

Phase 1B Archaeological Investigation

Essex Crossing (Seward Park Mixed-Use Development Project)

Block 346, Lot 40; Block 347, Lot 71; Block 352, Lots 1 and 28; Block 353, Lot 44; Block 354, Lots 1 and 12; Block 409, Lot 56; and Block 410, Lot 38

Lower East Side, New York, New York

Prepared for:

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Essex Crossing Project:

Phase 1B Archaeological Investigation Management Summary

CEQR Number: 11DME012M

OPRHP Project Review Number: 12PR00119

Involved Agencies: New York City Office of the Deputy Mayor for Economic

Development

New York City Economic Development Corporation

New York City Department of Housing Preservation and

Development

Phase of Survey: Phase 1B Archaeological Investigation

Location Information

Location: Site 2: Block 352, Lots 1 and 28;

Sites 3, 4, and 5: Block 346, Lot 40; and

Site 6: Block 347, Lot 71.

Minor Civil Division: 06101 County: New York

USGS 7.5 Minute Quadrangle Map: Brooklyn

Survey Area

Site 2 Length: 76.2 meters (250 feet)

Site 2 Width: 30.5 to 41.2 meters (100 to 135 feet) Site 2 Area: 0.6 acres (27,625 square feet)

Site 3 Length: 61 meters (200 feet) Site 3 Width: 61 meters (200 feet)

Site 3 Area: 0.9 acres (40,000 square feet)

Site 4 Length: 61 meters (200 feet) Site 4 Width: 61 meters (200 feet)

Site 4 Area: 0.9 acres (40,000 square feet)

Site 5 Length: 91.4 meters (300 feet) Site 5 Width: 61 meters (200 feet)

Site 5 Area: 1.4 acres (60,000 square feet)

Site 6 Length: 45.7 meters (150 feet)
Site 6 Width: 45.7 meters (150 feet)

Site 6 Area: 0.5 acres (22,500 square feet)

Archaeological Survey Overview

Number of Backhoe Trenches: 36

Size of Backhoe Trenches: Varied: 6 to 30 feet in length; 2 to 11.5 feet in width

Depth of Backhoe Trenches: Varied: 1.7 to 11.5 feet

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Results of Archaeological Survey

Prehistoric Sites Identified: None Historic Sites Identified: None

Sites Recommended for

Phase 2/Avoidance: None

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A. INTRODUCTION

In August 2012, the New York City Planning Commission approved multiple discretionary actions to allow the implementation of an approximately 1.7 million-gross-square-foot mixed-use development on 10 City-owned sites. The proposed development sites—formerly known as the "Seward Park Mixed-Use Development Project" and later renamed "Essex Crossing" as described below—are located in Manhattan Community District 3 generally along Delancey and Essex Streets on the Lower East Side (see **Figure 1**). The project site also includes demapped sections of Broome and Suffolk Streets that would be mapped as City streets, and sections of Clinton and Delancey Streets that would be demapped.

The approximately 6.6-acre project site is primarily composed of the following City-owned parcels (see **Figure 2**)

- **Site 1**: Block 409, Lot 56;
- Site 2: Block 352, Lots 1 and 28;
- **Site 3**: Block 346, Lot 40;
- **Site 4**: Block 346, Lot 40;
- **Site 5**: Block 346, Lot 40;
- **Site 6**: Block 347, Lot 71;
- Site 7: Block 410, Lot 38 (this site will not be redeveloped under the proposed actions);
- **Site 8**: Block 354, Lot 1:
- Site 9: Block 353, Lot 44; and
- **Site 10**: Block 354, Lot 12.

To facilitate the development of the Seward Park Mixed-Use Development Project, a number of discretionary actions were approved. Adoption of proposed Uniform Land Use Review Procedure (ULURP) actions involved public review by a number of entities, which included, Manhattan Community Board 3, the Manhattan Borough President, the New York City Planning Commission, and the New York City Council. The approved actions included zoning map changes and zoning text amendments, zoning special permits, City map amendment, the disposition of City-owned property, and approval of Urban Development Action Area Project(s) (UDAAP). The Office of the Deputy Mayor of Economic Development (ODMED) served as lead agency for environmental review, in coordination with the New York City Economic Development Corporation (NYCEDC) and the New York City Department of Housing Preservation Development (HPD).

Subsequent to the approval of the land use actions, the City of New York issued a developer's Request for Proposal for the sites and selected Delancey Street Associates (DSA) as the designated developer for the project sites. DSA has proposed a specific program for each site and specific buildings designs for Sites 1 through 6, now known as "Essex Crossing." The proposed Essex Crossing project would introduce an approximately 1.98 million-gross square foot (gsf) mixed-use development on Sites 1 through 6 and 8 through 10, which would be about 16.6 percent larger than the 1.70 million gsf approved program. The proposed buildings on Sites 1 through 4 and Site 6 would be within the limits of the maximum zoning envelopes established according to the Large Scale

General Development (LSGD) rules and the future developments on Sites 8, 9, and 10 would be compliant with zoning. However, the Applicant is currently seeking approval of a modification to update the building envelopes of Sites 1 and 5. The proposed Essex Crossing project would provide 1,000 residential units, including approximately 400 affordable units and 100 affordable senior housing units. The program would also introduce commercial space, including retail, public market, office, and other uses.

Since the selection of DSA as the designated developer for the project sites, DSA and HPD have determined that the development of Sites 2-6 will receive construction financing through the New York City Housing Development Corporation (NYCHDC). Therefore, the development of Sites 2 through 6 is subject to review under the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law).

B. PROJECT BACKGROUND

On August 10, 2012, ODMED, as Lead Agency, issued a Notice of Completion for the Seward Park Mixed-Use Development Project Final Generic Environmental Impact Statement (FGEIS) that was prepared in coordination with NYCEDC and HPD. As part of that FGEIS and as per the environmental review regulations noted in the previous section, the New York City Landmarks Preservation Commission (LPC) and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) were consulted regarding archaeological resources on the project site. In a comment letter dated August 16, 2011, the New York City Landmarks Preservation Commission identified the following portions of the project site as archaeologically significant: a portion of Site 2 (Block 352, Lot 28); Sites 3, 4, and 5 (Block 346, Lot 40), and Site 6 (Block 347, Lot 71). The remainder of the project site—including Site 1, a portion of Site 2 (Block 352, Lot 1), Sites 7 through 10, and the streetbeds included within the proposed project—were determined to have no archaeological significance. Therefore, the archaeological Area of Potential Effect (APE) has identified as only those properties with archaeological significance. All subsequent archaeological investigations, including this Phase 1B survey, have focused solely on the sites included within the archeological APE. In addition, the archaeological APE includes only those areas analyzed through the FGEIS and not any additional areas of disturbance that may have subsequently been added to the Essex Crossing project.

SUMMARY OF PHASE 1A ARCHAEOLOGICAL DOCUMENTARY STUDY

In December 2011, AKRF prepared a Phase 1A Archaeological Documentary Study to identify areas of archaeological sensitivity within the APE (AKRF 2011). The Phase 1A study was designed to determine the likelihood that potential archaeological resources have survived within the project site despite the destructive forces of development in the historic and modern periods. The Phase 1A study included a summary of the occupation and development histories of Sites 2, 3, 4, 5, and 6 to identify those portions of the project site that may be sensitive for archaeological resources dating to either the precontact or historic periods (see **Chapter 3: Background Information**).

The Phase 1A study concluded that the APE possesses no sensitivity for precontact archaeological resources as a result of disturbance associated with historic and modern development. Similarly, large portions of the APE were determined to have no sensitivity for historic period archaeological resources as a result of disturbance associated with basement excavation prior to the mid-20th century. As described in the Phase 1A, Sites 2 through 6, which are now paved parking lots, were historically divided into lots, each of which was developed with a residential and/or commercial structure. Nearly all of the almost 100 historic properties included within the project site were

disturbed to some extent as a result of excavation associated with the construction of buildings with basements.

The Phase 1A determined that all lots that were fully developed with structures with basements or where all but a portion of the lot measuring less than 10 feet in width were similarly developed are considered to be disturbed and are therefore not sensitive for archaeological resources. However, those historic lots that were not fully disturbed by basement excavation were determined to have moderate to high sensitivity for archaeological resources associated with the 19th century residential occupation of those lots. To account for the great number of historic properties analyzed in the Phase 1A, many of which were subject to one or more changes in street address during the historic period, each archaeologically sensitive historic lot was assigned an identification number in the Phase 1A (see **Figure 3**). The identification number includes the site number followed by an arbitrary number assigned sequentially. The historic properties that were identified as archaeologically sensitive include the historic lots summarized in **Table 1**.

Table 1 Historic Properties with Archaeological Sensitivity

Property Identification		Property Identification	
Number	Historic Address	Number	Historic Address
2-1	85 Norfolk Street	4-12	133 Clinton Street
2-2	83 Norfolk Street	4-13	131 Clinton Street
2-3	81 Norfolk Street	4-14	129 Clinton Street
2-4	79 Norfolk Street	4-15	127 Clinton Street
2-5	77 Norfolk Street	5-5	54 Suffolk Street
2-6	75 Norfolk Street	5-6	52 Suffolk Street
2-7	73 Norfolk Street	5-7	50 Suffolk Street
2-13	214 Broome Street	5-9	44 Suffolk Street
3-3	78 Norfolk Street	5-10/5-12/5-13*	42 Suffolk Street and 394 and 3906 Grand Street
3-4	76 Norfolk Street	5-14	398 Grand Street
3-6	72 Norfolk Street	5-15	400 Grand Street
3-10	206 Broome Street	5-21	155 Clinton Street
3-11	204 Broome Street	5-24 and 5-25*	147-149 Clinton Street
3-13	200 Broome Street	5-24A*	Rear 147-149 Clinton Street
3-18	73 Suffolk Street	5-27	143 Clinton Street
3-19	75 Suffolk Street	5-28 and 5-29*	139-141 Clinton Street/ 181-183 Broome Street
4-2	76 Suffolk Street	5-32	189 Clinton Street
4-3	74 Suffolk Street	5-33	191 Clinton Street
4-4	72 Suffolk Street	6-1	124 Clinton Street
4-8	190 Broome Street	6-6	174 Broome Street
4-9	188 Broome Street	6-7	172 Broome Street
4-11	135 Clinton Street	6-8	170 Broome Street

Notes: *These properties were reconfigured at some point during the historic period and therefore the same rear yard may have been associated with more than one historic property.

