FLUSHING CENTER

CEQR 86-337 Q

TOPIC-INTENSIVE RESEARCH

906
ACKNOWLEDGEMENTS

The Project Directors and the Contributing Authors would like to express their gratitude to several individuals whose unselfish willingness to help with this research proved invaluable. Vincent Seyfried, David Ransom, Joan Geismar, and Rick Elia all shared their professional experiences and opinions, as did Michael Demitri of Ramp Consulting Services. Andrew Platovsky of the NYC General Services Department was most helpful in attempting to track down Flushing Lot #1 construction plans. The conversations with Peggy Long, Harding Harris, Helen Armstrong, and Jay Williams of the Macedonia A.M.E. Church, as well as the chance to review John Williams personal scrapbooks, were most appreciated. Most specifically, our successful completion of this research effort is due in part to the efforts and enthusiastic support of Catherine Williams, Secretary of the Macedonia A.M.E. Church.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>i</td>
</tr>
<tr>
<td>Site Map</td>
<td>iv</td>
</tr>
<tr>
<td>Damage Map</td>
<td>v</td>
</tr>
</tbody>
</table>

Report on the Archaeological Literature Search of the Flushing Female Association School Site for the Flushing Center Project, New York

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>FFA- 1</td>
</tr>
<tr>
<td>Background and Method of Approach</td>
<td>FFA- 1</td>
</tr>
<tr>
<td>Review of Twenty Reports on School-yard Archaeology</td>
<td>FFA- 8</td>
</tr>
<tr>
<td>Conclusion</td>
<td>FFA-12</td>
</tr>
<tr>
<td>Recommendations</td>
<td>FFA-14</td>
</tr>
<tr>
<td>Bibliography</td>
<td>FFA-17</td>
</tr>
<tr>
<td>Figure 1: The Old Brick Schoolhouse</td>
<td>FFA-22</td>
</tr>
<tr>
<td>Figure 2: Street Level and Building Level</td>
<td>FFA-23</td>
</tr>
<tr>
<td>Appendix 1: Sanitary Regulations for School Grounds</td>
<td>FFA-24</td>
</tr>
</tbody>
</table>

Report on Homelot Archaeology for the Flushing Center Project, New York

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>HL- 1</td>
</tr>
<tr>
<td>Subsurface Integrity</td>
<td>HL- 1</td>
</tr>
<tr>
<td>Dates of Sewer Connection</td>
<td>HL- 2</td>
</tr>
<tr>
<td>Methodology and Limitations</td>
<td>HL- 4</td>
</tr>
<tr>
<td>Lot 27 - 133 Lincoln</td>
<td>HL- 7</td>
</tr>
<tr>
<td>Lot 65 - 124 Lincoln</td>
<td>HL- 8</td>
</tr>
<tr>
<td>Lot 53 - 152 Lincoln</td>
<td>HL- 9</td>
</tr>
<tr>
<td>Lot 57 - 144 Lincoln</td>
<td>HL-11</td>
</tr>
<tr>
<td>Lot 20 - 119 Lincoln</td>
<td>HL-13</td>
</tr>
<tr>
<td>Discussion</td>
<td>HL-15</td>
</tr>
<tr>
<td>Recommendations</td>
<td>HL-19</td>
</tr>
<tr>
<td>Bibliography</td>
<td>HL-21</td>
</tr>
<tr>
<td>Appendix 1: Flushing Council of Women's Organizations Minutes, 6/4/49 - 2/18/54</td>
<td>HL-22</td>
</tr>
</tbody>
</table>
Report on the A.M.E. Macedonia Church Graveyard Buffer Zone Research for the Flushing Center Project, New York

Introduction .................................................. AME- 1
Methodology .................................................. AME- 3
Research Results ........................................... AME- 4
  Oral Testimony ............................................. AME- 4
  Lot Line Research ......................................... AME- 4
Archaeological Research ................................... AME- 6
Conclusions ..................................................... AME- 9
Recommendations ................................................ AME-12
Bibliography .................................................. AME-14
Figure 1: 1917 Sanborn Map ................................ AME-15
Figure 2: 1988 Tax Map ...................................... AME-16
Figure 3: Macedonia A.M.E. Church, 1950 .................. AME-17
Figure 4: Macedonia A.M.E. Church, 1903 ................. AME-18

Proposed Research Design ................................. RD- 1
INTRODUCTION

The New York City Landmarks Preservation Commission (LPC) accepted the 1987 "Phase 1A Archaeological Assessment on the Flushing Center" prepared by Historical Perspectives, Inc. (HPI). This assessment noted three specific areas of archaeological sensitivity within the project site: (1) the Flushing Female Association School location (FFA); (2) the nineteenth-century homelots areas; and (3) the Macedonia A.M.E. Church Cemetery.

Prior to any Phase 1B field investigations, LPC required a second level of topic-intensive research for the three archaeologically sensitive sections of the project site in order to minimize the fiscal and scheduling burden for the Flushing Center project developers. HPI agreed with LPC's request for particular lines of inquiry suited specifically to each of the archaeologically sensitive areas of the project site. This report details the research and recommendations for the project site so as to satisfy both the LPC's and developers' concerns.

(1) LPC's task for the Flushing Female Association School site research was to review the archaeological literature on school-yard archaeology in the Northeast so that HPI could determine the need for field investigations. LPC stipulated that "if two examples of excavations on comparable sites in the Northeast can be found which have not produced significant archaeological data, then field testing of the FFA parcel would not be required by LPC." A review of twenty field reports or essays indicated that there were no comparable sites yet there were sites with enough similarities to the FFA so that HPI can recommend that no field testing needs to be done because of two factors.

First of all, the artifact categories associated with school yards, that is, building debris, ceramics, and children's toys and writing equipment, serve to locate the site and sometimes to help date certain aspects of site formation, neither of which is necessary for FFA. In any case, the primary artifact categories, which are noted for their paucity at school-yard sites, are similar to those of domestic sites during the second-half of the nineteenth century where they tend to be found in greater abundance.

Second, at the same time that there is a commonality of particular categories and features excavated at school-yard sites. By and large, the additions, demolitions, and reconstructions have had adverse impacts on the integrity of any archaeological resources that could be used as evidence for a better understanding of the development of the American public-school educational
system or children at play. The site grading and the two-tiered parking garage construction on the FFA parcel probably destroyed the integrity of the school yard.

(2) LPC suggested the guiding principle for the research into the nineteenth century homelot areas on the project site. It was to locate particular homelots that met the following qualifications in order to be considered for field testing:
(1) the homelot needed to represent one decade of continuous occupancy by a black family; and/or (2) the homelot needed to represent single-family residency for at least twenty years.

The Block 4978 and 4979 homelots, as lot numbered on the attached 1949 Damage Map, were scrutinized for archaeological potential according to several attributes, including subsurface integrity and an established residency pattern prior to the introduction of municipal utilities. Research was completed with the aid of insurance atlases, census data, business directories, conveyance records, personal interviews, and information gathered from several Borough departments (e.g., Sewer Records, Block and Lot Division, House Numbers and Report Division).

A total of five homelots (#s 20, 53, 57, 65, and 27) meet the established criteria and appear to possess potentially significant, intact remains reflective of a particular nineteenth century Queens neighborhood. The actual degree of disruption that each of these lots has experienced, although predicted, is not known. This is particularly pertinent for lots 20, 27, and 65 that are currently supporting the foundation structure of the two-level parking lot. Lot 57 appears to possess an intact backyard and to also have been adversely impacted by the second tier support trench. Historical Perspectives, Inc. recommends that each of these five homelots be considered for archaeological field investigation. However, we further recommend that the initial fieldwork be conducted on Lot 57 because of the possible presence of homelot features and because it can serve as a test case for post-1954 construction impacts. An evaluation of the parking lot construction impacts on this lot will determine the advisability of further fieldwork on Lots 20, 27, and 65.

(3) LPC agreed with HPI's recommendation to create a buffer zone between the Macedonia A.M.E. Church's property and the development-impacted area and to test the outside perimeter of this zone for A.M.E. burials. LPC requested a specific recommendation on the size of the proposed buffer zone.

In order to determine a realistic and responsible buffer zone, three avenues of research were undertaken: (1) interviews with long-term residents of the project site area; (2) a comparison of lot line measurements over time; and (3) a review of
pertinent archaeological reports. There was a necessary reliance on a series of land atlases in order to understand the development of the land surrounding the church parcel.

In order to preserve potentially intact, endangered burials, Historical Perspectives, Inc. recommends that no less than 15 feet separate the A.M.E. property lines from any proposed construction impacts. However, we further recommend that the application of the 15 foot buffer strip be adapted to the documented structural histories of each of the four bordering lands. On the east side the c.1954 construction of a church building destroyed any potential subsurface resources and no buffer strip is warranted. On the south side a portion of the 38th Avenue roadbed, which has been incorporated into the A.M.E. lot, acts as a buffer for the original A.M.E. land. Further archaeological consideration, specifically, monitoring, is only recommended on this side of the church land if the 38th Avenue roadbed, now in use by the church, is opened. On the west side we predict that the construction of three substantial homes directly on the shared property line has destroyed the possibility of intact graves. However, as above, further archaeological consideration, specifically, monitoring, is recommended on this border if the proposed project will entail subsurface excavations within 15 feet of the A.M.E. parcel. On the north side there exist sufficient potential for A.M.E. burials that we recommend the implementation of the 15 foot buffer strip or preservation zone. We further recommend that field tests be conducted on the outside perimeter of the imposed zone to confirm the adequacy of the zone.

The three areas of concern are addressed in full in the following report. Each research effort is presented separately, followed by the Proposed Research Design. The following two maps, the Site Map and the Damage Map, will be helpful in understanding all three reports.
Site Map of Archaeological Potential.

Base map furnished by Raquel Ramati Associates, Inc. 1988

Explanatory Note:

It was necessary to use ten different maps in order to obtain sufficient measurements to create the Site Map of Archaeological Potential. It is anticipated, therefore, that there is ± 5 feet accuracy factor at least.

The maps which were used were:

1986  Site Map furnished by AKRF, Inc.
1979  E. Belcher Hyde Atlas
1973  NYC Dept. of Public Works - Topographic and Property Line Map
1949  NYC Housing Authority - Damage Map for Acquisition
1941  E. Belcher Hyde Atlas, corrected from 1926
1932  E. Belcher Hyde Atlas, corrected from 1926
1929  E. Belcher Hyde Atlas
1917  Sanborn Atlas
1909  G. W. Bromley Atlas
1917  Sanborn Atlas
Damage Map for Acquisition, 1949.

This is a copy of a photocopy of the original furnished by the House Numbers and Report Division at the Queens Borough Hall.
DAMAGE MAP - 1949. This is a copy of a photocopy of the original furnished by the House Numbers and Report Division at the Queens Borough Hall. The penciled notations and diagonal lines were on the original map and have no bearing on this report.
REPORT ON THE ARCHAEOLOGICAL LITERATURE SEARCH
OF THE
FLUSHING FEMALE ASSOCIATION SCHOOL SITE
FOR THE
FLUSHING CENTER PROJECT, NEW YORK
INTRODUCTION

The New York City Landmarks Preservation Committee (LPC) accepted the 1987 "Phase 1A Archaeological Assessment on the Flushing Center" prepared by Historical Perspectives, Inc. This assessment noted three specific areas of archaeological sensitivity within the project site. In order to minimize the fiscal and scheduling burden on the Flushing Center project developers, LPC has required, prior to Phase 1B field investigations, a second level of topic-intensive research for the Flushing Center project. At a meeting with Sherene Baugher, LPC archaeologist, the three areas of archaeological concern were identified, one of which was the site of the Flushing Female Association School (FFA). To satisfy both the LPC's and the developers' concerns, Ms. Baugher specified a task for Historical Perspectives, Inc. to perform prior to any possible field investigations at the FFA site. The FFA site, prior to 1953, was Lot 28 of Block 4979, with a street address of 136-60 38th Avenue.

In response to Ms. Baugher's directive, the July 1988 "Proposal to Conduct Secondary Level Topic-Intensive Research on the Flushing Center Project, New York" stipulated that "if two examples of excavations on comparable sites in the Northeast can be found which have not produced significant archaeological data, then field testing of the FFA parcel would not be required by LPC." The following report responds to LPC's request to locate excavation reports about nineteenth-century school-yard archaeological sites in villages or towns in the northeastern United States and to determine if the sites excavated had produced significant archaeological data.

BACKGROUND AND METHOD OF APPROACH

In order to receive information about the archaeological literature of nineteenth-century school-yards in the Northeast, Nancy S. Dickinson contacted federal, state, and municipal archaeological and preservation agencies, business-based contract firms, university-based contract firms, museum and university research programs, and specific archaeologists who might be working on a similar topic or within a geographic area that might have parallels to the FFA site. Historical Perspectives, Inc. then followed up on the answers received from the correspondence and during telephone conversations.

