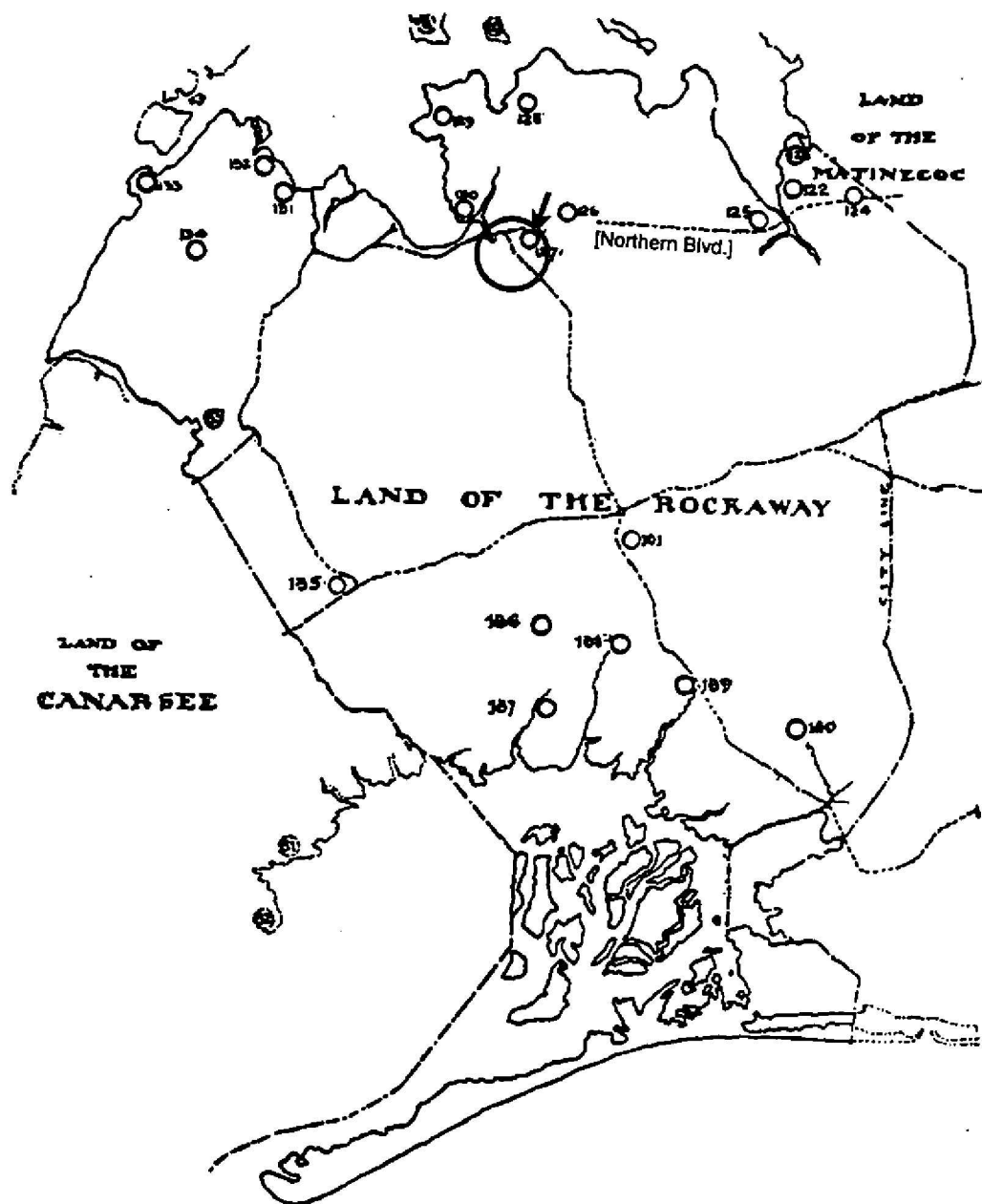


Sites in Immediate Project Area

↖ Site 1 (eleven burials discovered in 1841; same as Bolton 1934: 127; Location seems to be incorrect; located north of Northern Boulevard)

Site 2 burial site on Thomas P. Duryea's farm, a mile from Flushing (1880)

Site 3 one of three large Matinicock settlements (?)

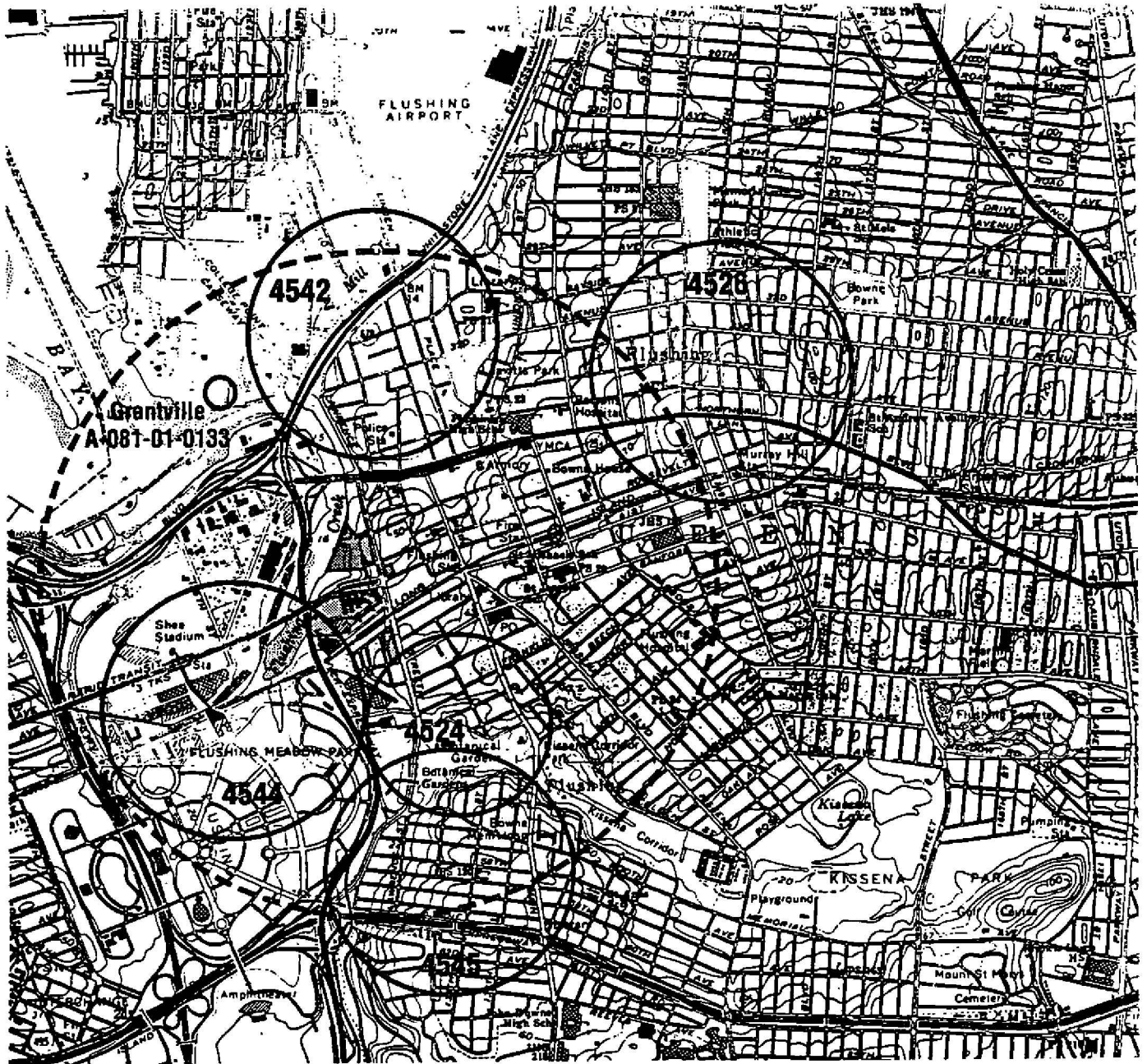


○ project area, approx.

Sites in Immediate Project Area

- Site 126 (mile east of Flushing burials with implements, discovered 1880)
- ↓ Site 127 (eleven burials discovered in 1841 same as Parker 1920; location seems to be incorrect; located north of Northern Boulevard)
- Site 130 (a station, probably an oystering camp)





site location



1-mile radius

4542

campsite x (Parker 1920)

4544

campsite x (Parker 1920)

4524

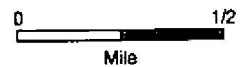
Linnaean gardens (Bolton 1934: No. 127; Parker 1920: No. 1 [location incorrect])

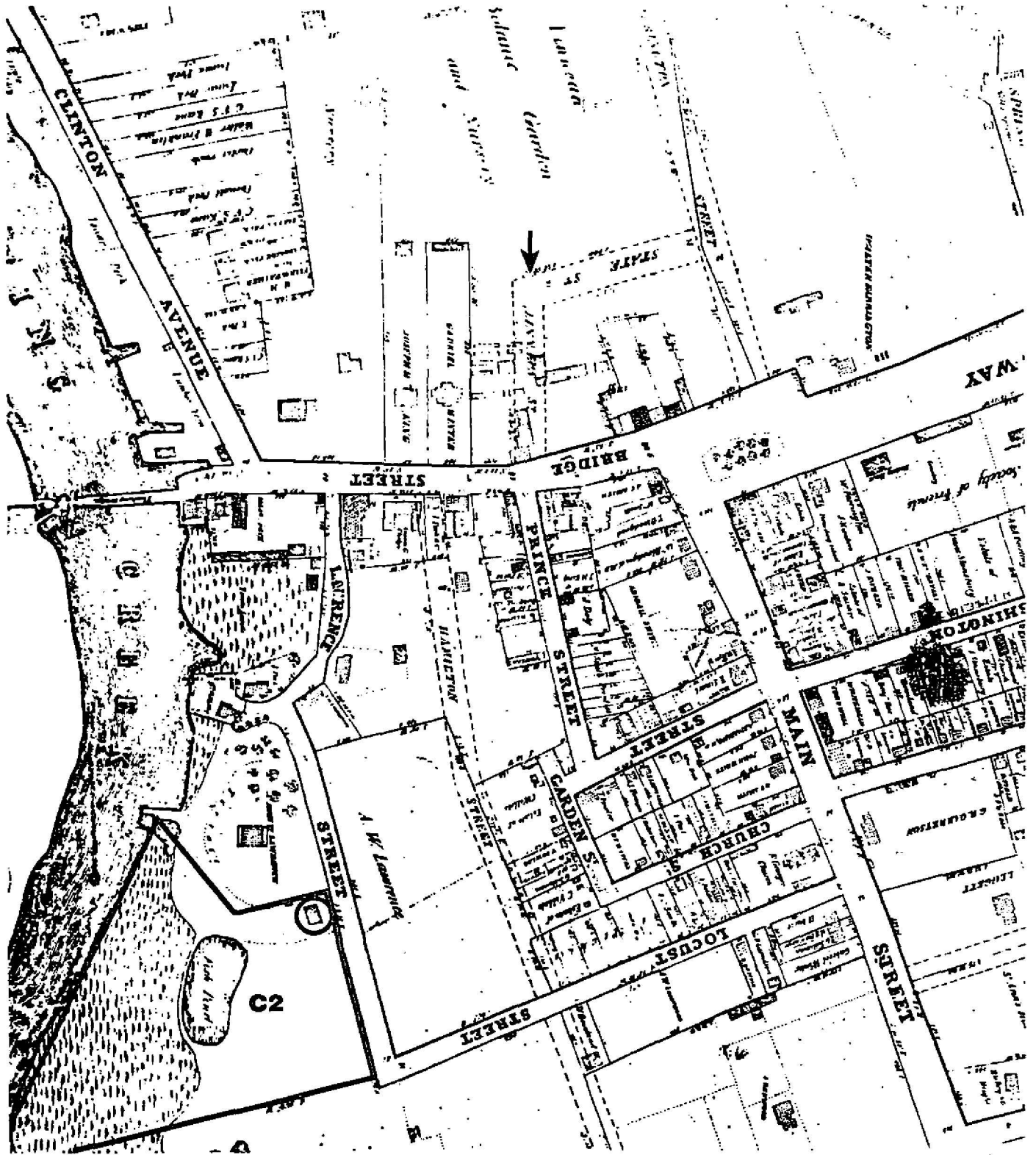
4526

Site 3 (Parker 1920); No. 126 (Bolton 1934)

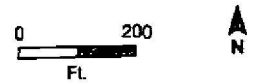
4545

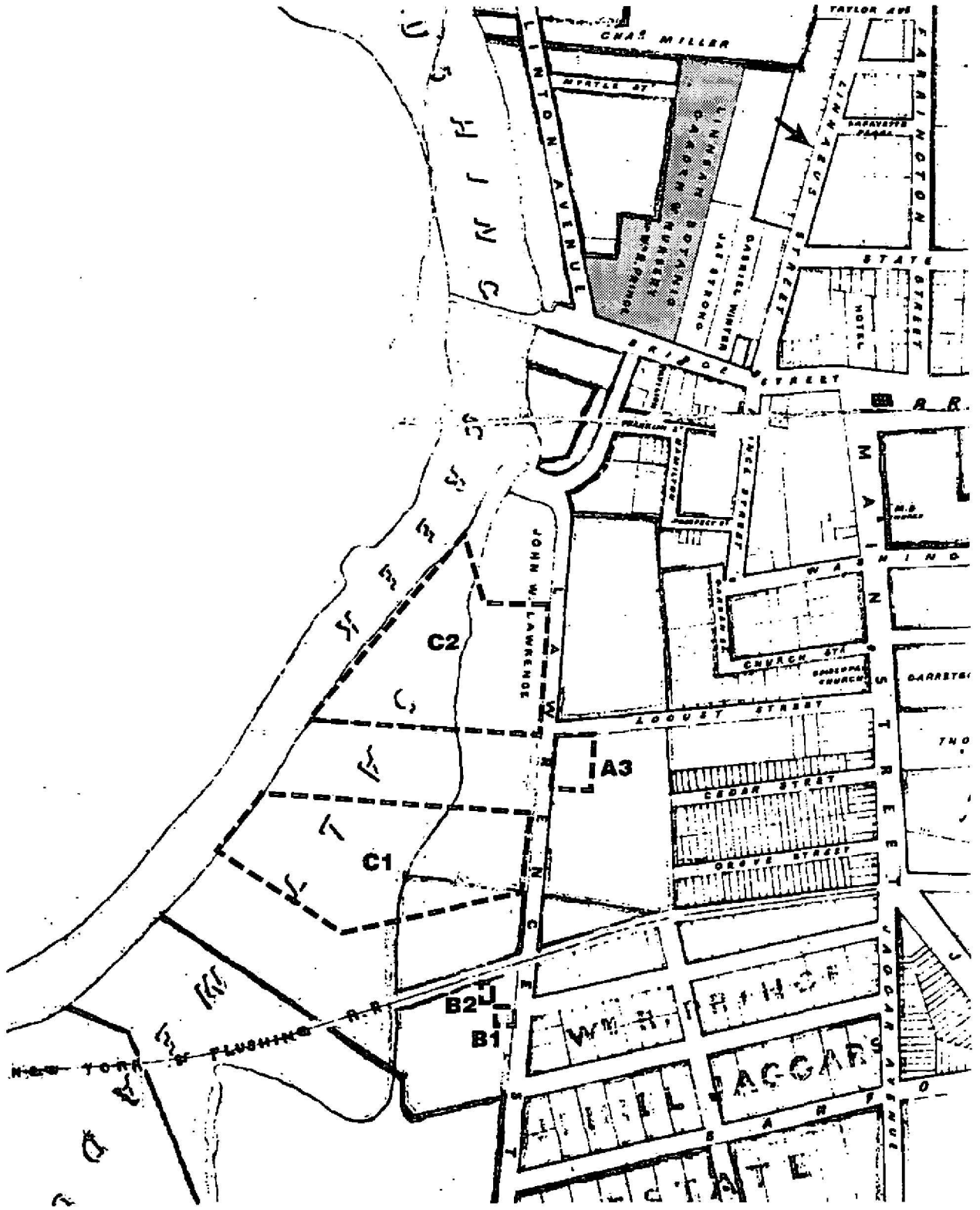
traces of occupation (Parker 1920)







- ↓ Linnaeus Street
- unidentified structure, possibly a barn





 Linnaeus Street
 Prince property after land sales

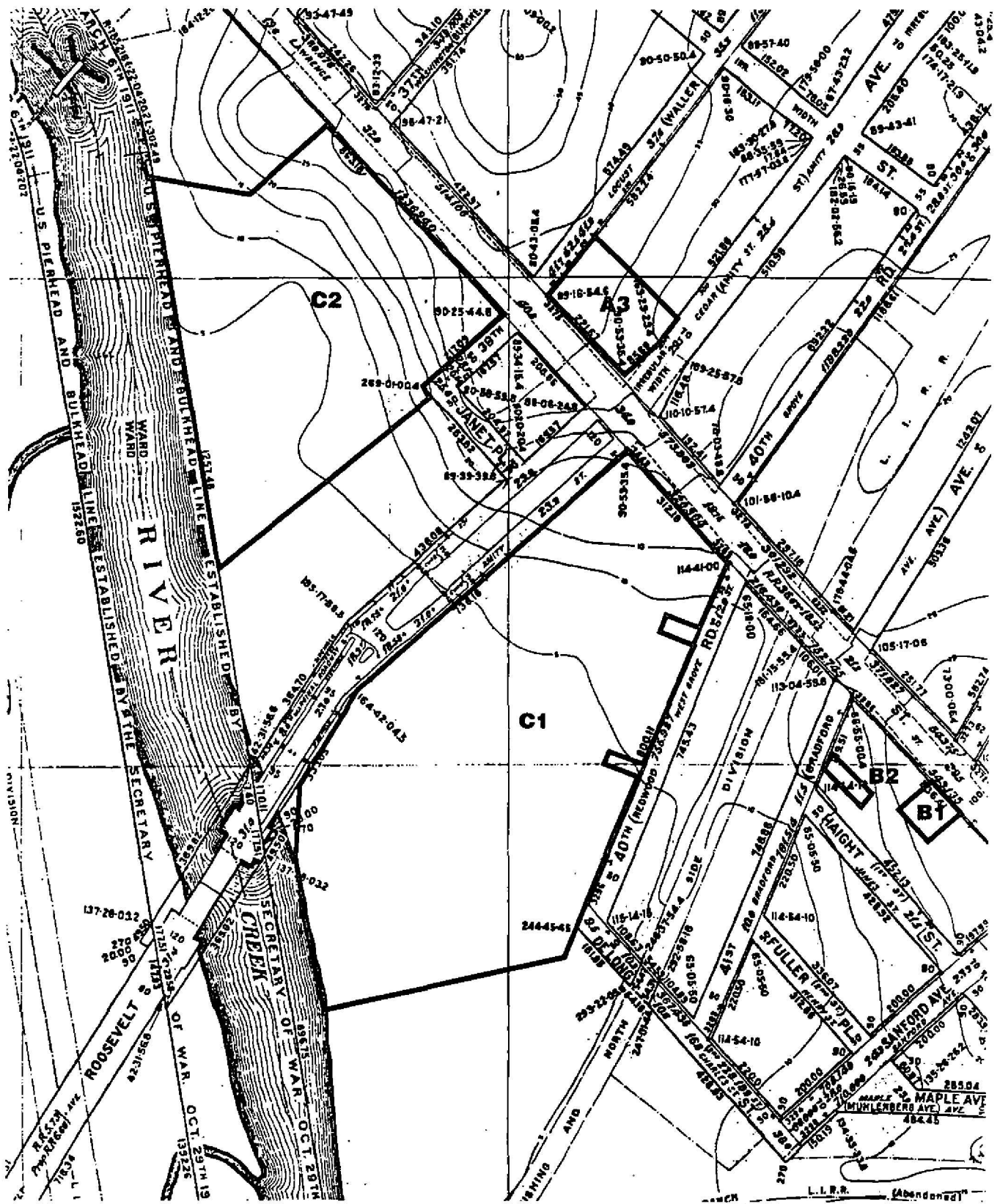
no scale



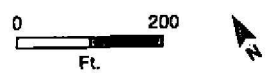
While the identified site most relevant to the present study is a burial site, in general the vestiges of Native American use or occupation near streams, creeks, rivers, or bays are shell middens. These are usually buried concentrations of marine shells identified with coastal Native American populations. They are the remnants of consumed food deposited at revisited food procurement or camp sites that are conceivably 7,000 to 9,500 years old (e.g., Claassen 1991:23; Custer 1991:28; Lavin 1991:69), a prehistoric culture period classified as the Archaic. However, in the New York-metropolitan area shell middens are mainly associated with the Woodland period, a more recent prehistoric culture that had developed before, and persisted after, European contact. Once contact had occurred, the manufacture of Seawan, or wampum, a currency of shells created by Native Americans and adopted by the European settlers, would also have created shell middens. These more recent deposits represent an economic resource in addition to food consumption (Ceci 1977; Waller 1899:17-18).

In his 1950 survey of coastal New York Indians, Carlyle Smith noted that "Nearly all of the permanent settlement sites⁴ are situated on tidal streams and bays on the second rise of ground above the water" (Smith 1950:101). A hill located east of Lawrence Street (College Point Boulevard) between Washington and Locust Streets--just north of project site A3--became the site of a large brick house built by Henry A. Bogert in 1874 (Exhibit 23 shows the site topography recorded in 1911). When the house burned in 1925, it was demolished and the hill "leveled to the street" (Gordon 1960:42; see Bogert Family below). In its natural state, this property would have been a likely site for prehistoric deposits, and others might be found nearby. Although much of the study area has subsequently been developed, it is conceivable that Native American archaeological material may yet be found in pockets of undeveloped upland, particularly if these deposits have been protected by fill.

⁴By a "permanent prehistoric settlement site," Smith undoubtedly meant "revisited" sites. "Permanent" might suggest a long-occupied "village" site which, in the New York-metropolitan area, seems to be a phenomenon correlated with the economics of European contact if not actual settlement (Ceci 1977), not prehistoric use.



Lawrence Street before widening



HISTORICAL CONSIDERATIONS

Historical Overview⁵

In 1639, Willem Kieft, then the Dutch Governor General, secured title from the Indians for what is now Queens County. Over time, there were three patents issued for Flushing--one Dutch, one English, and one from the State of New York--in addition to several Indian deeds (Waller 1899:169).

The Native Americans who first put themselves under Dutch protection retained the right to occupy and plant the land, to hunt, and to fish (Waller 1899:11). Political machinations soon prompted an unfair Indian war that continued until 1644. The official history of Flushing begins soon after when, in 1645, the English-born incorporators of the town received a charter from Kieft for land east of "fflushing creeke" (Waller 1899:11, 231). The eighteen patentees had come to Long Island from Massachusetts along with others who had failed to find "the freedom of conscience" they had sought among the New England Puritans (Waller 1899:14). Waller debunks the idea that the town of Flushing was named for Vlissingen, a town in Holland, noting that Flushing Creek was named in the original charter (Waller 1899:15, 231).⁶ Among the grantees were John and William Lawrence, ancestors of John W. Lawrence who, in the 19th century, owned most of the land included in the project sites (see Lawrence Family).

As previously described by Denton, the area's natural resources were abundant, and introduced plants and animals flourished. The little village prospered, weathering many actual and potential upheavals. Among them were ownership disputes between Holland and England, the loss and temporary recapture of Dutch supremacy, and ultimate take over by the English in 1673. It also survived "many religious commotions" that included an unsuccessful attempt at control made by the Reverend Francis Doughty, and the successful organization of the Quakers in Flushing. John Bowne, whose house on Bowne Street built in 1661 is a New York City Landmark, emerged as a force in the success of the Quaker sect in this

⁵Henry D. Waller (1899) offers a very well researched and documented account of the founding and growth of Flushing. His book, *History of the Town of Flushing, Long Island, New York*, is recommended for a detailed history of the village and town through the end of the 19th century.

⁶It is possible that the corruption had occurred well before the charter was made.

country. In addition, his staunchness in the face of religious persecution inflicted by Peter Stuyvesant, who feared the growing success of the sect, resulted in the reaffirmation of religious freedom in this country as it was then found in the Netherlands (Waller 1899:16-97; Powell c. 1940). The Quakers were instrumental in bringing education to Flushing as early as 1703 and in promoting the freedom of slaves beginning in 1716 (Waller 1899:92-93).

By 1670, when Denton's essay was published, the local Indians were no longer a threat. He remarked that the Indians were by then few and harmless and penned his often quoted, self-deceiving statement that "It hath generally been observed that where the English come to settle, a Divine Hand makes way for them by removing or cutting off the Indians Either by Wars one with the other, or by some raging Mortal Disease" (Denton 1670:6-7).

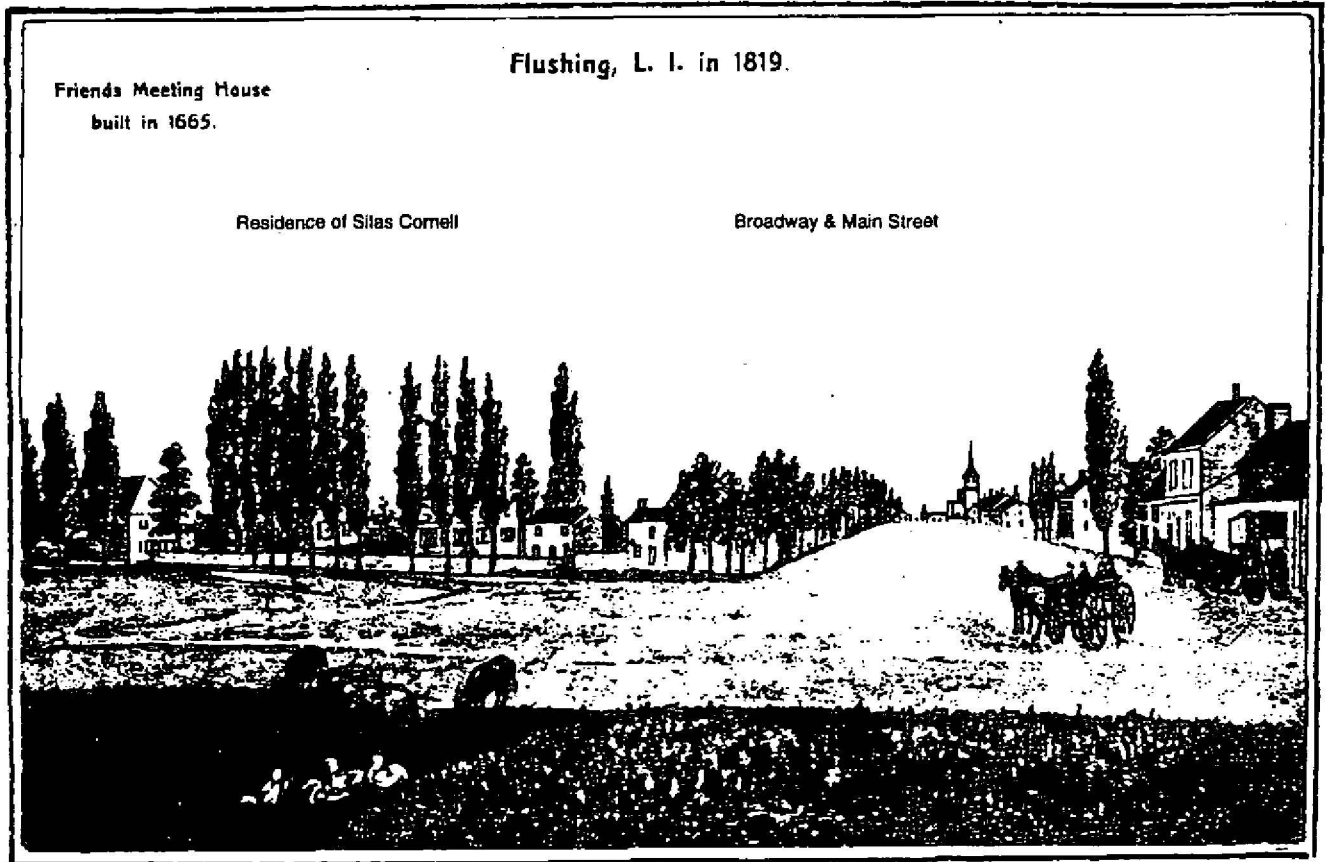
The story of Flushing in the Revolution parallels that of Manhattan and Brooklyn: all three fell almost immediately and were occupied by British forces for the entire war. At least one camp was at the "head of Flushing Vly (Vleigh)," or swamp, located south of the project area. This was apparently where Flushing Creek dissipated into marsh near the Jamaica line (e.g., Smith 1841, not illustrated). Unfortunately, the duration and sizes of the camps are poorly documented (Waller 1898:140). In 1780, it was said that the 'main army of the British lay at Flushing, from Whitestone to Jamaica' (Waller 1899:142 citing Sir Henry Clinton). But this wartime occupation, whatever its intensity, did "not stop the usual course of events in human life. People married, carried on their business, and died" (Waller 1899:136).