Source: AKRF 2011.

These historic lots were all developed for residential use before to the installation of municipal water and sewer networks in the mid-19th century. Therefore, prior to that time, the residents of these lots would have relied on shaft features (e.g., privies, cisterns, and wells) for the purposes of watergathering and sanitation. The Phase 1A recommended that Phase 1B testing be conducted for these sensitive portions of the project site to determine whether such archaeological resources are present. In a comment letter dated January 23, 2012, the LPC concurred with the conclusions and recommendations of the Phase 1A study and requested that Phase 1B Archaeological Testing Protocol/Scope of work be submitted in advance of testing. In a comment letter dated January 31, 2012, the OPRHP also concurred with the findings of the Phase 1A study.

To satisfy LPC's request for a scope of work, a Phase 1B Archaeological testing protocol was prepared and submitted to both LPC and OPRHP for review and comment prior to the start of the Phase 1B survey. That scope of work was approved by LPC in a comment letter dated July 3, 2014 and by OPRHP in a letter dated July 16, 2014. The Phase 1B testing strategy described in the Testing Protocol was implemented except and any deviations to the scope of work as outlined in that document are described in **Chapter 2: Research Goals and Field Methodology**.

A. RESEARCH GOALS

As stated in the *CEQR Technical Manual*, although a Phase 1A documentary study determines archaeological potential, "the resources the site actually contains cannot be known until the site is physically tested" (2001 Section 513.1: 3F-16). Phase 1B Archaeological testing was therefore needed to document the subsurface conditions beneath the depth of the parking surfaces that currently occupy the project site in the areas of archaeological sensitivity as identified by the Phase 1A.

The primary objectives of Phase 1B archaeological testing for the project site were to (1) ascertain the presence or absence of historic archaeological deposits and buried backyard shaft features on the project site dating from the early- to mid-19th century; (2) to determine the significance of any resources that were recovered; and (3) to document resources that would be impacted by the ongoing construction. The determination of significance is largely dependent on the research goals identified below, which are specific to the types of potential archaeological resources that could be encountered on the project site. All testing and analysis completed for this archaeological investigation/data recovery was in accordance with published guidelines, including OPRHP's *Phase I Archaeological Report Format Requirements* (2005), LPC's *Guidelines for Archaeological Work in New York City* (2002), and the New York Archaeological Council's ("NYAC") *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (1994). The archaeologists performing the testing met the Secretary of the Interior's Professional Qualifications Standards for cultural resources specialists and all fieldwork was completed or supervised by a Registered Professional Archaeologist (RPA).

B. POTENTIAL ARCHAEOLOGICAL RESOURCES ON THE PROJECT SITES

DOMESTIC SHAFT FEATURES DATING TO THE 18TH AND 19TH CENTURIES

Based on historic directories, census records, tax assessment ledgers, and other primary and secondary documentary sources, the Phase 1A showed that most of the lots within the Sites 4, 5, and 6 were developed with houses or shops before 1820 while Sites 2 and 3 were developed for the first time between 1820 and 1830. Throughout the mid-19th century, every lot within the project site was occupied by one or more structures and nearly all had an open rear or center yard. By the end of the 19th century, the Lower East Side had become flooded with lower-class residents—including Irish, German, and, later, Jewish immigrants—living in overcrowded tenements. The occupants of the properties over the course of the 19th century represent an ethnically and economically diverse group and the documentary record suggests that there was a high rate of turnover among the tenants, with few continuing to reside on each property for more than 5 years. However, there were some families who resided on the property for 10 years or more. Most of the occupants rented their homes and property owners rarely resided within the development sites. Both the long- and short-term tenants represented working-class and middle-class families, most of whom had been born in New York and were therefore first and second generation Americans.

As described above, those historic lots that were not fully disturbed by basement excavation were determined to have moderate to high sensitivity for archaeological resources associated with the 19th

century residential occupation of those lots. These archaeological resources are expected to include domestic shaft features such as privies, cisterns, and wells in the historic lots' rear yards. Privies—the shaft features constructed beneath outhouses—are typically expected to be located at the rear of the historic property while wells and cisterns are typically located closer to a dwelling. These features would have remained in use until municipal water and sewer networks became available in the midto late-19th century, and possibly for decades after.

POTENTIAL BURIAL VAULTS ASSOCIATED WITH THE FIRST CHRISTIAN CHURCH

The Phase 1A study also determined that there is a very low probability that burial vaults associated with a church formerly located on Site 3 (Properties 3-6, 3-7, 3-8, and 3-9). The first congregation to occupy the property was the First Christian Church of New York City which first occupied the site in the late 1820s and early 1830s. Other churches occupied the property until a fire destroyed the church in the late 1840s. At that time, the lots were divided and redeveloped for residential purposes.

Documentary sources do not indicate that the churches that occupied this part of the project site had an associated burial ground and the dimensions of the church were large enough to cover the footprint of the historic lots, indicating that there was not an external cemetery on the property. In addition, burials to the south of Grand Street—one block to the south of the church property—were banned in 1823 and burial restrictions grew increasingly strict thereafter. While it is possible that the church was constructed with burial vaults, it does not appear likely. If burial vaults were present, they would most likely have been impacted by subsequent basement excavation that took place on these lots in the late-19th and 20th centuries. However, there is a low probability that human burials may have taken place on the site in the vicinity of the southwest corner of Site 3.

C. RESEARCH QUESTIONS

According to the guidelines for cultural resources as laid out in the *CEQR Technical Manual*, the determination of significance of a project site is directly related to whether the identified resource type "is likely to contribute to current knowledge of the history of the period in question" (2001 Section 321.2.5: 3F-9). In order to determine if any archaeological resources from the project site Seward Park Mixed Use Development Site would be considered to have significant research value, a list of research issues has been developed. These research topics are specific to the types of potential archaeological resources that could be encountered within the project site as described in the previous section.

Archaeological resources recovered from the site could produce data about the individuals who resided and/or worked on the project site during the 18th or 19th centuries. For historic period archaeological resources, domestic shaft features—such as those that may be located within the former rear yards of the historic lots that make up the development sites—can contain important archaeological resources. These features were frequently filled with domestic refuse after they were no longer used for their original purposes. In the case of privies, such refuse deposition would typically also have occurred during the period of active use, as there were few alternate methods of garbage disposal at the time. As such, filled shaft features often contain valuable information about the daily lives of a site's residents.

Artifacts recovered from trash or surface deposits are the material remains of what an individual purchases and/or uses on a daily or routine basis and they can provide insight into certain aspects of his or her life. Such consumption patterns are strongly influenced by socioeconomic status, occupation, household composition, and ethnicity. What a person buys and/or uses on a routine basis is behavior that reflects the multiple components of that individual's life. Archaeological evidence

from residential lots can provide information on how different characteristics such as socioeconomic status or ethnicity have influenced consumer choice behavior. Information that can be gathered from domestic shaft features can be used to make generalizations about what life was like for the individuals and families that resided on a property. This information can then be compared and contrasted with data associated with similar populations elsewhere in the city. Similarly, if resources associated with the industrial use of the project site are encountered, they can be compared and contrasted with other archaeological sites in the region to identify broader patterns. These comparisons could yield previously unknown insights into the ways of life of the individuals living in working- and lower-class households on the Lower East Side during the 18th and 19th centuries.

D. FIELD METHODS

The subsurface component of this Phase 1B Archaeological Investigation was designed to collect data that could accomplish the research goals described above. Subsurface testing was conducted only in the areas of the project site considered to be sensitive for historic period archaeological resources in the Phase 1A. The methodologies employed during the Phase 1B archaeological investigation of Sites 2 through 6 are described in greater detail below.

NON-INVASIVE GEOPHYSICAL INVESTIGATION

A non-invasive geophysical investigation including a ground-penetrating radar (GPR) survey was conducted at Sites 2 through 6 prior to the completion of Phase 1B testing. This investigation was necessary as a result of the identification of underground storage tanks (USTs) at Sites 2 and 3 and the identification of suspected USTs in Phase I Environmental Site Assessments that have previously been completed for the development sites. While the GPR survey was completed with the intention of identifying USTs and subsurface utilities, the results were reviewed by archaeologists prior to the start of Phase 1B testing. Where suspected USTs and buried utilities were identified, indicating disturbed areas, the Phase 1B testing protocol was adjusted as necessary to avoid those locations. The results of the GPR investigation are summarized in **Chapter 4: Results of Survey**.