The Council of Northeast Historical Archaeology's bibliography of historical archaeology in the Northeast as well as back issues of the Society for Historical Archaeology's
journal (1988-1980) and newsletter (1988-1985) were reviewed. The results of both the letter-writing and literature search found twenty reports or essays that dealt with archaeological data from nineteenth century school-yards in the Northeast.

Before listing in tabular form the organizations and individuals contacted and their responses, an excerpt from the letter sent out is included here to provide a background for understanding not only the particular replies but also the review of the twenty reports and essays that follows this method section. The thirty-eight letters sent out on August 8 and 9, 1988 read, in part:

In preparation for secondary-level topic-intensive research, Historical Perspectives, Inc., would like to know about any archaeological investigations and reports that are similar in nature to the Flushing Female Association School. Similarities for this school-yard archaeology might include: single sex and co-ed, ante-bellum and post-Civil War schools in northeastern villages or small towns that were becoming urban places by the end of the nineteenth century; and schools in which both private organizations and/or public institutions were instrumental in educating particular racial, ethnic, and socio-economic groups.

The school, founded by Quaker women, was established to educate the slaves and free blacks of the Village of Flushing. The frame school building stood on the 60 ft x 135 ft parcel of land, which had been purchased between 1819 and 1821, until 1862-63 when a brick schoolhouse replaced the wood structure. After 1887, the brick building became a Colored Helping Association. During the twentieth century the brick building served, primarily, the black community in Flushing until the structure was demolished in 1953 for a parking lot.

After 1843 when the public school system of the Village of Flushing began and took over the operation of the school, Quaker women continued to support the school financially and with volunteer help. In 1847 it was officially called the Colored School. Quaker women raised the funds for the 1861-1863 brick schoolhouse, and they were the ones who took back the building and used it for a Colored Helping Association in 1887, eleven years before the Village of Flushing, like the rest of Queens, was incorporated into New York City.
If you know of any such school-yard archaeological investigations and reports, please note them on the stamped postcard enclosed and return the postcard at your earliest convenience. Thank you.

As of September 19, 1988, Historical Perspectives, Inc. has received eleven postcards, three letters, and three telephone calls in response to the letter. Follow-up correspondence has resulted in the receipt of further information in addition to copies of reports and essays.

Of the eleven telephone conversations initiated by Historical Perspectives, Inc., nine telephone calls resulted in either information and/or the promise to mail copies of archaeological reports.
The following five tables show which agencies and what individuals were contacted as well as whether their responses provided information.

### Table 1
**Correspondence with Federal and State Agencies**

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**Follow-up Correspondence Based on Information from St. Archaeologists and SHPO Officers**

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**Correspondence with Individuals at NPS, Municipal Agencies, Contract Firms, Museums, and Universities**

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Telephone Conversations with Individuals at NPS, Municipal Agencies, Contract Firms, Museums, and Universities

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### Table 5

Correspondence Based on Information in SHA Newsletter

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An analysis of the foregoing tables is not intended here, yet there are some general statements that can be made concerning this information search. Unless bibliographies and data bases are cross-indexed by, in this case, subjects, it is difficult to find the topics of school-yards and schoolhouses. The Bartovics (1981), Davidson and Eaton (1985), and Lacoste and Wall (in press) titles are witness to this. In terms of getting a response from correspondence based on a literature search, there has been no success, but the letters to James Madison University (Smith and McCartney 1987) and Rochester Museum and Science Center (Bigelow 1987) went out only on August 24, 1988, so that more time may be required in order to receive an answer.

Although traditional bibliographies and computerized data bases are main stays for any literature search, contacting individuals who are involved in the SHPO and state archaeologists offices results in references not found elsewhere. Tyler Bastian (personal communication, 18 August 1988), Maryland's State Archaeologist, and David Poirier (personal communication, 15 August 1988) of the Connecticut Historical Commission both demonstrate this.

Other individuals who recalled and contributed relevant citations were those who are involved in archaeological projects through the National Park Service, various states' Department of Transportation, business-based contract firms, university-based contract firms, museum and municipal programs, and/or the professional archaeological societies and associations. The names in Tables 3 and 4 give an idea of the scope and breadth of these occupational and geographical categories. Thus, it continues that personal contacts and human memory provide a fine resource for any literature search, such as the one for nineteenth-century school-yard archaeology.

Efforts to secure more construction history details for Lot 28 than previously reported were minimally successful, only yielding an alteration permit request with information on the late 1920, 1930s, and 1940s. For a short period, 1929-1931, the schoolhouse was a center for the Veterans of Foreign Wars. Starting in 1934 and through, at least, 1942, the site was used by the Child Service League of Queens Borough, in part, as a nursery facility.

Through the gracious cooperation of Catherine Williams, Secretary and Archivist of the Macedonia A.M.E. Church, we were able to interview long-term residents of the project block (9/15/88). Helen Davidson Armstrong lived on the project site at 153 1/3 38th Avenue for 18 years (1920-1938) and vividly recalls attending Tuesday afternoon sewing classes at "the
mission school." The Flushing Female Association also allowed the W.P.A. to sponsor the Paragon Boys Club at the schoolhouse. (Murray, Charlotte E., compiler. 1914. Flushing Female Association, 1814-1914. Flushing, NY: Case the Printer. p.11.)
REVIEW OF TWENTY REPORTS ON SCHOOL-YARD ARCHAEOLOGY

By and large the twenty reports on nineteenth-century school-yard archaeology listed in the accompanying bibliography are more similar than they are comparable to the FFA site. Nonetheless, there is a match between the FFA site and the reports in that they all concern archaeological data derived from school-yard and schoolhouse sites of at least the nineteenth century.

Only Bankoff (1987) shares with the FFA site the similar trajectory of "place" in which a village or town was developing into an urban space. Besides the project site, only Bower (1978) and Rushing (1978) dealt with a school for the children of free blacks. Poirier's Prudence Crandall's house site (19??) was the location of a school for black girls. Other similarities between the FFA site and some of the sites in the twenty reports vary from site to site and from time to time and do not match more than any two sets of attributes.

The sets of attributes for the FFA site and the sites in the twenty reports also included, at some time: being either a private school or public school, being church- or private-association supported, being for females or for both girls and boys, being for the education of blacks, being in operation some time between 1820 and 1887, and serving the community in another function after the site was no longer used for a school yard and a schoolhouse. With the exception of Poirier (19??), the sites in the twenty reports match no more than one-third of the FFA site's attributes.

Some of the reports described private schools (Bankoff 1987; Handsman 1981; Poirier 19??; and perhaps the "old field school" of Smith and McCartney 1987), which, in essence, the Flushing Female Association School was between 1814 and 1843. The remaining reports dealt with public schools, which the Flushing Female Association School's successor was, that is, the Colored School (1843-1887).

Handsman (1981) and Poirier (19??) investigated female academies in Connecticut, and Bankoff (1987) excavated around a Dutch Reform Church-sponsored school in Brooklyn that was originally (1787) for boys and accepted girls in 1812 (personal communication, 15 August 1988).

Prudence Crandall, a Quaker, ran an academy for white females outside of Hartford, Connecticut, that later became a school for black females for eighteen months (Gradie, personal communication, 15 August 1988). The Prudence Crandall site in
Poirier's 19?? report is the only site among the twenty reports that comes close to matching the FFA site attributes. Unfortunately, the strength of the archaeological data from the site documented a riot that took place when Crandall continued to educate black girls in 1831-1832, to the dismay of the neighbors (Poirier and Gradie, personal communications, 15 August 1988).

To a greater extent, the time frame for the sites investigated for most of the twenty reports is the second-half of the nineteenth century and into the twentieth century while the FFA school site dates to 1820-1887. Bankoff (1987), and Poirier (19???) have the closest match, and Bartovics (1981), Gradie (1983), Guarnieri (1983, 1984), and McBride (1986) were involved with sites that dated to the earlier part of the nineteenth century.

With respect to a site having another function after being used as a school, Catts, Cunningham, and Custer (1983), Catts, Shaffer, and Custer (1986), Handsman (1981), McBride (1986), and Poirier (19???) parallel the FFA site. Yet there are certain differences: the FFA site was used as a community-activities building when the others were used as domiciles or as a tavern.

Not only do these particular attributes of the sites in the twenty reports and the FFA site match in limited ways, but also, and more especially, the hypotheses tested and questions asked about these sites in the twenty reports are not applicable to the FFA site.

By and large the questions asked revolved around the topics of site location and site formation. Site location studies included Bankoff (1987), Bigelow (1987), Catts, Cunningham, and Custer (1983), Lacoste and Wall (in press), and McBride 1986. Site formation studies included Bankoff (1987), Bartovics (1981), Bowers (1986), Catts, Cunningham, and Custer (1983), Catts, Shaffer, and Custer (1986), Gradie (1983), Handsman (1981), McBride (1986), and Yentsch (1981). In a few instances, though, the archaeological data were used to grapple with ideas about settlement theory (Bartovics 1981), community (McBride 1986), early capitalism (Handsman 1981), socio-economic status (Guarnieri 1983, 1984), gender-differentiated activities (Catts, Cunningham, and Custer 1983; Gradie 1983; Guarnieri 1983; Yentsch 1981), and specific historical events (Poirier 19???).

As for the data excavated from the sites reported on in these twenty reports, the three most recurring archaeological categories in descending order of frequency were: architectural artifacts, ceramics, and what might be called school equipment, particularly slate boards, slate pencils, pen nibs, inkwells,
and/or children's toys. With, perhaps the exception of Handsman (1981), these three categories of artifacts were present at each site.

Occasionally a coin turned up as well as bottles, clay pipes, newspapers, and license plates that aided in dating deposits (Bartovics, 1981; Catts, Cunningham, and Custer, 1983; McBride, 1986). Very infrequently did buttons, coal, leather, and petroleum-derived or plastic objects appear in the general artifact inventories (Catts, Cunningham, and Custer 1983).

By and large, a site was designated as a schoolhouse or school yard on the basis of some combination of the documentary record and the presence of school equipment and/or children's toy items from the archaeological record. Poirier's prediction (personal communication, 2 August 1988) that rural New England, nineteenth-century schoolhouse archaeology unearths slate pencils, metal pen nibs, small-scale toys like the present-day Monopoly tokens, and shattered ceramics seems to bear out the findings in these twenty reports from throughout the Northeast. In addition to the school equipment mentioned above there was chalk, graphite, and a pencil eraser excavated (Catts, Cunningham, and Custer 1983).

Most reports listed a general category of "toy" without being more specific. Objects that might be toys and were excavated were such things as clay marbles (Catts, Custer, and Cunningham 1983) and glass marbles (Gradie 1983), as well as a toy trumpet (Catts, Cunningham, and Custer 1983). Under the category of notions that might also be construed as school and/or children's equipment were such things as a child's pendant (Lacoste and Wall 1988) and glass beads and a thimble (Gradie 1983).

This material culture was excavated from the inside and the outside of structure foundations, around school yards, and from privies. These three kinds of features yielded low artifact counts that might have been the result of either the archaeological data being derived from test units as opposed to 19th.
excavation or that only small amounts of cultural material were ever brought onto the sites.¹

On the other hand, there were other explanations for the paucity of artifacts. In the case of privies, there were several instances in which the outhouse vaults were cleaned out at least once (Bartovics 1981; Lacoste and Wall 1988; Yentsch 1981). The episodic nature of such privy deposits would have to be carefully balanced against the general accumulation over time presumed in and around the foundations and school yards. Additionally, when the evidence for site-formation processes were disturbed by the subsequent different uses or demolition and reconstruction phases of the sites, then the extant material culture might lose its integrity.

Structure foundations, privies, and school yards, the three kinds of features prevalent at schoolhouse sites, together with building-material debris, ceramics, and schoolhouse and school-yard equipment and toys, the three categories of artifacts, become the material correlates that identified the sites in these twenty reports. In terms of state-wide archaeological surveys or the eligibility-status for a National Register of Historic Places listing those questions about site location and site formation were valid approaches. For the project site, the Flushing Female Association School site, whose location and general site history are known, there needs to be another approach if it is to address questions about nineteenth-century education.

¹Although the Alexandria Archaeology project has not sought out school yards for excavating, it has uncovered backyard remains on two properties that housed, on one hand, an academy, and on the other, a school. In both cases the field testing found nothing (Pamela Cressey, personal communication, 9 September 1988). The Belle Haven Academy, on the 600 Block of Princess Street was a school for white upper class young women; and the Lloyd House on the 200 Block of North Washington Street was a Quaker school for a time (Pamela Cressey, ibid).
The potential archaeological site at the Flushing Female Association School is similar to many sites in the archaeological reports reviewed here, yet no report is really comparable. Nonetheless, the reports provide a background and considerations that can inform any study of the project site. If the project site has maintained its archaeological integrity, there can be a further understanding of nineteenth-century education by combining several of the following ideas from these twenty reports with a firm grounding in the historical and anthropological questions about the transmission of culture.