Loyalty was mainly to Britain, and local women married the soldiers and navy men stationed in their neighborhood. While business was hurt, it did not die. For example, William Prince, the founder of the aforementioned Prince Nursery, later Prince's Linnaean Botanic Gardens, continued to advertise his "large collection of fruit trees" and directed that orders be left near or at the Flushing boat at the Fly Market in New York (Waller 1899:137). But Prince's business did suffer, and he was forced to sell many of his grafted cherry trees for "hoop poles" (Waller 1899:137).

The fame of Prince's fruit gardens and shrubberies prompted a visit from President George Washington and other dignitaries in the fall of 1789. However, the war had taken its toll, and the president reported that "these gardens, except in the number of young trees, did not answer my expectations" (Waller 1899:166 quoting Washington's diary). In 1800, William Prince organized a company to build the first bridge across Flushing Creek. It was located at the foot of what is now Northern Boulevard (formerly Bridge Street in this area; e.g., see Exhibit 21) and is referred to in documents as the Flushing Bridge (Minutes of the Trustees of the Village of Flushing [hereafter MTVF] 1837-1854:55). This bridge has been replaced several times over the years (see Exhibit 29 for a birdseye view of this bridge before 1876).

Flushing's growing population is documented in historical accounts and records. An "Exact" list of inhabitants of the town in 1698 records 530 English, Dutch, and French men, women, and children, and 113 "Negros" [sic] who were probably slaves (Waller 1899:Appendix III). After the Revolutionary War, the Flushing town population had grown to approximately 1,600, and the houses in the smaller village numbered about fifty (Waller 1899:160). A somewhat idealized view of Broadway and Main Street in 1819 shows the core of the village, north of the study area, two decades later (Exhibit 24). By 1836, the number of village houses had grown to about 140 but the population was still under 2,000 (Waller 1899:184, 186). The Village of Flushing was incorporated a year later, on April 15, 1837 (Waller 1899:184). Streets were named in 1838 (MTVF 1837-1854:55-58).

An 1836 New York State Gazetteer quoted in Waller and annotated here, describes the village, noting that some dwellings were neat and others magnificent. There was then one Episcopal Church, two Methodist Churches ("one for white and the other for colored worshippers"), and two Quaker Meeting houses. There was also a school for boys [the Flushing Institute opened in 1828 (Waller 1899:180)] and a "respectable Seminary for ladies," as well as six stores, three hotels, one tidegrist mill [located on the creek north of the project site; see Exhibit 26], and the "extensive and celebrated garden and nursery of Messrs. Prince, known as the Linnean [sic] Garden" (Waller 1899:184). Several historical maps and a birdseye view document the village, and specifically the site area, between 1841 and 1894



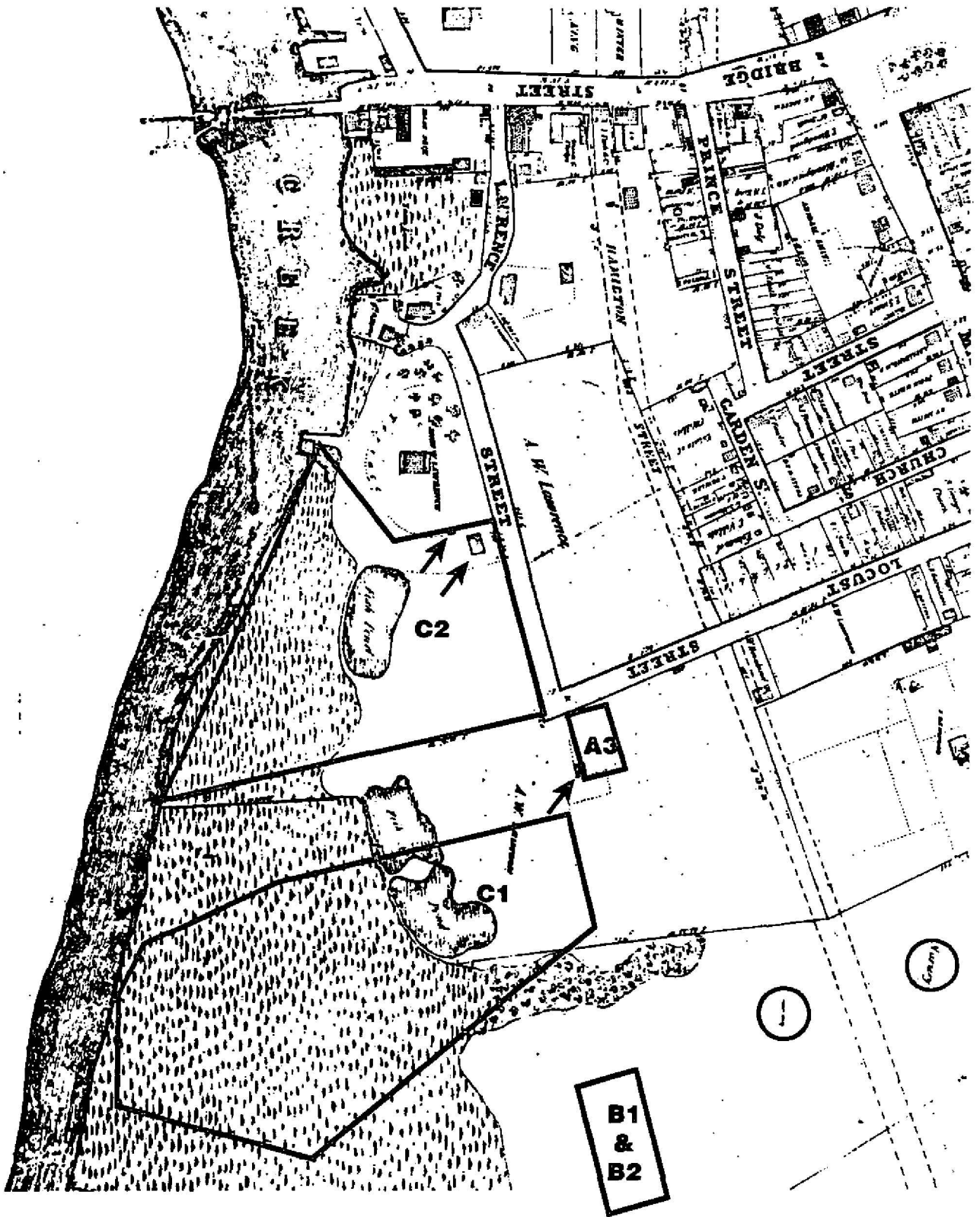
(Smith 1841; Dripps 1852; Walling 1859; Beers 1873; Fowler & Bulger 1876;⁷ Exhibits 25-29).



Gas for house and street lighting was available by 1857, but not necessarily widely used; a larger gas works was built in 1868 (Waller 1899:214-215). Flushing was also the first Queens County community to have its own water system (Seyfried 1982:161). When a public water supply, and apparently street sewers, were introduced in 1874 (Waller 1899:206), the wealthy were quick to take advantage of these public amenities. Among the first to acquire house drainage in 1874 were John W. Lawrence, a descendant of the original Flushing patentees, and his son-in-law, Henry A. Bogert. Apparently, this was not in their own homes, but in rental properties located on Locust Street (Sewer Connection Book 1875-1888:1-2). At the time, Lawrence was a resident of "Willow Bank," a house built in 1835 that replaced the one where he had been born in 1800. Bogert had by then completed construction of a mansion on land formerly belonging to his father-in-law (e.g., Beers 1873). Both homes were on Lawrence Street. Bogert's original home, built about twenty years before, was on Site A3, the most easterly of the project sites and fronted on Locust Street. The new one was situated on the crest of a hill (mentioned earlier) one block to the north (see Lawrence and Bogert Families); "Willow Bank" was across the street, just north of Site C2 (see Roullier 1894; Exhibit 30). Connections for their own houses may have predated records found in the Sewer Connection book.

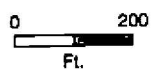
By mid century, the village was not much larger than it had been at the time of incorporation (Waller 1899:195-196). In 1857, three years after a railroad was run between Hunter's Point and Flushing, the village boundaries were expanded (Waller 1899:197-198). This railroad was the first of two to cross the study area,⁸ and one of three to service the village in the 19th century. In 1868, it became part of Conrad Poppenhusen's local rail holdings (Seyfried 1996:personal communication) and a major component of Flushing's public transportation system.

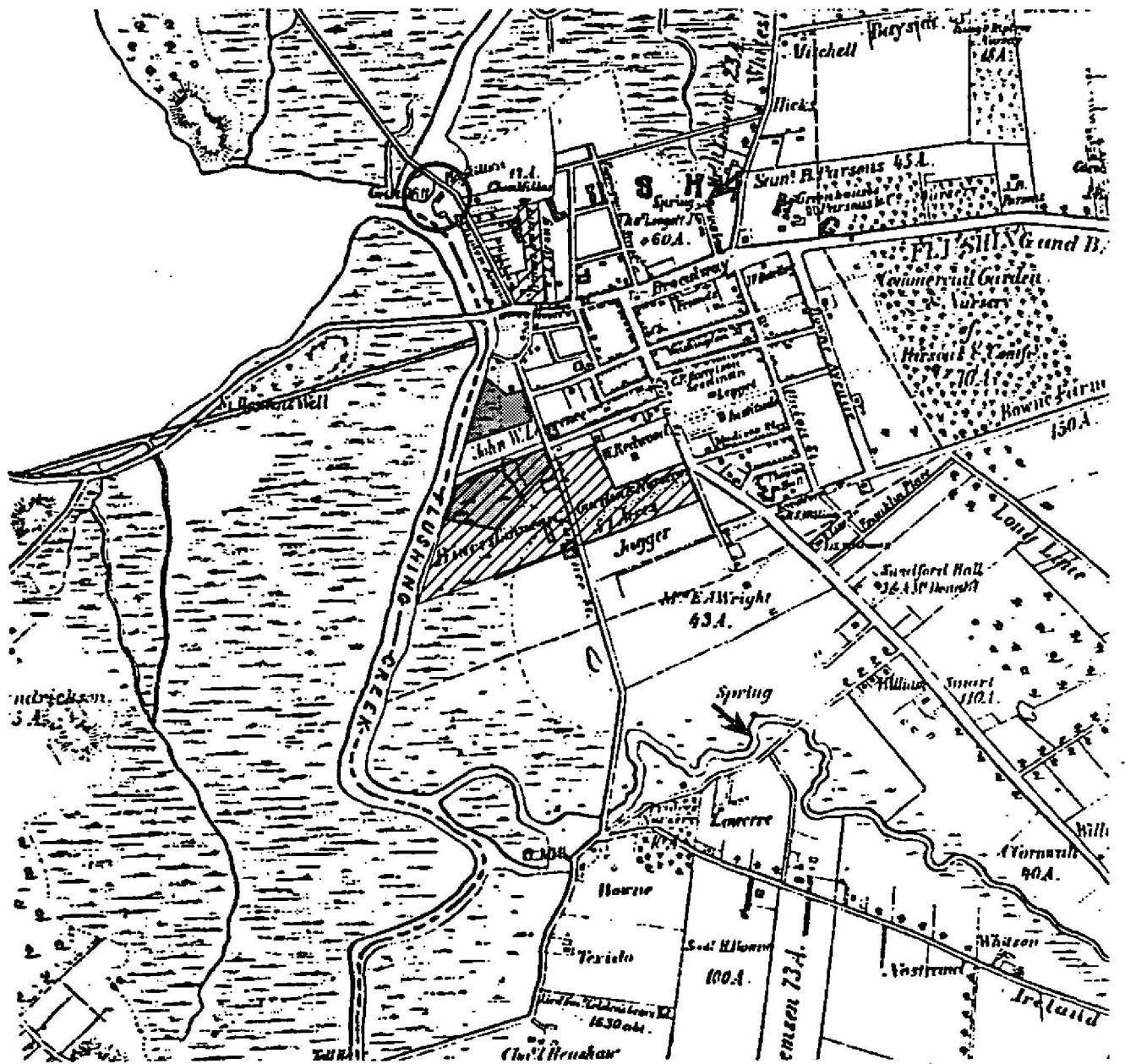
⁷Although this birds-eye view of Flushing was published in 1876, it appears to be depicting a somewhat earlier time. For example, the Bogert mansion, built in 1874, is not shown, nor is the White Line, a short lived rail line that ran in the vicinity of Site B1 between 1873 to 1876 (see text below).




⁸The location is described in an 1854 deed between William R. and Charlotte G. Prince and the Flushing Railroad (LD 699 1854:173).



-  unidentified structure
-  unidentified nursery

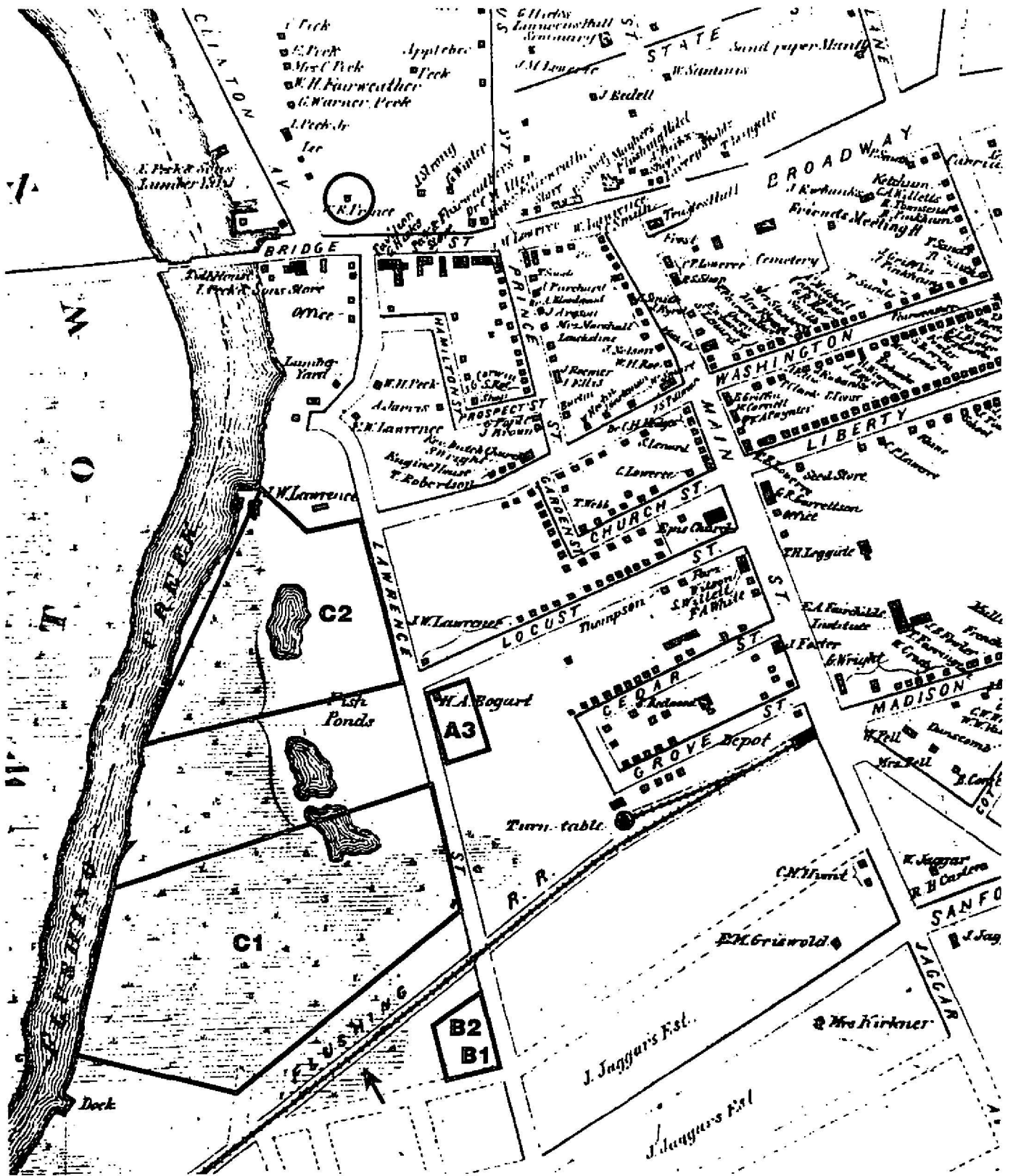




-  spring
-  gristmill
-  Prince nurseries

no scale

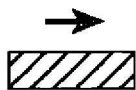
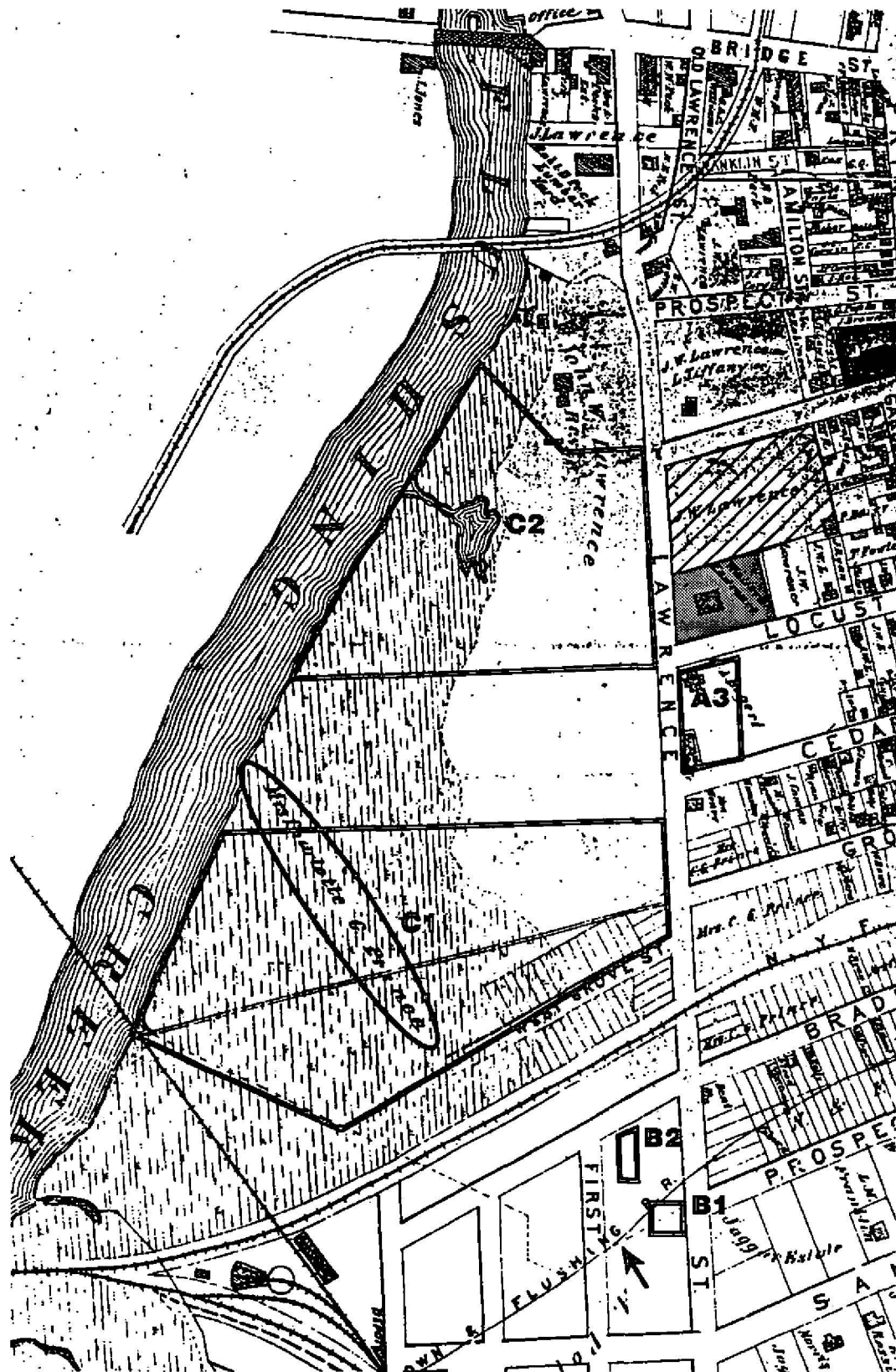




Newtown & Flushing RR (opened 1854)

W. R. Prince

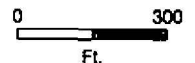


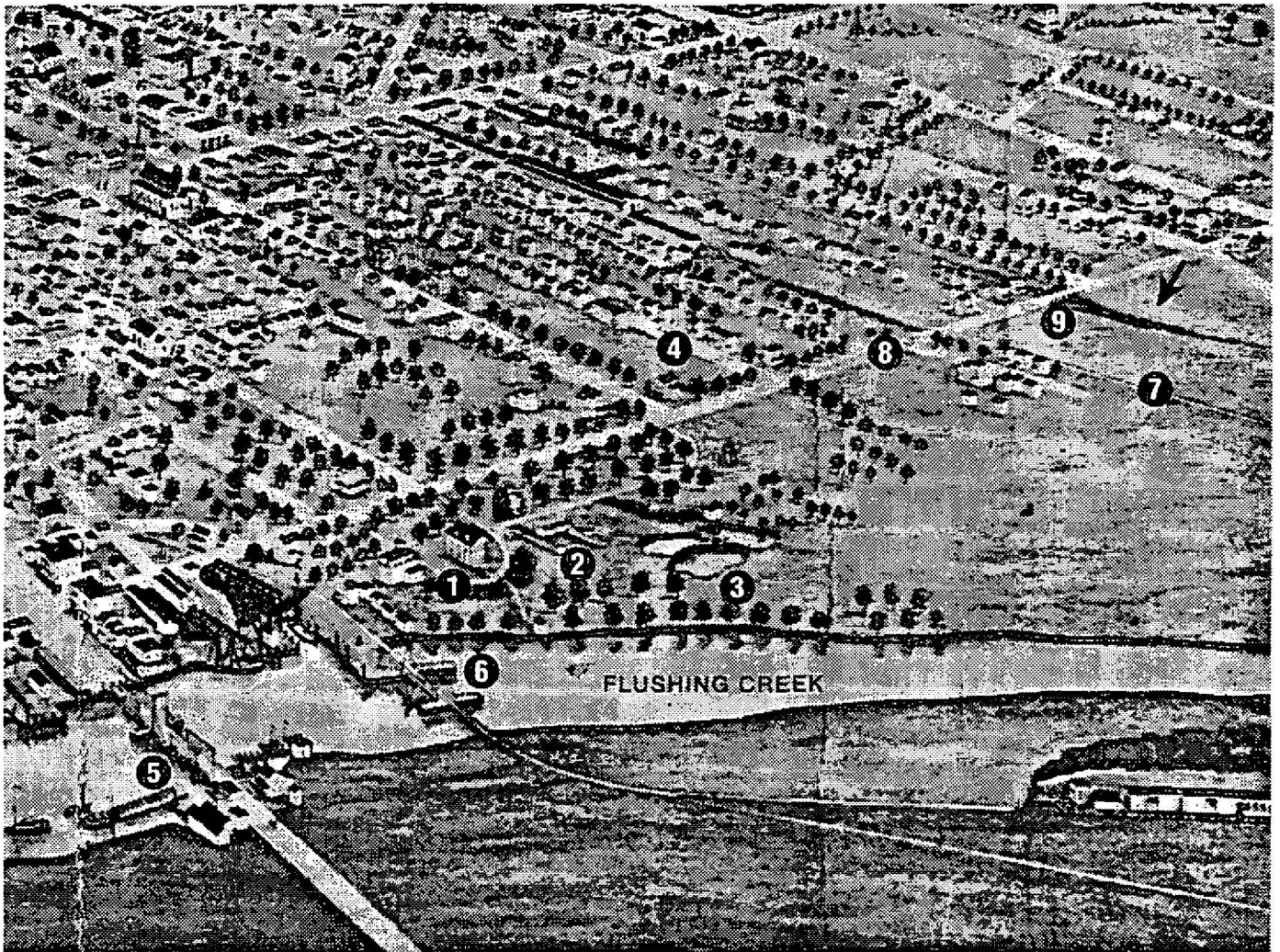


→ Newtown & Flushing RR ("White Line")
 land of J.W. Lawrence, later site of Bogert Mansion (1874)



home of Walter B. Lawrence
 Charlotte G. Prince property





* although published in 1876, the view appears to depict an earlier time (for example, Henry A. Bogert's house built in 1874 is not shown, nor is the Newtown & Flushing RR line opened in 1873 . Points relative to this study are numbered and described.