PHASE 1B ARCHAEOLOGICAL TESTING

The testing protocol issued in July 2014 outlined the planned testing procedures based on expected sensitivity and disturbance established in the Phase 1A. However, the exact number and placement of machine-excavated trenches and hand-excavated shovel tests and test units, and the depths to which they were excavated, was largely dependent upon the decision of the archaeologists in the field. The areas of archaeological sensitivity include the rear yards or the partial rear yards of historic lots making up Sites 2, 3, 4, 5, and 6. A total of 36 mechanically-excavated trenches (including trenches that were opened in several segments) were opened as part of the Phase 1B testing of the development sites: 7 on Site 2; 9 on Site 3; 10 on Site 4; 10 on Site 5; and 4 on Site 6 (see **Figures 4 through 8** and **Appendix A: Excavation Record**).

LOCATION AND PLACEMENT OF TEST TRENCHES

The planned locations of each trench were mapped in the Phase 1B Testing Protocol prepared by AKRF in July 2014. However, because the project sites are all active parking lots, some deviations from the proposed testing plan became necessary. Several of the proposed testing locations were obstructed by disabled vehicles that could not be moved from the testing locations. Where possible, the trenches were relocated to a different location within the area of sensitivity. In some cases, trenches were opened at an angle or in smaller segments to allow the backhoe to operate around parked cars. Because of the logistical issues presented by the number of cars that could not be moved, many trenches were narrower than initially proposed. However, for some locations—most notably

Site 6, where parking spaces are rented to individuals, many of whom refused to move their vehicles—trenches could not be excavated as planned and no testing was possible within some areas of sensitivity. For the purposes of record-keeping, trenches were labeled with a two-digit identification number separated by a decimal point. The digit listed before the decimal point represents the site on which the trench was excavated and the second digit represents the chronological order in which the trench was excavated. Therefore, Trench 2.1 was the first trench excavated on Site 2. This numbering system was implemented to avoid confusion with the similar two-digit numbers used to identify historic properties in the Phase 1A, in which the numbers were separated with a hyphen.

Each of the trenches was strategically placed within the undisturbed areas within the boundaries of the archaeologically sensitive historic lots within each site. Where possible, trenches were placed near the former rear lot line of the historic lots, where privy pits would be expected and where the least disturbance was documented. In several cases where the historic lots were developed with both front and rear dwellings that were constructed with basements, only a central courtyard area was identified as undisturbed and archaeologically sensitive. In those cases, trenches were placed within the former central courtyard area in an attempt to identify privies, cisterns, or wells. If obstructions (e.g., parked or disabled vehicles) were present within the planned testing location, the trench was opened elsewhere within the area of sensitivity. Along the eastern side of Site 6, where parked cars obstructed three-quarters of a proposed testing area, a single, larger trench was opened at the southern end of the area of sensitivity.

THE EXACVATION OF THE TEST TRENCHES

The width of the trenches varied between 2 and 11.5 feet and trench length ranged between 6 and 30 feet. Each trench was excavated to the depth of sterile subsoil or until obstructions (e.g., concrete pads, steel pipes, or rick) prevented further excavation. The depth of the trenches ranged between 1.7 and 11.5 feet below the ground surface. In locations where extensive demolition debris or other obstructions were encountered within the areas of sensitivity, the trenches were moved to an undisturbed area or were abandoned. Regardless of the disturbance of upper soils, most of the trenches were excavated to the depth of undisturbed soils to determine the presence or absence of archaeological resources. Several trenches could not be excavated to the depth of clean soil because they contained a sufficient amount of demolition debris or brick rubble that the trench walls did not remain stable and excavation could not proceed for risk of undermining the surrounding parking lot.

Where possible and within the realm of worker safety (i.e., when trenches were less than 5 feet in depth and/or properly shored), archaeologists entered the backhoe trenches to examine the soils *in situ* and to collect artifacts. The archaeological team also examined the backdirt removed from each trench in order to recover artifacts from greater depths. After each trench was completed, it was refilled and where necessary, clean fill material (recycled concrete aggregate [RCA]) was used to bring the trench back to grade and restore the parking surface.

All fieldwork was documented through notes, photographs, and drawings. Professional standards for excavation and recording of features and stratigraphy, labeling, mapping, and photography of archaeological resources were applied. Soil profiles around the feature were recorded and drawings of the soil profiles within the walls of the excavation unit were made. Soil colors, textures, and inclusions were observed and documented. Soil colors were identified using Munsell® Soil Color Charts.

E. ARTIFACT PROCESSING AND ANALYSIS

ARTIFACT COLLECTION

As described above, throughout the Phase 1B investigation artifacts were sampled and collected by hand from within the test trenches. Additional artifacts were recovered from trenches and excavated backdirt deposits by the archaeological team. All collected artifacts were bagged in acid-free polyethylene zip-lock bags and labeled with provenience information. In total, more than 100 artifacts were recovered during the archaeological investigation (see **Appendix B: Artifact Catalog**).

ARTIFACT PROCESSING

All laboratory activity was conducted in compliance with guidelines established by the Department of the Interior for the Curation of Federally-owned and Administered Archaeological Collections (36 CFR 79 and 66). Artifact washing was completed in the AKRF archaeological laboratory. Trained technicians processed the artifacts using standard archaeological techniques. Artifacts were washed with a mild, non-ionic detergent using soft-bristle brushes and were air-dried on porous racks. Fragile artifacts and those with non-stable surfaces were treated separately either without brushing or without water. Once fully dried, artifacts were sorted by type and re-bagged in clean, archivally stable, polyethylene zip-lock bags labeled with provenience information.

ARTIFACT ANALYSIS

More than 100 artifacts were recovered during the Phase1B investigation. To the extent possible, the remainder of the recovered artifacts were examined and classified according to material, temporal or cultural/chronological association, function, and style, using standard archaeological references. Where possible, this detailed analysis included the identification of the *Terminus Post Quem* (TPQ)—the earliest possible date that can be attributed to an artifact—for each context and the generation of mean beginning and end dates for the assemblage. This information was then used to establish the contemporaneity of contexts and strata, and to determine which assemblages represent primary or secondary deposits.

An artifact catalog was prepared to identify each artifact and to classify it by context, count, provenience, type, and material (see **Appendix B: Artifact Catalog**). While more specific Group and Class categories are traditionally used in artifact cataloging—i.e., use of "Kitchen" to specifically denote ceramic artifacts associated with serving dishes and "Furniture" to indicate decorative ceramic objects such as flower pots—because of the nature of the artifacts collected during this investigation, simplified categories were used. For example, the majority of the ceramics collected were highly fragmentary and it was often difficult to differentiate between kitchen-related ceramics and those that might have been used for other purposes. As a result, these artifacts are catalogued under "Type; Ceramic Vessel."

F. EVALUATION OF SIGNIFICANCE

For a property to be eligible for S/NR-listing, it must possess integrity of one or more qualities as defined in Table 2-1. Typically, "archeological integrity may be demonstrated by the presence of: spatial patterning of surface artifacts or features that represent differential uses or activities; spatial patterning of subsurface artifacts or features; or lack of serious disturbance to the property's archeological deposits" (Little, et al. 2000: 37).

Table 2 Aspects or Qualities of Integrity as Defined by the United States National Park Service

Aspect/Quality	Definition
Location	The place where the historic property was constructed or the place where the historic event occurred
Design	The combination of elements that create the form, plan, space, structure, and style of a property.
Setting	The physical environment of a historic property. Setting includes elements such as topographic features, open space, view shed, landscape, vegetation, and artificial features.
Materials	The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
Workmanship	The physical evidence of the labor and skill of a particular culture or people during any given period in history.
Feeling	A property's expression of the aesthetic or historic sense of a particular period of time.
Association	The direct link between an important historic event or person and a historic property. Under Criterion D (see below) it is measured in the strength of association between data and important research questions.

Properties. US Department of the Interior, National Park Service.

In addition, the site must meet at least one of the following four criteria defining historical, architectural, archaeological, engineering, or cultural significance:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are associated with the lives of persons significant in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

A. INTRODUCTION

As described previously, a Phase 1A Archaeological Documentary Study of the project site that was prepared by AKRF in December 2011. As part of the background research completed for that study, various primary and secondary resources were analyzed. These sources included historic and current utility maps and construction plans and historic maps and atlases, historic photographs, newspaper articles, local histories, census records, and historic directories. The following chapter summarizes the results and conclusions of that investigation.

B. ENVIRONMENTAL SETTING

GEOLOGY AND TOPOGRAPHY

The island of Manhattan is found within a geographic bedrock region known as the Manhattan Prong of the New England (Upland) Physiographic Province. This area is characterized by deposits of glacial till that were left behind by massive glaciers of up to 1,000 feet thick that retreated from the area towards the end of the Pleistocene. There were four major glaciations that affected Manhattan until roughly 12,000 years ago when the Wisconsin period—the last glacial period—came to an end. The glacial movements also brought about the creation of hundreds of sand hills, or kames, some of which were nearly one hundred feet tall. These hills were contrasted by many small streams, rivers, and lakes that were fed by the glacial runoff. A large hill historically bordered the project site to the east.

Throughout the historic period, the landscape was permanently altered through the filling in of streams and the leveling of hills. Several historic maps include data regarding elevations at street corners, which shows that minimal changes have occurred to the overall elevation of the project site streetbeds since the late 19th century. This suggests that the historic ground surface is roughly the same as the modern ground surface.

HYDROLOGY

As glacial runoff ceased, the small water courses that had been formed in the wake of retreating glaciers were transformed into swamps and marshlands. Marshes were present several blocks to the north, south, and east of the project site, although none were present within the site itself. The Collect Pond, approximately 4,000 feet southwest of the project site was the nearest major source of fresh water while smaller ponds were 1,500 to 2,000 feet from the project site.