First, "it appears that only schools with exceptional integrity and sound historical documentation are likely to produce useful data" (Lacoste and Wall 1988, p.65). Bankoff (personal communication, 15 August 1988), Catts, Cunningham, and Custer (1983), and Cressey (personal communication, 8 September 1988) concur. Historical Perspectives, Inc.'s phase 1A study of the project site documented the Flushing Female Association School's development in terms of the Quaker women who ran it, and suggested the potential for archaeological integrity. If the potential archaeological data could address some questions about the Quaker women's approach to the education of blacks or the black students' response to that education, then history and anthropology would be another step closer to understanding the processes of private and public education that both socialized and liberated Americans.

Second, "unlike most other archaeological sites, deposition at a schoolhouse may be incidental and perhaps even unconnected with the activity for which the site is designated" (Gradie 1983, p. 19). Such a statement brings into question the ability of school-yard archaeology to perceive patterns, much less be brought to bear on historical and anthropological questions. Yet, even if the question-asking or thesis-testing deductive approaches do not apply, there may be a way for an inductive approach by data-gathering to be of value. As the bibliography attests and Mary Beaudry, LuAnn DeCunzo, and Pamela Cressey noted (personal communications, 8 August and 8 September 1988) little archaeology has been done in the Northeast on sites where black children went to school. For that reason, any archaeological information having to do with the activities of racial and ethnic minorities in school yards would add to the archaeological data base.

Third, reference to certain documentary data may alter some of the perceptions archaeologists have about such features as privies and such artifact categories as ceramics. Appendix 1
details the 1910 sanitary regulations for school grounds and buildings, New Castle County, DE and provides information about, among other things, where and how privies were to be built as well as the differences between girls' and boys' privies. The requirement that "school children must not use a common drinking cup, but individual cups must be used" might have a bearing on the ceramics found at schoolhouse sites.

Whether or not the Flushing Female Association School site has archaeological integrity is crucial to any consideration of field testing, particularly because, in the very best of circumstances, there will have to be a very clear idea about how the archaeological record can disentangle evidence from the Quaker-run, private school for free blacks (1820-1843); public-school for black boys and girls (1843-1887); and Quaker-sponsored civic organization for the black community (1887-1953). These activities took place in and around a frame schoolhouse (1820-1861) and a brick schoolhouse/building (1863-1953). It would be a shame, but it may just be that the Flushing Female Association School site is yet another example of a potential archaeological site at which nineteenth-century activities and attitudes that reflect broad historical and anthropological processes are no long available for research because of subsequent site disturbance and redevelopment.

\(^2\)Beaudry offered another explanation for the ceramics: they were used for metaling, that is ballasting, in these cases, for school-yard construction (personal communication, 8 August 1988). In the absence of the mention of coal and ash in the reports, it would seem possible that ceramics might have served as drainage and leveling agents. Poirier disagreed, citing that the shattered sherds were spread too thinly over Connecticut sites to provide metaling (personal communication, 11 August 1988).
RECOMMENDATIONS

"Schoolhouses are a unique historical archaeological phenomenon. They are not residences or places of manufacture. They are, rather, structures in which a specific segment of the population - children - are placed for a specific period of time to conduct a cultural activity which may have no specific material manifestation. Unlike most other archaeological sites, deposition at a school house may be incidental and perhaps even unconnected with the activity for which the site is designated."

(Gradie 1983, p. 19) The archaeological investigation of a school yard and/or associated features (e.g., privies) could yield artifacts (e.g., ceramics, nails, window glass) to assist in dating the time period that the schoolhouse functioned. Also, field investigations would most likely yield cultural material to identify the function of a suspected school-related site (e.g., slate, marbles, pencils). We know the exact location of the FFA schoolhouse, we know that the FFA site functioned as a school, and we know the time period it operated. Research questions relevant to site formation and site location are not valid for the FFA parcel.

There are, however, research areas that could very possibly benefit from further research of a well-documented and non-disturbed FFA site. These areas include: (1) cultural transmission channels and effects on specific affinity groups during the mid-nineteenth century; (2) Quaker educational theory and practices; (3) Quaker education for blacks; (4) private association/private school/privately-supported public school education for blacks in the Northeast. Consideration of such research possibilities demands a determination of the appropriate questions at the appropriate scale to be asked of the potential archaeological data at the FFA site. Can historical data provide the basis for this research? Most importantly for this LPC-directed inquiry, are there significant questions that material culture, in this case, archaeological data, can address?

However tempting these research questions may be, the FFA site integrity was severely impacted during the parking lot construction in the mid-1950s and the alterations approximately ten years later and, therefore, its archaeological potential has been compromised. As noted in the above discussion, such disturbances argue against the archaeological sensitivity of a site. For example, questions on spatial organization and division of the school yard could not be addressed since the school-yard ground surface was obliterated. Any grading of the school site would have truncated any of the school-era rear-lot features. Excavations of truncated features are an accepted and
frequently important method of field research. However, our analysis of a number of school site excavations indicates that the rear lot features (truncated or not) associated with nineteenth century schools will not yield data significant enough to warrant a full-scale field investigation.

An interview with Micahel Demitri of Ramp Consulting Services (personal communications, 9/6/88) who, during the mid-1950s, worked with the Engineering Division of the New York City Traffic Department, indicates that extensive leveling of the FFA site in preparation for the municipal parking lot would have obliterated a substantial amount of the schoolhouse, schoolyard, and associated features. Mr. Demitri speculates that perhaps as much as 20,000 to 25,000 cubic yards of earth were hauled away from the project site in an attempt to lower each lot to the level of the surrounding streets. Arriving to work on the parking lot construction after the demolition was completed, Mr. Demitri recalls extensive earth cuts through the project block. The account of such extensive leveling seems most probable considering the raised elevation of the school parcel prior to 1950, as revealed in pre-1950 existing photographs and informant interviews, and the current non-raised elevation of the parcel. (See Figures 1 and 2.)

The subsequent erection of the second tier at the parking lot further adversely impacted the school site. Two of the east-west running support pier rows cut through Lot 28. Each of the pier rows, resting on a continuous footing strip, would have

3Requests for the original plans and surveys used during the parking lot construction and later alterations have been requested from (1) Raymond Schaeffer, Operations Division of the NYC Traffic, Bureau of Parking; (2) Barbara Morgenbesser of the NYC Traffic, Bureau of Parking, Planning Department; (3) Renee Wertheim of the NYC Department of General Services; and (4) Andrew Platovsky of the Landscape Division of the NYC Department of General Services. As a result of these inquiries, only Mr. Platovsky was able to locate and forward to us two plans of the project site: (1) 1973 Topographical and Property Line Map of the Parking Field: Flushing #1, NYC Department of Public Works; and (2) 1977 Map of Reconstruction of Parking Field: Flushing #1, sheet 1, NYC Department of General Services.
required, at least, a 12' x 4' east-west running trench cut through this lot.

After reviewing a collection of school site archaeological reports, considering the archaeological potential and limitations of the FFA site in relation to previously collected and reported data, and determining the intact integrity of the FFA site, we feel that field investigations of the FFA site would not yield substantive archaeological contributions to our understanding of nineteenth century educational institutions, cultural transmission processes, or specific individuals and affinity groups.

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4 The description of the base foundation for the tiered parking lot is based on an interview with Mr. Michael Demitri of Ramp Consulting Services, previously of the NYC Department of Traffic/Parking (9/16/88), since no plans for this construction were located.
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Guarnieri, Catherine


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Note that eight-step elevation above the 38th Avenue curb.

A second paragraph depicting this pre-1950 topography can be seen in Kearns and Kirkorian's "Flushing Center, CEQR 86-337Q, Phase 1A Archaeological Assessment Report: Figure 23."
Photograph on loan from Helen Davidson Armstrong. Date unknown. View of the north side of 38th Avenue, looking from west to east.

Figure 2:  

Note the retaining wall and elevation variances between the building level and the street level.
SANITARY REGULATIONS FOR SCHOOL GROUNDS AND BUILDINGS 1910
(from Spaid 1912:6)

SANITARY REGULATIONS FOR SCHOOL GROUNDS
AND BUILDINGS
adopted by
STATE BOARD OF HEALTH AND THE NEW CASTLE COUNTY SCHOOL COMMISSION
in 1910

1. Every water-closet or privy shall be at least 100 feet from the school well or spring.
2. Every water-closet or privy shall be built over a "well" or "vault" at least three feet deep.
3. No water-closet or privy shall be allowed to fill nearer than 12 inches of the level of the surface of the ground.
4. All seats and floors in water-closets or privies must be kept clean by washing or scrubbing.
5. Every school shall have two water-closets; one for the boys and one for the girls, and the said closets shall be entirely separate buildings; and the said buildings shall be so constructed as to insure privacy, and the said buildings shall not be nearer to each other than 20 feet.
6. No stable, pig pen or other building, liable to become a nuisance may be placed within 200 feet of a school house or within 100 feet of any school yard.
7. No open bucket or vessel from which school children get water shall be permitted in a school. A closed bucket with a faucet or "cooler" with a faucet, shall be used.
8. School children must not use a common drinking cup, but individual cups must be used.
9. Children must not sit in school within six feet of the stove unless protected from the direct heat by means of a Russian jacket. A stove should be surrounded by a Russian jacket.
10. School children must not sit facing the window.
11. All windows must lower from the top and raise from the bottom.
12. All school buildings must be well ventilated, and never crowded.
13. Every school room should be kept at a temperature of 70 degrees in cold weather.

Spaid, A.R.
REPORT ON HOMELOT ARCHAEOLOGY

FOR THE

FLUSHING CENTER PROJECT, NEW YORK
INTRODUCTION

The Phase 1A Archaeological Assessment Report for Flushing Center determined that the potential for material culture resources from nineteenth century homesites existed on the project site. To investigate this potential prior to recommending subsurface testing, the New York City Landmarks Preservation Commission (LPC) requested that an extensive documentary study be made. The object of this research, which is summarized below, was an attempt to locate specific residential lots within the project boundaries that might possess potentially significant, intact remains reflective of a particular nineteenth century Queens neighborhood.

There were certain general criteria which LPC established for the selection of archaeologically sensitive backyards/homelots. Because of the paucity of data about the lifeways of nineteenth century residents of Queens—especially particular affinity groups such as blacks or immigrants—LPC is interested in obtaining information from backyard features such as privies, wells, or cisterns which were in place before the introduction of municipal utilities to the project site. One decade of continuous occupancy by a black family, or two decades of single family residency during the period before known installation of sewers and water lines would qualify any given houselot for field testing for intact resources unless subsequent subsurface disturbance could be ascertained.

Subsurface Integrity

Detailed census, atlas, and deed research was not conducted on those lots that a review of nineteenth and twentieth century atlases proved to be clearly disturbed. (For example, a 1917 atlas shows S. Zocks Soda Water Works covering two lots.) One criterion for "disturbed" was the documentation of the existence of structures of more than one story in the rear yard of any individual lot, if these structures were non-contiguous to the lot-front dwellings, and therefore, impacted the rear lot area. With one exception, those homelots that hosted two story secondary dwellings and/or two story shops were excluded from further consideration. The small size of the backyards could hardly withstand two such non-contiguous substantial construction episodes and still retain sufficient subsurface integrity to warrant field testing. Those lots which contained one story outbuildings such as stables or sheds were not excluded during this preliminary review.

The second criterion for judging subsurface integrity was an evaluation of the disturbance that was caused by the demoli-
tion that preceeded the construction of the parking lot in 1954, as well as the building process itself for the construction of the parking lot and its later alterations (c.1965) and improvement. Despite an intensive and extensive search during the Phase 1A study in 1986 (see Appendix 2 of that report) and again during the preparation of this report, no plans or drawings or any kind of written description or specifications for demolition or construction of the parking lot could be found (with the exception of plans for the reconstruction of the eastern portion in 1977). Michael Demitri of Ramp Consulting Services, who was previously with the NYC Department of Traffic/Parking, described what he assumed to be the impact zone of tiered parking lot foundation based on his engineering experience, but no conclusive evidence can be advanced pending subsurface investigation. Therefore, the initial screening for subsurface integrity was made without consideration for demolition/construction impact. This problem is addressed, however, in the section on recommendations for archaeological testing of the selected homelots.