- ① "Willow Bank," home of John Watson Lawrence
- ② greenhouses or barns
- ③ three ponds on Lawrence's estate
- ④ Henry A. Bogert's home built c. 1854
- ⑤ Flushing Bridge originally built 1800
- ⑥ draw bridge for the Flushing & Northside RR (later Northside System of the Central RR of LI)
- ⑦ Newtown & Flushing RR, later part of Northside System of the Central RR of LI
- ⑧ Lawrence St.
- ⑨ unidentified cut and bridge just north of Site B1
- ➔ Newtown & Flushing RR ROW (not shown)



abandoned railroad ROW

no scale



Henry A. Bogert home c. 1850



Henry A. Bogert Mansion (1874)



A second, short-lived line, the Newtown & Flushing Railroad introduced in 1873, appears to have been located at least partly on a project site (see Exhibit 28 and B1 development below). This line figured in a power struggle between Oliver Charlick, president of the original Long Island Railroad first opened in 1836 (Von Skal 1908:19), and Conrad Poppenhusen, a Flushing resident and a prosperous local manufacturer (Ross I 1903:297). Poppenhusen had astutely recognized that improved transportation would enhance his business and was wealthy enough to act on it.⁹

As noted above, Poppenhusen had acquired the original 1854 Hunter's Point-Flushing rail line and incorporated it into the North Shore branch of his Central Railroad of Long Island. The short line Charlick opened between Woodside and Flushing in 1873 was its rival. Known as the White Line¹⁰ (Ross I 1903:298), it ran south of Bradford Avenue (41st Street), parallel to one segment of Poppenhusen's line that ran several hundred feet to the north.¹¹ It seems Charlick's new line was run in retaliation for Poppenhusen's successful incursion on the older railroad's business. The intent was to undermine his rival's popularity by undercutting prices. But Poppenhusen moved swiftly and secretly, acquiring a controlling share of Long Island Railroad stock. In April 1875, Charlick lost his presidency and Poppenhusen soon replaced him. Charlick's line south of Bradford Avenue (41st Street) was abandoned in 1876 (Beers 1873; Waller 1899:205-206; Ross 1903:208; Hyde 1904; Bromley 1909).

In 1883, the village boundaries were again extended, creating its configuration and size at incorporation with New York City in 1898. Almost from the beginning, ferry and sloop service had linked the village of Flushing to New York City. This link was strengthened by construction of the Flushing Bridge in 1800 and, more than half a century later, the limited railroad line run in 1854. Finally, the expansion of the railroads beginning in 1868 that connected the village of Flushing to the East River, making access to New York City easier and faster,

⁹Poppenhusen introduced hard rubber to the United States in 1853 and established a company that manufactured hard rubber goods at College Point (Von Skal 1908:23).

¹⁰Its cars were white to distinguish them from those on Mr. Poppenhusen's trains (Seyfried 1996: personal communication). See Volume 2 of Vincent Seyfried's *Comprehensive History of the Long Island Railroad* (c. 1966) for further details of the complicated history of railroads in Queens.

¹¹ Poppenhusen's line ran between project sites C1 and C2; Charlick's right-of-way appears to have included at least part of Site B1.

irrevocably changed the character of the quiet village. While its residents had always included commuters, the increasing ease of travel turned rural Flushing into a bedroom community. Incorporation of Queens with New York City at the end of the 19th century, which was generally opposed by Flushing residents (e.g., Waller 1899:220; Gordon 1960:26; Weller 1946), was merely another impetus to the change that would occur in the 20th century (see Bromley 1909 for the site area at that time; Exhibits 31 and 32).

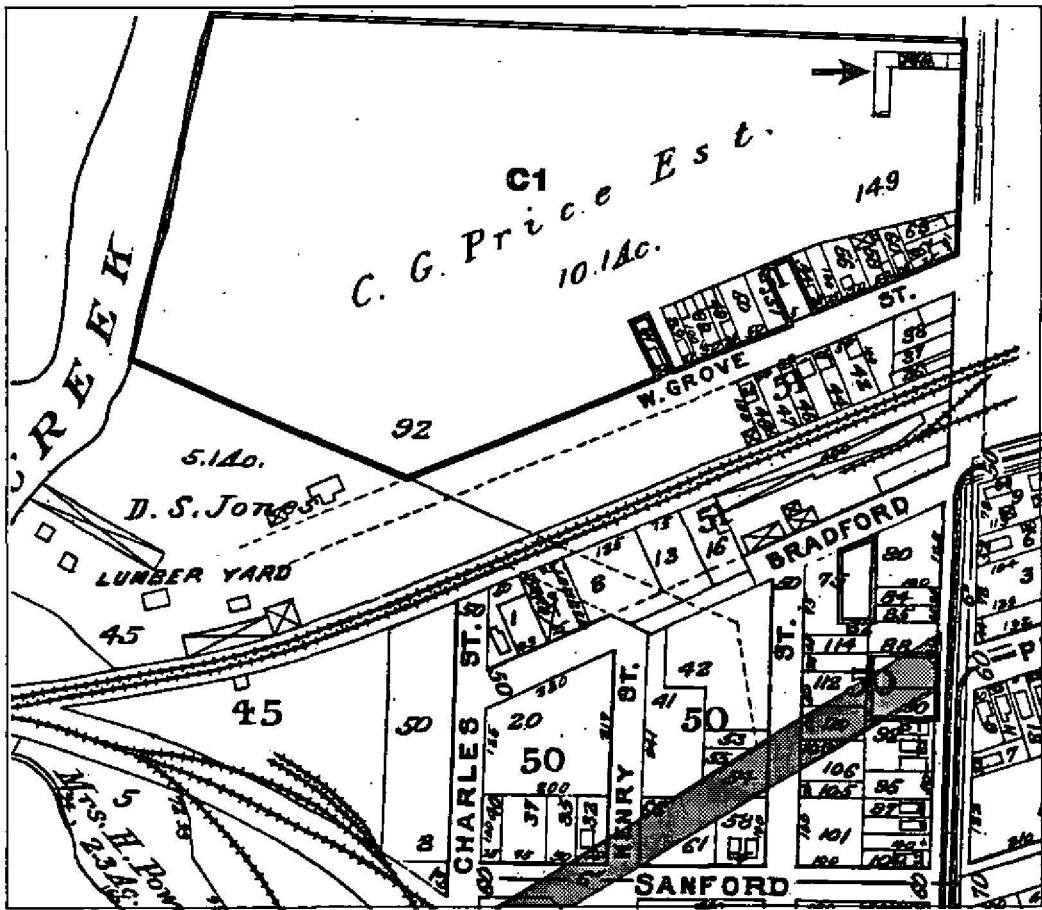
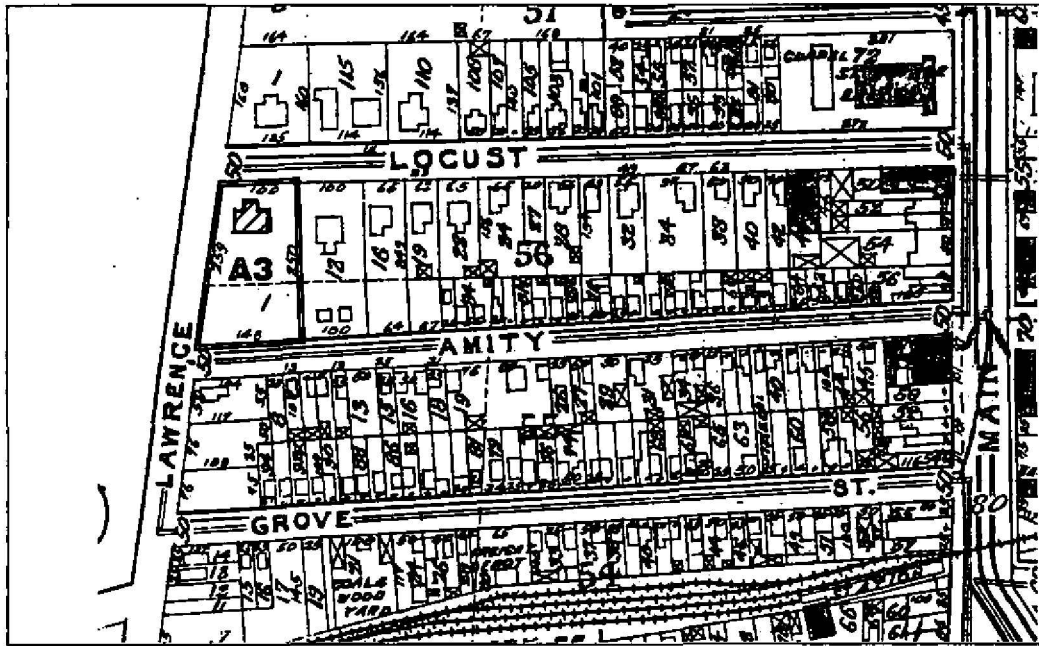
In summing up his history, which ended with the close of the 19th century, Waller noted that "The Village of Flushing has always been a place of residence... institutions have been fostered that would render the village attractive to persons seeking homes [and] manufacture has not been encouraged" (1899:212). But this would soon change. Muriel Bogert Gordon, a great granddaughter of John W. Lawrence and granddaughter of Henry A. Bogert, described the dissolution of the village and its lifestyle in the first decades of the 20th century. Among the factors in this change was introduction of the subway and its elevated portion that still runs on Roosevelt Avenue, a remnant of a vast above-ground transportation system. After the First World War, Flushing assumed a new aspect: beautiful old houses on tree-lined streets were demolished and replaced by large buildings and stores; lovely, long-established trees were cut down; and the nearby meadows became a city dumping ground:




...great loads of ashes in barges came through the creek, refuse of all kinds, bed springs, scrap iron, street sweepings...and smoking mountains of gray dust rose where green grasses had waved, the small pools which had reflected the sky were only a memory... (Gordon 1960).

FAMILY HISTORIES

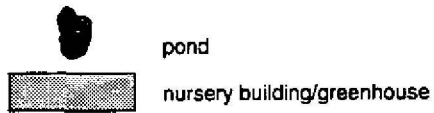
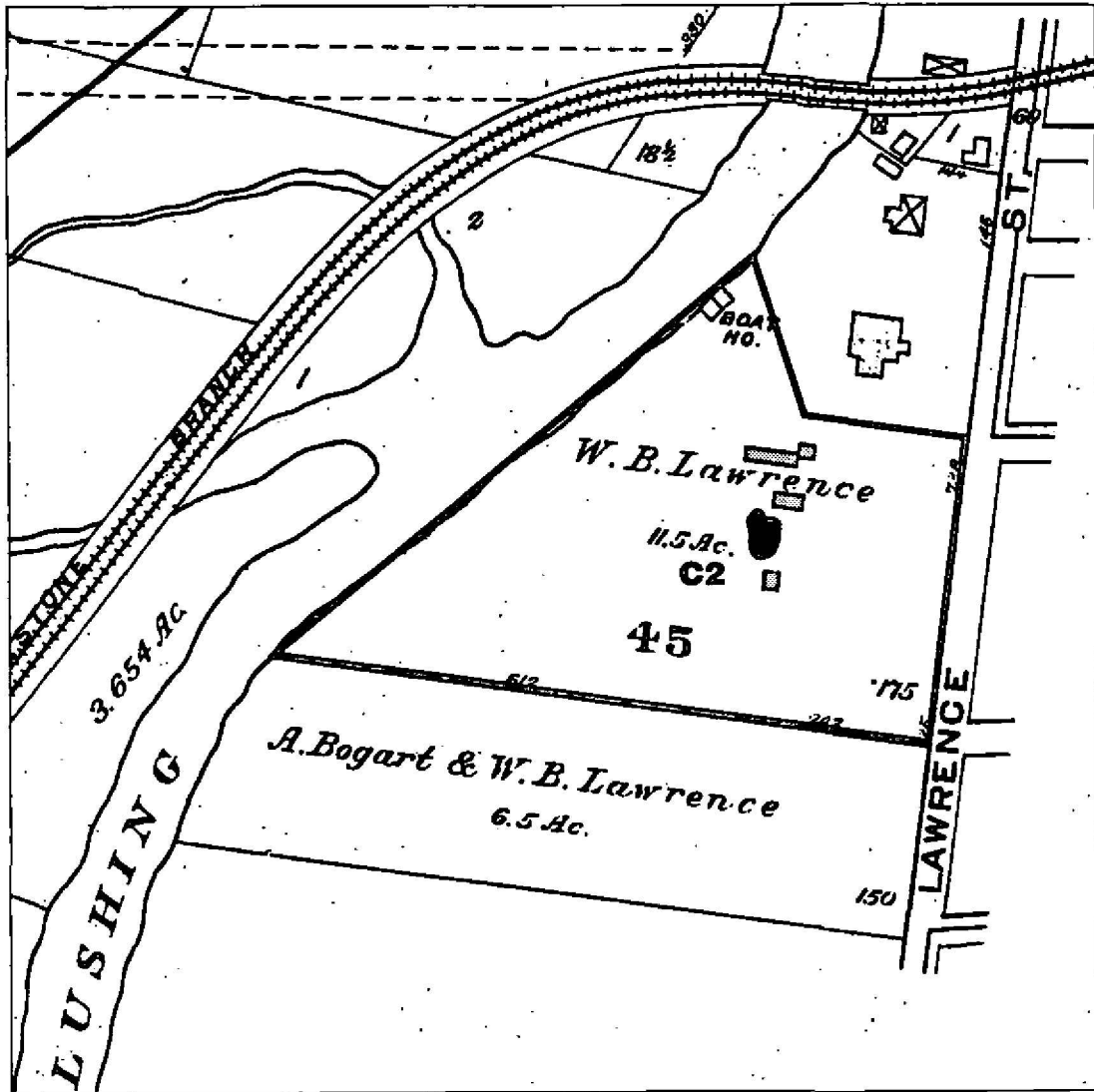
Three families are associated with the project area in the 19th century--Lawrence, Bogert, and Prince. While the Lawrences and Princes have ties to 17th-century Flushing, the Bogert association begins in the middle of the 19th century.

As noted earlier, two of the eighteen Flushing patentees were Lawrences and



-  Henry A. Bogert home (c. 1854)
-  greenhouse
-  abandoned railroad ROW





the name Lawrence is found throughout Waller's *History of the Town of Flushing, Long Island, New York*. Members of this family at one time owned most, if not all, of the project sites. One of them was the aforementioned "Willow Bank," John W. Lawrence's home. The Prince name is associated with Site C1 by the mid-19th century, but it was a nursery not a house site. In 1854, Site A3 belonged to Henry A. Bogert, John W. Lawrence's son-in-law. Information about each of these families is presented here, mainly in relation to the study area.

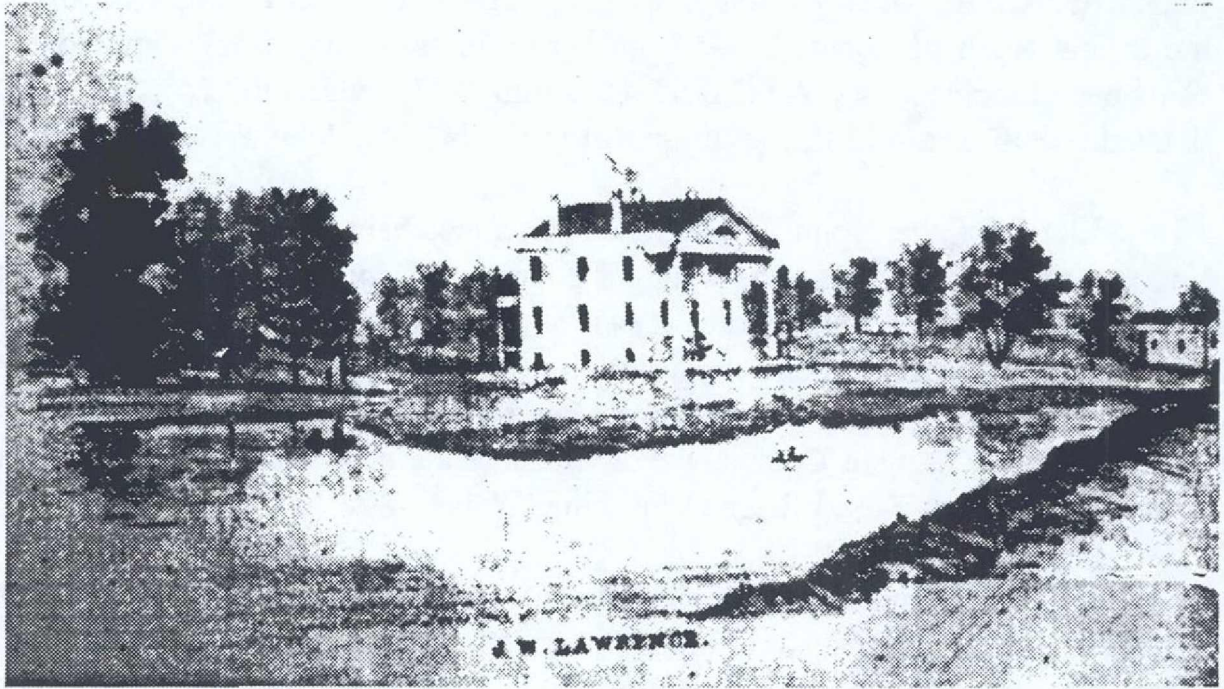
The Lawrence Family

Not only was John W. Lawrence the descendant of signers of the 1645 Flushing charter, an ancestor was the daughter of Richard Smith, the patentee of Smithtown, who first married a Lawrence and, when widowed, then married Sir Philip Carteret, the colonial governor of New Jersey; Elizabeth, New Jersey, is named after her (e.g., Lamb II 1877:724). A more immediate relative was his cousin, Cornelius Van Wyck Lawrence, Mayor of New York City from 1834 to 1837, the first to be elected by popular vote (Shannon 1869:650), and later a member of Congress (Lamb II 1877:724).

John Watson Lawrence, the youngest son of Effingham Lawrence, was born at "Willow Bank" in Flushing in 1800, the year his father died. His mother was Elizabeth Watson, and all children of this union were given their mother's maiden name in some form (Effingham Watson, Watson Effingham, John Watson, Anna Watson, and Mary Watson).

"Willow Bank," Lawrence's birthplace, burned in about 1825. Ten years later, Lawrence, who was by then a successful New York City merchant, built a white-pillared replacement that he also named "Willow Bank" (Exhibit 33). His new home stood just south of the original house site (*Brooklyn Times* 1908:4-5).

The Lawrences received a great deal of land in the Town of Flushing in the 17th century and it is possible that the Willow Bank property was part of these grants. However, several accounts indicate this property bordering Flushing Creek may have been purchased by Effingham in 1794 after he retired from business and moved to Flushing from New York (History Map [hereafter HM] No. 1189); no deed has been located for this transaction.



33 "Willow Bank," the home built by John Watson Lawrence in 1835 near the site of his birthplace which had been destroyed by fire several years before. Note pond in foreground. (Smith 1841)

As noted earlier, much of the study area was owned by John W. Lawrence in the 19th century (e.g., Smith 1841; see Exhibit 25). This is land that had come to his generation of Lawrences through inheritance, although their father, Effingham, left no will (Letters of Administration 1801 A1:31). In 1839, John W.'s unmarried sister, Anna Watson Lawrence, purchased a part of this land that ran north and south of Locust Street from her brothers, Effingham W. and John W. This parcel included Site A3 (LD 15:41; Smith 1841; see Exhibit 25). Seven years later, in 1846, she sold this entire parcel to her brother, John W. (LD 72:349).

Like his father, John W. Lawrence was a merchant in New York City, clerking at the age of sixteen and becoming a shipping and commission merchant. In the 1840s, he was first a state senator (1841) and then a congressman (1845 to 1847). He was director or president of several New York City and local banks and long-time director of two cement companies, one the Lawrence Cement Company, the other the Rose Cement Company. For fifteen years he was also president of the Board of Trustees of the Village of Flushing (Waller 1899:266; Pennypacker 1928).

In 1826, he married Mary King Bowne, descendant of John Bowne and only daughter of Walter Bowne,¹² a wealthy merchant who became mayor of New York City two years after his daughter's marriage (1828-1833). If Bowne's successor, Cornelius Van Wyck Lawrence, was the first mayor elected by popular vote, Bowne was the last one to be appointed.

This Bowne-Lawrence marriage (there were many over the generations) produced ten offspring, eight girls and two boys, nine of them surviving to adulthood. The third daughter, Mary Bowne Lawrence, born in 1830, became the wife of Henry A. Bogert in 1853.

Mary Bowne Lawrence, and "Willow Bank," the house she grew up in; are described by her granddaughter, Muriel Bogert Gordon, in her memoir written in 1939 (published 1960). Her adored grandmother was perceived as gracious and charming but matronly for her age (in her fifties) while "Willow Bank" was said to be gracious and airy and aging very well. The "large white frame house with a columned portico...stood on a sloping hill which abruptly ended at the edge of

¹²There was also a son, Nathan (Lanier 1922 reprinting *Wealth and Biography of the Wealthy Citizens of New York City* 1845:4):.

[Flushing] creek" (Gordon 1960:2; see Exhibits 29 and 33). There was also a boat house on the creek that was a replica of the residence. These recollections are from a time when the house had been inherited by Walter Bowne Lawrence, John W. Lawrence's eldest son. "Willow Bank" presented a sharp contrast to the dark, but grand, Victorian mansion across the street built by Muriel's grandfather, Henry A. Bogert, in 1874. This newer house was where she was born and spent her early years (see Bogert Family).

Although her great grandfather, John W. Lawrence, lived until 1888, when Muriel Bogert Gordon was four, she barely mentions him in regard to "Willow Bank." Instead she talks about her uncle, Walter B. Lawrence, who came into possession of the estate when his father died in December 1888. The property at that time extended south to "the center of a small creek that carries off the water from my fresh and salt water ponds (to the said Flushing Creek)..." (Liber of Wills [hereafter LW] 1889:630-1900. According to maps and views, there were one to three ponds on the property over time, and, if an article in the *Flushing Times* is accurate, Walter B. added "a large pond enclosed by a high wire cage and had one of the most complete and varied collection[s] of ducks in America" (Historical Collections 1938:122).

Until he inherited "Willow Bank," Walter B., a New York stockbroker and at one time head of the stock exchange, lived at 6 Locust Street on the northeast corner of what is now 39th Avenue and College Point Boulevard (*Flushing Directories* [hereafter FD] 1879; Federal Census hereafter FC] 1880; see Exhibit 29 and 33). From about 1854 until 1874, his sister, Mary Lawrence Bogert, her husband, Henry A. Bogert, and their family lived across the street at number 5 Locust (see Bogert family).

Walter B. Lawrence occupied "Willow Bank" from 1889 until his death at the age of seventy-three in 1912. At that time, the mortgaged property passed to his son, Townsend Lawrence, then a resident of Manhattan (LW 1912:23-1912). The younger Lawrence briefly occupied the house until the death of his wife of less than a year in 1913 (Anon. 1913). After that, Townsend, who moved back to Manhattan and later remarried, put the house on the market. A real estate agent's letter from 1913 notes that the 11.77-acre property, with its frontage on Flushing Creek, Lawrence Street, and the railroad (to the north) is "...particularly adapted for factory sites, and it is the first time it has been offered for sale." The asking price

was \$200,000 (Halleran 1913). The Lawrence home was demolished thirteen years later, but "Willow Bank," and its illustrious family, remain an integral part of Flushing's past.

The Bogert Family

While the Bogerts are an early Long Island family, Henry A. Bogert, a figure central to the study area and a fifth generation Bogert connected with Flushing, was born and raised in Manhattan. He was a New York City lawyer for his entire career, and from 1866 until 1893, was the attorney for the New York Life Insurance Company. In 1853, he married Mary Bowne Lawrence, daughter of Mary King Bowne and John Watson Lawrence.¹³ This marriage produced at least seven children, Mary L., the eldest, Henry L., John L., Walter L., Marston T., Theodore L., and Fannie L. The eldest son, Henry L., and his brother, Walter L., were lawyers like their father. John L. was a machinist and toolmaker and Marston T. a professor of chemistry at Columbia University. Little is known about Theodore L, although he, like his father and brothers, attended Columbia University.¹⁴ Both daughters, the eldest and youngest of the children, continued to live in Flushing after their marriages. Fanny Bogert Elliot for a time resided at 11 Locust Street, the house next to her childhood home (FD 1897; FC 1900). John L. was the father of Muriel Bogert Gordon, the writer of the family memoir.

By 1854, Henry A. Bogert had built a frame house at what became 5 Locust Street (Site A3), a home he occupied for the next two decades. While the building is no longer standing, a 1940 tax photo documents an Italianate structure that has been judged "a superb" example of this style (Dolkart 1996:personal communication). "For rent" signs are posted on the building and grounds in the photo and the house appears to be vacant (Tax Photo 1940: Exhibit 34).

As previously described, the property this house stood on had been in the Lawrence family at least since Effingham Lawrence's time if not long before. After

¹³Although Mary Bowne Lawrence Bogert was a descendent of John Bowne who was instrumental in the success of the Quakers on Long Island, she was herself a life-long Episcopalian (Gordon 1960:29).

¹⁴In 1905, when his father died, Theodore's address was Bridgeport, Ohio (Petition 1905) and he was married in 1908 (Ackerman 1950:312).



34 The Henry A. Bogert home on the southeast corner of 39th Ave. (formerly Locust St.) and College Pt. Blvd. (formerly Lawrence Ave. or Street). Built c.1854, the Italianate structure was a "superb" example of its kind (Dolkart 1996: personal communication). The photo is from 1940 when "for rent" signs were posted on the building and property. (Tax Photo 1940, courtesy Municipal Archives)

his death, Effingham's sons had sold a parcel that included the house site to their unmarried sister, Anna W. Lawrence, in 1839 (LD ZZ:202, 204); seven years later, she later sold the same parcel to her youngest brother, John W. Lawrence, Henry A. Bogert's father-in-law (LD 72:349). No recorded transaction has been found that transferred his property to Bogert, nor has any been located documenting a later transfer of property north of Locust Street in 1874. In that year, Henry A. Bogert constructed his brick mansion on land that still belonged to his father-in-law in 1873 (e.g., Beers 1873; see Exhibit 28).

The twenty-four room "Bogert Mansion," as it is referred to in several historical references, was located on the crest of a hill on Lawrence Street across from "Willow Bank." (e.g., Roullier 1894; see Exhibit 30). Although the house was considered grand,¹⁵ to Muriel Bogert Gordon, her grandparent's home where she was born in 1884, was dark and gloomy; she referred to it to it in her memoir as a "...be-dormered and be-porched monstrosity..." (Gordon 1960:3), although the gardens and an attached greenhouse seemed to please her (Gordon 1960:5). She and her family lived with Henry A. and his wife Mary Lawrence Bogert until the younger Bogerts moved to 58 Lawrence Street in 1895 (Gordon 1960:16; FC 1900).

While John L. Bogert was apparently considered a brilliant mathematician, machinist, and tool manufacturer, he was not financially astute. This is noted in his daughter's memoir, but with great affection. It is also apparent from his father's will drawn in 1894 that set up a trust for John's tool company, giving him rents and benefits but making it impossible for him to sell the property. Known as the Flushing Foundry, the company was housed in the former New York Infant Asylum located on Lawrence Street near Myrtle Street that Bogert had purchased for his son. The will also cancelled his sons debts to him from personal loans and advances (LW 3592:1937).

Mary Lawrence Bogert died in 1895 and Henry A. Bogert in 1905. This vigorous man was struck by a wagon at the age of seventy-eight and died of his

¹⁵The mantle alone cost \$7,500, the bedroom walls were either of chestnut or walnut paneling, the balustrades were hand carved, and there was a ballroom on the main floor.

injuries soon after. The Bogert Mansion was destroyed by fire December 6, 1929, two years after it had been vacated (*Evening Journal* December 6, 1929 quoted in *Historical Collections* 1938:120). The earlier Bogert home at 5 Locust Street persisted at least through 1951, although by then it had become a commercial property.

While several accounts, including Muriel Bogert Gordon's memoir, refer to the Bogert house at 5 Locust Street as a "small" frame house, map depictions and the 1940 photo belie this description. It may have been "small" for a well-off, growing family with three servants as found on the 1870 census, but it was really quite spacious. The house remained in the Bogert family until 1923, when the mortgaged property was finally sold. Until then, it was rented, first as a one-family dwelling, and then, sometime between by 1910 and 1920, as a two-family home (FC 1900, 1910, 1920).