SOILS

The New York City Soil Reconnaissance Survey published by the National Resource Conservation Service (2005) indicates that two soil complexes are present within the boundaries of the project site. In the landfilled areas in the southern portion of the project site corridor, soils are identified as part of the "Pavement and Buildings-wet substratum-Laguardia-Ebbets" complex. This soil type is characterized by 0 to 8 percent slopes in areas that have been filled with a mixture of natural soil materials and construction debris and up to 80 percent of which are covered with impermeable pavement and/or buildings. To the north of this area, soils are included within the "Pavement and

Buildings-outwash substratum" complex. These highly urbanized areas typically have 0 to 5 percent slopes more than 80 percent of which is covered by impervious pavement or buildings (New York City Soil Survey Staff 2005).

C. PRECONTACT CONTEXT

The precontact sensitivity of project sites in the New York City is generally evaluated by a site's proximity to high ground (but not exceeding 12 to 15 percent slopes), fresh water courses, well-drained soils, and previously identified precontact archaeological sites (NYAC 2005). The varied resources provided by both the East River and the wetlands that bordered it would have been essential to Native American life and it is highly likely that such resources were frequently exploited. The presence of a Native American trail leading to the East River situated to the south of the project site confirms this. The majority of the project site would not likely have been the location of a habitation site, as high ground such as the large hill to the east, where the Native American village of *Nechtanc* was located, would have been favored. However, it is possible that the location surrounding the project site was used for the gathering and processing of resources, which is supported by the presence of a Native American trail through the area in the vicinity of modern East Broadway.

Despite the likelihood that Native Americans used the project site as a temporary hunting or fishing location, Native American archaeological sites tend to be shallowly buried, often within 4 to 5 feet of the precontact ground surface. During the historic period, the landscape of the project area was greatly transformed as a result of farming, grading, the demolition of hills, the cutting of streets, and the construction of buildings. Subsequent basement excavations and utility installations would have generated additional disturbance to the ground surface, the elevation of which (as described above) has changed little since the mid-19th century according to historic maps. Therefore, it appears that the original ground surface in this area would have been sufficiently altered so as to have disturbed any precontact archaeological resources which could have been located there at one time. Therefore, the project site was determined to have no sensitivity for precontact archaeological resources.

D. HISTORIC CONTEXT

The project sites are located in an area that was used by the early Dutch and English settlers as farmland. The area remained largely rural throughout the 17th and 18th centuries. During the Revolutionary War, military fortifications were constructed within and in the vicinity of the project sites. The project sites were included within the farm of James DeLancey, a Loyalist, and were confiscated and sold at the end of the war. Because of the military presence in the area during the war, the Lower East Side was not heavily developed until after the war ended and the British evacuated the city in 1783. The end of the war resulted in the division of large farms, such as DeLancey's, which resulted in the rapid urbanization of the Lower East Side. As streets were cut through, the project site blocks were formed and divided into historic lots.

The Phase 1A study analyzed almost 100 historic properties that were historically included within the project site. The study determined that nearly all were disturbed to some extent as a result of excavation associated with the construction of buildings with basements. All lots that were fully developed or where all but a portion of the lot measuring less than 10 feet in width was developed with structures with basements were considered to be disturbed and therefore not sensitive for archaeological resources. Historic lots that were not fully disturbed by basement excavation were determined to have moderate to high sensitivity for archaeological resources associated with the 19th century residential occupation of those lots. As described in Chapter 2, these archaeological resources were expected to include domestic shaft features such as privies, cisterns, and wells in the historic lots' rear yards. There was also a very low probability that burial vaults associated with a church

formerly located on Site 3 may have been present within the property identified in this report as Property **3-6**. The historic properties identified as sensitive are summarized in **Table 1** and depicted in **Figure 3**.

A. INTRODUCTION

Fieldwork for this archaeological investigation was completed in August 2014. As described in **Chapter 2: Research Goals and Methodology**, 36 trenches were opened to determine the presence or absence of archaeological resources throughout the area of archaeological sensitivity as identified in the Phase 1A study. The results of this excavation are described below and a summary of the trenches is included in **Appendix A: Record of Excavation**. While some suspected features were observed during the testing, no intact shaft features were discovered. In some locations, clean soils suggesting an undisturbed ground surface were observed; however, these locations did not possess shaft feature or evidence that such features could be present.

Cultural materials recovered as part of this investigation included modern or 20th century refuse and fill materials, including brick and glass fragments, as well as 19th century artifacts in disturbed contexts or very low concentrations. As such, extensive artifact analysis was not required for this investigation and observed artifacts are only briefly summarized as necessary in the following discussion. A full inventory of recovered artifacts has been included as **Appendix B: Artifact Catalog**.

B. RESULTS OF NON-INVASIVE GEOPHYSICAL SURVEY

Non-invasive geophysical surveys of Sites 2 through 6 were completed by Enviroprobe Service, Inc. A report summarizing the findings on Sites 2 and 6 was issued July 17, 2014; for Site 3 and 4 on August 8, 2014; and for Site 5 on July 21, 2014 (Enviroprobe Service, Inc. 2014a, 2014b, and 2014c). The surveys assessed all accessible parts of each site, however some portions of some sites could not be accessed because they were obstructed by parked cars.

SITE 2

No evidence of underground storage tanks (UST) was observed during the geophysical investigation (Enviroprobe Service, Inc. 2014a). A previous environmental investigation had encountered a potential UST near the area of archaeological sensitivity associated with property 2-6, formerly located at 75 Norfolk Street (ibid). No evidence of this UST was observed during the most recent investigation, however, it is possible that the presence of parked cars within the parking lot interfered with the equipment (ibid). Two electrical lines were identified within the southern half of the site. The test trenches on this site were placed at least 5 to 10 feet away from the locations of the identified electric lines and the location of the suspected tank (see **Figure 4**).

SITE 3

Similar to Site 2, no evidence of USTs was observed during the geophysical investigation despite the fact that previous investigations identified a possible UST in the northeast corner of the site, outside the areas of archaeological sensitivity (Enviroprobe Service, Inc. 2014b). Electrical lines were identified surrounding the perimeter of the site's southeast corner outside the areas of archaeological sensitivity and therefore did not impact the testing plan (ibid).

SITE 4

No evidence of USTs or subsurface utilities was observed within Site 4 (Enviroprobe Service, Inc. 2014b).

SITE 5

No evidence of USTs was observed within Site 5 (Enviroprobe Service, Inc. 2014c). One unidentified subsurface utility was observed within the parking lot to the northeast of the existing structure at 400 Grand Street. This utility is near areas of archaeological sensitivity identified for properties identified in this investigation as 5-9, 5-14, and 5-21. Testing was conducted in such a way as to avoid the location of suspected utilities. Additional above-ground storage tanks were identified within the basements of each of the three on-site structures. A vent pipe and fill port pope associated with the existing firehouse on the northern side of the site was also noted in areas that were not identified as archaeologically sensitive (ibid).

SITE 6

No evidence of USTs or subsurface utilities was observed within Site 6 (Enviroprobe Service, Inc. 2014a).

C. RESULTS OF PHASE 1B FIELDWORK: SITE 2

Seven trenches were opened within Site 2, which is located immediately to the east of a large structure associated with the Essex Market (see **Table 3**). Five trenches were originally planned for this site. However, because of a high number of disabled vehicles that obstructed the proposed testing locations, a greater number of smaller trenches was excavated within the areas of sensitivity, as described below and depicted on **Figure 4**.

Table 3
Summary of Test Trenches on Site 2

Testing Location (See Figure 4)	Historic Property Tested (see Figure 3)	Results
	Property 2-13:	
Trench 2.1	214 Broome Street	No evidence of intact archaeological resources
	Property 2-2:	
Trench 2.2	83 Norfolk Street	No evidence of intact archaeological resources
	Property 2-1:	
Trench 2.3	85 Norfolk Street	No evidence of intact archaeological resources
	Property 2-3:	
Trench 2.4	81 Norfolk Street	No evidence of intact archaeological resources
	Property 2-4:	
Trench 2.5	79 Norfolk Street	No evidence of intact archaeological resources
	Properties 2-5 and 2-6:	
Trench 2.6	75 and 77 Norfolk Street	No evidence of intact archaeological resources
	Properties 2-6 and 2-7:	
Trench 2.7	73 and 75 Norfolk Street	No evidence of intact archaeological resources

DESCRIPTION OF INDIVIDUAL TRENCHES WITHIN SITE 2

TRENCH 2.1

Trench 2.1 was opened within the former rear yard of the property identified as 2-13, formerly located at 214 Broome Street (see **Photograph 1**). Because of disabled cars surrounding the trench and the presence of a known electrical line, the trench was opened at an angle within the area of sensitivity. The trench measured 13 feet in length, 4.6 feet in width, and 11.5 feet in depth. Beneath the gravel ground surface, the trench contained extensive brick rubble and demolition debris to a depth of approximately 8 feet. Foundation walls associated with the structure at 214 Broome Street as well as neighboring structures were observed within the southeast corner and along the southern and eastern walls of the trench. The brick rubble contained demolition debris (including metal fire escape ladders) as well as 20th century domestic refuse that appears to have been left in the building when it was demolished. The refuse included records, flatware, shoes, and other items. Clean soil was encountered at a depth of 8 feet and was comprised of dark yellowish brown (10YR4/6) coarse sand. No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation.