**Dates of Sewer Connection**

Exact dates of sewer connections are impossible to find, according to Queens Borough personnel. A map furnished by the Sewer Department shows that in 1918 sewer lines ran along Union, Washington, Main, and Lincoln (38th) Streets. No earlier records exist to show whether or not hook-ups were possible in the nineteenth century. (Running water generally became available in the 1890s.) In this case, even if specific dates of availability were known, they would be misleading since there is evidence that connections did not take place until well into the twentieth century, if ever. This is probably because of the cost to the owner or tenant of installing indoor plumbing facilities in old housing stock of which the project area mainly consisted. For example, an Alteration Permit was found which, in 1942, proposed to install two water closets in a house on 38th Avenue (Lincoln) whose waste would be disposed of "in the public sewer." Entries in the Minutes of the Flushing Council of Women's Clubs during the 1940s and 50s substantiate these conditions. For instance, numerous references are made to "no bathroom," and "outside bathroom," or the use of an "excretor." (See Appendix 1) Helen Armstrong, who lived on the block in the 1920s and 30s also corroborated the situation when she recalled that most of the houses had running water, though only cold, and that many did not have indoor bathrooms. In some cases, she remembered, several families might share one outhouse. (Personal communication, 9/88).

Assuming that any backyard on the project site may have had a privy in use during the nineteenth century, and accounting for
known subsurface disturbance by multiple structures, twenty-two lots were subjected to thorough archival scrutiny. Of those, five lots were finally chosen as meriting testing for the existence of significant resources based on length of residency, period of occupancy, and affinity group status. The following "Methodology and Limitations" section details the degree of research completed. Also, abbreviated histories of the five lots finally selected are included. They have been drawn on the Site Plan.
METHODOLOGY AND LIMITATIONS

Research was begun with insurance atlases from the collection of the Long Island Division of the Queens Borough Public Library (hereafter QBPL), particularly Sanborn 1917, vol. II, pl.3 which provided the house numbers used to identify residents in censuses and directories. In an effort to confirm correlations between lot and house numbers and to trace building configurations over time, a number of other atlases were used. The information contained thereon at times varied slightly from atlas to atlas, and some of these inconsistencies could not be resolved. Atlases examined included: 1873, F.W. Beers; 1886, Sanborn; 1891, Wolverton; 1892 and 1897 Sanborns (on microfilm in the New York Public Library); 1904, E. Belcher Hyde; 1929, Hyde; 1932 (corr. from 1926) Hyde; 1941 (corr. from 1926) Hyde; and 1949, NYC Housing Authority Damage Map.

As reported in the Phase 1A evaluation, the A.M.E. Macedonia Church papers, e.g. burial records and membership lists, were all lost earlier this century. However, a list of the original incorporating trustees of the church has survived (see Phase 1A report, p.58). Attempts were made to identify these early members of the neighborhood church during the atlas and deed research.

Census Data was collected in the QBPL. Examined on microfilm were the Federal Censuses of 1910, 1900 (the 1890 Census is missing), 1880, 1860, and the New York State Census of 1915. The census takers before 1900 did not bother to fill in the columns made available for street names and house numbers, and therefore they are not useful in identifying residents of the study area. The 1860 census was nevertheless scanned for the names of residents believed to be present in 1900 and earlier (from business directories), but none could be identified except for Abraham and Ann Van Notwick (Nottrick, Notrick) and their son George. Furthermore, the data for some sections of the study area was not collected, or is missing. However, there is no indication that any section of these censuses is missing. The 1915 State census lists nothing from the lots (21, 22, 25, 26, 27, 30, 37) on the south side of 38th Avenue (Lincoln). Other lots are occasionally omitted as well. When the data is present it reveals useful information about age, offspring, ethnic and geographical origins, occupation, education, home ownership and family groups.

Another source, useful in filling in the gaps between the census data is business directories. Published fairly frequently, usually every year, business directories offer information between census years, a sort of "fine tuning" for
changes in residence and occupation. They often reveal place of business as well as residence, something not provided by the censuses. These were sought in the collection of the QBPL, the New York Historical Society (hereafter NYHS), the Brooklyn Historical Society, the Queens Historical Society and the NYPL. Located in the collections of the QBPL were Trow's directories of Brooklyn and Queens, for the years 1912, 1908, 1906-7, 1904, 1901, 1899 and 1898; and Curtin's directories of Long Island for 1868-9, and 1865-6; and F.A. Richmond and Company's Flushing Directory of 1887-1888. The NYHS provided Lain and Healy's Brooklyn and Long Island Business Directory for 1897; the Flushing Village Directory published by The Flushing Journal in 1890, and Boyd's Flushing Directory for 1891-2. Arranged alphabetically by last name, each directory was gone through methodically - page by page. When the address that matched that of one of the lots chosen for deeper examination was found, the information was recorded. However, these volumes are not necessarily inclusive of the entire community, or even all heads of households. [In his study of Newburyport, Massachusetts in the period 1850-1890, Stephan Thernstrom found that 45% of the laboring families who appeared in the 1850 Census did not appear in two supposedly comprehensive community directories published in 1849 and 1851. He attributes this partly to the high mobility of unskilled laborers, who had to move frequently to find work, and the fact that the compiler "did not know about or did not choose to include many working class families in his volumes." He finds a similar situation in the local press. The lower classes were only noticed when they "disturbed the peace or swelled the relief rolls." Although many laborers lived in Newburyport, they were not members of the community (Thernstrom 1964:31-32.) Secondly, the directories of 1878-9 and earlier do not provide house numbers, which makes it difficult to pinpoint place of residence with any certainty (e.g. from 1865-6: Townsend Georgianna, h[ome] Liberty n[ear] Main). Therefore, names of people present in 1898 and 1899 were looked up to determine if they had been present earlier.

The census data indicated that seven heads of households of those lots studied in the project area owned the buildings in which they lived. Therefore, deeds from the Bureau of Real Property in Jamaica were examined. The ownership of these lots was traced as far as possible. Some could not be traced because ownership did not change during the twentieth century, before the properties were taken over by the City, and as a result their deed libers and page numbers do not appear in the Grantor/Grantee books (for the 20th century arranged by land block number). The alternative is to systematically sift through the earlier Grantor/Grantee volumes organized alphabetically, but also by date, hoping to come across a land transaction. This
was not attempted because of the questionable value of the data in comparison to the time expended. Of the seven lots which were owned by their occupants according to the 1910 and 1900 Census, four are considered archaeologically sensitive for reasons outlined above. They are: Lot 20, 119 Washington - Thomas F. Manning (1910); Lot 53, 152 Lincoln - Timothy Devine (1900); Lot 65, 124 Lincoln - Abby J. Willard (1900 and 1910); and Lot 27, 133 Lincoln - Andrew Barney (1900).

When examining the lot histories compiled for the five archaeologically sensitive parcels, the reader should keep in mind the following notes on interpretation, particularly with respect to census data:

1) Kinship terminology - refer to head of household, the first person named.
2) Families not racially mixed except where noted.
3) Person literate except where noted.
4) Place of birth of parents the same as offspring, except where noted.
5) Boarders live with families, renters rent apartments from owners; therefore, renters can have boarders, but not vice-versa. [It was interesting to find that there was a boarding house on each street - William Burn's at 150 Washington, and William Johnson's at 136 Lincoln - listed in the 1897 Lain and Healy business directory which did not have a residential section, but listed people by trade.]
6) Census spelling of names is retained from the original. There were a few inconsistencies with ages and immigration dates and even death dates.
Lot 27 - 133 Lincoln

1915 not listed
1912 Barney, Andrew S. (machinist/smith)
1910 not listed
1904 Barney, Andrew S. (furniture - secondhand)
1900 Barney, Andrew 37, black-NY, machinist, owns house (mortgage) (wife Ida 27 (3 children, 3 living), NY; 2 sons Andrew 6, Edward 1; daughter Emma 2).
1897 Miss Barney employment bureau
     Smith, Mary E. dressmaker
1891-2 Smith, John L. driver
     Smith, Mary E. dressmaker
1890 Smith, John L. driver
1887-88 No Smith
     Barney, Andrew S. machinist #133 Lincoln
     Charlotte E. dressmaker #133 Lincoln
     William coachman, #133 Lincoln
1860-73 M. Luyster (map)

No deed transactions were found.
Lot 65 - 124 Lincoln

1915  not listed

1912  Willard, Abby J., widow Adam


1906-7 & 1901  Willard, Abby J., widow Adam

1891-2  Willard, Abby

1890  Garnett, Miss Ellen
      Robinson, Mrs. Elizabeth widow
      Willard, Abby J. widow

1860-73  L.(?) Witter or Witler. [Willard?] (map)

Results of Deed Research:

Lot 65 124 Lincoln

Lot 65 was the easterly 30' of land conveyed for $550 by Eliza Peck of Greenwich, CT to Henry Brown of Flushing, "a coloured man" on April 11, 1835 (L HH p.466). "Beginning 420.38' E of Main Street, the original plot was 60' by approx. 85', bounded on the east by the land of Isaac Corse, a coloured man; on the north by Isaac Stansberry, dec'd and the Methodist Society; and on the west by Daniel Lowerre dec'd". (L HH p.466).

NOTE: Although this lot did host two dwellings during the part of the nineteenth and twentieth centuries, the placement of the rear dwelling suggests an undisturbed area in the extreme north of the lot that is considered sensitive for homelot archaeology of a particular affinity group during the mid-nineteenth century. The opportunity to study backyard features (e.g., cisterns, privies, and wells) from a documented, black family of this time period far outweighs the possibility that house-to-feature association may be difficult.
Lot 53 - 152 Lincoln

1915  not listed

1912  Dee Patrick (clerk)
      McEnroe, Christopher (driver)

1910  not listed

1906-7  Devine, Ann, widow Timothy
        Gargan, Joseph (laborer)
        Hall, William (laborer)

1904 & 1901  Devine, Ann wid. Timothy
            Gargan, Joseph (laborer)

1900  Devine, Timothy 65, white-Ireland (imm. 1870),
      laborer, illiterate, owns house (wife Ann 57 (2
      children, 0 living), Ireland, illiterate; sister Joyce
      Rose 60, widow (1 child, 0 living), illiterate; Hall,
      William 70, widower, Ireland, day laborer, rents
      (stepson Garegan, Joseph 30 NY (parents Ireland), day
      laborer).

1899  Devine, Ann widow Timothy

1891-2  Devine, Ann widow Timothy
        Langan, Catherine widow Michael

1890  Moore, Rev. Charles AME Church
      Devine, Mrs. Timothy widow

1878-9  Devine, Ann, wid. (Lincoln) [Timothy Devine (laborer)
       home Garden near Church 1868-9].

1868-9  Devine, Timothy (laborer) home Garden near Church

1860-
1873  I. Titus (map)

Results of Deed Research:

Lot 53 152 Lincoln

On November 16, 1869, Timothy Devne of Flushing purchased
the land of George Henry Titus, Ann Amelia Titus, Josephine
Titus and Condon T. Titus at a public auction for $730. It had
a 30' frontage on the north side of Liberty (Lincoln) Street, and was 98.5' deep, bounded on the east by land of the late Charles Lawrence, on the north by Andrew Cock of New York City, and on the west by the heirs of Daniel Lowerré (L 315 p.162).

With the death of Timothy Devine, his will (of December 16, 1875) left the property to his widow, Ann Devine and it was somehow conveyed through St. Michaels Church [acting as executor or guardian??], since L 1594 p.237 has St. Michael's as grantor, and Ann Devine as grantee.

When Ann Devine died, the property was inherited by Christopher J. Mackinroe and his wife Susan (who are probably the same MacEnroe's that owned Lot 56) by a will dated November 11, 1908. Mackinroe sold the property to Lawrence Halleran of 60 N Prince St. for $1500 on December 12, 1914 (L 1980 p.50), and it was identified specifically as Lot 53. In 1925 Halleran sold the land to Philip S. Beverly of 154 Lincoln Street (L 2746 p.35320).
Lot 57 - 144 Lincoln

1915 Powell, Oscar 60, black-US, gardener. (nephew Williams, Frank 22, gardener).

1910 Jenkins, Joshua 41 mulatto-NY, driver-coal comp., rents (wife Mary J. 32, VA; son Joseph 12, NY, at school; 2 daughters Alicia 6, at school, Matilda 2, NY; boarder Washington, Edna 18, mulatto-VA, cook-private family; boarder Hall, Adaline 20, mulatto-VA, cook-private family; boarder Sturgis, Elizabeth 16, mulatto-VA, nurse).

1906-7 Byrnes, Reuben (cleaner)

1906. P. Sellers, owner (NB#2706-06 two-family house)

1904 & 1901 Byrnes, Reuben (cleaner)

Van Nostrick, Ann L., widow Abram.

1900 Van Nostrick, Ann 75, widow (4 children, 1 living), black-NY, rents (niece Hunter, Ann L. 40, widow (1 child, 0 living), NY, cook; son Jeremiah 13, at school; son Archald [Archibald?] T. 4; boarder Burnes, Reubin, black-NY (parents WI-NY), tailoring).