In 1878, the "Premises [were] occupied only by a housekeeper" (Tax Assessment (1878/1879)). The building's occupants in 1880 are a question. An 1879 *Flushing Directory* (these records are only intermittently available beginning in 1868) lists a Frederick J. Barto at "Locust cor[ner] Lawrence"; since Walter B. Lawrence is listed on the opposite corner at No. 6 Locust, it appears that Barto was in the former Bogert house. However, the 1880 census documents a Frederick J. Barto, who was a twenty-six-year-old brick mason, his wife, and infant son in Flushing, but in what appears to be another enumeration district and with no street address to help locate him. While 5 Locust Street may have been too small for the Bogerts, it seems too large and too costly for this small, young family.

By 1900, Frank J. Saxe, a lumber dealer from Vermont, lived at 5 Locust Street. He was forty-five and headed a household of three female cousins, aged ten to twenty-two, a housekeeper, and two servants. In 1910, the household of Frank F. Saxe, a fifty-two year old manager of a lumber company, his twenty-year-old niece, and what appear to be three female servants, is documented. By 1920, two families are listed in the census at 5 Locust Street: Smith Alford, a contracting engineer who owned his own business; his wife; and their nineteen year old son who had no profession; and a childless couple whose family name is indecipherable. The given name of this household head was Montgomery, he was an advertiser, and his wife's name was Phyllis. Directories and other sources do not document the duration of 19th century occupancies, and no attempt was made to

document those after 1900. Although the building stood until sometime between 1933 and 1951, the property was no longer residential (see A3 Development).

After Bogert built his mansion near Washington Street, one account says his Locust Street residence was occupied by his eldest son, Henry L. Bogert, and this appears to be accurate.¹⁶ Behind the Locust Street house, at what is now the corner of Roosevelt Avenue and College Point Boulevard, Michael Duffy (referred to as Pat or Patty Duffy in local histories, but Michael Duffy on deeds) operated a tavern and junkyard (Lawlor 1934; Cox Map 1865;¹⁷ Exhibit 35). Needless to say, this was not to Henry A. Bogert's liking. The elder Bogert negotiated for years, and finally bought the Duffy property, some of it in 1870 while he still resided at 5 Locust Street, (LD 315:379), the rest in 1874, the year he moved to Lawrence Street (LD 446:397). By that time, Duffy's asking price was high, but it apparently became acceptable to the elder Bogert when Duffy piled odiferous trash around his building, creating an unbearable nuisance (Lawlor 1934). Bogert may have used his newly-acquired over-priced property for a stable (Lawlor 1934), but this has not been verified.

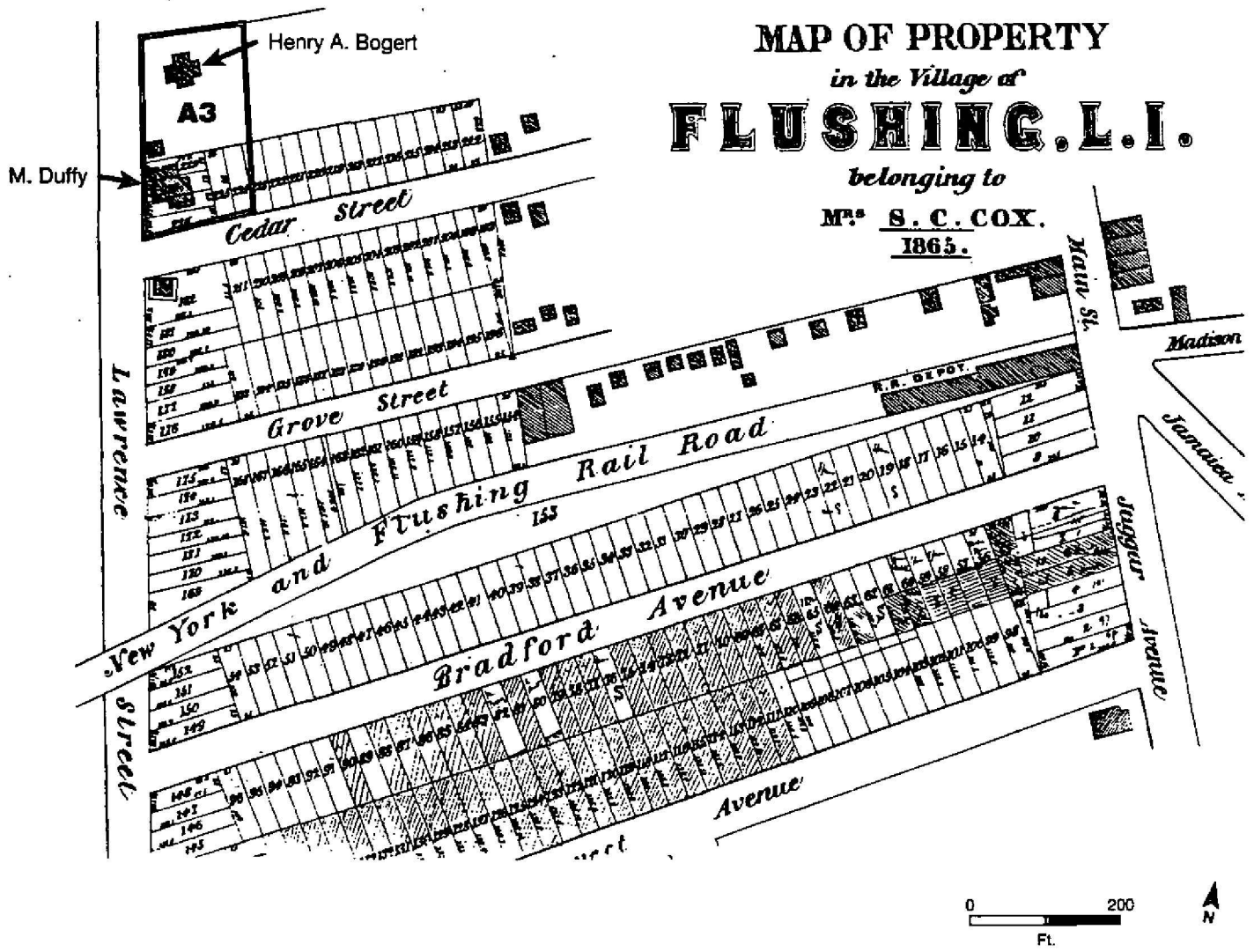
The entire mortgaged property, extending from Locust Street to Amity Street (now 39th Avenue to Roosevelt Avenue) on Lawrence Street (College Point Boulevard) was sold out of the Bogert family in 1923 (LD 2498:26885). The southern part of the property is now the site of a Mobil gas station; the western part an abandoned auto body shop that covers the former yard of the frame house that stood at 5 Locust Street for almost 100 years (see A3 Development History).

The Prince Family and Nursery

The Prince family's association with the project area began during the first half of the 18th century. While no family member lived directly on the site, their homes were nearby, most notably on the corner of Bridge and Lawrence Streets

¹⁶ In 1880, Henry L. and his wife Caroline were living in his father's household at 72 Lawrence Street (FC 1880). A 1893 directory lists his address as "5 W Locust," probably the former Henry A. Bogert house, but other houses nearby are merely listed as Locust Street, not "W" Locust. Much later, his address is Maple Street to the south.

¹⁷Although the 1865 Cox Map shows a building on these lots, the deed located from Serfina Cox to Bridget Duffy is dated November 10, 1867 (LD 265:457).



(e.g., Dripps 1852 [see Exhibit 26]; Beers 1873; Halleran c. 1940).

Prince's Linnaean Garden was located north of what is now Northern Boulevard well before the turn of the 19th century. However, it is possible that when the nursery was first established, sometime between 1725 and 1750,¹⁸ it was located just south of this modern street, and may have been called the American Nursery. According to a brief biography of the Prince family (Halleran c.1940), this site would be bounded today by College Point Boulevard on the west, Prince Street to the east, and 37th Avenue to the south. This is just two blocks north of Site A3, the most easterly of the soft sites under consideration.

Until about 1840, Flushing appears to have had a monopoly on the tree growing business (Barstow 1893:5), and the Prince family was at its core. The greenhouse is said to have had over 20,000 plants growing in 1840, "and the gardens were filled with an immense variety of fruit and ornamental trees, both indigenous and exotic, herbaceous, flowering, and medicinal plants, bulbous and tuberous roots, &c." (Thompson III 1918:315). In addition to a wide variety of plants and trees, the Princes were engaged in cultivating multi-stemmed Mulberry trees. Their apparent intention was to foster silk worm cultivation (Mandeville 1860:134), but this attempt to promote the silk industry received as little attention here as it did elsewhere in the New York-New Jersey area. The Princes were apparently the first to introduce a plant essential to this industry in 1827 (Thompson III 1918:315-316).¹⁹

Estimates of the amount of land involved in this nursery business vary, one being as high as 113 acres, about 60 of them in the village (Mandeville 1860:134). Sometime around 1838, much of this nursery land was sold (*Flushing Journal* 1842), although no deed has been located to this effect. Some land went to development, but some was bought by other nurserymen (Thompson III 1918:316). This is documented in an 1842 advertisement signed by William and

¹⁸Various years are given for the founding of the Prince Nurseries. The earliest is 1725 (Halleran c. 1940), followed by 1732 (Barstow 1896:5), then 1737 (WPA 1939:568), and finally 1750 (Thompson III 1918:314). Whatever the exact date, it seems that the Prince family was engaged in the nursery business in Flushing during the first half of the 18th century.

¹⁹The third edition of Thompson's *History of Long Island*, although printed in 1918 includes text verbatim from an earlier edition. Based on chronology, it appears that information about the Prince family and nurseries predates 1869.

Alfred Prince reporting that the Prince Nurseries still functioned despite the earlier sale of part of their land to other advertisers who claimed to have taken over the Linnaean Botanic Garden and Nursery (*Flushing Journal* 1842). The Prince brothers denied any right to "to make use of their name and reputation, and specifically den[ied] and disclaim[ed] any connexion [sic]" with G. R. Garretson who had made such a claim in his advertisement. It should be remembered that less than a year before this interchange, eleven skeletons had been discovered when Linnaeus Street was cut through what had been part of Prince's Linnaean Botanic Garden above Bridge Street (see Prehistoric Considerations). A month after this disclaimer appeared, William Prince, the father of William R. and Alfred Prince who signed the advertisement, died at the age of seventy-six (Thompson III 1918: 315).

The senior William Prince had written extensively on horticulture in addition to being a nurseryman. His grandson, L. (LeBaron) Bradford Prince, apparently followed him in this regard. The younger Prince was a Columbia University-educated lawyer who became a New York State Senator, was appointed Chief Justice of the Territory of New Mexico, and was then appointed, and was perhaps subsequently elected, Governor (Halleran c. 1940). Although not actively involved in the nursery business, as a twenty-one year old he wrote an essay on the agricultural history of Queens County that was featured in the *Transactions of the Queens County Agricultural Society* in 1861 (Transactions 1861).

L. Bradford Prince's father, William R., was a fifth generation Prince who died in 1869. His mother was Charlotte G. Prince, who appears as a property owner in the study area on an 1873 map (Beers 1873; see Exhibit 28). While Mrs. Prince's property is identified as being unnamed nurseries on the 1841 Smith map (see Exhibit 25), it is labeled "Princes Linnean [sic] Garden Nursery" in 1852 (Dripps 1852; see Exhibit 26). This property is probably the extensive garden and nursery attributed to the Princes in the early 1840s. It was reported to have "an almost infinite variety of valuable and choice trees, plants, &c." and "already nearly equal[s] the primitive establishment that formerly belonged to the family" (Thompson III 1918:316).

The location of this new nursery was described as being "a short distance south" of the former one (Thompson III 1918:316). It seems likely that these new premises were the unnamed nurseries shown on the 1841 Smith map (see Exhibit 25) although no deed has been located to verify this. There is one, however, from

William R. Prince and his wife Charlotte G. Prince to the Flushing Railroad Company in 1854 for a 25-ft. wide right-of-way (ROW) through this part of the study area (LD 689:173; see previous discussion about railroads). This railroad ROW was located between Sites B2 and C1, later the route of the Long Island Railroad.

It seems that the Prince family, whose nurseries spread throughout the Village of Flushing, and whose fame went way beyond it, owned undeveloped land that was part of the study area in the 19th century.

DEVELOPMENT HISTORY

A brief development history of each soft site under consideration is presented here. Ownership by local families is discussed in family histories above. In addition to historical maps cited throughout, Sanborn Insurance maps (many of them kindly provided by Dredsner Robin Environmental, Inc. through Urbitran Associates, Inc.) were used to create these histories. Soil boring logs from the Subsurface Exploration Section of the Department of General Services were also consulted, but none relevant to this assessment are available in the study area north of Roosevelt Avenue. Cited Sanborn maps will be found in Appendices A through D and soil boring data (location maps and logs) in Appendix E.

Site A3 (Block 4793, Lots 1 and 6; see Exhibit 4)

The earliest known structure on Site A3 is a small unidentified building located just beyond the northwestern corner of Lot 1 (Smith 1841; see Exhibit 25). Whatever its function, this building now lies under College Point Boulevard, formerly Lawrence Street which was first run in the site area in about 1873 (see Exhibit 23 for Lawrence Street widening [Final Street Opening Map 1911 updated to 1931]).

Today, a filling station is located on this corner lot at the intersection of Roosevelt Avenue and College Point Boulevard. Based on the aforementioned 1923 Bogert deed and a 1930 application for an electric sign for a previous station (New Building Application 4531), this became a filling station site sometime between 1923 and 1930.

Modern Sanborn maps document underground tanks on this corner lot that was the site of Michael Duffy's tavern and junkyard in the mid to late 1860s. This neighborhood nuisance was apparently eliminated in 1874 when, as noted previously, Henry A. Bogert bought this property that adjoined his original home site on Lot 6.

The Henry A. Bogert homestead built in 1854 (see Exhibit 34) is the first structure documented directly on Site A3. It is not known whether it originally had amenities such as indoor plumbing, but this is doubtful. If it did, they were private facilities since there were no sewers until after 1874, the year water was introduced and the year Henry Bogert moved his family to their new home one block north.

Bogert, and his father-in-law, John W. Lawrence, are among the earliest entries in the first Sewer Connection book available that covers the years 1875 to 1888. Each man paid for two connections in houses on Locust Street. At the time, both were living on Lawrence Street but were property owners on Locust. It appears likely that Bogert's 1875 sewer connections were to his former homestead. Unfortunately, there is no sewer connection book available before 1875 and exact locations are not given.

Even without sewers and municipal water, it was possible to have indoor plumbing using a private well, pump, and cesspool, but 1854 is early for this technology. Since Bogert was born in New York City in 1827 and lived there until his marriage in 1853, he was undoubtedly familiar with the backyard privy ubiquitous on city house lots. It seems possible that an abandoned and filled backyard privy pit may remain in the yard of his former home.

Sanborn Insurance maps indicate that Bogert's former backyard lies under a one-story, L-shaped building erected between 1933 and 1951 (Appendix A Exhibits A3-A4). If this structure has no basement, a privy pit may remain intact under this building as was found at the Greenwich Mews site in Manhattan. At that site two mid-19th century backyard privies were located after a one-story freight building that had covered them for almost half a century was demolished (Geismar 1989).

Site B1 (Block 5063, Lots 19, 120, 121, 22, and 23; see Exhibit 6)

Sanborn Insurance maps from 1917 to the present (Appendix B Exhibit B1-

B5) document that this project site has remained a vacant lot (see current photo, Exhibit 7). Although it was upland adjacent to marsh (e.g., Smith 1841; Dripps 1852; Walling 1859; Exhibit 25-27), there may have been water nearby. This is suggested by an 1872 street profile where a bridge over a "cut" is shown just north of the site (Lawrence Street Profile 1872; Exhibit 36). It is unclear if the cut contains water, but a birds-eye view from this same time period, which shows the bridge, indicates this may be the case (see Exhibit 29). A recent soil boring located east of site B1 documents organics under about 10 ft. of fill (Appendix E Exhibit E1). This suggests there may once have been an isolated wet condition on or near the site even if the area was generally upland.

As documented in the history of the area, the Newtown & Flushing Railroad ROW ran across at least part of Site B1 (some maps suggest it only ran across the northern part [e.g., Beers 1873; see Exhibit 28] while others show it covering a larger area [e.g., Bromley 1909; see Exhibit 31]). If there was a wet condition in the vicinity, the 1873 rail line may have required stabilization in this area which would entail special construction techniques.

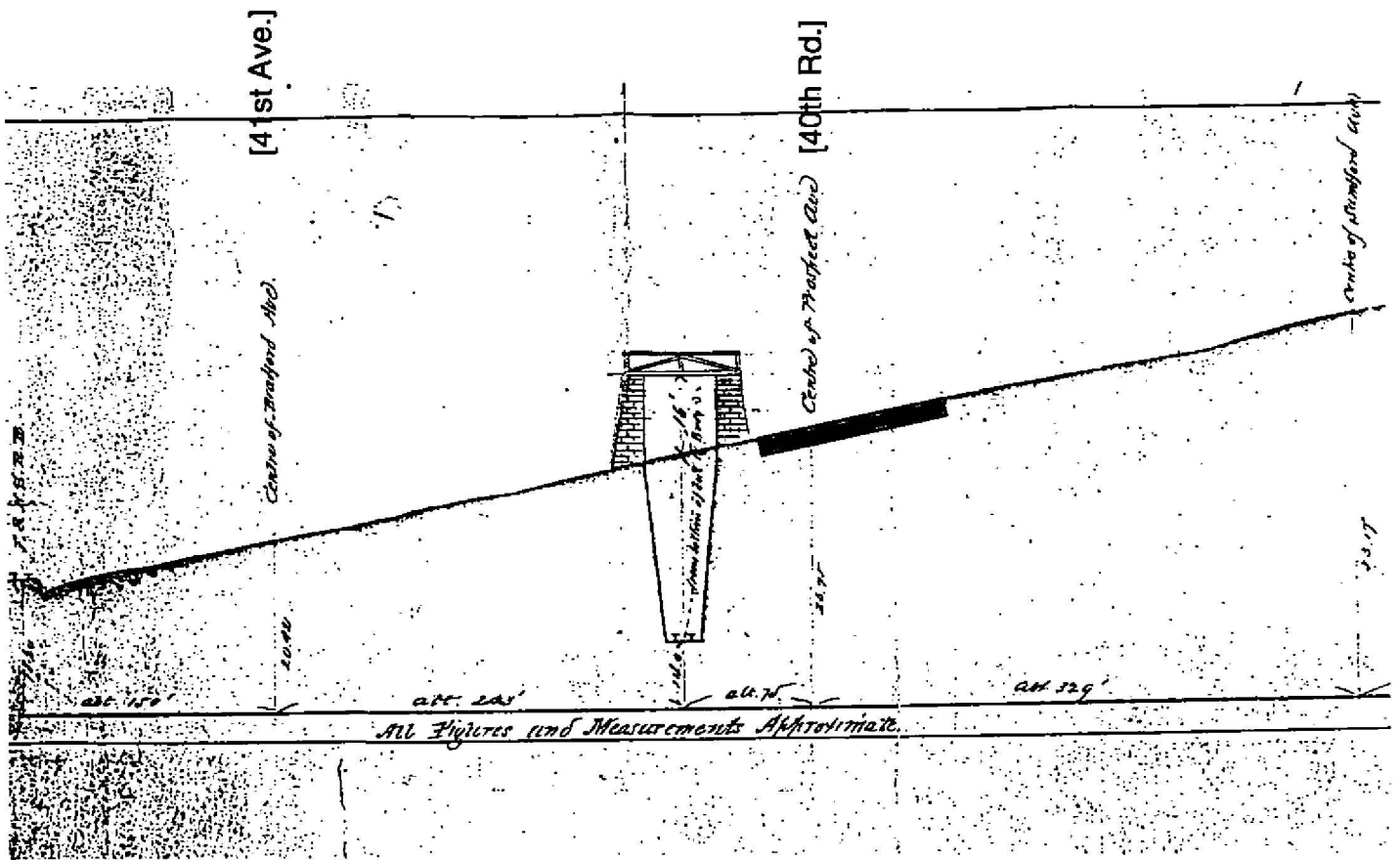
In addition to the Sanborn maps, real property records that go back to 1938 indicate that no development ever occurred on the site (Haynes 1996:personal communication).

Site B2 (Block 5063 Lots 4 and 5; see Exhibit 6)

No development occurred on this upland site until after 1909 (Bromley 1909; see Exhibit 31). By 1917, two houses had been built (Sanborn 1917; Appendix B Exhibit B1) that still stand at this writing (Sanborn 1933 to 1990; Exhibits B1-B5; also see Exhibit 8). According to Sanborn maps, the yards of these houses have never been developed. Soil borings located on the north side of 41st Avenue indicate 2 to 3 ft. of fill over glacial soils (Appendix E Exhibit E2). Another boring located on 41st Street east of College Point Boulevard documents a similar condition, but the fill depth is a question (Appendix E Exhibit E3 Boring 3B).

Site C1 (Block 5066 Lot 1; see Exhibit 9)

According to historical maps, this large site comprised marsh to the west and upland to east. By 1841, when it was part of the John W. Lawrence estate, there



approx. location of Site B1

were fish ponds on the site (all of one, part of another; Smith 1841; see Exhibit 25) that were either fed by nearby Flushing Creek or undocumented springs. These ponds persisted at least through 1859 (Walling 1859; see Exhibit 27). A soil boring from the northern side of 40th Road near the southern part of the site documents at least 3 ft. of fill over glacial material (Appendix E Exhibit E3).

The site remained undeveloped throughout the 19th century except for ponds and possibly undocumented greenhouses associated with the Prince nurseries, but, according to Smith and others, most of the site was marsh. By 1909, houses had been built on a subdivision in the southeastern corner of the site, but the rest remained vacant land (Bromley 1909; see Exhibit 32). Industrial development began between this year and 1917, when Sanborn maps document the Nathan Manufacturing Company building where plumbing supplies were produced. This building still stands and houses light industry. Over time, industrial development increased. This included a large garage just south of the industrial building, now abandoned, as well as other buildings (see Sanborns 1917-1990; Appendix C Exhibits C1-C4).

Most germane to this study are the parking areas that surround and separate these buildings. Of greatest concern is the one located on the eastern side of the property which, according to maps, in the past was upland adjacent to marsh that is now protected under a paved parking lot. However, soil borings drilled prior to 1935 (Appendix E Exhibit 4) indicate that most of the area that was not mud or muck in the past was dense clay (e.g., Exhibit E4 Borings 4, 5, 25-29, 83-86; see also Borings 87-95 that document mud and peat under a cinder fill). It is highly unlikely that long-term use or occupation by Native Americans would occur in an area of such poor drainage, although an ephemeral campsite might be found on undisturbed high ground.

It should be noted that much of the area where soil borings are available on Site C1 have since been developed. For example, Borings 96, 97, and 98 document a pocket of sandy soil that might have been a potential area of concern, but this part of the site has since been absorbed into Roosevelt Avenue when it was widened (Sanborn 1934; Appendix C Exhibit C2).

Site C2 (Block 4963 Lots 65, 75, and 85; see Exhibit 10)

This large site, where no soil borings are available, encompasses the southern

part of the 19th-century John W. Lawrence estate when it comprised about 11 acres. Site C2 is therefore part of "Willow Bank" below the homestead complex. Like Site C1, there were fish ponds on the property, and, in 1841, the possible barn and a smaller unidentified structure mentioned earlier that may have been located on the northern site limit (Smith 1841; see Exhibit 25). Fish ponds remained on this site through at least 1873 (Beers 1873; see Exhibit 28 No. 3), and, as noted previously, after Walter B. Lawrence inherited the estate in 1888, he caged a pond to keep ducks. It should also be remembered that John W. Lawrence's will drawn in 1880 mentions his fresh and salt water ponds (LW 630-1900).

Greenhouses may be documented in the 1870s (e.g., Bromley 1873; Birds-eye View 1876; see Exhibits 28 and 29), but they are definitely there in 1909, as is one pond (Bromley 1909; see Exhibit 32). The greenhouses remained until at least 1917, although by then the pond was gone and small sheds are documented (Sanborn 1917; Appendix D Exhibit D1). By 1934, sand bins and sheds, and various small structures are located in the northwestern corner of the property adjacent to Flushing Creek (Sanborn 1934; Appendix D Exhibit D2). This map also documents the large W. & J. Sloane furniture factory built on the site of the Lawrence homestead by 1929.

Industrial development subsequently increased in the northern part of the site, and in 1951, the Island Petroleum Company building and loading docks were located in its northeastern corner (Sanborn 1951 Appendix D Exhibit D3). Associated underground and at-grade tanks and various small structures are also documented, but any underground lines are not shown. At this writing, all but the southern part of the site has been leveled (see Exhibits 14 and 15), but buried traces of this former industry undoubtedly remain. Recent development has included a car dealership (now abandoned) and a post office which, as noted earlier, has been renovated and now houses two markets (e.g., Sanborn 1990; Appendix D Exhibit D4).

This development sequence has created a site where seemingly vacant land was formerly developed, but it has also identified some areas of upland where no construction has occurred. It may also be possible that evidence of the small unidentified structure found on the edge of the northeastern boundary of Site C2 may be preserved under a paved driveway associated with the Island Petroleum Company building (see Sanborn 1990; Appendix D Exhibits D3 and D4).

ARCHAEOLOGICAL POTENTIAL AND RECOMMENDATIONS

Based on the information presented here, all but one of the soft sites in the study area have potential for finding archaeological remains that could be considered eligible for listing on the National Register of Historic Places. This is based on their research potential and significance under Criterion (d). That is, for the ability to yield information concerning the past. In the case of archaeology, this is information that is obtainable through no other source.