In total, 24 artifacts were recovered from Trench 2.1, representing 17 percent of the total assemblage from the entire investigation. All of the artifacts were recovered from within the rubble and were mixed in with significant quantities of other artifacts that were not collected or analyzed, including records, shoes, and other refuse. A small sample of these artifacts was collected for analysis. The majority of these artifacts were flatware (spoons and forks), some of which were stainless steel and others were sufficiently corroded that the metal or identifying marks could not be read. Also included within the rubble was a quart-size milk bottle bearing the name of Sheffield Farms Co., Inc. that is consistent with the type of bottle depicted in Sheffield's early 20th century advertisements. Among other 20th century refuse were several non-diagnostic ceramics with broad date ranges beginning in the 19th century (whiteware and pearlware) were also recovered. In addition, a black nylon comb manufactured by Dupont was recovered as were two glass medicine bottles with embossed production codes indicating that they were manufactured in 1930 and 1950.

TRENCH 2.2

Trench 2.2 was opened in the northwest corner of Site 2, in the location of Property 2-2 formerly at 83 Norfolk Street. Because of disabled vehicles to the north of the trench, the trench was opened at an angle and measured 13 feet in length and 4 feet in width. At a depth of 1.7 feet below the ground surface, a concrete pad was encountered. Because of the trench's proximity to the subway along Delancey Street and the existing market building to the east, the trench was abandoned and no attempts were made to excavate beneath the concrete pad. No artifacts were collected from this trench.

TRENCH 2.3

Trench 2.3 was opened in the northwestern corner of the trench within Property 2-1, formerly at 85 Norfolk Street (see **Photograph 2**). The planned trench location was obstructed by two disabled vehicles that could not be moved. As a result the trench was opened 20 feet to the east and was still within the area of sensitivity. The trench measured 14.5 feet by 4.5 feet. Beneath the asphalt, the trench contained dense brick rubble, demolition debris, and modern refuse (including rolled paper and plastic bottles) to a depth of 9 feet below the ground surface. Beneath the rubble fill was a layer of dark yellowish brown (10YR3/6) fine, compact silty sand. No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation. No artifacts were collected from this trench.

TRENCH 2.4

Trench 2.4 was opened within a former central courtyard on Property 2-3, located at 81 Norfolk Street. To the east and west of the courtyard were structures with basements. The trench measured 14.5 by 5 feet and was excavated to a depth of 8 feet. The trench contained very dense brick rubble and an intact foundation wall was observed in the northern end of the trench at a depth of 2.5 feet below the ground surface. The fill materials included demolition debris, including a small tank and the remnants of a possible water heater/boiler. Clean dark yellowish brown (10YR4/6) sand was encountered at a depth of 8 feet below grade. No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation. Two non-diagnostic artifacts were recovered from this trench: a fragment of a fan-shaped milk glass decorative item (possibly a glass lamp shade or a vase) and small whiteware fragment.

TRENCH 2.5

Trench 2.5 was located within Property 2-4, formerly located at 79 Norfolk Street. Because of a disabled car, the trench was smaller than originally planned and measured 13 by 4 feet and was excavated to a depth of 8.5 feet (see **Photograph 3**). Dense brick rubble and demolition debris was present beneath the asphalt. A brick and stone foundation wall lined the eastern side of the trench and continued to a depth of approximately 8 feet below the ground surface. Beneath the rubble, dark yellowish brown (10YR4/6) clayey silty sand was observed. A nearly complete stoneware shoulder jug or liquor crock was the only artifact recovered from this trench. The two-toned jug features a conical blue-gray gray-bodied stoneware mouth/top and a cylindrical light gray body/base separated from the top by a distinct ridge. The jug was found within the dense brick rubble more than 8 feet below the ground surface. At a depth of approximately 8.5 feet below the ground surface, dark yellowish brown (10YR3/6) clayey, sandy silt was observed. No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation.

TRENCH 2.6

Trench 2.6 was located within Properties 2-5 and 2-6, formerly located at 75 and 77 Norfolk Street (see **Photograph 4**). The trench was opened to the south of the disabled car adjacent to Trench 2.5 and measured 17.5 by 5.5 feet and was excavated to a depth of 9 feet. The trench contained dense brick rubble and modern refuse, including carpeting, fabric, wires, and plastic bottles. Subsoil was not encountered and excavation could not continue past a depth of 9 feet because the trench walls began to collapse. An intact brick foundation wall was encountered at the northern end of the trench at a depth of approximately 2.5 feet below grade. A second wall lined the eastern side of the trench. No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation. No artifacts were collected from this trench.

TRENCH 2.7

Trench 2.7 was located near the southeast corner of the existing market building located within Site 2 west of the archaeological study area in the location of Properties 2-6 and 2-7 formerly located at 73 and 75 Norfolk Street (Trench 2.6 also tested a portion of Property 2-6). Because of a disabled vehicle, the suspected underground storage tank, and the known electrical line in the immediate vicinity of this area of sensitivity, Trench 2.7 was opened at a northwest-southeast angle. The trench measured 9.5 feet in length, 3.5 feet in width, and was excavated to a depth of 8.5 feet. The asphalt in the location of this trench was very thick and was underlain by a dark-colored fill. The fill was

comprised of brick rubble and demolition debris to a depth of approximately 8 feet. Beneath the fill was clean brown (10YR5/3) sand containing no cultural material.

No evidence of shaft features was observed and this area of sensitivity appears to have been disturbed by undocumented basement excavation. One artifact was collected from this trench: a small green glass medicine bottle manufactured by the Owens-Illinois glass company in 1936. The bottle was found at a depth of 6 to 7 feet below grade, near the bottom of the brick rubble.

D. RESULTS OF PHASE 1B FIELDWORK: SITE 3

Six trenches were opened within Site 3, an undeveloped parking lot bounded by Delancey, Norfolk, Broome, and Suffolk Streets. Five trenches were originally planned for this site. However, because of the presence of disabled vehicles that obstructed the proposed testing locations and the logistical difficulties of working within an active parking lot, some alterations had to be made to the proposed testing plan. Ultimately nine smaller trenches were excavated within the areas of sensitivity, as described in **Table 4** and depicted on **Figure 5**.

Table 4
Summary of Test Trenches on Site 3

Testing Location	Historic Property Tested	
(See Figure 5)	(see Figure 3)	Results
	Property 3-19:	
Trench 3.1	75 Suffolk Street	No evidence of intact archaeological resources
	Property 3-18:	
Trench 3.2	73 Suffolk Street	No evidence of intact archaeological resources
Trench 3.3	Property 3-13: 200 Broome Street	Potentially intact ground surface observed, but with no evidence of intact archaeological resources or features
	Property 3-3:	
Trench 3.4A-B	78 Norfolk Street	No evidence of intact archaeological resources
	Property 3-4:	
Trench 3.4C-D	76 Norfolk Street	No evidence of intact archaeological resources
	Property 3-6:	
Trench 3.5	72 Norfolk Street	No evidence of intact archaeological resources
	Properties 3-10 and 3-11:	
Trench 3.6	204 and 206 Broome Street	No evidence of intact archaeological resources
Notes: See full excav	vation record in Appendix A.	

DESCRIPTION OF INDIVIDUAL TRENCHES WITHIN SITE 3

TRENCH 3.1

Trench 3.1 was located at the northern end of Site 3, east of a disabled car and south of a large sign that rests on two poles with deep foundations. The trench was opened within a narrow area of sensitivity representing the former rear yard of 75 Suffolk Street (Property 3-19) and measured 12.5 by 4 feet. The trench contained extremely dense brick rubble to a depth of 11 feet below the ground surface, where the trench was abandoned before clean subsoil could be reached. An intact brick wall was located in the western wall of the trench, confirming undocumented basement disturbance within the former rear yard. Three modern artifacts were collected from a depth of 8 to 10 feet below the ground surface of this trench. These artifacts included a late-20th century Tropicana grapefruit juice bottle, a suspected modern drug vial with a plastic cap, and a stainless steel spoon with a wooden

inlay handle. No evidence of intact archaeological resources or features was observed within this trench and it appears that this area was entirely disturbed by undocumented excavation.

TRENCH 3.2

Trench 3.2 was located immediately to the south of Trench 3.1 within the former rear yard of Property 3-18 at 73 Suffolk Street (see **Photograph 5**). This former undeveloped rear yard was significantly larger than that of the property to the north, and had been developed with a rear structure that historic maps indicate did not have a basement (see **Figure 3**). However, brick foundation walls were encountered within the east and west walls of the trench, which measured 4.5 feet in width and 15 feet in length. The trench contained brick rubble and demolition debris, but in lower concentrations than that seen in Trench 3.1. Terra cotta pipes were observed at a depth of 4.5 feet in the southwest corner of the trench. The trench was excavated to a depth of 9.5 feet and dark yellowish brown (10YR 4/4) fine, clayey-silty sand was encountered at a depth of 9 feet below the ground surface.

No evidence of intact archaeological resources or features was observed within this trench and it appears that this area was entirely disturbed by undocumented basement excavation. Five artifacts were recovered from the backdirt excavated from this trench. One was a butchered large mammal bone and another was a stone tile fragment. The remaining artifacts were whiteware or pearlware fragments with broad production date ranges.

TRENCH 3.3

Trench 3.3 was located within the southeast corner of Site 3 in the former central yard of property 3-13, at 200 Broome Street (see **Photograph 6**). Historic maps (see **Figure 3**) indicate that this historic lot was developed with a front and rear dwelling, each of which was constructed with a basement, and that structures with basements surrounded the courtyard to the east and west. The trench measured 13 feet in length and 4.5 feet in width and was opened near the northern end of the area of sensitivity. Disabled cars were present to the east and west of the area of sensitivity, limiting the extent to which the trench could be excavated.