144 Lincoln

1891-2 Byrnes, Reuben clothes cleaner
Van Nostrick, Ann L. widow Abram

1890 Byrnes, Reuben shoemaker
Van Nortrick, Ann Louisa widow
Hunter, Margaret Ellen widow

1878-9 Van Nortrick, Ann, widow (on Lincoln)

1865-6 Vannortrick, Abraham (porter) Liberty (changed to Lincoln) near Union.

1860-1873 P. Helm[?] (map)
1860 census, no address, Van Notwick, Abraham 40, black-NY, laborer (Ann 38, mulatto-NY, illiterate; George A. 12, mulatto-NY, at school).

No deed transactions were found.
Lot 20 - 119 Washington

1915 MacCardell, George B. 38, white-US, file(r) - machine shop (wife Sadie 34; daughter Bessie 14, at school; son Charles 5).

1912 MacCardell, George D. (driver)
Nyberg, Charles E. (fitter)

1910 not listed

1909 Carrington, B. owner, address Washington Street [not premises] (NB#3209-09 erection of a store).

1906-7 Manning, Thomas F. (smith)

1904 & 1901 Manning, Thomas F. (smith)

1900 Manning, Thomas 47, New York (parents Ireland), tinsmith, rents (wife Mary 41, (5 children, 4 living), New York (parents Ireland); 2 sons and 2 daughters ranging from 7 to 12, at school; mother May 77, widow (4 children, 1 living), Ireland (imm. 1852).

1899 & 1898 Manning, Thomas (smith)

1891-2 Manning, Thomas F (tinsmith)
Manning, Mary widow Thomas [?]

1890 Manning, Thomas (tinsmith)

1887-8 Manning, Mary widow Thomas

1878-9 Manning, Mary dressmaker (no house number, on Washington)

1860-73 E. Stansbury (map)

Results of Deed Research:

Lot 20 119 Washington

Annie Warner of Yonkers sold Lot 20 to Mary Manning of Flushing on May 14, 1884, for $2,025. The property was 30' front and rear and approximately 150' on each side. On the
east [and south?] the landowners were Robert Smith and the Methodist Church Society, and to the west the late Henry Warner "sometimes written Warren" (L 632 p.139).

The property remained in the Manning family until July 7, 1920, when Thomas F. Manning, sole heir of Mary Manning, sold it to Joseph Charles Brown and Byrl Winfred Harrison who lived at 77 W. Bradford Ave. for $100 (L 2297 p.140).
DISCUSSION

Apparently, a great deal of work on late nineteenth century cities and suburbs has centered on Massachusetts, perhaps because of the good records, and of course because of the industrial expansion in the area.

In the period before 1850, city size was limited by the prevailing forms of transportation. "One can only conjecture just how large metropolitan Boston would have grown had there been no invention of new communication devices. If the spread of the city had begun to exceed the distance a man might walk in about an hour, say a three-mile radius, the shops and offices of the metropolis would have fallen out of easy daily communication with each other." Also, duplication of facilities and services would occur in different areas around the city. "One of the principal contributions of nineteenth century transportation and communication technology was to preserve the centralized communication of the walking city on a vastly enlarged scale" (Warner 1978:15-16).

In the "walking city" ca.1850, and in the metropolitan region in general, there was relatively little segregation by social class. The well-off lived near the working class barracks and tenements. Artisans combined shops and homes, and the middle class lived near the factories, offices and wharves. Peripheral areas (by which he refers to the out-lying towns of Roxbury, Dorchester and West Roxbury, but without too great a stretch of the imagination can be applied to Flushing) imitated the central city, in this respect. Architecturally they still followed 18th century styles of construction, namely wooden detached houses, smaller and cheaper to build than town row houses, of which several were often crowded on narrow, small plots. These structures were "products of a class of people who had yet to earn wealth, had yet to learn the modes, of city life" (Warner 1978:18-19). These strongly urban-looking settlements were suited to a city short of land which "depended on peoples' walking for its means of transportation." (Ibid.: 20).

In Massachusetts (and around urban centers throughout the country) in about 1850, the complexion of the city and the periphery began to change. The introduction of the horsecar made it possible for the middle class and the wealthy to abandon the walking city, leaving it to the lower and lower middle classes, making the radius of 2 to 2.5 miles from Boston's city hall a "region of cheap secondhand housing" (Ibid.:46). In the early years of horsecar service it often cost more than one fare
to travel crosstown. But in the 1870s and 1880's the rising prosperity of the middle class and the greater efficiency of the streetcar meant that they could travel through and around central Boston for 10¢ to 16¢ a day. (Ibid.:56). The wealthy were able to afford transportation outside this area, and could build country homes at the outer limits of street railway service [as contrasted with the smaller zone of crosstown railway service] (Ibid.:63). However, a move to the wholesome suburbs was beyond most of the lower middle class, who could not afford to live beyond the limits of crosstown transportation (these included small shopkeepers, skilled artisans, better paid office and sales personnel, who before the horsecar, walked to work). "For such men to move beyond crosstown street railway service meant to greatly increase the time consumed in getting through the city and thereby to severely tax there ability to make a living" (Ibid.:56).

As a result of the revolution in transportation, there were now "distinctly 'bad' neighborhoods," concentrations of poverty. This "new working class" clustered near their workplaces, eg, the central business district. The ordinary worker paid rent each month for lodgings, a few rooms or even a small house. Ca. 1850 anywhere from $60 to $100 a year might go for rent. One investigator's report of a tenement in Newburyport is as follows: "The rear of the house was 'very disagreeable,' with 'the sinkwater' running through a yard heaped with ashes and rubbish. 'The inside of the house is nearly as disagreeable as the outside, for the floors are bare and furniture scanty.'" (Thernstrom 1964:29) [Flushing conditions seem to be much better than this, until the second quarter of the twentieth century.] The laborers were mobile, a "floating" labor pool, who would settle in Newburyport for a few years, and then move on to where jobs were more plentiful (Ibid.:85-87). Of 2025 families recorded in 1849, only 360 of them were still present in 1879 (Ibid.:168). This sort of turnover was not unusual, and was higher in other areas, such as Rochester, NY; Lowell, MA etc. (Ibid.:198-199).

A not too tenuous comparison can be made with Flushing in the period 1865-1915. Lincoln and Washington Streets were a residential area of lower middle class and laboring class people, mostly immigrants and blacks. The censuses reveal a small range of occupations, e.g. clerks, coachmen, teamsters, cooks, tailors, drivers, washer women and day laborers, who lived less than a block from Flushing's central business district. Some lived over stores, a barber shop or saloon, and their neighborhood was ringed with more and more substantial homes as one left the town center. Although an examination of business directories shows that some Flushing residents lived
and worked in New York City, these were lawyers, and prosperous businessmen, who were able to afford country houses or the commute on the Long Island Railroad to Hunter's Point, the 34th Street ferry to Manhattan, and a streetcar to Lower Manhattan (advertisement, Lain and Healy's Brooklyn and Long Island Business Directory, 1897). The lives of the residents of Lincoln and Washington Streets were necessarily centered on Flushing, the area in which they could do their shopping, go to work, attend church etc. on foot, or perhaps cross town on a streetcar line.

The dwellings were wooden detached houses, on fairly narrow lots, often with additional houses at the rear [similar to the description of peripheral housing of the pre-street car period.] Of the parcels investigated, only seven residents in 1900-1910 owned their own homes. However, our figure may very well be skewed by the fact that only lots which were less built-up were chosen for study. Perhaps the people who lived on them were more prosperous? [Thernstrom (p.28) reports that only 18 of 191 laborers present in Newburyport in 1850 owned any kind of property.] In order to make ends meet, many renters had to take in boarders. This was so prevalent among the poor and working class families that it upset reformers who wished to regulate family life and particularly stamp out communal living habits. Model tenements were thus built with small rooms to discourage this practice (Wright 1981:125).

Just as there was relatively little segregation by social class in the "walking city" of the 19th century, so too ethnicity seems not to have been the major factor in demographic living patterns. At least that is surely the case in Flushing during the period from c.1860 - 1915 about which the most information was gathered during the lot history research. Blacks, mulattos (a U.S. Census designation), and whites all lived on the project site. The whites tended to be immigrants or children of immigrants, particularly from Ireland. This balance gradually shifted until by at least the 1940s and 1950s the project site, particularly the Lincoln (38th Avenue) frontage, was predominantly black.

As for the earlier decades of the 19th century, there are bits of evidence, but not enough to make a definitive statement as to whether or not the project site was part of a distinctive black enclave. The Macedonia African Church bought property on 38th Avenue (Liberty, Lincoln Streets) in 1811 and erected a building in 1837. Deeds of land purchased by the Flushing Female Association in 1819 and 1821 refer to one of the boundaries as being the property of "Black Eleanor." The FFA built their school for black children in 1821. The earliest
cartographic evidence is the 1841 Elijah H. Smith map which shows a number of small frame dwellings in place. The owners' names, written across the lots are by and large old Flushing names such as Fowler, Lawrence, Loweree, Smith, and Silliman. But owners are not necessarily occupants, who could have been black. Of particular interest is the name written in the lot on the southwest corner of 38th and Union - "J. Renter." In 1867 the Long Island Times ran an article about "Uncle" James Renter, a black man who had lived at the corner of Union and Liberty (38th) for many decades. He built his home himself in 1807, and, at the time the article was written, lived at the "extreme end of the African settlement." (Long Island Times, Oct. 16, 1867) We were able to locate a few property transactions from the first half of the nineteenth century from or to black landowners. But there are enough transactions among whites to make the assumption of a solid black neighborhood too risky an extrapolation.

This is an instance where the method of tracing history through documents breaks down because of insufficient data. It may be that archaeology can supply some of the missing information through the retrieval of material culture. We were unable to definitely identify a lot which hosted a pre-Civil War black family (James Renter's corner lot was taken by street widening), and therefore could not recommend testing any specific locus for that special purpose. However, it is possible that the lots chosen for their archaeological sensitivity in the later decades of the nineteenth century will contain deposits from an earlier era.
RECOMMENDATIONS

Based on criteria developed during consultations with the New York City Landmarks Preservation Commission archaeologist, several lots in the Flushing Center project site were identified that have the potential to contain significant cultural resources. These are Lots 20, 65, 57, 53, and 27. The approximate location of these lots on the current landscape is shown on the Site Map, and their locations before the present parking lot was in place can be found on the 1949 Damage Map. (Lot numbers are underlined - sensitive lots are in bold.) Lot 20 was owned and occupied by the Manning family (Irish) from c. 1878 to at least 1907. Lot 65 was in black ownership from 1835 through at least 1912. For many of those decades it was owned and occupied by the Willard Family, although it is not possible to tell exactly how long from documents. Lot 57: the Van Nostrick (various spellings) family resided here from c.1860 to c. 1900. They were black. Lot 53: Timothy Devine, an Irish immigrant, bought this lot in 1869 and his family lived there until c. 1910. Earlier inhabitants are unknown. The known dates of the occupancy and ownership of Lot 27 by the Barney family (black) are 1887-1904.

The five lots were among a group of twenty-two originally selected for intensive investigation after an initial screening for subsurface disturbance. The initial screening did not take into account disturbance which may have been caused by demolition and building activity for the two-tiered Flushing Parking Field. Though no actual documentary evidence can be found, we do have eyewitness testimony and engineering suppositions. According to long-time residents Jay Williams and Helen Armstrong, an enormous amount of grading was done since the project block had a very uneven topography. They recalled some houses which were so far above street grade that they required concrete retaining walls several feet high. (Personal communication, 9/86) Michael Demitri of Ramp Consulting Services, who worked on the parking field construction in the 1950s, confirmed that many thousands of cubic yards were hauled away from the site before construction. Mr. Demitri also speculated that the eight rows of support piers running east-west under the two-tiered portion of the lot may each have a building trench of about 10-12 feet wide and about 4 feet deep. The locations of these trenches were plotted on the Site Map. They should impact Lots 20, 65, 27, and part of 57. A reconstruction of the eastern portion of the parking lot took place in 1977 and affected Lot 53 and part of Lot 57.

Only one set of five soil borings could be found. Three of the borings were in or near sensitive lots and show about 8 feet
of "fill." Of course, what has been labeled "fill" may be the archaeological resource itself; there is no way to tell without underground testing. The main value of the soil boring logs is that they indicate to the archaeologist that he may expect to find whatever backyard features still exist - whether truncated or not - within eight feet below the blacktop, and can direct his crew or machine operator with that probability in mind.