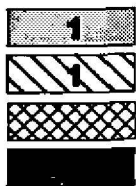
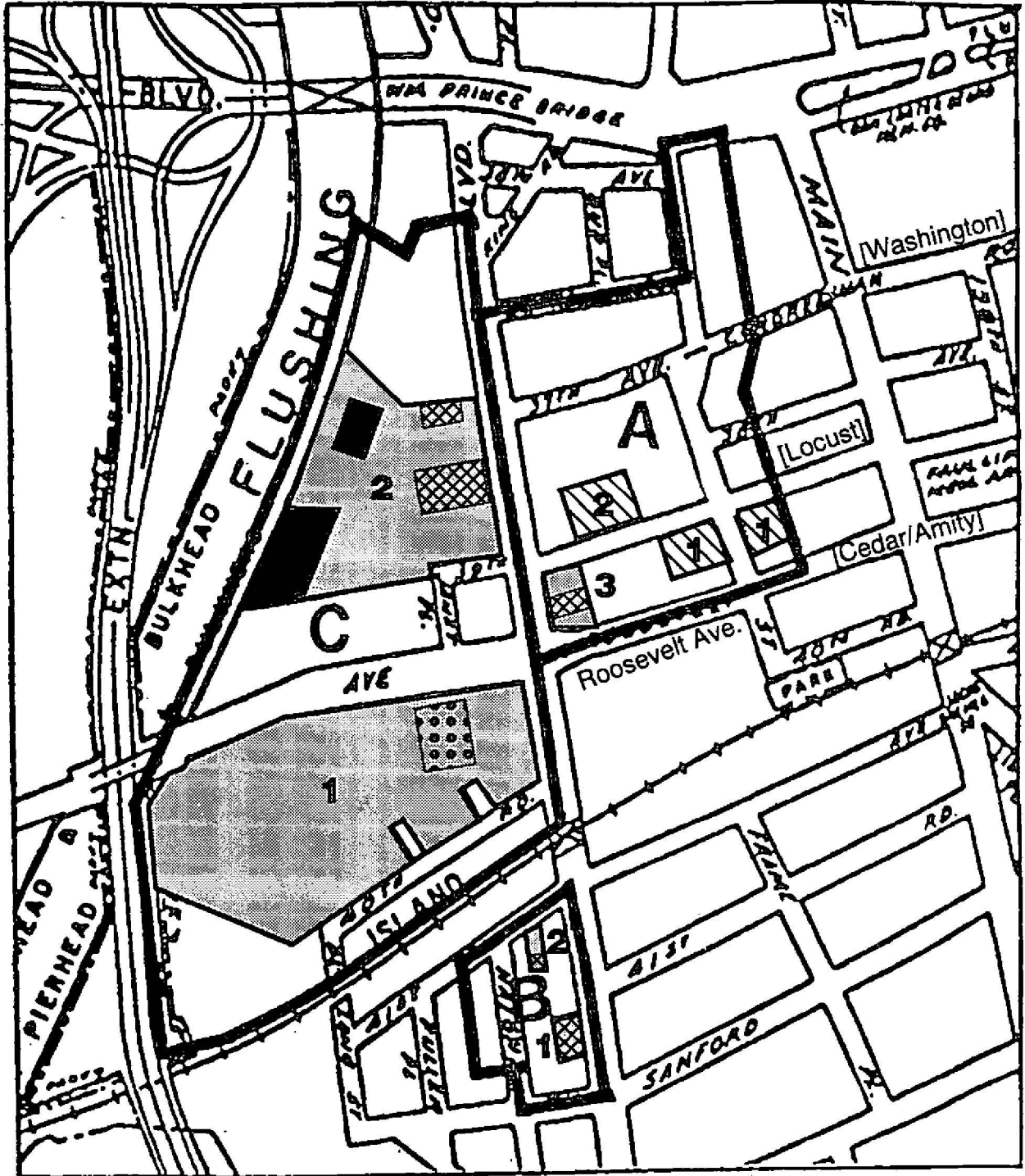
Within the study area, deposits from the prehistoric era are a concern, but there is also potential for recovering new information about historic-era lifeways. It may be possible to obtain details about the household of a well-to-do family in Queens, where little historical archaeology has been undertaken, and to determine the function of a building documented within the project area in 1841 that may have even greater age. It may also be possible to determine the construction techniques used to run a rail line through an isolated area of marsh or wetland. Although 20th-century development has occurred on all but one of the five sites under consideration, it appears that archaeological deposits or features could remain on most of them. Exhibit 37 identifies areas where testing to determine archaeological potential is recommended or suggested.

Site A3 (Block 4793, Lots 1 and 6)

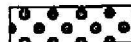
Possible backyard features related to the Henry A. Bogert family's occupation may be found preserved under a one-story building that now covers the former backyard. Machine-assisted testing is recommended in the backyard area once the structure now standing on it is demolished. While construction on this site would have eliminated prehistoric potential, it would not necessarily have eliminated deposits and features associated with historic-era development of Flushing.

Site B1 (Block 5063, Lots 19, 120, 121, 22, and 23)

Prehistoric deposits could remain on this upland parcel, but it is more likely that there may be remnants of the railroad that ran on the site from 1873 to 1876. It is possible that this segment of the rail line was run in wetland or marsh, and the construction techniques used to run the line on the site could be documented. Test-



1 selected soft sites, assessed
 2 selected soft sites, not assessed
 3 priority test area (former upland)
 test area in former marsh



non-priority test area

no scale



ing in the form of soil borings is recommended to determine subsurface conditions followed by machine-assisted testing if warranted.

Site B2 (Block 5063 Lots 4 and 5)

Undeveloped backyards of two houses built on the site between 1909 and 1917 may harbor evidence of prehistoric use in this upland area. Soil borings would determine subsurface conditions.

Site C1 (Block 5066 Lot 1)

This site appears to have been the location of the Prince nurseries in the 1840s, but it also comprised extensive marsh (e.g., Smith 1841; see Exhibit 25). The eastern part of this site has remained undeveloped and is now a paved parking lot. Based on documentary evidence, it seemed this upland part of the site might harbor remnants of prehistoric use. But soil borings drilled in the 1930s or before, which document extensive areas of mud, muck, and clay, suggest conditions may not have been conducive to Native American occupation. Additional soil borings are suggested on undeveloped areas of possible upland and filled marsh to verify subsurface conditions and assess the possibility of finding Native American material.

Site C2 (Block 4963 Lots 65, 75, and 85)

Based on documentary research, part of the northeastern segment of this large site, which is the southern part of the former John W. Lawrence homestead known as "Willow Bank," has potential for yielding prehistoric deposits. In addition, there may be evidence under a former modern driveway of an unidentified structure shown on an 1841 map. It should be noted no access was gained to this site, and current conditions were assessed by looking through the fence. But it appears that soil borings would determine subsurface conditions and aid in assessing the archaeological potential of this upland portion of the cleared site. In addition, soil borings are recommended in the undeveloped but filled marsh in the vicinity of Flushing Creek to determine the subsurface conditions of this filled marsh.

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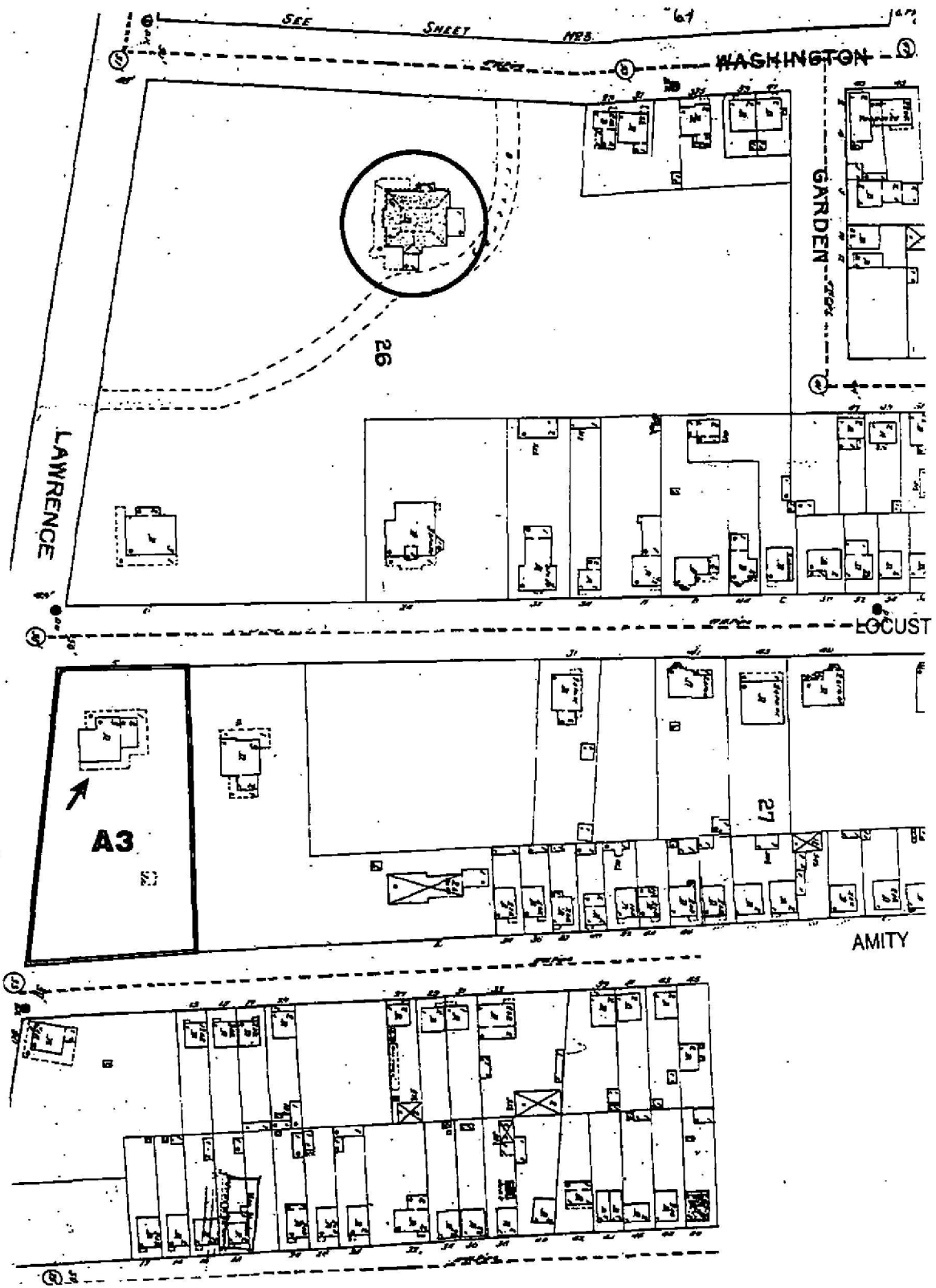
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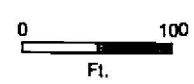
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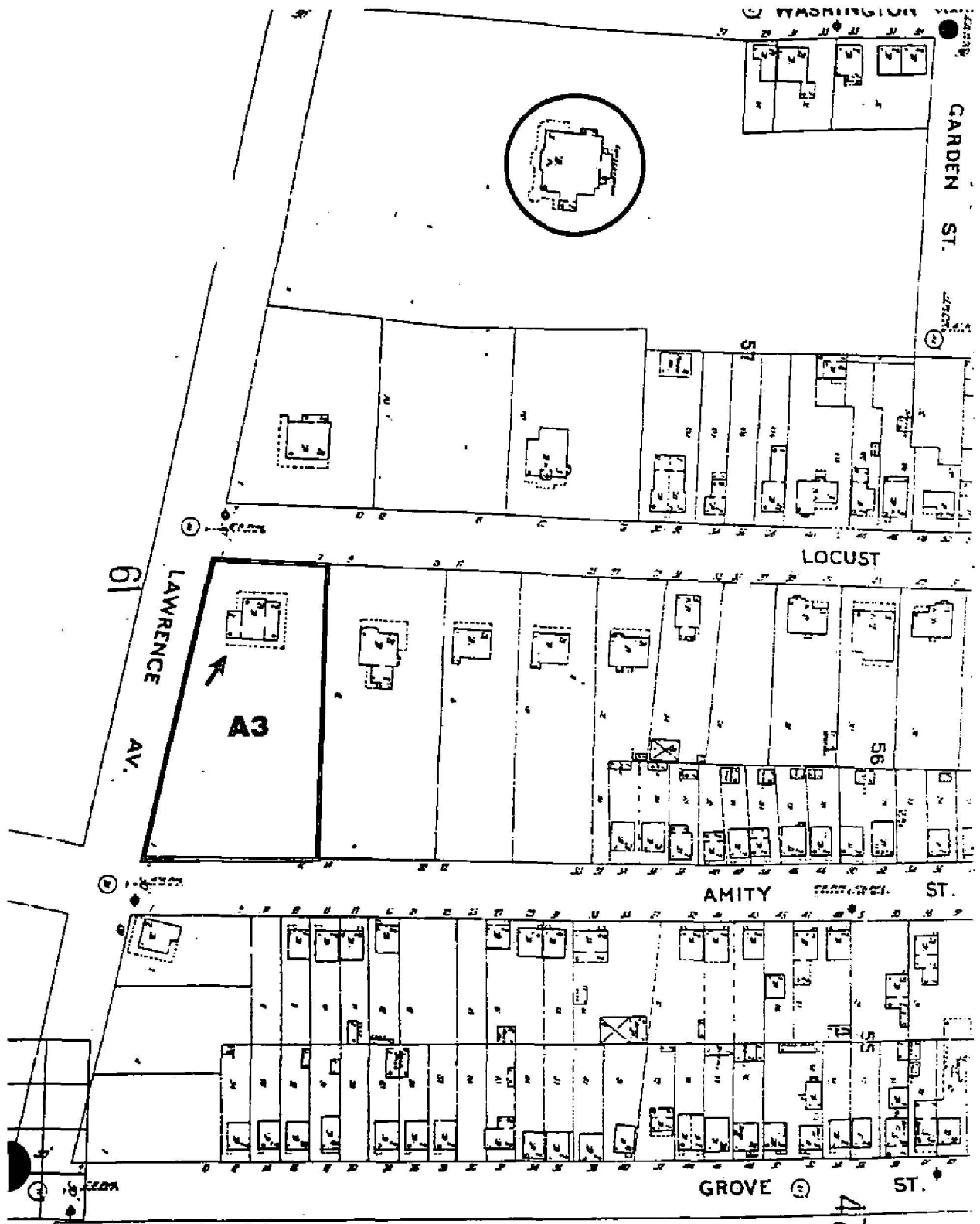
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Henry A. Bogert house (c. 1854)
 Henry A. Bogert Mansion (1874)

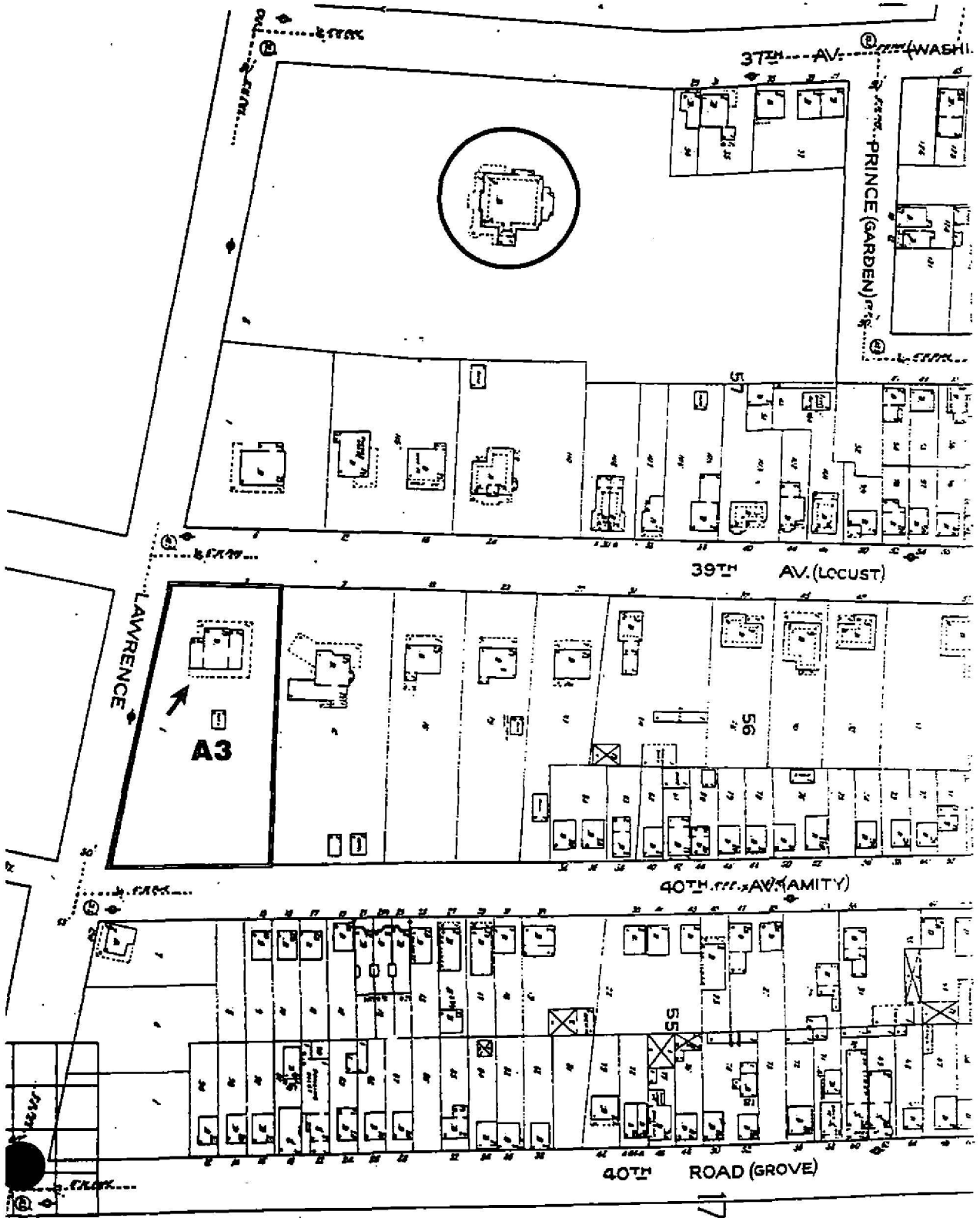




Henry A. Bogert house (c. 1854)

Henry A. Bogert Mansion (1874)

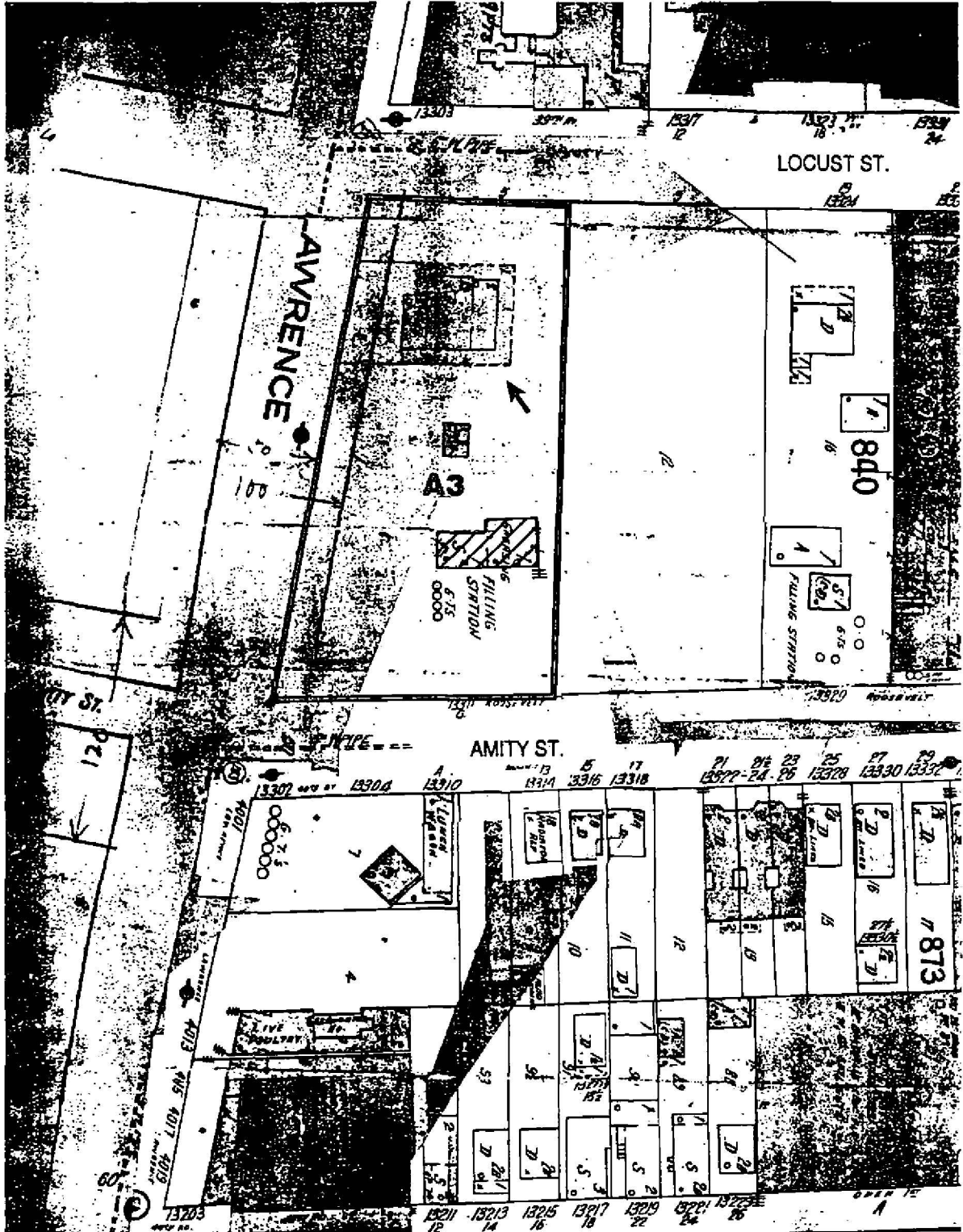




Henry A. Bogert house (c. 1854)

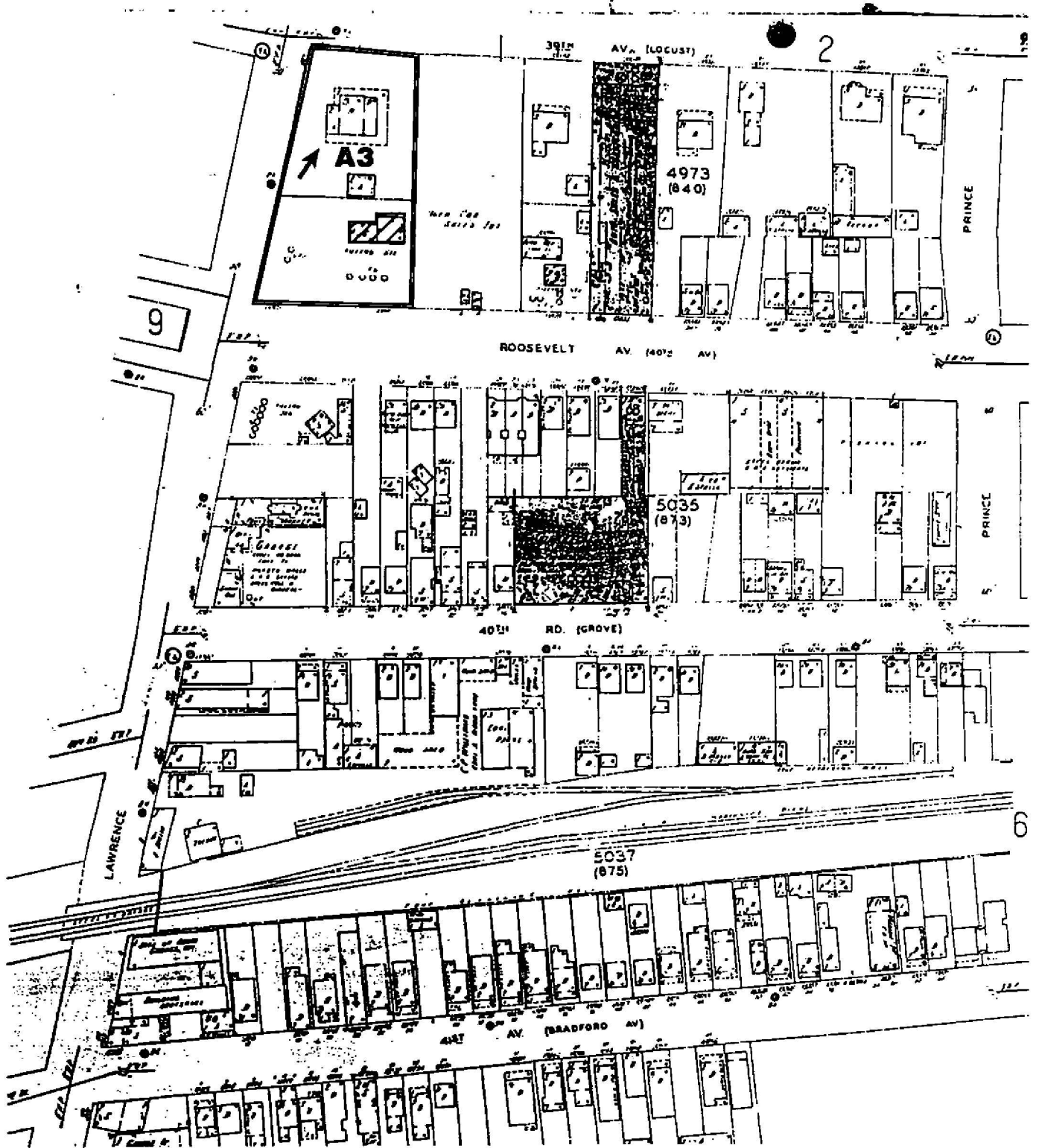
Henry A. Bogert Mansion (1874)





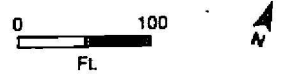


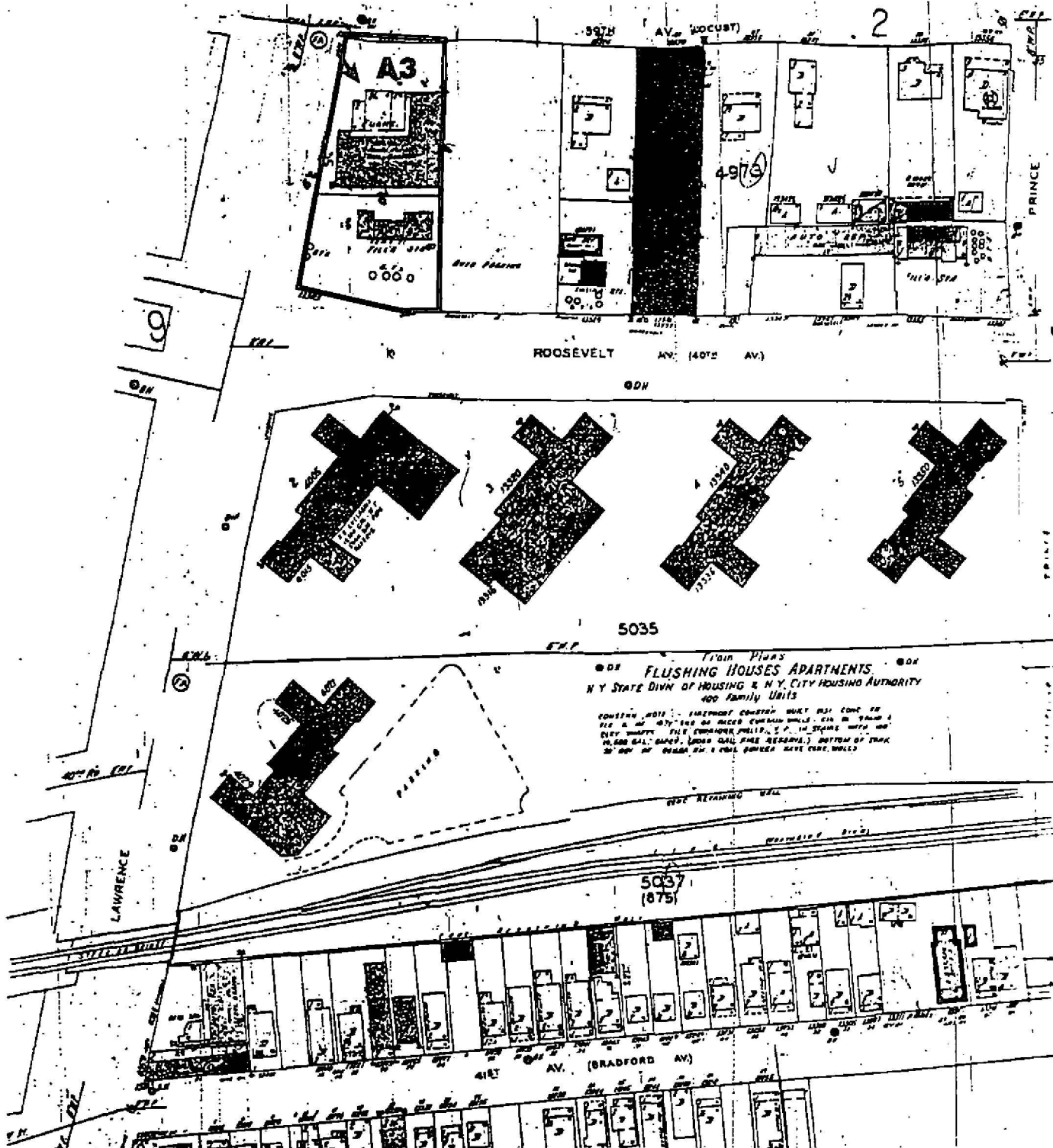
↑ Henry A. Bogert house (c. 1854)
 ▨ filling station built by 1930