Trench 3.3 represents one of the only trenches opened as part of this Phase 1B archaeological investigation where an intact, undisturbed ground surface appears to have been encountered. Immediately beneath the asphalt across the entire length of the trench was a layer of light brick rubble with cobbles. Because the fill was looser in this portion of the site, the trench walls collapsed easily, undermining the surrounding parking lot and presenting a safety hazard during the excavation. A rubble- and rock-filled brick foundation was encountered within the eastern half of the trench. To the west of the foundation was dark yellowish brown (10YR4/4) clean, coarse sand. A partial cement or concrete wall appeared to form a boundary between the foundation and the clean sand to the west. Within the western half, at a depth of 3 feet below the ground surface and below the light brick rubble, a 1.5-foot-thick layer of darker soil was observed. This may represent a buried ground surface or may represent soil staining from the 3-foot layer of brick rubble that was deposited above it. The western half of the trench was excavated to a depth of 7.7 feet below the ground surface and no change in soil was observed. It appears that the eastern half of the central courtyard was disturbed by undocumented basement excavation; however, no cultural material was observed within the clean sand and no evidence of shaft features was present within the west half of the area of sensitivity.

TRENCH 3.4

Trench 3.4 was excavated in four segments, identified as A through D. Trench 3.4A was located in the northern half of the former rear yard of 78 Norfolk Street (Property 3-3) and Trench 3.4B was located in the southern half of the former rear yard of 78 Norfolk Street (Property 3-3). Trench 3.4A measured 13 feet in length and 5 feet in width and Trench 3.4B measured 12 by 6 feet. Both trenches

were excavated to a depth of 9 feet below ground surface. The northern segment contained dense brick rubble and demolition debris to a depth of 9 feet, where a concrete or cement floor was encountered and the trench was abandoned. The concrete floor was not observed in Trench 3.4B, in which looser fill was observed. A fieldstone foundation wall was observed within the eastern wall of both trenches, possibly representing a party wall that separated Property 3-3 from the historic lots to the east. Subsoil could not be reached in either trench and no evidence of intact archaeological resources or shaft features was observed. A single artifact was collected from the trench: a fragment of a diner-style whiteware mug decorated with green bands.

TRENCH 3.5

Trench 3.5 was opened within the narrow former rear yard of Property 3-6 at 76 Norfolk Street. The trench measured 15 feet by 4 feet and was excavated to a depth of 8 to 10 feet below the surface of the parking lot (see **Photograph 7**). The trench contained dense demolition debris and brick rubble to a depth of 8 feet, where a concrete or cement floor was encountered within the southern portion of the trench. A stone foundation wall was also observed within the northern wall of the trench and the corner of a brick foundation wall was observed within the southwest corner. Clean, brown sandy subsoil was observed between 8 and 10 feet below the ground surface. As described previously, the Phase 1A study determined that there was a very low probability that burial vaults associated with a church formerly located on Site 3, including a portion of Property 3-6. No evidence of burial vaults or human remains were observed within this trench. The brick walls that were seen within the excavated area appeared to be structural foundation walls.

Four artifacts were recovered from a depth of 8 to 10 feet below the ground surface in the northern half of the trench, north of where a concrete or cement floor was observed. The artifacts included a fragment of light aqua or clear flat/window glass; two animal bone fragments (including one small mammal bone and one possible bird bone); and a fragment of pearlware with a blue transfer print. No evidence of intact archaeological resources in high concentrations or features was observed in Trench 3.5.

TRENCH 3.6

Trench 3.6 was a long trench that extended through the former rear yards of Properties 3-10 and 3-11, formerly at 206 and 204 Broome Street, respectively. The trench was opened in three segments and its total measured 45 feet in length and 4 feet in width and was excavated to a depth of 9 to 10.7 feet below the ground surface. The trench contained brick rubble and demolition debris beneath the asphalt. A substantial brick and stone wall running north-south (perpendicular to the trench) was encountered at a depth of 10 feet in the central portion of the trench and a concrete or cement floor was encountered at a depth of 9.5 feet in the eastern third, suggesting the presence of an undocumented basement void associated with Property 3-11. To the west of the wall was a builder's trench containing clean, dark sandy fill. Within the western third of the trench, within the former rear yard of Property 3-10, the brick rubble extended to a depth of 5 feet below the ground surface. Beneath the rubble was a layer of white and yellow clay above clean, dark yellowish brown (10YR4/4) sand.

Three artifacts were recovered from Trench 3.6. A white granite plate fragment decorated with dinerstyle green bands (similar in motif to the mug fragment recovered from Trench 3.5) was recovered from the center of the trench. The eastern third of the trench contained a white granite mug fragment painted with yellow-gold bands and with an embossed decoration around the base. A white milk glass "pomatum pot" bearing a patent date of 1890 (US Patent No. 19,762) was also recovered from the eastern end of the trench, suggesting that the assemblage dates to the late 19th century or later.

E. RESULTS OF PHASE 1B FIELDWORK: SITE 4

Ten trenches were opened within Site 4, which is located on the block bounded by Delancey, Suffolk, Broome, and Clinton Streets (see **Table 5**). Eight trenches were originally planned for this site. However, because of disabled vehicles that obstructed the proposed testing locations, a greater number of smaller trenches was excavated within the areas of sensitivity, as described below and depicted on **Figure 6**.

Table 5 Summary of Test Trenches on Site 4

Testing Location	Historic Property Tested	
(See Figure 5)	(see Figure 3)	Results
	Property 4-11:	
Trench 4.1	135 Clinton Street	No evidence of intact archaeological resources
Trench 4.2	Property 4-8: 120 Broome Street	Feature 1 observed in northeast corner of the trench; appeared to be in the location of a mapped outbuilding, but appeared to be a fire pit or chimney that did not contain artifacts or have extensive research value.
	Properties 4-2 and 4-3:	
Trench 4.3	76 and 74 Suffolk Street	No evidence of intact archaeological resources
Trench 4.4 and 4.4A	Properties 4-3 and 4-4: 74 and 72 Suffolk Street	Feature 2, an angled brick wall, was observed within Trench 4.4 and further explored in Trench 4.4A. The wall was not part of a shaft feature and no intact archaeological resources were identified.
	Property 4-12:	
Trench 4.5	137 Clinton Street	No evidence of intact archaeological resources
Trench 4.6	Property 4-12: 137 Clinton Street Properties 4-4 and 4-9:	No evidence of intact archaeological resources
Trench 4.7	72 Suffolk Street and 188 Broome Street	No evidence of intact archaeological resources
	Properties 4-15 and 4-14:	
Trench 4.8A	127 and 129 Clinton Street	No evidence of intact archaeological resources
	Properties 4-14 and 4-13:	
Trench 4.8B	129 and 131 Clinton Street	No evidence of intact archaeological resources
Notes: See full excar	vation record in Appendix A.	

DESCRIPTION OF INDIVIDUAL TRENCHES WITHIN SITE 4

TRENCH 4.1

Trench 4.1 was located within Property 4-11, formerly located at 135 Clinton Street, near the southern side of Site 4. The trench was more than 10 feet long and 4 feet wide and was excavated to a depth ranging between 2 and 5 feet below the ground surface. Brick rubble and demolition debris obstructed the bottom of the trench at that depth. The rubble was so compact that attempts to dig through it resulted in damage to the backhoe and the trench was therefore abandoned. No artifacts were recovered from this trench.

TRENCH 4.2

Trench 4.2 was opened within the historic lot formerly located at 120 Broome Street (Property 4-8). The trench measured 14.5 feet in length, 7 feet in width, and 8 feet in depth. Beneath the asphalt was a 4-foot-thick layer of brick rubble that was not as dense as that seen in other trenches on the site. Beneath the rubble was a 2-foot-thick layer of dark yellowish brown (10YR4/6) silty sand over a layer of yellowish brown (10YR5/4) silty sandy that appeared to be intact subsoil.

A small number of historic artifacts was recovered from the darker soil level at a depth of 4 to 6 feet below the ground surface. These artifacts included a fragment of vitrified stoneware tile or utility pipe, a fragment of blue transfer printed whiteware, and clam and oyster shells. Also recovered was a small fragment of slip-glazed redware with yellow stripes that could date between the 17th and mid-19th centuries (Azzizi, et al. 1996). The artifacts were not found in high concentrations and no evidence of intact domestic shaft features (e.g., privies, cisterns and wells) was observed. A suspected feature was observed, as described in greater detail below.

Feature 1

A suspected feature was observed within the northeast corner of the trench that was identified as **Feature 1** (see **Photograph 8**). The feature was constructed of brick and appeared to be capped with a large piece of stone; however, it was unclear if the stone was part of the overlying brick rubble and was inadvertently placed on top of the feature during the demolition of the surrounding buildings. The bricks overlying the feature were partially intact, possibly indicating that its upper levels were disturbed during demolition.

The feature and its surrounding walls were consistent with the location of a mapped outbuilding seen on 20th century Sanborn maps but not on those dating to the 19th century (see **Figure 3**). The interior of the feature—beginning at a depth of 4 feet below the paved ground surface—was filled with very compact soot with large chunks of coal ash mixed in. The density of the soot indicated that the feature was likely a chimney or fire pit. Historic directories from the first decades of the 20th century do not identify any industrial uses of the site that could be connected to the chimney. Feature 1 contained a single artifact: a badly stained and heavily corroded nail.