We recommend that the actual testing strategy for the homelots reflect the possibility that all cultural resources may have been obliterated by previous construction activity. That is, some decisions about procedure could be made once the archaeological crew is in the field depending on the subsurface conditions encountered. For example, the blacktop should be carefully removed by machinery, but whether to continue with machine excavation or change to hand excavation techniques would then be determined by what is found under the blacktop. If, for instance, heavy, bulky fill is right below grade, it would be more expedient to remove it with machinery monitored by an archaeologist. Similarly, it would be inefficient to require that all excavated material be screened if much of it is fill or construction debris. If and when features are encountered, they should be hand excavated with approved, standard archaeological techniques. Finally, we recommend that after the approximate locations - and they will be approximate - of the sensitive lots are staked out, that Lot 57 be tested first unless there are circumstances which dictate otherwise. Lot 57 should have been impacted both by a support pier trench and by the 1977 reconstruction; it could therefore furnish valuable clues as to what to expect at the other testing loci.
BIBLIOGRAPHY


APPENDIX 1

Flushing Council of Womens’ Organizations

Minutes, 6/4/49 - 2/18/54

This Council and specific committees of the group were active in downtown Flushing during the mid century. According to these official minutes, made available by the current Council president, their objective was to "work toward slum clearance, maintaining the church [A.M.E. Macedonia] intact, and securing precedence in housing of displaced people [moved from the project site block]." (Minutes 10/49). An apparently shared activity of the Civic Planning, Housing, and Housing Investigation Committee was inspecting the downtown housing and filing housing violation complaints with the Borough Buildings Department. This volume of minutes was reviewed for information pertinent to the individual project block homelot characteristics but lot-specific data was not included.

Committee Reports, 1947 - 1957

A review of the available Council committee reports revealed information about a portion of the project site homelots on 37th and 38th Avenues. The following notes were taken directly from these reports.

[Housing Committee (6-17-1947)]: "glaring violations," "use of outhouses in city limits . . . main area at fault, 37th and 38th Avenues near Main Street has had 45-50 violations within the past few weeks." Condition of houses has caused an undesirable element to filter into Flushing. (Page 2)

...danger that rezoning might become "an effort to be rid of the Negroes in the community." Galloway (Rev.?) "spoke of Southern Negroes being brought up from the south by the carloads and forcing the old established Flushing Negroes out of the neighborhood." (Page 3)

[Meeting of 6/26/1947]: outside bathrooms only a violation when house has running water "only one house on 38th Ave. that had an outside bathroom." Overcrowding mentioned. (Page 6)

"Only a project can eradicate the conditions that have arisen - gambling - saloons - the possibility of an organized ring of prostitution - all merely symptoms that clean good living plus constant investigation would abolish." (Page 7)
[Housing Investigation 136-77]: 38th Avenue: Owner: Goldhaber; Tenant: Mrs. Jackson, rent $25 per month, provides own heat, LR, 2 Bedrooms, Bathroom and Kitchen. Description: cracked walls, roof leaks, no pane in bathroom window, no bath, oil heater, coal stove, floor broken, drain from sink leaks. Tenant young girl slovenly dressed with 2 children 4 and 6, living there since October (investigation 6-20-1948), aunt lives next door. (Page 15)

136-84 37th Avenue (4-20-1948): 2-family house, poor condition. 136-85 37th Ave. very neat and clean, occupied by a practical nurse. 136-89 37th Ave. Mrs. Wesley (Mrs. Valles' laundress) upper floor of poor house, lack of paint, outside wiring, broken windows, etc. - asked to vacate for renovations, but has nowhere to go, husband just out of hospital. (Page 20)

136-65 37th Ave. Mrs. Atkins (nurse from above): 3 rooms, no bathroom, cold water. "Woman smart looking, intelligent, can afford better, but can't move because she is black. Has suffered numerous instances of discrimination. Upstairs neighbors constantly throwing rubbish in backyard, stench in summer. (Page 30)

[Civic Planning Committee]: investigating (4-17-1951) home of Mrs. Irene Johnson at 136-37, 37th Avenue (rear). Stepfather and wife at home, outside toilet, $16 a month rent. (Page 42)

136-31 37th Avenue (10-16-1951): violations, porch repaired, rodents, plaster falling in hallway - Dept. of Buildings reluctant to condemn. (Page 43)

137-11 38th Avenue (11-20-1951): Mrs. Purdy, hole in the wall repaired, not painted in 30 years, rodents seen. (Page 46)

5-20-52: Dumping on empty lots. 4 days after clean up by Dept. of Sanit. dumping starts again. (Page 56)

Complained to police "about tramps sleeping on 38th Ave. part of parking lot to be, maybe. Also reported cases of vandalism. (Page 58)

136-19 38th Avenue Rufus F. Bivens, tenant (4-21-53).

136-17 38th Avenue owned by Julius and Sarah Aptowitz. Bivens' live on 2nd floor, $40/month for 5 rooms, own heating. Here since 1944 - old gas hot water heater, but afraid to use. No hot water from coal stove in summer, therefore no hot water period. Rain comes in 2 rooms on west side of building, down
drains appear to be faulty, sky light window in east back bedroom leaks. (Page 77)

136-26 37th Avenue: Tenant, 1st floor west, Rose Levy (owned by the Aptowitz's) 4 apts. in bldg., house seems to lean - ceiling uneven - water leaks on bed in back bedroom - standpipe from roof must leak. Electric wire in metal cable in bedroom, old water closet, but private, no tub.

136-26 37th Avenue (rear): Mrs. Virginia McClery, 2nd floor tenant. Hall needs replastering, pot stove in cellar - hot water not available because pipe leaks. Pipe in bathroom taped up. "Duke" tenant on 1st floor uses same toilet. [Page 78] Duke's are related to the McClery's. Caroline Cooper the cellar tenant, elderly lady related to the Duke family. Uses same toilet facilities. Kitchen: 1 side is unfinished cellar wall, old air heat furnace not used now, sink with pipes all tied up indicating worn pipes, electric cable outside. Holes or rotted out spots in floor, walls drip on damp days. Porch railing bad, rats.

136-29 37th Avenue: East areaway and back yard full of bottles and junk also lot to west. Apt. above store.

136-35, -37 37th Avenue: Store front, tenant Alice E. Eato, owner Mrs. Pohler. Apt. entered from side floor [door?] and rear. 2nd floor kitchen, coal stove, stove pipe runs across room to chimney "fire hazard!" Plaster not too bad, attempt to close broken windows with glass - not in frame though. Property listed for sale.

136-51 37th Avenue (Max Ruigel 137-28 Northern Blvd. owner or manager) A.C. Chisholm - tenant, Hall ceilings and wall bad, 3 front windows, all broken - fixed with boards, decorating needed in flat, worn steps. First floor - did not see flat. Toilet in cellar, no bathtub, reported habitable by Dept. of Health Feb. 1952.

136-59 37th Avenue: Junk in front of lot east of house.

136-65 37th Avenue: Atkins tenant.

136-75 37th Avenue: dressmaker tenant. MacGrothy has purchased these - will be demolished very soon.

136-26 37th Avenue (1-18-1954): tenant, Lillian Stevens - $32.50 a month from welfare, rent raised from $20 to $23. Lived there 11 years, walks with deformity - shoes cost $92.50, bought by
her nieces. Attends St. George's sometimes. Council wrote to Rev. Maclean. (Page 89)

136-26 37th Avenue (rear) - use relief money to repair landlord's house. The "excretor" is poured in hole and buried. Mr. Lowry and family moved to Flushing from Manhasset because of new road, Mr. Lowry has fractured wrist. (Page 90)

136-26 37th Avenue (2-16-54): Miss Stevens wants a toilet, leaks and skylights repaired. "(was ashamed when inspectors arrived and clothes were hanging in big room.)" Excretor had been poured in the yard, ground frozen so couldn't be buried. Owner: Mackinsey was ordered to build a toilet 2 yrs. ago - in summer tenants close windows.

Mrs. Sarah Aptowitz [owner mentioned above] has litigation against her from tenants in Kew Gardens. (Page 93)

136-29 37th Avenue (3-19-1957): Male body discovered in bldg. Lower and top floors "unfit for human habitation." (Page 121)
REPORT ON THE A.M.E. MACEDONITÀ CHURCH
GRAVEYARD BUFFER ZONE RESEARCH
FOR THE
FLUSHING CENTER PROJECT, NEW YORK
INTRODUCTION

The New York City Landmarks Preservation Commission (LPC) accepted in 1987 "Phase 1A Archaeological Assessment on the Flushing Center" prepared by Historical Perspectives, Inc. This assessment noted three specific areas of archaeological sensitivity within the project site. In order to minimize the fiscal and scheduling burden on the Flushing Center project developers, LPC has required, prior to Phase 1B field investigations, a second level of topic-intensive research for the Flushing Center project. At a meeting with Sherene Baugher, LPC archaeologist, the three areas of archaeological concerns were identified, one of which was the undetermined perimeters of the A.M.E. Macedonia Church (A.M.E.) graveyard that is known to have existed on Lot 46 of Block 4978 during the nineteenth and twentieth centuries. Although the Flushing Center project construction will not directly impact the A.M.E. structure or property, as it is currently fenced, there is real concern for adverse, secondary impacts on a documented graveyard that possibly extends beyond the church parcel into the project site. LPC agreed with Historical Perspectives' recommendation to create a permanent buffer zone between the Church property and the development-impacted area. Tests outside the perimeter of this zone for the presence/absence of c.1811-1909 A.M.E. burials would be necessary to guarantee that the preservation strip, or buffer zone, was adequate.

Although the Lot 46 configuration has remained relatively constant over time, a number of factors could have contributed to the interment of an A.M.E. member on land that is outside the current fenced A.M.E. parcel. This encroachment could be attributed to such factors as: (1) over crowded A.M.E. burial ground, a fact documented in the "Phase 1A" report; (2) surveying and/or cartographic errors through the approximately 177 years of Lot use; (3) unmarked or erroneously marked boundaries; (4) between 1811 and 1837, prior to the construction of the first sanctuary, the A.M.E. lot could have been used for a burial ground and the lack of a standing structure may have made accurate placement within the legal property boundaries more difficult; (5) the sanctuary was always in the same location, prohibiting the successive use of new/unused portions of the lot after 1837; and (6) cooperative neighbors that welcomed or tolerated church/burial use of their land, such as the 15 foot roadway/side yard that the church did use, perhaps even for burials, but did not actually purchase until 1929. Certain graveyard history studies have shown that, through time, pre mid-nineteenth century church yard burial ground areal coverage shrinks, leaving earlier, unmarked graves outside the
perimeters of the recognized burial grounds. (Geismar, 1987; Gumaer, 1986; Ransom, 1988)

Historical Perspectives, Inc. was directed to perform a specific task prior to any possible construction or archaeological field investigations on project lands abutting the A.M.E. parcel. Ms. Baugher asked for a recommendation from the archaeologists on the size of the proposed buffer strip necessary to remove the danger of adverse impact on any remnant of the old burial ground that might extend beyond the current boundaries of the A.M.E. property.
METHODOLOGY

In order to make the specific recommendation requested by LPC, Historical Perspectives, Inc. researched graveyard archaeology reports and discussed non-published fieldwork results with professional historians and archaeologists. Also, a post-1986 New York City archaeological report that entailed a graveyard assessment was reviewed. Interviews with long-term members of the A.M.E. congregation were conducted in order to elicit as much information as possible from photographs, church bulletins, memories, etc. Deed research on lots adjoining the A.M.E. parcel was initiated in an effort to locate boundary disputes and/or agreements involving encroachments. As in the Phase 1A work, there was a necessary reliance on a series of land atlases in order to understand the development of the land surrounding Lot 46.

Gruzen Samton Steinglass of New York supplied us with the preliminary plans for the proposed construction on Block 4978.
RESEARCH RESULTS

Oral Testimony

On September 15, 1988 we met with long-term members of A.M.E.: Jay Williams who lived for many years on the southeast corner of Union and 37th Avenue and whose uncle, John Williams, is pictured in the "Phase IA" assessment (p. 51) as part of the discovery of unmarked graves during the c. 1930 construction; Helen Davidson Armstrong who has been a member of A.M.E. since approximately 1925; and Harding Harris who lived for a period on Lot 44, the land immediately east of the post-1930 A.M.E. boundaries and which later hosted the 1954 addition; and, Catherine Williams, A.M.E. Secretary for approximately 30 years. Family photographs that showed the side yard of the church, taken between 1933 and 1954, were shared, along with John Williams' personal scrapbook that included church-development news items and celebratory program bulletins.

Although the last A.M.E. interment was probably as late as 1909, there do not appear to be extant memories or photographs of the burial ground. As included in the Phase IA Report (p.66), there is an account (1931) recalling at least one gravestone near the front entrance of the pre-1931 edifice but only a few of the graves were identifiable at that time.

At least twice in the twentieth century previously unsuspected burials were disturbed during church construction work. According to newspaper accounts, in c.1903 grave shafts and burials were uncovered to the east of the original A.M.E. structure and moved to the "corner of the rear yard;" and, twenty-eight years later these secondary burials, the presence of which has been unsuspected, were moved off Lot 46 (Phase IA, pp.65-66). The important interviews did not greatly add to the previously collected data nor question its accuracy.