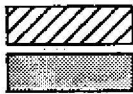
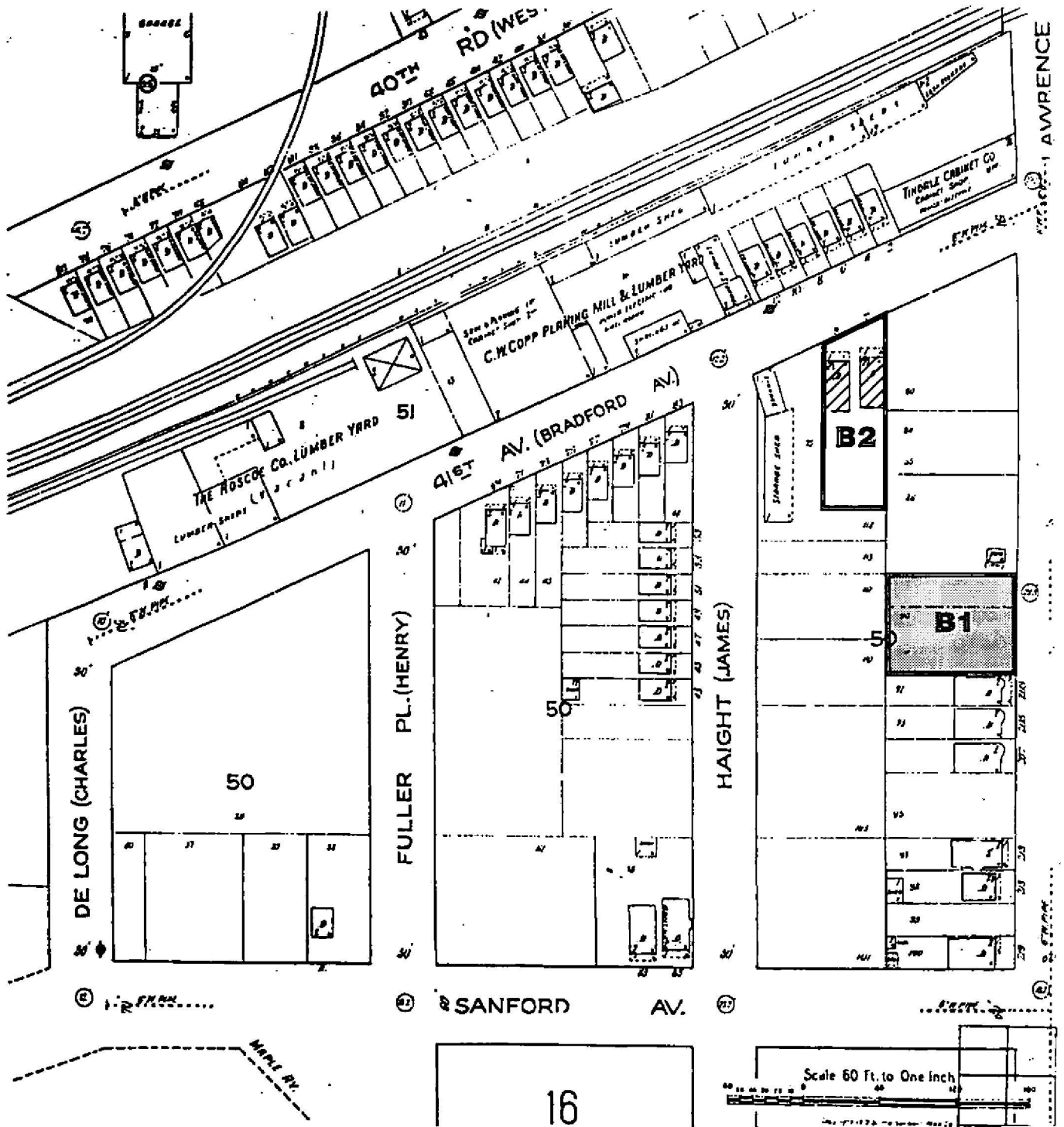
 Henry A. Bogert house (c. 1854)
 filling station





Henry A. Bogert house (c. 1854) with commercial addition (now abandoned auto body shop)





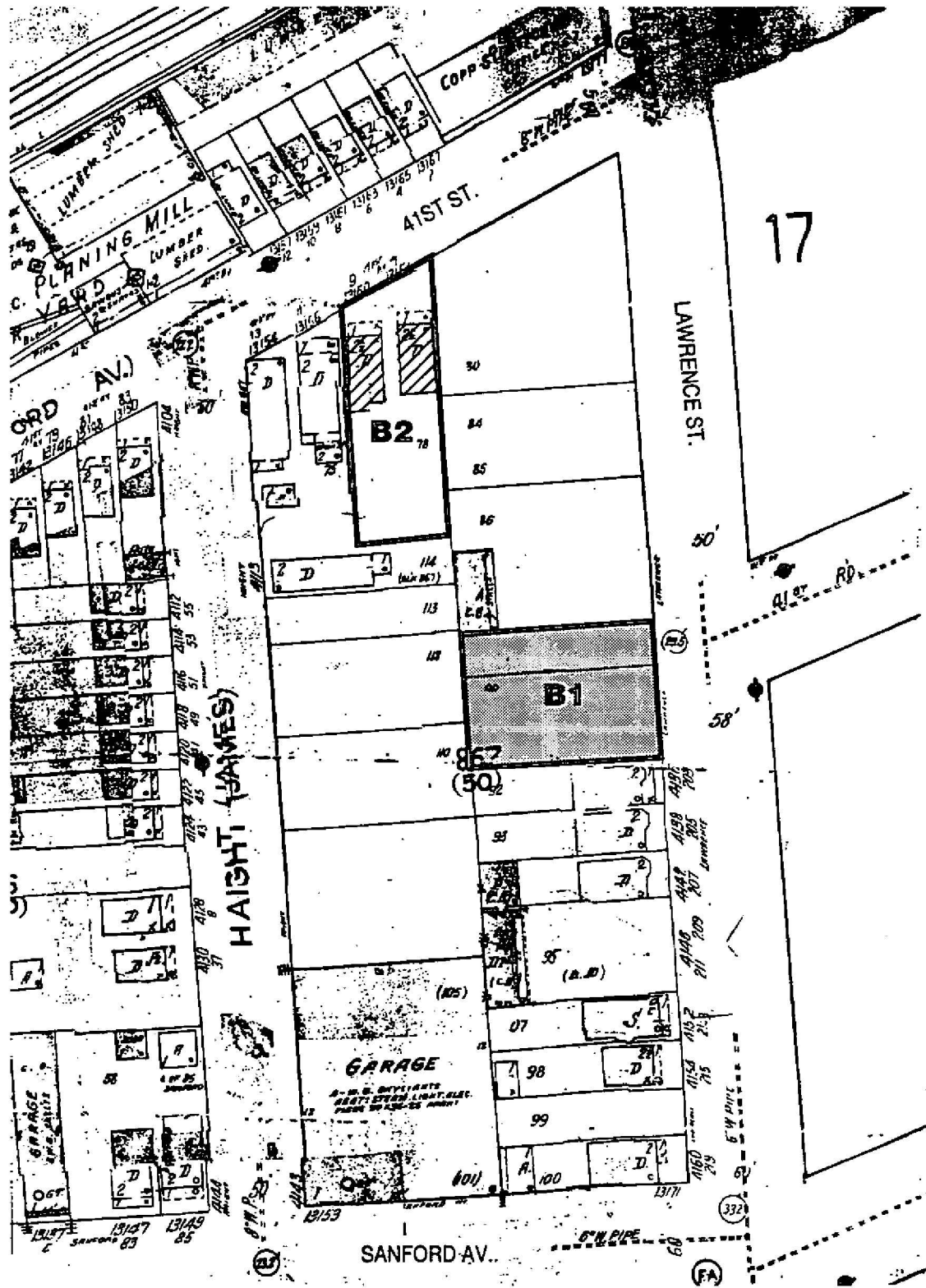
house built between 1909 and 1917

vacant lot



0 100
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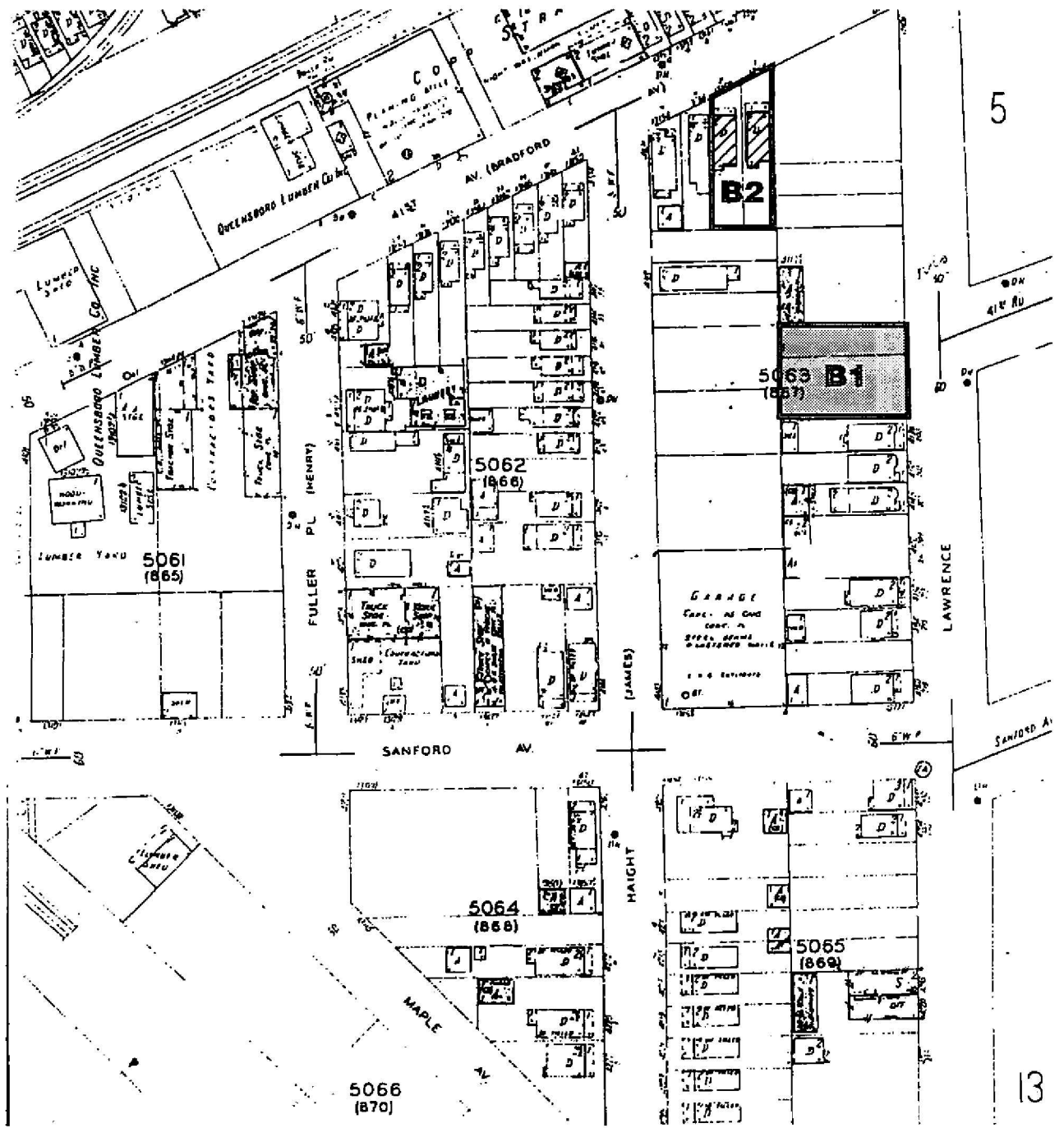




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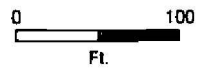
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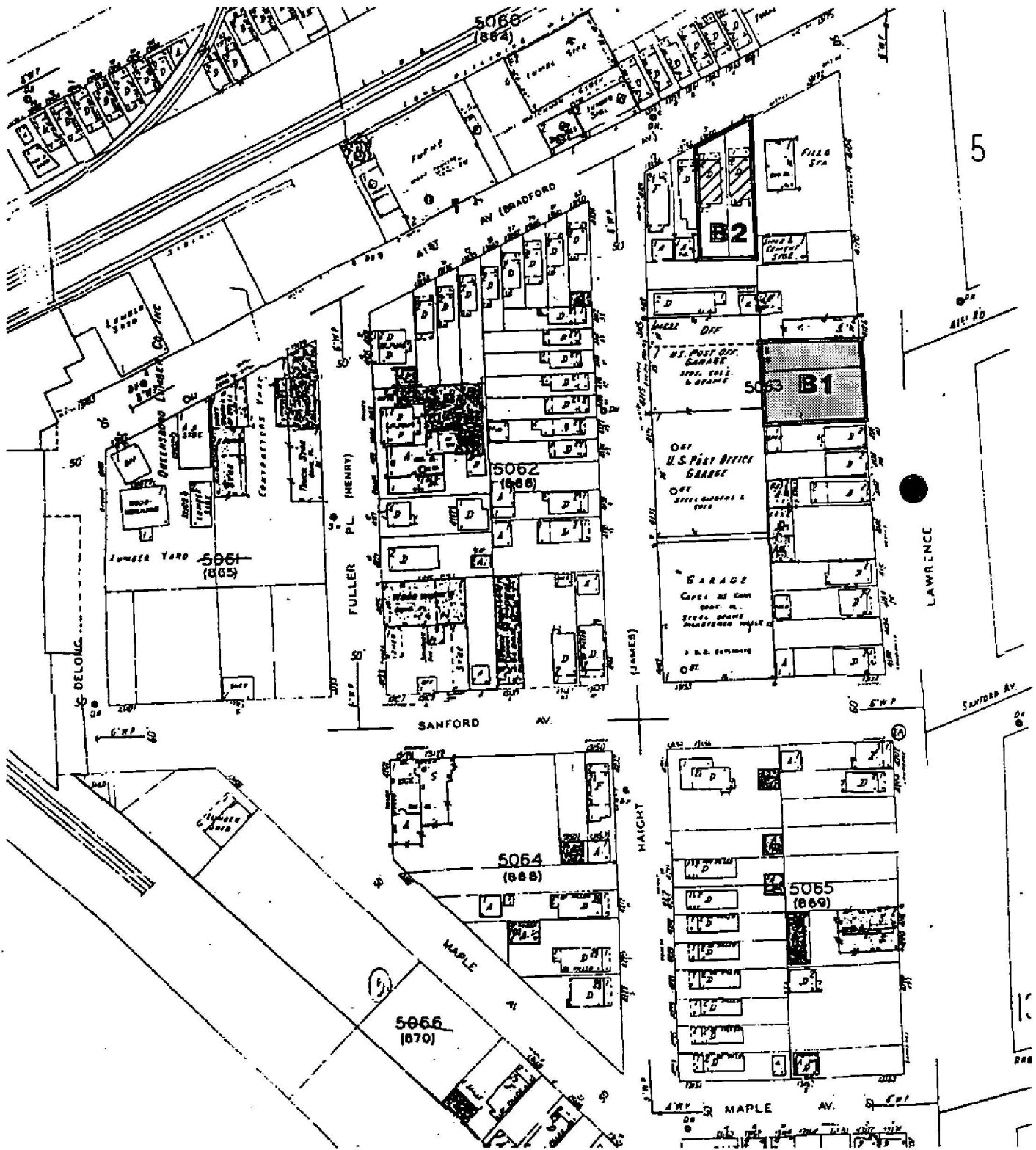