TRENCH 4.3

Trench 4.3 was opened across two historic lots, including Properties 4-2 and 4-3 at 76 and 74 Suffolk Street, respectively. The 30-foot-long trench measured 4 to 5 feet in width and was excavated to depths ranging between 9 and 10 feet. Brick rubble was visible in the broken asphalt on the surface of the area surrounding the trench, suggesting that previous disturbance had occurred in the immediate vicinity in the past. The northernmost 25 feet of the trench represented the mapped rear yard of Property 4-2 and appeared to be excavated within an unmapped basement void or air shaft behind the structure that formerly stood at 76 Suffolk Street. The rear wall of the building was further to the east than indicated on Sanborn maps (see **Figure 3**) and appears to have been encountered within the western wall of the trench. A second substantial brick wall lined the entire length of the trench within its eastern wall. The void between the two walls contained extremely dense demolition debris and modern refuse, including bottles embossed with date codes from the early 1970s at depths of approximately 8 feet (see **Photograph 9**). Excavation in this portion of the trench was terminated at a depth of 9 feet, where a cement or concrete floor was encountered. No artifacts were recovered from that portion of the trench.

Approximately 21 feet south of the northern wall of the trench, a substantial brick wall was encountered that ran perpendicular to the trench. This appears to have been a party wall that likely

separated Properties 4-2 and 4-3. To the south of the party wall, clean sandy soil indicative of an undisturbed rear yard (that of the building formerly at 74 Suffolk Street) were encountered. The clean, dark yellowish brown (10YR4/4 and 10YR4/6) coarse sand began at a depth of 2 feet below the pavement and rubble to the south of the party wall. No evidence of shaft features or artifacts was observed in the portion of the historic lot that was included within Trench 4.3. A larger portion of the historic lot was investigated through Trenches 4.4 and 4.4A, as described below.

TRENCHES 4.4 AND 4.4A

The northern portion of Trench 4.4—located 3 to 5 feet south of Trench 4.3 and along the same line—continued through Property 4-3 and its southern half tested the former rear yard of Property 4-4. The combined length of the trench was 23 feet and its width was 3 feet. The portion of the former rear yard of Property 4-3 was similar to that seen in Trench 4.3. Within the northern portion of the trench (within Property 4-3), yellowish brown (10YR5/6) loose, silty sand with small amounts of demolition debris was observed. A second brick party wall, which likely separated Properties 4-3 and 4-4, was observed approximately 10 feet south of the trench's northern end and approximately 25 feet south of the party wall observed within Trench 4.3 (see **Photograph 10**). No evidence of shaft features or intact archaeological resources was observed within Property 4-3 to the north of the wall.

To the south of the party wall, the ground surface within the former rear yard of Property 4-4 was noticeably different. Like many of the surrounding lots, the portion of Trench 4.4 within this historic lot contained dense brick rubble beneath the asphalt. Within the west wall of this portion of the trench, a brick wall was observed at a depth of 5 feet. The wall, identified as **Feature 2**, was at a 45-degree angle relative to the trench and the rear border of the historic lot (see **Photograph 11**). *In situ* terra cotta utility pipes were visible adjacent to and below the angled wall. A second brick foundation wall lined the eastern wall of the trench and a brick floor was observed at a depth of 7 feet below the ground surface. Yellowish brown (10YR5/6) loose, silty sand was observed beneath the brick walls.

Feature 2

The angled brick wall appeared to be comprised of several courses of brick. Trench 4.4A was opened to the west of the angled wall in an attempt to further explore it and to confirm it is was part of a shaft feature. Two artifacts were recovered from the vicinity of Feature 2 within Trench 4.4. The mending whiteware fragments were decorated with a cream-colored glaze.

Trench 4.4A was a large, L-shaped excavation measuring 8.5 by 13.5 feet in length and 4.5 to 15.25 feet in width. The majority of the trench was located within Property 4-4, but a portion extended into Property 4-3. The trench was excavated immediately to the west of Trench 4.4 and in the location of the angled wall. The party wall separating Properties 4-3 and 4-4—located approximately 3 feet north of the angled wall—was also observed in Trench 4.4A. A builder's trench was observed on the southern side of the party wall (see **Photograph 12**). A large steel girder that was seen protruding into the western wall of Trench 4.4 north of the angled wall was also located within Trench 4.4A. To the south of the builder's trench, clean sandy soil similar to that observed in Trench 4.4 was observed beneath a layer of coal ash and a layer of asphalt that was observed at a depth of 3.5 feet. Fragments of thick glass and a hard rubber or plastic cap were observed within the coal ash and plastic bags were observed at a depth of 4 feet below the ground surface. Trench 4.4A was excavated as far east as Trench 4.4, however, the angled wall was not re-located and no other associated walls or deposits were observed in Trench 4.4A. The angled wall may therefore have been a decorative garden wall of some kind and there was no evidence that it was associated with a shaft feature or any archaeological resources.

TRENCHES 4.5 AND 4.6

Trenches 4.5 and 4.6 were opened within former central yard areas on Property 4-12 formerly at 137 Clinton Street, in the southeastern corner of Site 4. Similar to Trench 4.1, brick rubble was visible on the ground surface in this location, suggesting previous disturbance. The trench was opened in the southeast corner of the area of sensitivity and measured 15 feet in length, 3 feet in width, and 8.5 feet in depth. In the location of this trench, the asphalt was very thick and was underlain by dense brick rubble with large pieces of stone and large metal objects. A stone wall foundation wall was located near the southern end of the trench that connected to an adjoining wall that lined the trench's western wall, indicating the presence of an undocumented basement void. The void was filled with dense brick rubble. To the south of the foundation, brick rubble and demolition debris continued to a depth of 8.5 feet. Beneath the rubble was a layer of dark sand overlying the clean yellowish brown (10YR5/4) fine sandy subsoil.

Trench 4.6 was located to the east of Trench 4.5, within a second central courtyard on Property 4-12. The trench was excavated in the northeastern corner of the area of sensitivity. The trench was 11 feet long, 3 feet wide, and was excavated to a depth of 9 feet. Similar to Trench 4.5, the trench was excavated through an undocumented basement void filled with dense rubble and demolition debris (including radiators and other large metal object). The trench was excavated to a depth of 9 feet and clean subsoil was not observed.

Fourteen artifacts were recovered from the backdirt removed from between 5 and 8 feet below the ground surface (within the brick rubble) in Trench 4.5. The artifacts were largely domestic refuse, including pearlware, porcelain, and whiteware fragments, a fragment of an embossed blue glass decorative item (likely a vase or lamp), and fragments of window and bottle glass. No artifacts were recovered from Trench 4.6.

TRENCH 4.7

Trench 4.7 was the southern extension of Trench 4.4 and was located within a small portion of Property 4-4 (examined through Trenches 4.3 and 4.4) and within Property 4-9, formerly at 188 Broome Street. The brick party wall separating the yards of the two properties was observed approximately 6 feet south of the trench's northern end (see **Photograph 13**). To the north of the wall, the asphalt was underlain by light brick rubble over yellowish brown (10YR5/4) medium to coarse sand at a depth of 8 feet. There was no evidence of intact archaeological resources or features to the north of the wall.

Within Property 4-9 to the south of the wall, the asphalt was underlain by very dense brick rubble that extended to a depth of 9 feet below the ground surface. Brick foundation walls lined the southern and western walls of the trench and appeared to form an undocumented basement. Subsoil could not be reached in this trench. Twenty domestic artifacts were recovered from this portion of the trench. The artifacts included a cut nail; several bone fragments, some of which were butchered; pearlware and whiteware fragments; a small pipe stem fragment, and clam and oyster shells.

TRENCH 4.8

Trench 4.8 was excavated in two segments to the east of Trenches 4.4 and 4.7. Trench 4.8A, the northern segment, extended through Properties 4-14 and 4-15, formerly located at 129 and 127 Clinton Street, respectively. Trench 4.8B was immediately to the south and extended between Property 4-14 and Property 4-13, at 129 and 131 Clinton Street.

Trench 4.8A was excavated in two halves with a combined length of 30 feet and a width varying between 2.5 and 5 feet (see **Photograph 14**). The northern portion was excavated to a depth of 9 feet

and the southern half to a depth of 11.5 feet. The trench contained brick rubble and demolition debris throughout its entire depth and clean subsoil was not reached. An intact brick foundation wall was observed along the eastern wall of the trench's northern half. A brick and stone foundation wall running perpendicular to the trench was encountered near the center of the trench's full length. This wall likely marked the boundary between Properties 4-13 and 4-14.

Trench 4.8B was opened 3 to 5 feet south of Trench 4.8A. The trench was 13 feet in length, approximately 3 feet in width, and was excavated to a depth of 11.5 feet. Brick foundation walls were observed within the west and north walls of the trench beginning at depths of 5.5 feet below the ground surface. Dense brick rubble filled the trench to a depth of 9 to 11 feet below the grounds surface. Beneath the rubble was a layer of coarse, clean sand that may have been fill or natural subsoil. No intact archaeological resources or evidence of intact shaft features were observed within the trench.

F. RESULTS OF PHASE 1B FIELDWORK: SITE 5

Site 5 is the only site within the archaeological APE that is developed with standing structures. Three buildings are located on the site: a vacant firehouse at 185 Broome Street; and two dwellings at 200 and 402 Grand Street. Seven trenches were opened within Site 5, which is located on the block bounded by Broome, Suffolk, Grand, and Clinton Streets (see **Table 6**). Additional trenches were originally planned for this site, however, because of disabled vehicles that obstructed the proposed testing locations, some could not be excavated, as described below and depicted on **Figure 7**. In addition, proposed trenches to the south of the existing fire house (within Properties 5-32 and 5-24A), to the north of the building at 400 Grand Street (Property 5-15), and within Property 5-5 could not be tested because the testing locations were inaccessible and/or paved with thick concrete. In addition, the areas surrounding the fire house appeared to have been graded and visibly disturbed (see **Photograph 15**).