Lot Line Research

The original A.M.E. parcel size was recorded in 1819 and 1902 as running 60' on the north and south, 104' on the west, and 106' on the east side. In c.1929 the 15' east side yard was officially incorporated into the church property, although it

1The following lot numbers, unless otherwise specified, relate to the 1917 Sanborn Land Atlas, Figure 1.
had been used as a burial ground for more than fifty years, yielding new dimensions for Lot 46: 75' on the north and south, 104' on the west, and 106' on the east side. Although these early Lot 46 deeds and the adjoining Lot 36 deed transfers do not describe the northern lot line as irregular, many later maps and transfers do (e.g., the current tax map, see Figure 2). Following the 1949 approval of the "Plan of the Bland Houses," the NYC Housing Authority sold, for $1.00, the east side bordering properties - Lots 42, 43, 44 - to the A.M.E. These lots, truncated by the widening of Union Street, added an irregular parcel to the church property: 29.49' on the north, 34.07' on the south, 106.85' on the west, and 109.53' on the east (Queens Borough Conveyance Records (QBCR), Liber 650, p. 358).

Historically there was no private lot on the south side of Lot 46, the A.M.E. parcel was always bounded by a public road. Until the 1950s the front door of the church building faced south, opening onto the street that has been known through time as Liberty, Lincoln (Lingard ?), and 38th Avenue. (See Figure 3.) Currently the church entrance is on Union Street. We were unable to document any widening of the 38th Avenue roadbed but must assume that between 1811 and 1953, the time of its demapping, the roadbed was periodically crowned, curbed, widened, surfaced, and then resurfaced after utility installations. According to the very limited sewer service information available, by May 1918 a 12" combined storm and sewer pipe had been installed (approximately 10' beneath the c.1918 curb level) in the Lincoln/38th Avenue roadbed (Queens Borough Sewer Records Room, Stick # 75-273).

Lot 36, in the Bevins (Bevans/Bevanen) family by c.1865, was originally the western portion of old Lot 13 and was bounded by land of John Nichols (east), Methodist Macedonian Church Society (south), and Abigail Embree (west), and Washington Street (north). The lot dimensions were always listed simply as 150' x 30'6". Apparently there were no legal agreements with the church since "said premises are free from encumbrances" (QBCR, Liber 1248, p. 18; Liber 1377, page 258). The 1917 Sanborn (Figure 1) and the 1949 Damage Map both show the rear year of Lot 36 as vacant; however, a nineteenth century atlas and a later Hyde atlas (1926, corrected to 1932) show an outbuilding/stable on the southern lot line in the southwest and southeast corners respectively.

Sharing 29.81' of the A.M.E. northern lot line, Lot 41 was recorded during this century as irregularly shaped (i.e., 7 angles with no angle recorded as 90 degrees), not precisely as it appears on Figure 1. The 1931 "meets and bounds" includes
the phrase "to the northerly side of premises formerly belonging to the AME Church" but this is apparently use of standard, legal terminology and does not indicate a sale or transfer of A.M.E. property (QBCR, Liber 3512, p. 53684; Liber 2655, p. 71839). A one-story brick structure apparently abutted approximately the east half of the shared property line between Lot 41 and Lot 46 by c.1949 (see the Damage Map).

The southeast corner of Lot 34 also abuts the church's northern lot line (see Figure 1). Richard and Clara Schneider (Schneider & Son, Inc.) maintained numerous rental properties on this and other neighborhood plots during the 1920s (QBCR, Liber 3107, p. 110412; Liber 3465, p. 13093). As can be seen on Figure 1 and on a twentieth century Hyde atlas, the Schneider's holdings on Lot 34 included a two-story "shop" that filled the southeast corner of their parcel approximately 25' e-w x 35' n-s.

By the 1930s, Lot 51, immediately west of the A.M.E. land, was under the ownership of Irving and Eva A. Riesenburger. The total length of this shared boundary has remained fairly constant in various documents and maps: 104.45' (QBCR, Liber 3465, p. 13093); 104' (QBCR, Liber Q. pp. 298-299); and 104.56' (Damage Map and the current tax map). Three substantial dwellings (156, 156 1/3 Lincoln) were built directly on the eastern border of this lot by the time of the 1917 Sanborn Atlas. The close proximity of 156 Lincoln to the west wall of the church can be seen in a photograph, Figure 4. Long-term neighborhood residents recall both the large homes on the lot, hosting as many as six families at a time, and the narrow passageway between the homes and the church building (Helen D. Armstrong, Harris Harding, and Jay Williams, personal communication, 9/15/88).

Archaeological Research

Parrington and Wideman's recent investigation (1986) of a black Baptist Church cemetery (c.1824-1842) in Philadelphia is particularly pertinent to the questions raised by the proposed Flushing Center project. According to their report, health records had revealed the names of over 70 individuals who were interred at the endangered burial ground but their fieldwork uncovered over 140 burials. Construction on neighboring parcels, after the abandonment of the site and the re-alignment of lot lines, had destroyed numerous skeletons in the nineteenth century and in the second half of the twentieth century parking lot construction further disturbed the site. "No evidence of grave decoration survived these impacts" (Parrington and
The fieldwork at the Philadelphia cemetery revealed at least one burial only 18 inches below grade, others re-buried after being disturbed by privy installations, skeletons truncated by adjacent building construction, and the disturbance by demolition activities and by concrete bollards installed for the parking lot. A crucial difference between this Pennsylvania example and the A.M.E. is that the Flushing church is still a functioning church and the lot lines have not been drastically changed.

The field investigation by Parrington and Wideman, after heavy machinery had removed the blacktop and the initial layer of urban fill, was conducted by hand.

UMASS Archaeological Services has undertaken at least two projects with the goal of locating suspected but unrecorded burials. The Paxton project (1985) involved identifying the exact location of suspected, but unmarked, graves in the oldest section of the First Congregational Church (early to late eighteenth century) prior to construction disturbance. The goal for the Mashpee study was the confirmation of the existence of a small, family burying ground and the determination of an adequate "boundary to be placed around the cemetery which will be reinstated as such and protected from development" (Gumaer, 1986:7).

In both Massachusetts studies a combination of geophysical testing and hand shoveling was employed on the non-urban sites. The success of the electrical resistivity surveys was tempered by the interference of trees, tree roots, erosion disturbance, and rocky soils. Of particular pertinence to the Flushing project is the Mashpee field procedure: shovel skim trenches were excavated "to confirm that no burials existed in areas predicted to be outside the bounds of the cemetery. Trenches on the perimeters revealed undisturbed soil profiles." (ibid:7)

Although far removed from a northeastern urban setting and much larger than the A.M.E. parcel, the investigation of the Cedar Grove historic cemetery in Arkansas does warrant review. Possibly established as early as the 1830s, the black Cedar Grove cemetery was in active use until c.1927. The associated church records were lost in a fire and only a few of the more recent burials still retain a marker. A 1925 land atlas roughly indicated the size of the plot (approximately 182 m x 30 m) which has since experienced flooding, erosion, and road cuts. The fieldwork in one season revealed a few burials, but in the following season over 100 unmarked, unsuspected human interments were recorded. And, although the outside perimeters of the cemetery were never determined, the archaeologists estimated a
total of 279 graves in the Cegar Grove burying ground. (Rose, 1982)

Geismar's documentary research (1987) into the graveyard associated with Brooklyn's Grace Protestant Church met with many of the same frustrations that the Flushing Center Phase 1A report cited. Although actively used between c.1842 and c.1907, there are no extant plot plans or photographs of the cemetery and no existing headstones. Like the A.M.E. plot, this cemetery was disturbed by later developments—road construction and sewer installation—that aroused public concern. Ms. Geismar reported that, "Late nineteenth- and early-twentieth century maps not only document the cemetery, but also suggest over time its boundary spread eastward toward the church," evidently responding to the encroachments of development (Geismar, 1987:22).

Additional information was sought from David Ransom, a Connecticut historian specializing in old burying ground preservation and Rick Elia, of the Office of Public Archaeology in Boston, who has undertaken a field investigation of an almshouse graveyard.
CONCLUSIONS

The foregoing research, conducted at the request of LPC, has not mitigated the Phase 1A assessment concerning the possibility of adverse impacts on historic burials: "It is not inappropriate to speculate that early black burials may have been placed beyond the specific boundaries [of the church property] as recorded in mid-twentieth century city documents." (p. 28) Historical Perspectives' continued research supports the earlier recommendation that a buffer zone of undisturbed land be established between the church property and the proposed development. This topic intensive study has assisted us in defining both a practical and responsible buffer strip that is responsive to the future and the documented past.

LPC requested a recommendation for the width of the preservation strip. The strip size must be based, in large part, on the extant A.M.E. structure, taking into consideration the disruption of historic lot and street features that make exact measurements difficult. As the lot line research indicated and the Site Map explanatory note details, a compendium of maps and diagrams has yielded varying, although slight, measurements for the A.M.E. parcel. There is no documentary evidence that A.M.E.-associated burials ever intentionally extended beyond what became Lot 46. We do know that A.M.E. used the 15 foot east yard "right of way" for a burial ground without actually owning the land.

There is no accepted formula for determining a "safe," or "no impact" distance from a cemetery (Ransom, personal communication, 9/20/88; Geismar, personal communication, 9/20/88; Elia, personal communication, 9/20/88). Based on the research reported above and communication with other professionals, Historical Perspectives, Inc. concludes that no less than 15 feet separate the A.M.E. property lines from any proposed construction impacts. This zone is shown on the Site Map. For comparative purposes, the results of the Mashpee Project yielded an approximate 6.5 foot border between the recovered graves and the new protective border (Gumaer, 1986:Figure 11). However, unlike the A.M.E. over-crowded, urban cemetery, the Mashpee plot was only a rural, one-family graveyard.

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2 Parrington and Wideman refer to this problem as: "Over the course of a century and a half, however, modifications were made to the location of features such as streets, and it was difficult to relate the position of historic sites to the cartographic evidence" (Parrington and Wideman, 1986:56).
The practical application of such a buffer is, in part, determined by the history of known disturbances on land abutting the A.M.E. lot, assuming those disturbances were of a scale and depth to destroy possible graves. That is, although our research indicates that no less than 15 feet should separate the church property from proposed construction impacts, documented prior impacts may argue against the need for the protective buffer zone to exist in a specific locus. We have information on the severe disturbance of specific loci along the A.M.E. property lines. Each of the four bordering properties has a different development history and, therefore, varying degrees of intact sensitivity. The effectiveness of the buffer zone for each of the A.M.E. lot borders will be discussed separately.

East of the A.M.E.

Currently the A.M.E. parcel fronts on Union Street, the educational wing completely covering the land that bordered the east side of the old graveyard. When this addition was built a concern for burials was expressed and monitoring was conducted during the excavation work. No human burials were noted. The application of the buffer zone on this border is unnecessary.

South of the A.M.E.

We do not consider the land immediately south of the current A.M.E. parcel to be sensitive for potential human burials. Until 1954 the southern neighbor had been a public roadway, undergoing many phases of disturbance. Historically, the church fronted on this side, its main entrance, by 1954, positioned at sidewalk level less than 10 feet from the 38th Avenue curb. However, as included in the Phase 1A report (p. 66), prior to 1931 a grave-stone "stood next to the front entrance." Perhaps the overcrowded graveyard had pushed burials to the front yard, bordering the street and, perhaps, into the area later taken for street widening. There is, however, no record of burials ever being discovered during road work. As part of the Flushing Lot #1 construction, NYC granted the A.M.E. a portion of this 38th Avenue roadbed that paralleled their southern lot line. The 38th Avenue concrete curbing can still be seen today behind the A.M.E. property fence. Therefore, the church is now in possession of both the south frontage that would have been used for burials and a portion of the impacted roadbed that is now, in effect, a buffer strip. If the proposed Flushing Center construction and/or landscaping and/or utility installation does not directly impact the currently-fenced A.M.E. land on the south side, then further archaeological concerns and the application of a buffer strip are not warranted.
West of the A.M.E.

Evidence clearly indicates that during the early twentieth century this lot (#51) simultaneously hosted three substantial homes, each situated on the A.M.E.-shared border. The foundation construction for the multi-story dwellings would have totally disturbed any burials falling outside the current A.M.E. western lot line. We do not feel that any intact burials exist outside this A.M.E. property line. However, due to the sensitive nature of this possible resource, if construction excavations are to take place within 15 feet of the west side of the A.M.E. land, an archaeologist should monitor the excavations.

North of the A.M.E.