house built between 1909 and 1917

vacant lot

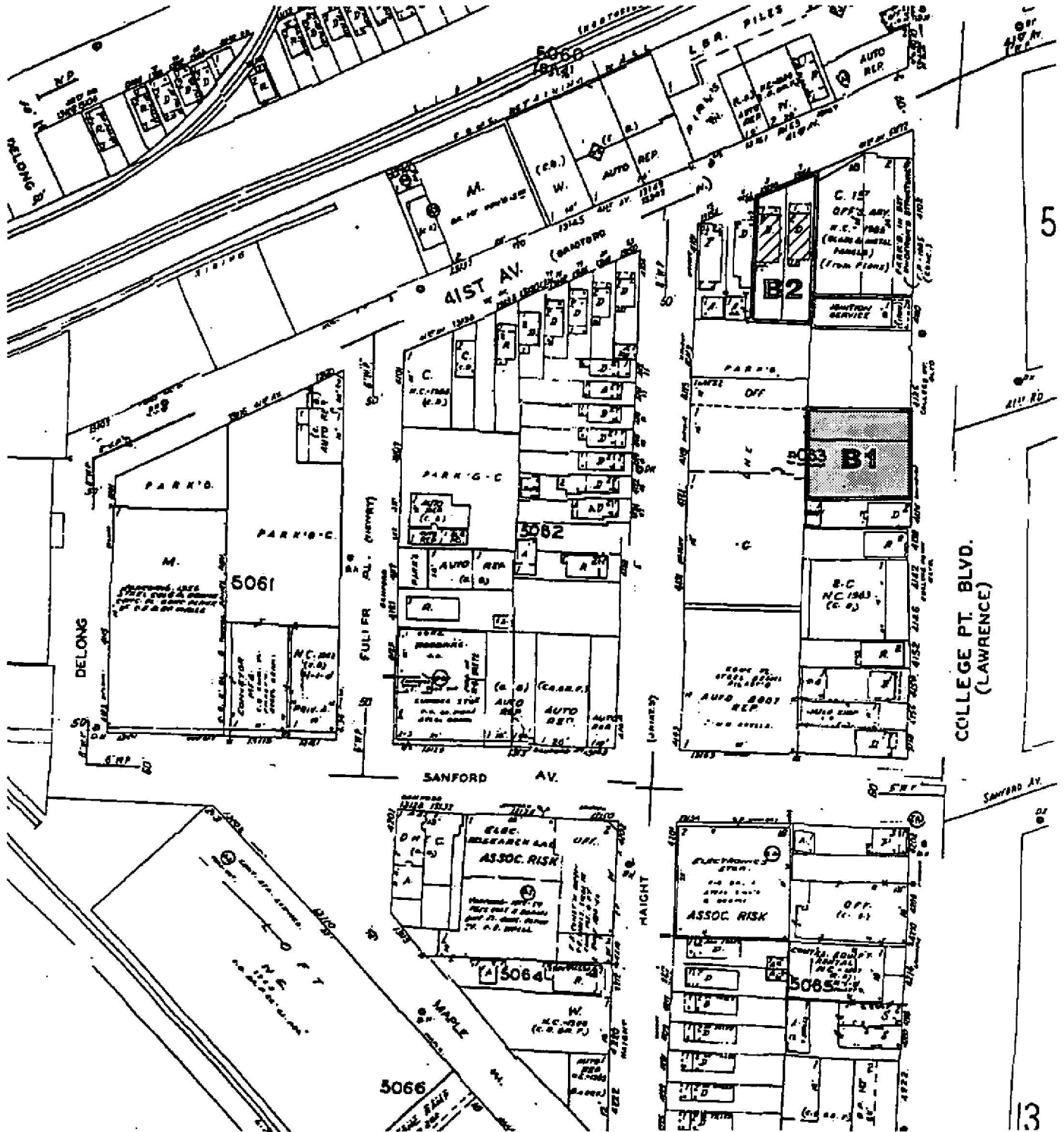






house built between 1909 and 1917

vacant lot

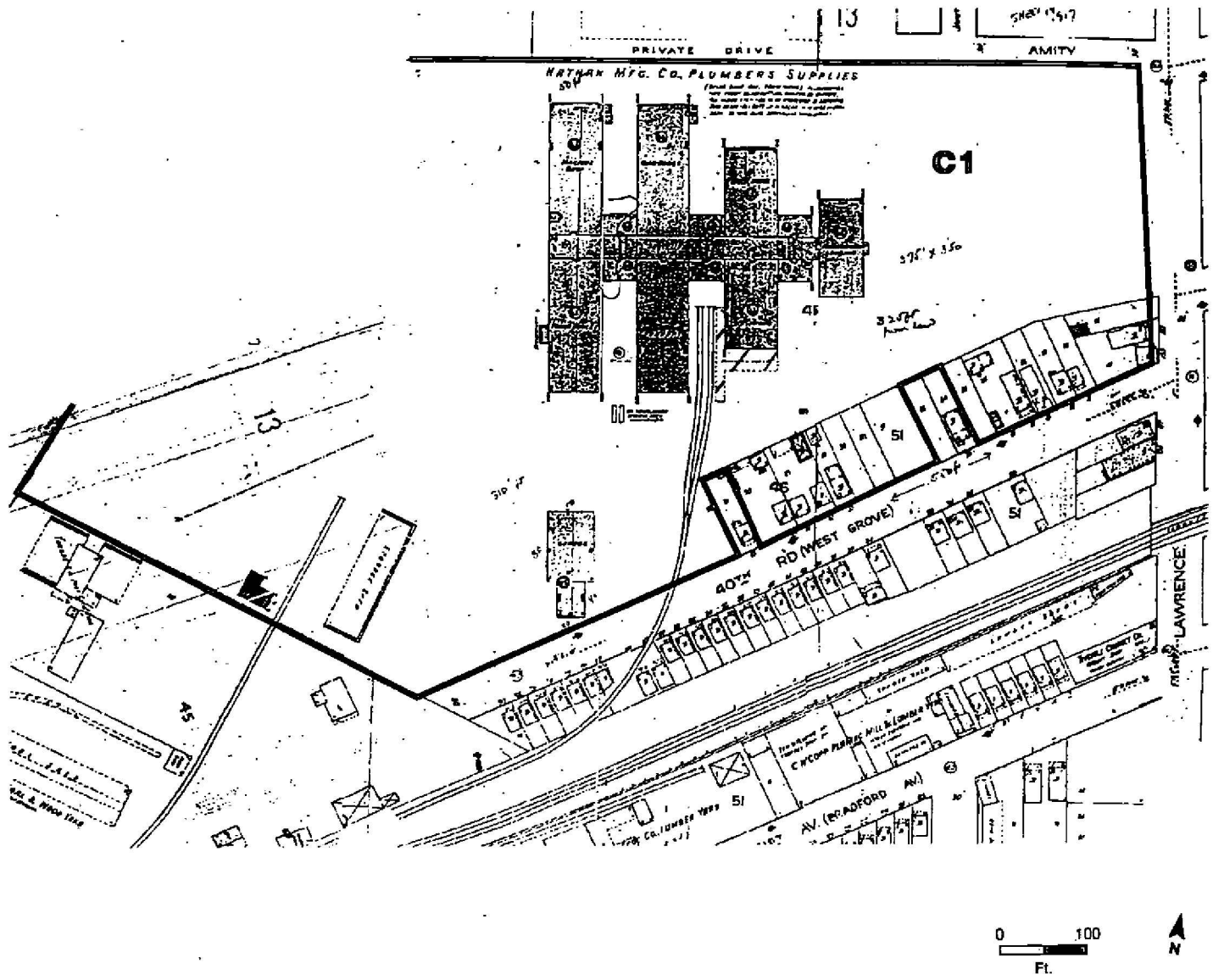


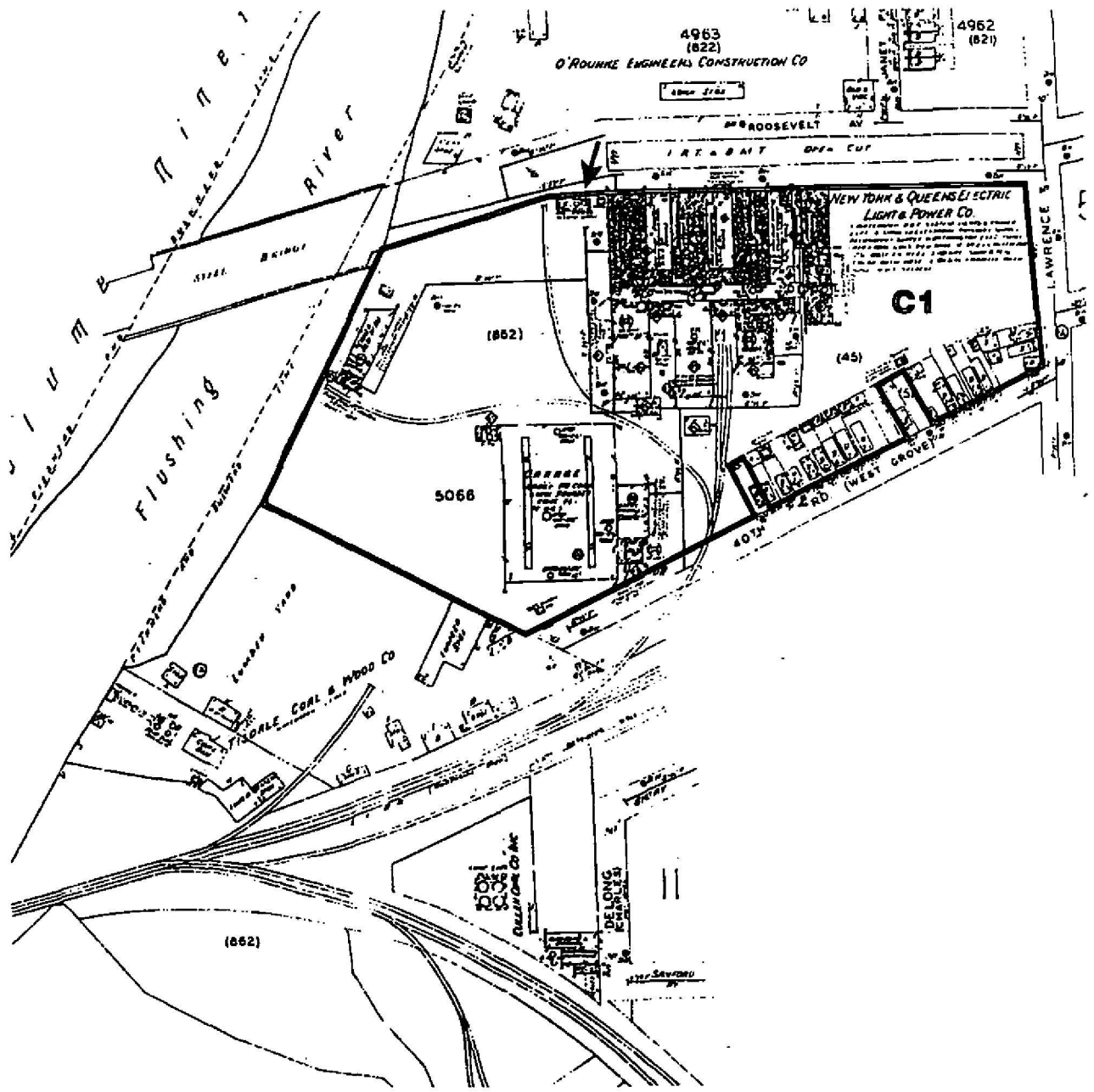


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 vacant lot

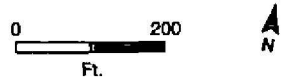


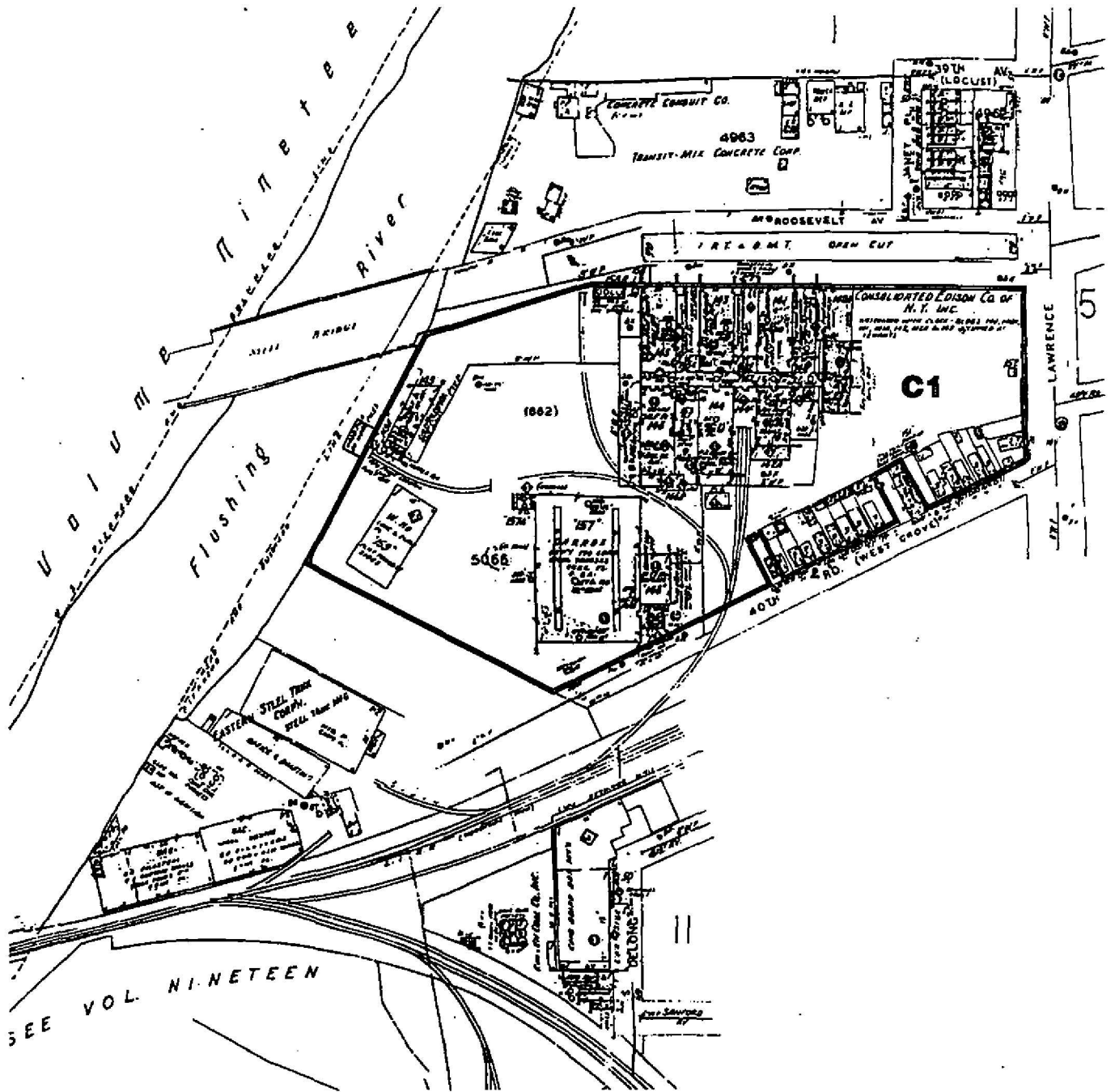
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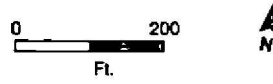
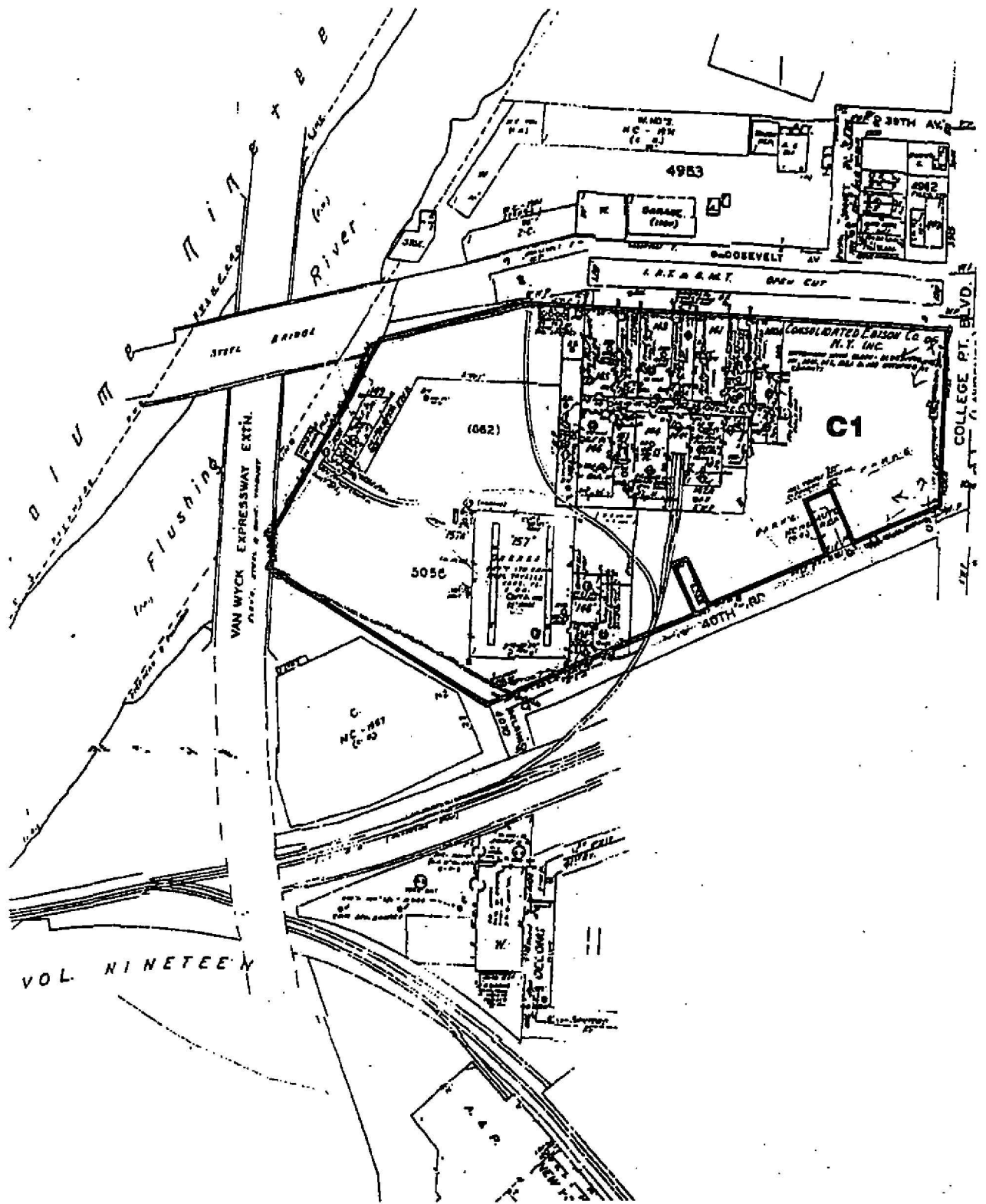


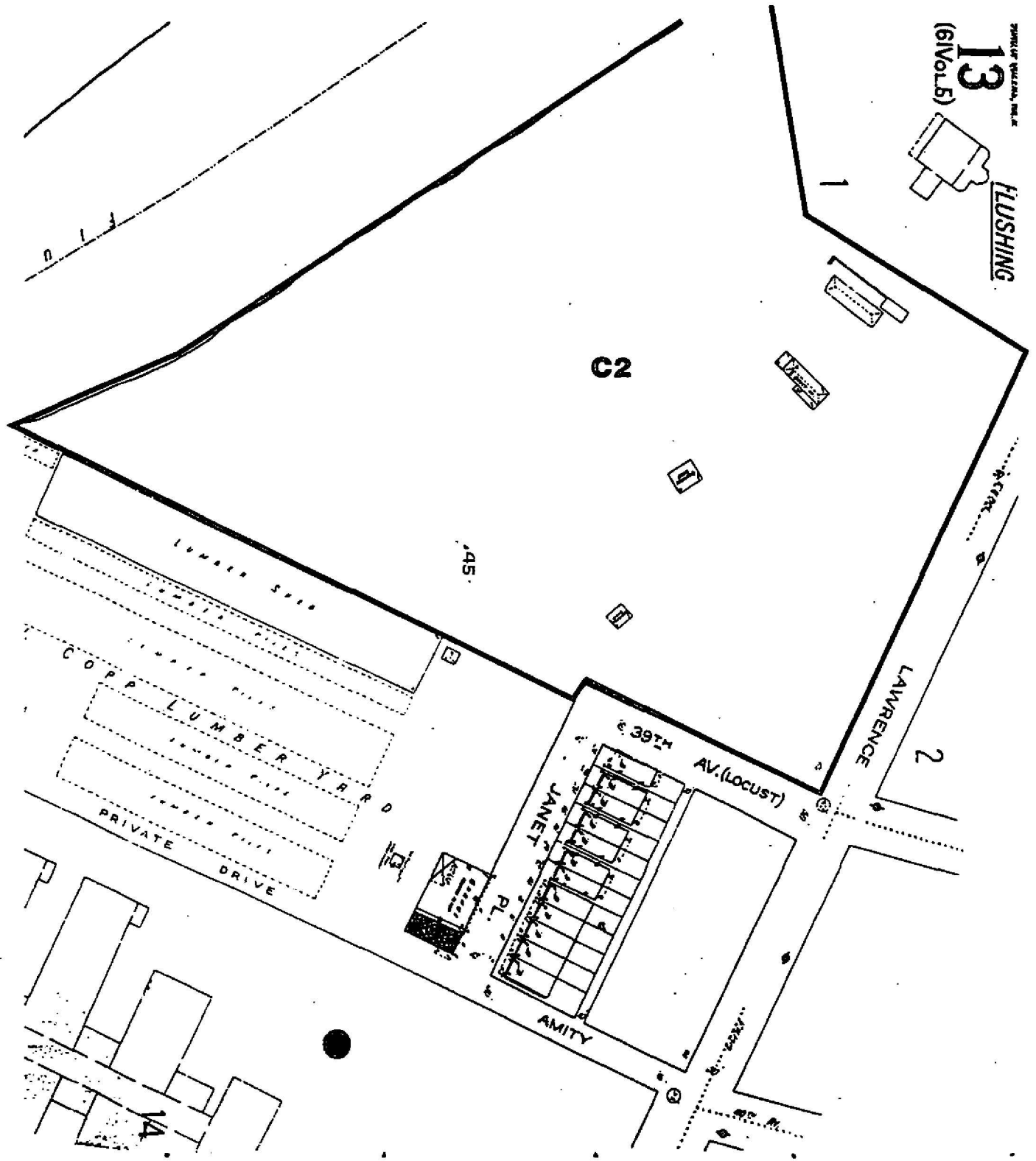


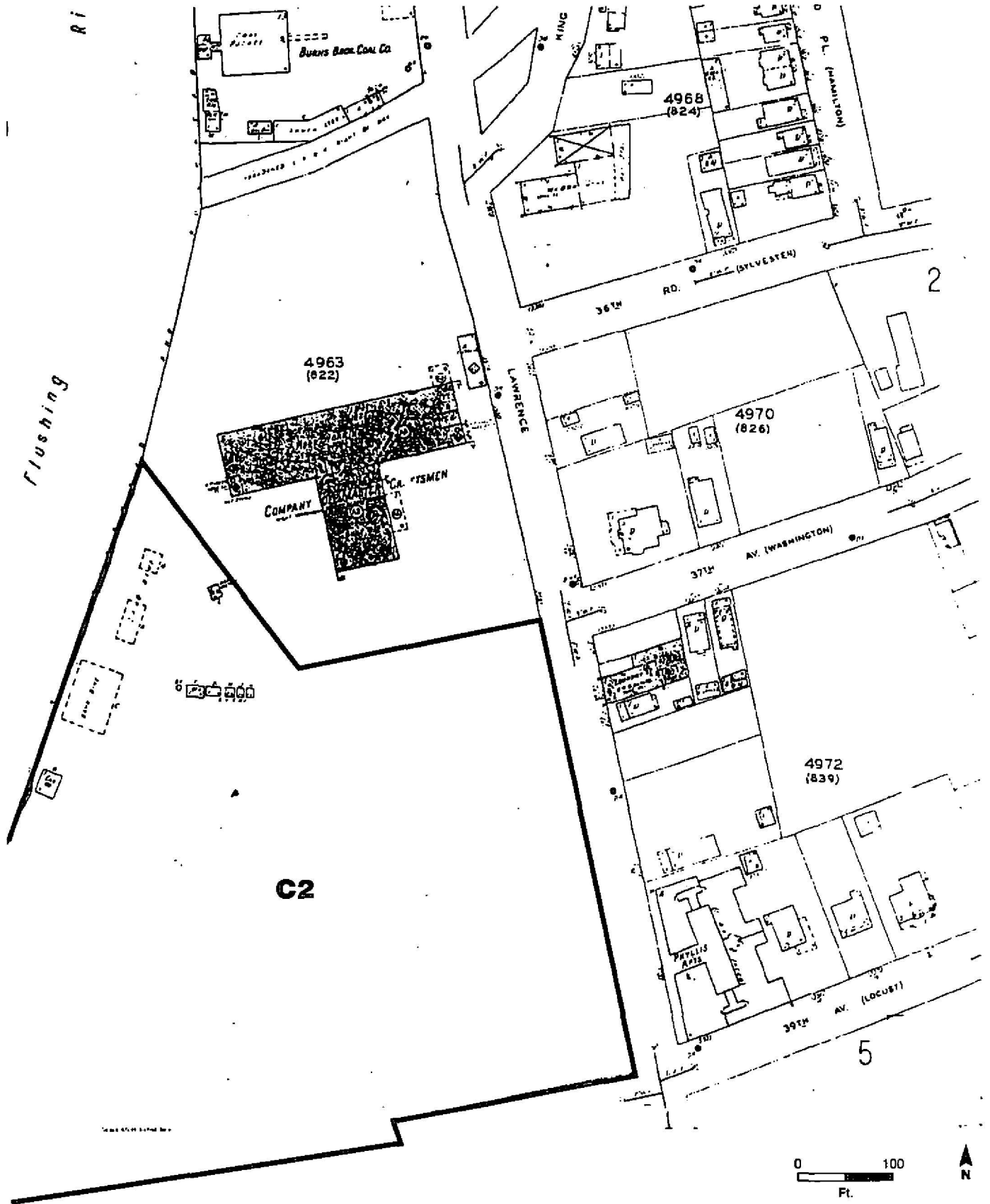
↓ sandy area incorporated into expanded Roosevelt Ave.



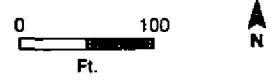


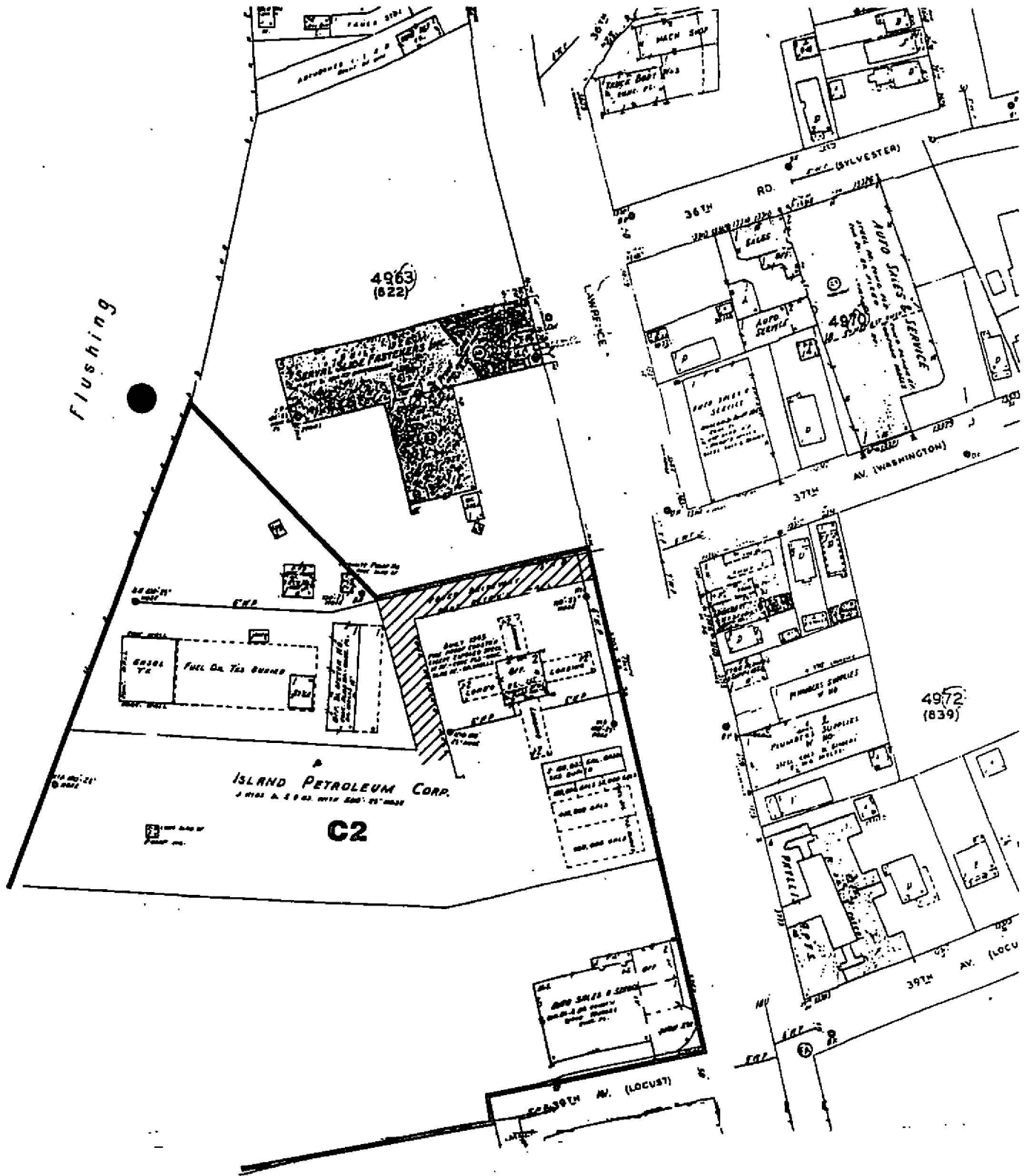




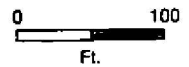


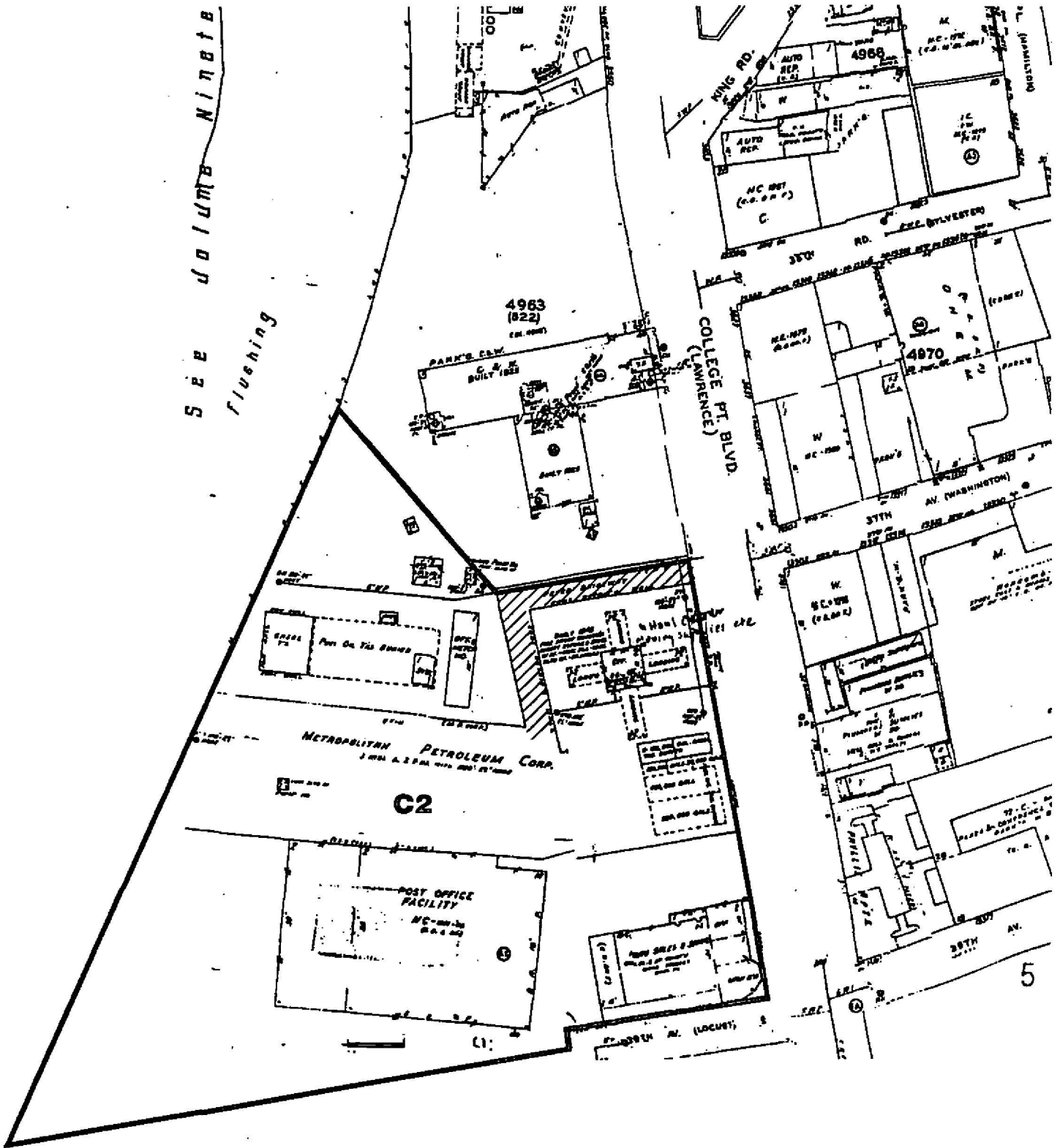
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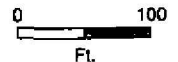


paved driveway



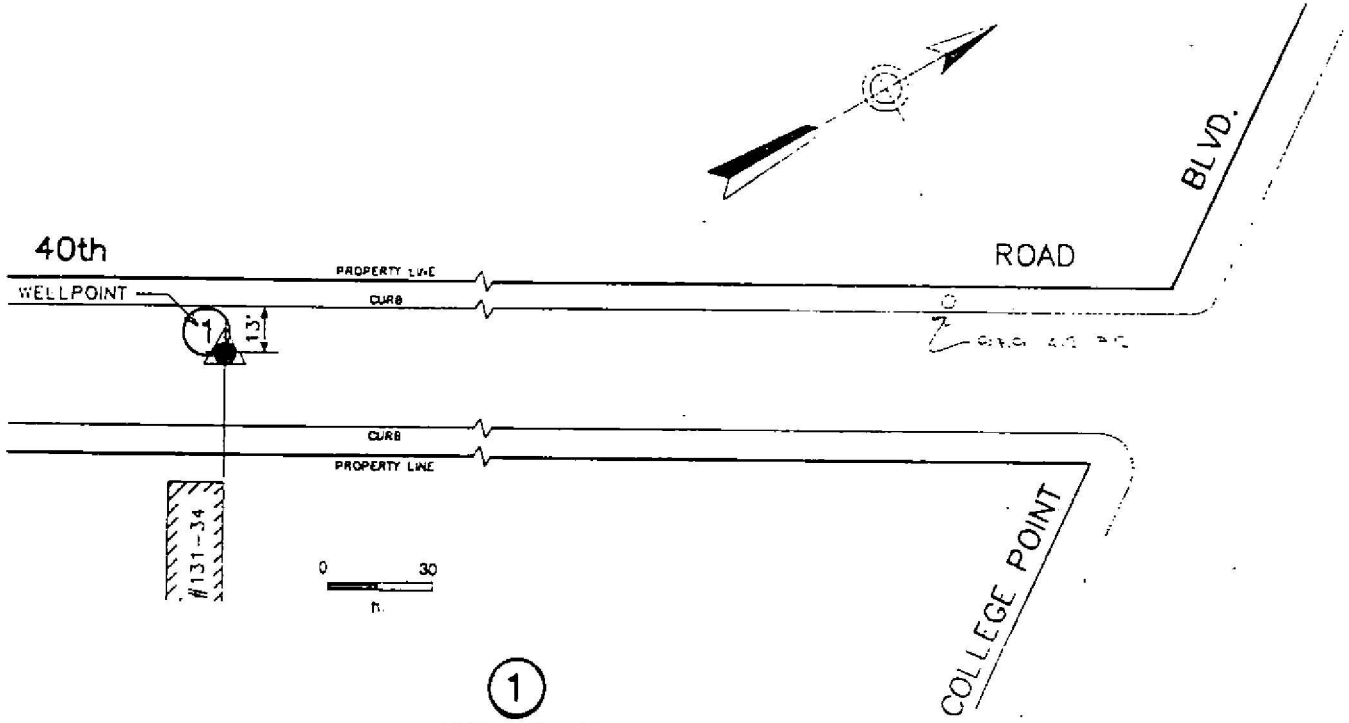


paved driveway



FLUSHING 1A APPENDIX Boring Location Plan/Log East of Site B1, 1993
(Boring Logs, 1993)