Three different lots (#34, #36, #41) border the A.M.E. northern lot line. The extreme western 10-11' of the lot line abutted the Schneider's two-story shop during this century. The integrity of this extreme west border is compromised. However, we have records indicating that at one time Lot 41 hosted a one-story brick structure and Lot 36 hosted at least one, perhaps two, one-story outbuildings on the A.M.E. border. The subsurface impact of these one-story structures may not have destroyed potential graves. We feel there is sufficient cause to consider this northern border as sensitive for possible human burials. The 15 foot buffer zone should be placed across the current A.M.E. northern lot line.
RECOMMENDATIONS

Historical Perspectives' research yielded a realistic concern for the encroachment of human burials, during the nineteenth century, on property bordering the current A.M.E. parcel to the south, west, and north. The professional conclusion is that a 15 foot buffer strip should be incorporated into the Flushing Center project plans to guarantee the protection of potentially intact, endangered cemetery remains. This concern suggests the necessity for a 15 foot buffer strip around the south, west, and north perimeters of the church property. But, realistically, each of these bordering plots has a different structural history and we recommend that the application of the 15 foot buffer strip be adjusted for each of the three sides to reflect these histories.

Late nineteenth and early twentieth century construction on the west side and the acquisition of a portion of the 38th Avenue roadbed to the south argue against intact remains in these loci. There is substantial evidence that the 38th Avenue roadbed and Lot 51 have experienced severe subsurface disturbance and, therefore, we do not anticipate the possible survival of any human burials on the south and west borders of the church. However, because of the sensitive nature of human interments, we recommend that if any Flushing Center-related subsurface impact is scheduled to take place within 15 feet of the current A.M.E. west property line and in the original 38th Avenue roadbed now in use by the church, an archaeologist be on hand to monitor the excavation(s).

Historical Perspectives, Inc. recommends that a 15 foot buffer strip be imposed parallel to the northern A.M.E. lot line. We can only predict the possibility that intact, endangered nineteenth century A.M.E. burials may be extant on the property bordering the northern lot lines of the current church property. Also, we can only estimate the possible northern extent of these graves. As has been experienced on this block in the past, construction activities near a known cemetery can be a highly sensitive public issue. It remains necessary to verify, by testing immediately outside the perimeter of the buffer zone, if the established 15 foot buffer is sufficient for in situ preservation.

We recommend that a professional archaeologist direct the blacktop removal from a 5 foot strip outside the buffer zone (i.e., a strip between 15' and 20' north of the A.M.E. north lot line) by a blade-fitted bulldozer, such as a Gradall. It is anticipated that the heavy machinery can remove, under the archaeologist's direction, the c.1954 construction-introduced traprock and approximately 6-8" of clean fill and possibly some of the demolition debris. One small, north-south oriented trench
would need to be excavated to determine the current stratigraphy. It is anticipated that the heavy machinery will reveal a truncated portion of both the one-story brick structure on Lot 41 and the two-story (Schneider) shop on Lot 34 and these features will then become locational guides. Shovel skimming by hand would then proceed to test the 5 foot strip for the appearance of grave shafts and/or graves. If, in the unlikely event that a burial is discovered, the buffer zone would need to be increased and testing outside the newly-established perimeter would be necessary. A full discussion of the proposed fieldwork methodology is attached in the Proposed Research Design section.

Although it is beyond the scope of this report to assess the archaeological potential of the Macedonia A.M.E. Church parcel, we feel compelled to note the strong possibility that intact and/or disturbed, human burials do exist on the A.M.E. parcel. Any future plans that entail subsurface disturbances on the A.M.E. parcel should consider mitigating the adverse impact this disturbance may have on the potential for human burials.
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Ransom, David

Rose, Jerome C., editor
Figure 2: Borough Registrar's Office, Sutphin Boulevard
Macedonia A.M.E. Church, Flushing, Queens, provided by Catherine Williams, Secretary of the Macedonia A.M.E. Church

Figure 3: Illustration

New York Annual Conference African Methodist Episcopal Church
One Hundred Thirty-fifth Annual Session May 14th thru May 19th, 1957
at MACEDONIA A.M.E. CHURCH
37-22 UNION STREET FLUSHING, NEW YORK
REV. G. G. CRUMPLEY, Pastor
Macedonia A.M.E. Church, Flushing, Queens, 1931. Illustration from "Remodeling Ceremony Bulletin, October 11, 1931."

Note the close proximity of the house on the west border, Lot 51.

This building was erected during the pastorate of Rev. C. L. Lauton, in 1903, and we are happy to have him present with us today.

The Macedonia Church was organized in 1810. The present lot was purchased on April 27, 1811. The Trustees were, as follows:

Joseph Harper
Isaac Cop
Jacob Townsend
Wm. Paul Williams
Josiah Conklin
John Carpenter
James Furman
Squire Phillips
Abraham Marks

STEWARDESS BOARD No. 1

STEWARDESS BOARD No. 2
Mary G. Hicks, Mary Clement, Pearl Kennah, Melissa Townsend, Elizabeth Williamston, Corrine Dooley, Mabel Wynu, Bessie Harris, Louise J. Brown, Sarah Bennett, Alice Arnold, Margaret Anderson.
PROPOSED RESEARCH DESIGN FOR ARCHAEOLOGICAL TESTING

ON THE

FLUSHING CENTER PROJECT, NEW YORK
PROPOSED RESEARCH DESIGN

The following proposed research design for the Flushing Center project encompasses both the homelot concern and the A.M.E. Cemetery buffer zone. In general the proposed activities will fall into two categories; (1) data collection; and (2) data analysis. The first will consist primarily of archaeological in-field investigation, the second of analysis of all data retrieved in this manner - stratigraphy, artifacts, features, etc. The analysis phase will include preparation of a final research report, professionally documented and appropriately illustrated.

A. Data Collection

It should be stated at the outset that the following plans for fieldwork are just that - i.e., preliminary plans that will be followed if possible and if they prove to be most profitable in attaining the research goals of the project. But, as every archaeologist knows, surprises lurk below the surface of every site. Therefore, expeditious changes in the fieldwork design might be necessary according to the archaeologists' professional judgment and after consultations with LPC personnel.

Infield procedures for testing will be acceptable archaeological practices incorporating both mechanical and manual soil removal. Whenever possible, the overburden soil will be removed by machine under the supervision of archaeologists. In accordance with OSHA standards, it is permissible to remove up to five feet below the ground surface before sheeting and a necessary shoring and bracing permit are required. When the level to be studied is reached, hand excavation - by trowel or a flat-edged shovel - will be employed. This material will be screened through 1/4 inch mesh. Soil strata that contain cultural materials will be excavated as discrete sections in order to maintain vertical control.

Of crucial importance in establishing the exact perimeters of the test areas is surveying and flagging the project block for archaeological purposes. Other procedures include photographing and mapping of the site in general and features and artifacts in particular. Black and white photographs and color slides will be taken during the entire course of the fieldwork. Significant data will be placed on a cultural resource base map for the study area. Wall profiles and features will be drawn and photographed.

(B) Data Analysis

The data analysis phase includes laboratory work -i.e., initial curation of artifacts - and the written analysis of all data gathered in the field - i.e., the preparation of a research report.
1. Artifact Curation

As specified by LPC, all artifacts retained in the course of fieldwork will be treated to initial curation - that is, washed, labelled, and fragile artifacts stabilized. If large amounts of diagnostic materials require conservation, then representative samples will be set aside for that purpose. Soil samples will be taken. After curation, all retained artifacts will be boxed in a manner suitable for museum storage. One copy of the field report and catalog sheets will be made available for presentation to the final recipient of the collection.

The work described above will take place, at least in part, in an on-site laboratory, furnished by the developer, and, as also stipulated by LPC, operating concurrently with fieldwork.

2. Report Preparation

According to the "New York City Landmarks Preservation Commission Guidelines for Archaeology," field testing will determine if any artifacts or other items of significance are contained in the studied areas. A written report of the findings and the subsequent laboratory analysis must be submitte to the LPC in a reasonable time after the completion of the testing phase. Included in this final report will be a summary of all data gathered with descriptions of the methodologies employed. Conclusions and recommendations concerning evaluation of the cultural resources encountered will be made.

If the field excavations, monitoring, and/or buffer strip tests reveal significant archaeological features, then the Principal Investigator(s) must notify Raquel Ramati Associates Inc. and LPC. If deemed necessary by the review agency, plans for mitigation would be developed according to the specified LPC guidelines. In order to expedite the fieldwork, the mitigation procedures would take precedence over the completion of the Phase 1B testing report.

C. Areas To Be Tested

As discussed in full in the Homelot Archaeology section above, although five homelots were identified as archaeologically sensitive, until Lot 57 is examined there is no way to estimate the integrity of Lots 20, 27, and 65. After the initial examination of Lot 57, it is possible that only Lots 57 and 53 will be considered archaeologically sensitive.

The proposed fieldwork methodology for Lot 57 includes the removal, under the direction of a professional archaeologist, of the blacktop pavement and the c.1954 construction and demolition
overburden. To date, only five soil borings from the project block have been analyzed. Additional boring logs (+ 30) have been promised by the office of Samuel Paul and these will assist in further refining the scope of mechanical soil removal.

It is anticipated that the mechanical soil removal will reveal truncated foundation walls and/or "ghost prints" of nineteenth century features (e.g., privies, well, cisterns). These features will then be designated as individual testing units and examined as detailed above. If the initial soil and rubble removal does not reveal homelot features, then at least two perpendicular test trenches will be placed in the potentially sensitive rear yard areas, roughly 25' x 50'. These trenches will then be examined according to accepted archeological procedures.

The examination of the A.M.E. Cemetery buffer strip will be undertaken from a different perspective than the homelot tests. The examination of the buffer strip is for the purpose of verifying the absence of particular archaeological features, human burials. The archaeological literature reviewed for this project dealt repeatedly with trying to locate grave shafts in as non-disruptive a manner as possible because actual graveyards were in line for direct, adverse impact. The protection of burials poses a problem of location. Geophysical testing (e.g., electrical resistivity and proton magnetometer) is often employed as an initial step in locating the discontinuity of shaft soil or coffin hardware. Under the right conditions, the correct form of resistivity sampling or a combination of geophysical methods can be both cost effective and accurate for detecting grave shafts. It is also a non-intrusive, and, therefore non-disruptive form of test. After reviewing literature on geophysical testing applied to graveyard sites and discussing the Flushing Center site with Bruce Bevan, of Geosight, we have concluded that geophysical testing is not appropriate for the Flushing Center project for several reasons. (1) According to the Bevan, ground penetrating radar still seems to be the best approach for graveyard studies because resistivity tests measure the discontinuity of the soil and subsurface disturbances, e.g., grave shafts will be revealed. However, any subsurface disturbance can distort the readings. Old tree roots, erosion disturbances, old buried fence posts, outbuilding construction impacts, etc. will mask the echoes in the test readings. (2) It is entirely possible that the test readings will indicate anomalies, which must then be excavated and examined, but are in fact based on buried foundations and/or demolition debris. This problem could result in hand testing a large proportion of the buffer strip since we know it has been disturbed. (3) The radar tests cannot be conducted through the parking lot pavement, trash, or fill so the blacktop and twentieth century overburden would have to be stripped off for the testing. (4) We are not anticipating intact burials. Instead, these tests are designed to verify the absence of
burials and, although hand shoveling will proceed with caution, we are not primarily concerned with the sensitive issue of exhumation.

We recommend the removal, under the direction of a professional archaeologist, of a 5 foot strip of the parking lot pavement and c.1954 overburden paralleling the entire northern border of the A.M.E. parcel and situated between 15 and 20 feet north of the northern lot line. The mechanical equipment must be limited to a blade-fitted bulldozer, such as a Gradall. It is anticipated that the heavy equipment will reveal the truncated Lot 34 and Lot 41 foundation structures and they will, in turn, serve as additional locational guides for the buffer strip examination. It is also anticipated that the construction impacts on the east end of Lot 41 will prove to have been so severe that further testing of the eastern end buffer strip might prove unnecessary.

Care must be taken that the mechanical soil removal be halted at the juncture of fill and the natural soil layers. Careful hand testing would then be employed. It is possible, if burials did extend more than 15 feet beyond the northern lot line, that they were not deeply buried and/or subsequent activities removed a portion of the grave shaft overburden.

In order to more closely define the extent of the land alterations (e.g., grading and filling) in the buffer zone, we would excavate a small north-south running trench to determine the current stratigraphy. If discernible, samples of a C-Horizon soil would be collected for later comparative purposes if possible grave shaft stains are encountered.

It is entirely possible that Lot 36 rear yard features will be encountered during the buffer strip examination. We have developed a full lot history on this parcel. If such features are uncovered and they possess archaeological integrity, they will be treated as an additional homelot resource.

As discussed in the A.M.E. section, if the A.M.E. west border and the north side of the old 38th Avenue roadbed are to be adversely impacted by Flushing Center-related activities, it is recommended that such activities be monitored on a daily basis by a professional archaeologist.