E1



①

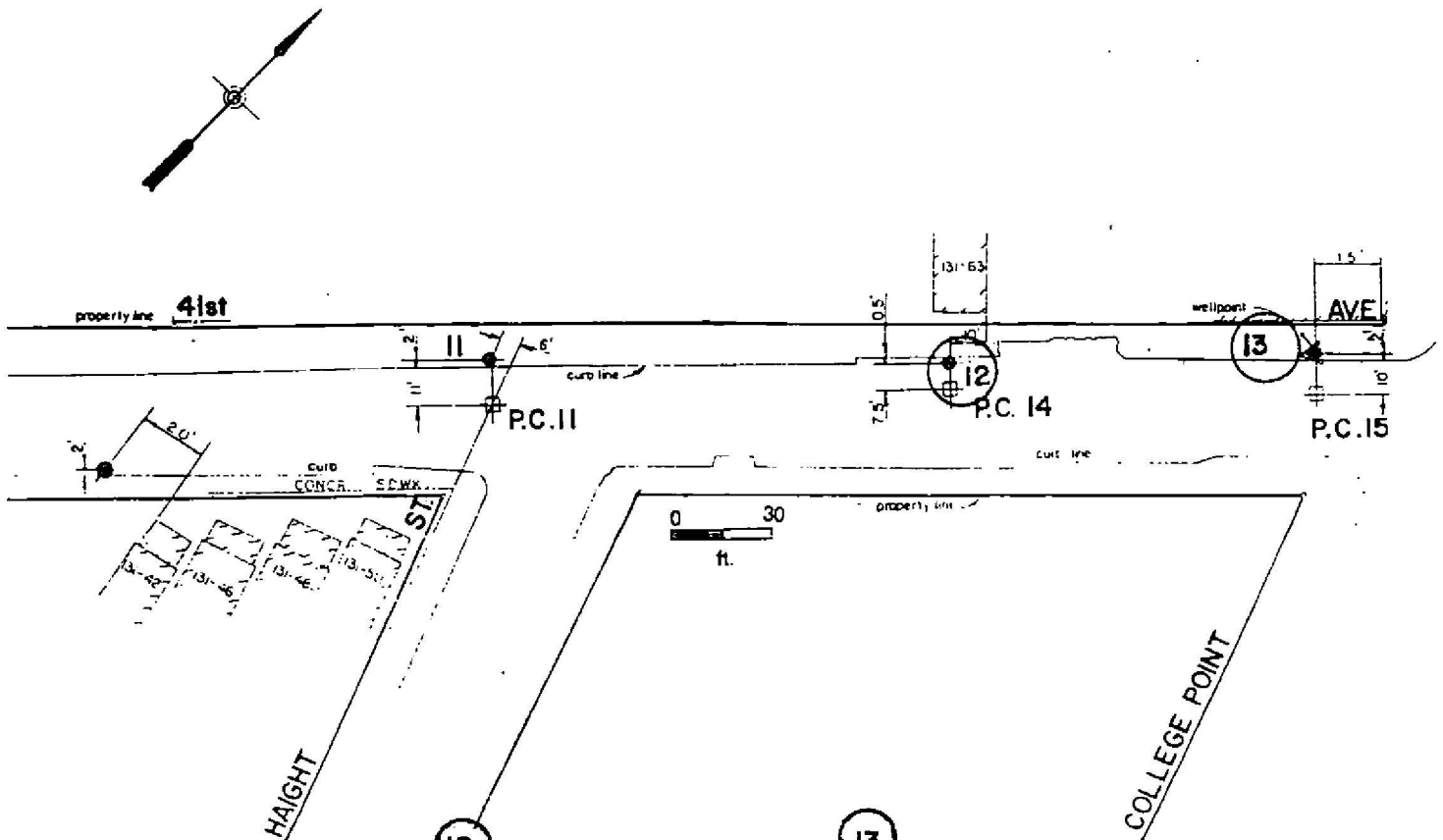
SURF. EL. 7.1

ASPHALT 9"			
MISC. FILL: F-M AND GRAVEL			2.1
5 BLACK-GREY SAND	1 5 3 2		
7 TRACE TO		0.1 11:00 A.M.	
11 LITTLE SILT		-0.9 3-25-93	
14 TRACE WOOD CINDERS ORGANICS ETC...	2 8 7 7		-2.9
15 11-65			-7.9
9 10 "WITH ORGANIC ODOR"	3 9 4 4		-10.9
11 GREY SILT LITTLE F-M SAND (MH) 10-65			-12.9
13 8 10	4 5 4 4		-15.9
21 24 BROWN SAND LITTLE GRAVEL TRACE SILT (SP) 8-65			-17.9
28	5 13 15 20		-19.4

WELLPOINT INSTALLED TO EL. -17.9

FLUSHING 1A APPENDIX Boring Location Plan/Logs Vicinity of Site B2, 1986
(Boring Logs 1986)

E2



12

SURF. ELEV. 15.8

20	MISC. FILL (INSR) 11-65	
17	BROWN SILT	12.8
14	SOME CLAY	10.8
10	(MH) 10-65	7.8
42	F-M	5.8
43	BROWN SAND	2.8
35	TRACE GRAVEL (SP) 7-65	2.8
28	F-C BROWN SAND	0.8
300'	SOME TO AND GRAVEL	0.8
132	TRACE TO	-1.7 3:00 PM
116	LITTLE SILT (SW-SM) 6-65	-1.7 7:21-86
80'	BOULDERS (INSR)	-4.2
72	F-M-C BROWN SAND LITTLE SILT LITTLE GRAVEL (SM) 6-65	-7.2
124	BOULDERS (INSR)	-10.7

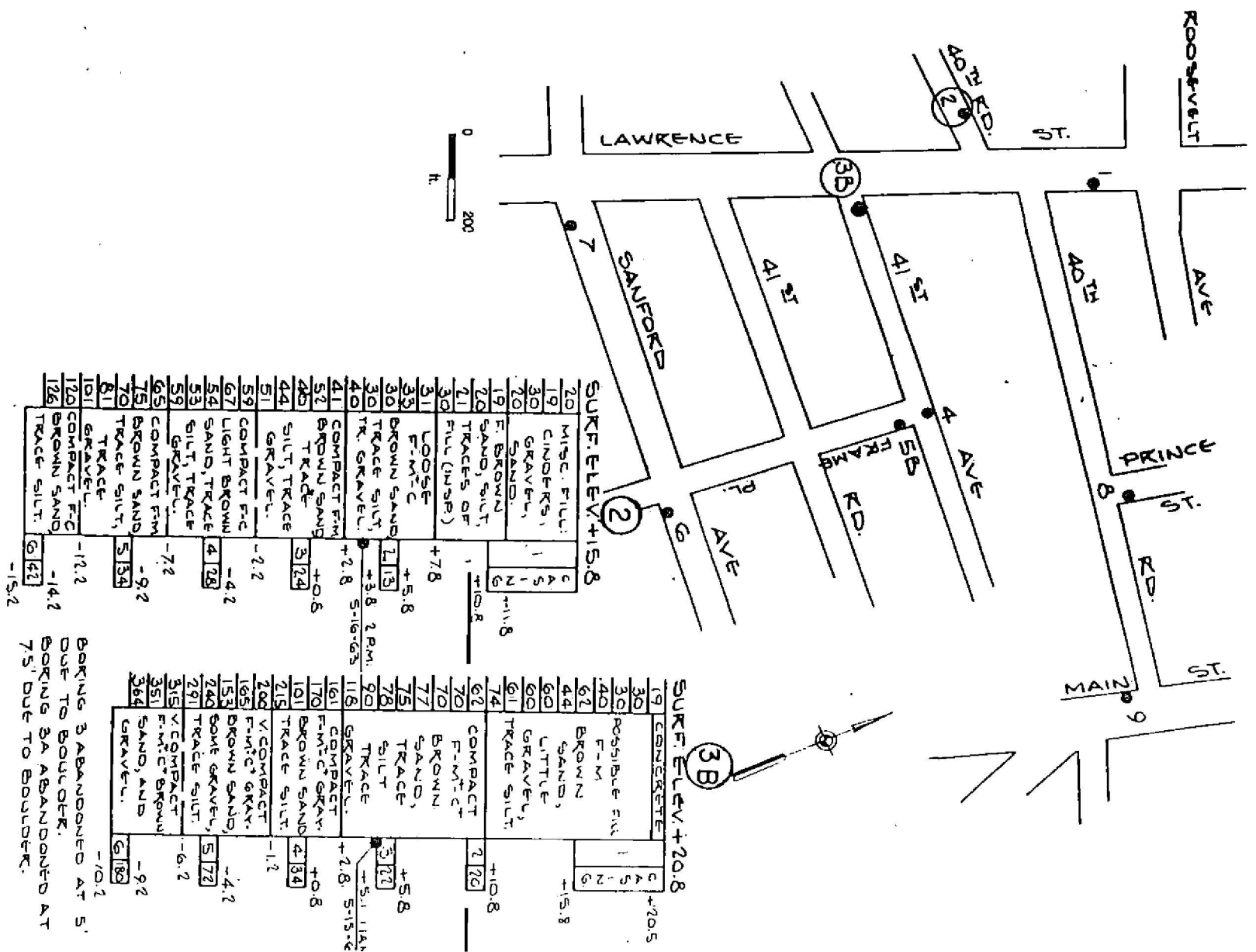
13

SURF. ELEV. 19.5

2'	MISC. FILL (INSR) 11-65	17.5
17.5	FINE BROWN SAND, SOME SILT	14.5
14.5	TRACE GRAVEL (SM) 8-65	11.5
11.5	F-M	9.5
9.5	BROWN SAND	6.5
6.5	TRACE TO	4.5
4.5	LITTLE SILT	1.5
1.5	TRACE TO	0.4 11:30
0.4	GRAVEL (SP-SM)	-0.5 7:17-86
-0.5	7-65	-3.5
-3.5	F-C BROWN SAND SOME GRAVEL (SW) 6-65	-7.0

INSTALLER WELL POINT TO ELEV. 15.5

FLUSHING 1A APPENDIX Boring Location Plan/Logs Vicinity of Sites B2 and C1,
1963 (Boring Logs 1963)



SURF. ELEV. +15.8

20	MISC. FILL:	C	
19	CINDERS	A	
30	GRAVEL	S	
20	SAND	N	
19	F. BROWN SAND, SILT	G	+11.8
20	TRACES OF FILL (MSR)		
21			
30	LOOSE BROWN SAND		+7.8
33			+5.8
30	TRACE SILT		2 1 3
40	TR. GRAVEL		+3.8 2 PM.
41	COMPACT F.M.		+2.8 5-16-65
52	BROWN SAND		+0.8
44	TRACE SILT, TRACE GRAVEL		3 2 4
51	GRAVEL		-2.2
59	COMPACT F-C		-4.2
67	LIGHT BROWN SAND, TRACE SILT, TRACE GRAVEL		4 2 8
53	SILT, TRACE GRAVEL		-7.2
59	COMPACT F.M.		-9.2
75	BROWN SAND		5 3 4
70	TRACE SILT, TRACE GRAVEL		-12.2
81	TRACE F-C		-14.2
101	TRACE SILT		6 4 2
126	TRACE SILT		-15.2

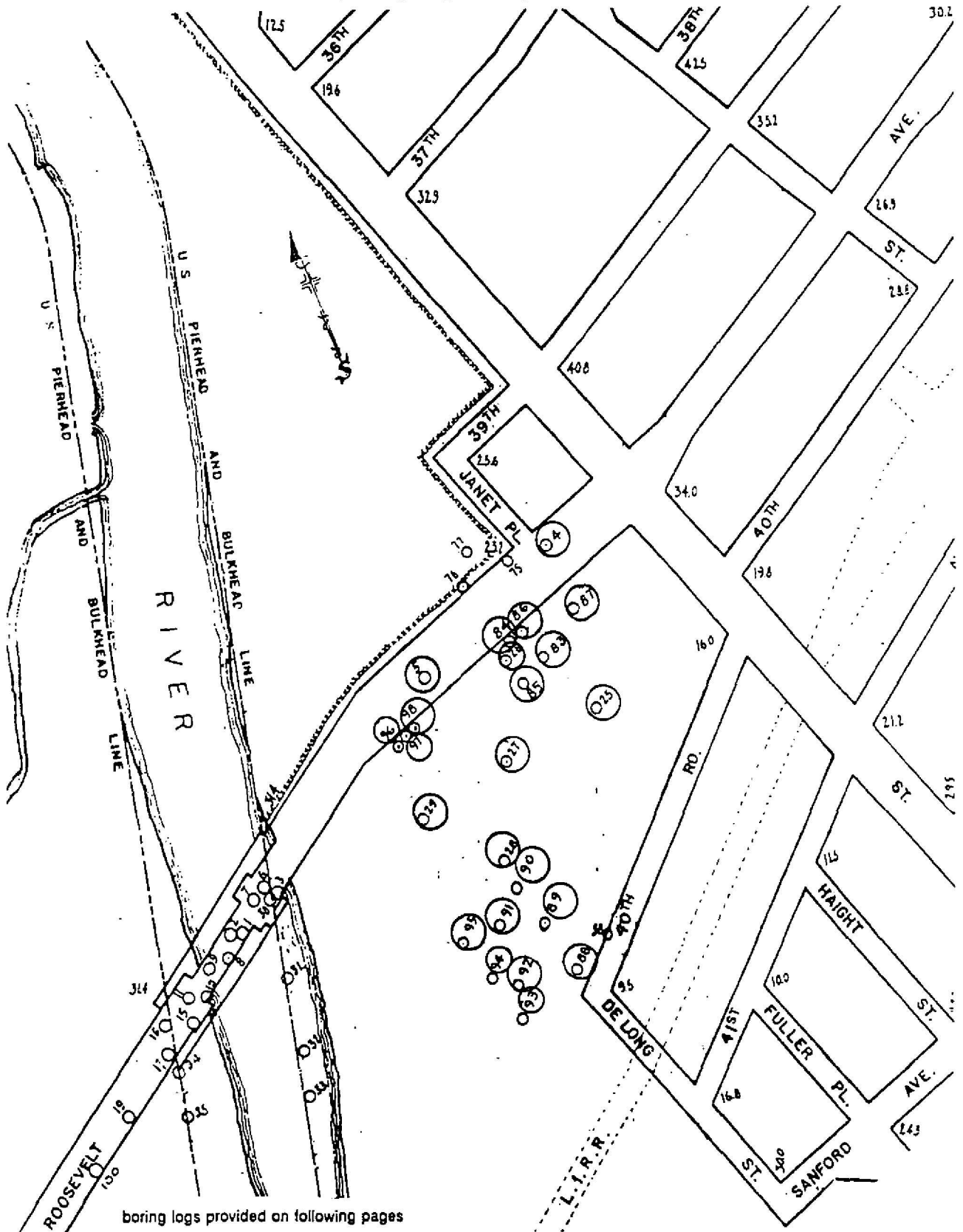
SURF. ELEV. +20.8

19	CONCRETE	C		+20.5
30	Possible fill	A		
40	F-M	S		
62	BROWN SAND,	N		+15.8
44	SAND,			
60	LITTLE GRAVEL,			
60	TRACE SILT			
61				
74				+10.8
62	COMPACT F-M		2 7 6	
70	BROWN SAND,			+5.8
77	TRACE SILT		3 2 2	
75				+5.8
78	TRACE SILT			
90	TRACE GRAVEL			+5.1-11.4
116	GRAVEL			+2.8 5-15-6
161	COMPACT F-M			+0.8
170	BROWN SAND		4 3 4	
101	TRACE SILT			-1.2
200	V. COMPACT F-M			-4.2
153	BROWN SAND, SOFT GRAVEL,		5 7 2	
240	TRACE SILT			-6.2
291	V. COMPACT F-M			-9.2
351	SAND, AND GRAVEL		6 1 6	
364				-10.1

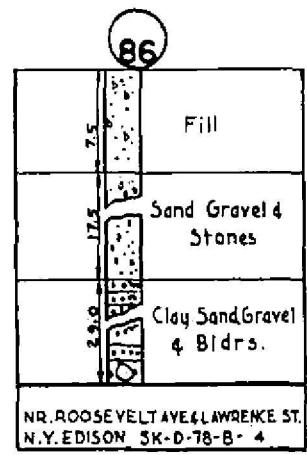
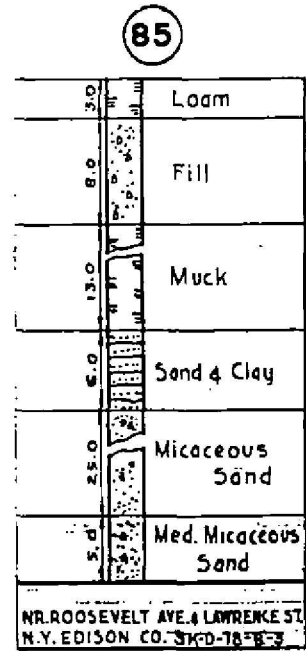
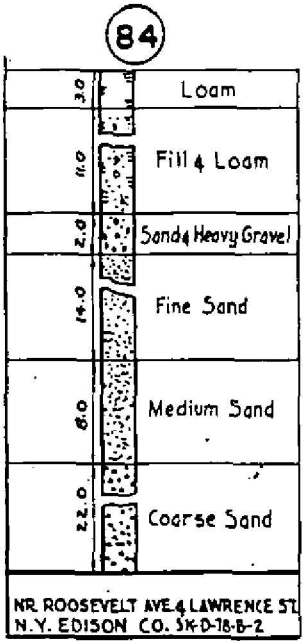
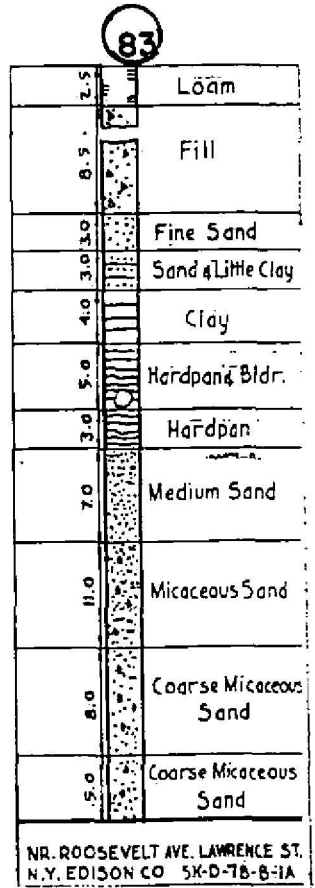
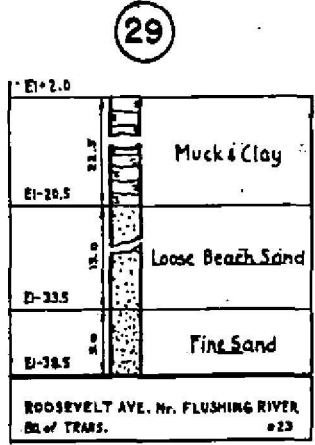
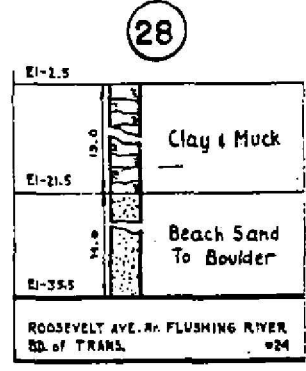
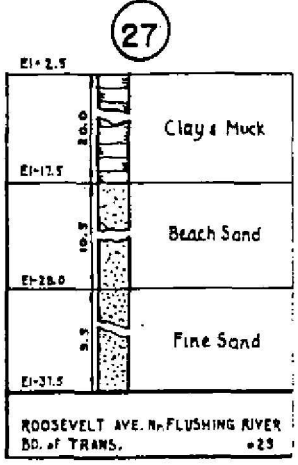
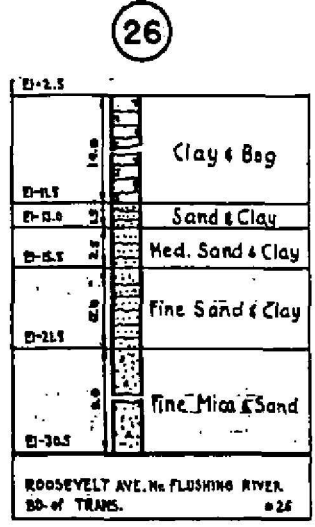
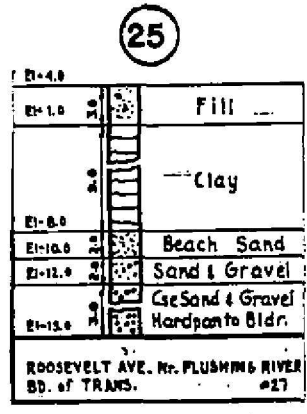
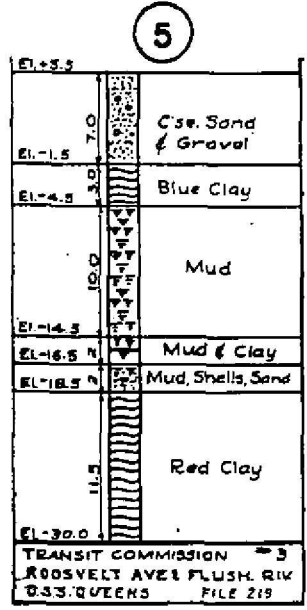
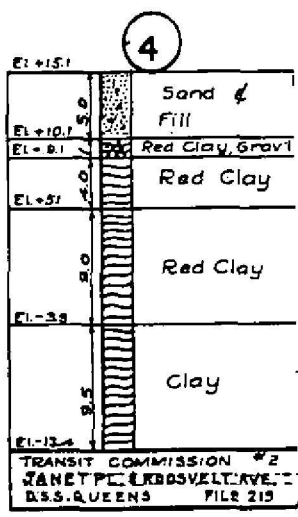
BORING 3A ABANDONED AT 5' DUE TO BOULDER.
BORING 3A ABANDONED AT 75' DUE TO BOULDER.

FLUSHING 1A APPENDIX Boring Location Plan/Logs Vicinity of Site C1, c. 1937
 (Boring Logs 1937)

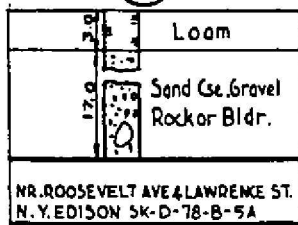
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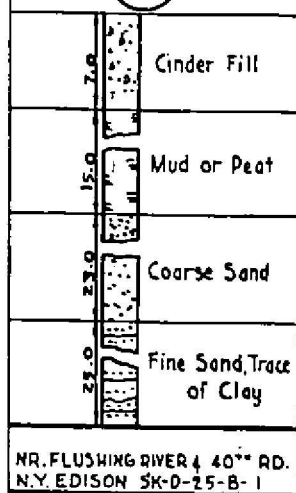
boring logs provided on following pages



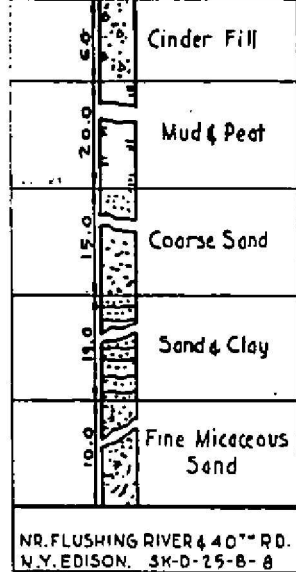
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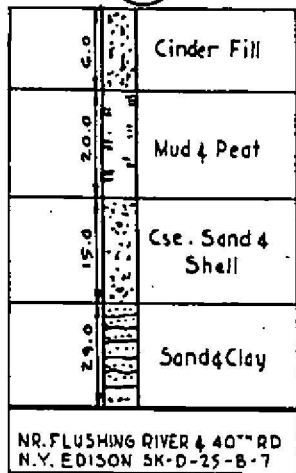
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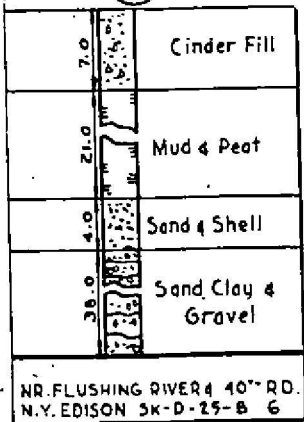
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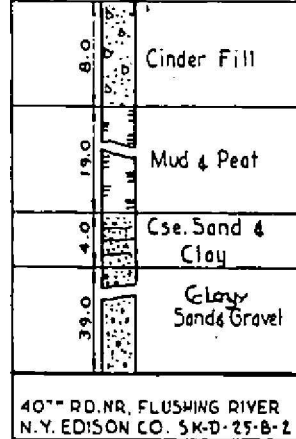
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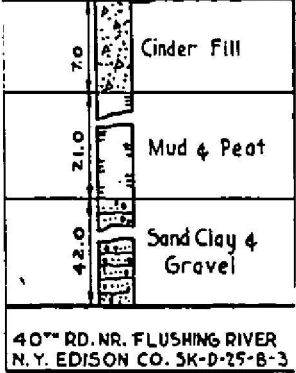
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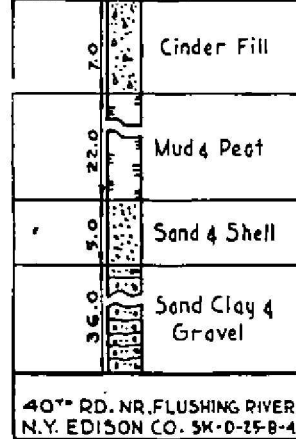
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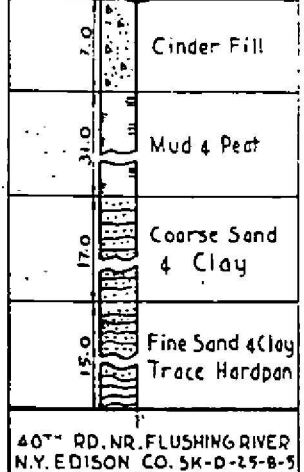
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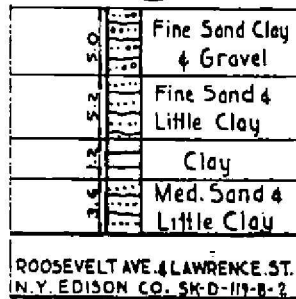
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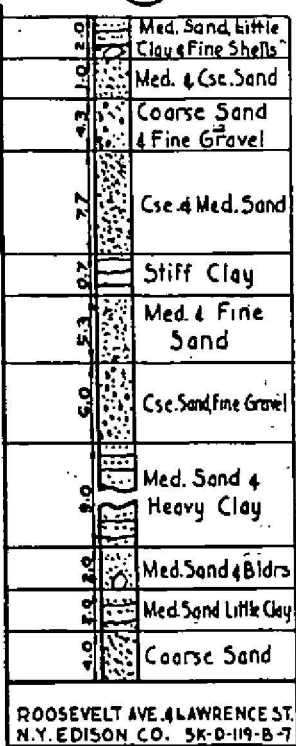
95



96



97



98