¹ The existing market building on Site 2 is outside of the archaeological APE.

Table 6
Summary of Test Trenches on Site 5

	building of Test Treffences of Site 3
Historic Property Tested	
(see Figure 3)	Results
Property 5-6:	
52 Suffolk Street	No evidence of intact archaeological resources
Property 5-7:	
50 Suffolk Street	No evidence of intact archaeological resources
Property 5-14:	
398 Grand Street	No evidence of intact archaeological resources
Properties 5-10, 5-12, and 5-13*:	
42 Suffolk Street and	
394 and 396 Grand Street	No evidence of intact archaeological resources
Property 5-21:	
155 Clinton Street	No evidence of intact archaeological resources
Property 5-9:	
44 Suffolk Street	No evidence of intact archaeological resources
Properties 5-28 and 5-29:	
139-141 Clinton/181-183 Broome Street	Ŭ
	A suspected feature (Feature 3) was observed
	within the eastern wall of the trench. The trench
	was expanded to the east to further investigate
	the feature, which appears to have been an
	alleyway between two buildings that was filled
	with coal ash and low concentrations of
	artifacts.
	No evidence of intact archaeological resources
	(see Figure 3) Property 5-6: 52 Suffolk Street Property 5-7: 50 Suffolk Street Property 5-14: 398 Grand Street Properties 5-10, 5-12, and 5-13*: 42 Suffolk Street and 394 and 396 Grand Street Property 5-21: 155 Clinton Street Property 5-9: 44 Suffolk Street Property 5-9: 44 Suffolk Street Properties 5-28 and 5-29: 139-141 Clinton/181-183 Broome Street Property 5-3: 191 Clinton Street

Notes:

*These properties were reconfigured at some point during the historic period and therefore the same rear yard may have been associated with more than one historic property. See full excavation record in Appendix A.

DESCRIPTION OF INDIVIDUAL TRENCHES WITHIN SITE 5

TRENCHES 5.1 AND 5.1A

Trench 5.1 was located near the rear lot line of Property 5-6, formerly located at 52 Suffolk Street. The ground surface of the testing location was several feet higher than that of the fire house property to the east. The trench measured 12 feet in length and varied between 2 and 5 feet in width. Six feet of clean fill were observed immediately beneath the asphalt. It was not immediately clear if the fill was used to elevate the location of the parking lot or if the adjacent fire house was graded, or if both had occurred. A layer of brick and concrete rubble was located beneath the clean fill and a layer of ashy rubble was observed between 6.5 and 8.5 feet below the ground surface. Strong brown sandy subsoil was encountered at a depth of 8.5 feet below the ground surface.

Trench 5.1A was opened to the south of Trench 5.1. The large, nearly square trench measured 10.5 by 11.5 feet and was excavated to a depth of 10 feet. Although the trench was located in the rear yard of Property 5-7, the same soil profile observed in Trench 5.1 (within Property 5-6) was observed in Trench 5.1A. No artifacts were recovered from this trench and no evidence of intact shaft features was observed in either trench, which appear to have experienced the same degree disturbance. It is likely that Property 5-5 to the north, which could not be tested, was similarly disturbed.

TRENCH 5.2

Trench 5.2 was opened in three segments near the southwestern corner of Site 5. The easternmost segment, Trench 5.2A, was located within the rear yard of Property 5-14, formerly at 398 Grand Street. The trench segment was excavated near the southwestern edge of the area of sensitivity associated with this property to avoid a suspected utility identified during the geophysical survey and because of a disabled vehicle that was located along the eastern side of the area of sensitivity. The segment measured 16 by 6 feet. Dense brick rubble and 20th century/modern refuse was present to a depth of 6 feet, where a concrete pad was encountered that prevented further excavation. Brick walls running perpendicular to the trench were encountered 6 and 10 feet east of the western trench wall.

Trenches 5.2B and 5.2C were opened to the west of Trench 5.2A and further to the north, within an area formerly made up by Propertied 5-10, 5-12, and 5-13. Trench 5.2B measured 17 feet in length and its width varied between 5 and 8 feet. The trench was excavated to a depth of 7 feet and abandoned when the trench walls began to collapse. Subsoil was not reached in this trench. A stone wall lined the northern wall of the trench and a cinder block wall crossed perpendicular to the trench was present in the southwest corner. A metal ladder was attached to the wall and a concrete slab appeared to be associated with it (see **Photograph 16**). Trench 5.2C was opened to the west and measured 15 feet in length and between 5 and 10 feet in width. The entire trench was obstructed by a concrete pad at a depth of 7.5 feet and was therefore abandoned. No artifacts were recovered from any of the three segments of Trench 5.2 and no evidence of intact shaft features was observed.

TRENCH 5.3

Trench 5.3 was opened within the former rear yard of the historic lot at 155 Clinton Street (Property 5-21). The trench was significantly smaller than originally proposed, measuring 6 feet by 2 to 3 feet. The trench was shortened because of the subsurface utilities identified nearby and also because the ground surface was covered with dense concrete that was difficult to remove. A second concrete pad was encountered at a depth of 2 feet below the ground surface and the trench was abandoned.

TRENCH 5.4

Trench 5.4 was opened to the west of Trench 5.3, also in an area paved with concrete. The trench was opened to the north and west of the suspected utilities within Property 5-9, formerly at 44 Suffolk Street. The 9- by 4-foot trench could only be excavated to a depth of 3.5 feet before obstructions were encountered. Further excavation was prevented by dense concentrations of rock, some of which was decomposing and suspected to be very shallow bedrock (see **Photograph 17**).

TRENCH 5.5

Trench 5.5 was opened in the northeast corner of Site 5, in a paved parking area to the east of the existing firehouse. While the ground surface in this area was at the same grade as the firehouse and Broome Street, the ground surface in parking lot to the south was 3 to 4 feet higher. The trench extended through the rear yards of Properties 5-28 and 5-29, which were formerly located at 139 and 141 Clinton Street and 181 and 183 Broome Street. The trench measured 15 feet in length and 2 to 4 feet in width.

The asphalt in this location was very thick. Loose sandy fill and and demolition debris filled the trench to a depth of more than 10 feet. Ashy deposits were observed at a depth of 7 feet below grade. A substantial brick wall was present within the southern trench wall and it appeared that the trench had been excavated through an undocumented basement void. A floor surface was encountered at a depth of 10 feet, preventing further excavation. No artifacts were recovered from this trench.

TRENCH 5.6

Trench 5.6 was opened south of and perpendicular to Trench 5.5 within the former rear yards of Properties 5-27, 5-28, and 5-29. The trench was opened as a 16- by 3-foot excavation. A substantial brick wall lined the entire western side of the trench, along the boundary of the parking lot and the firehouse property to the west. The eastern wall of the trench contained a series of continuous brick walls and what was thought to be a feature (see **Figure 9A** and **Photograph 18**).

Feature 3

As initially observed, the feature appeared to be comprised of two parallel brick walls with a fill of sandy, light olive brown (2.5Y5/3) coal ash. Additional brick walls were observed to the south of the suspected feature. The interior of the suspected feature measured 45 inches (from the outer edges of the north and south walls) and appeared to be located beneath a second asphalt layer that was between 15 and 19 inches beneath the asphalt making up the ground surface in this portion of the site. The brick walls that formed the northern and southern sides of the suspected feature were each two courses thick. A second brick wall was located several inches to the south of the southern wall of the feature and continued south along the eastern wall of the trench. A thick layer of dense black material similar to creosote was observed within the suspected feature at a depth of 49 inches beneath the ground surface. Beneath this was seemingly natural brown (10YR4/3) silty sand with roots, possibly indicating a buried ground surface or other natural soil level. A pipe was observed beneath what appeared to be the base of the feature. In addition, a builder's trench was observed to the north of the northern wall of the feature, which was filled with dark yellowish brown (10YR4/4) soil.

To further explore this area, the trench was expanded to the east immediately above the suspected feature (see **Figure 9B** and **Photograph 19**). The extended trench was more than 10 feet in length, and appeared to indicate that the suspected feature was in fact an alley or air shaft between two structures. The northern and southern brick walls continued to the east for more than 9 feet and were only partially intact in places. The width between the interior of the brick walls varied between 25 and 28 inches along the length of the expanded trench. A bluestone ledge—possibly a former stair—was observed between 9 feet 2 inches and 10 feet 11 inches east of the western end of the suspected feature. The coal ash filled the entire length of the alley between Trench 5.6 and the stone ledge. The top of the stone ledge was 12 inches below the ground surface and the expanded trench was excavated to a depth of 20 inches below the ground surface.

The coal ash within the exposed western side of the suspected feature was troweled down and appeared to contain low concentrations of artifacts. A small number of artifacts was collected from immediately below the feature. It appears that the feature was likely an alley between buildings and that the dark creosote-type layer may have been a deposit of soot that accumulated in the alley. Coal ash and refuse was then deposited in the alley after the late-19th century and it was subsequently paved with asphalt. Historic maps do not indicate that any such alley existing in this location, so the feature may have been part of an undocumented outbuilding.

Artifacts Associated with Feature 3

Artifacts were collected from the coal ash deposit throughout the exposed western façade of the suspected feature. Additional artifacts were recovered during shovel skimming along the top of the coal ash deposit within the suspected feature. Thirteen artifacts were collected from within the feature throughout its entire depth. One butchered mammal bone was included within the coal ash. Six of the artifacts were ceramic fragments, including hand painted porcelain, pearlware, and whiteware pieces. Two of the whiteware fragments were decorated with thin gold tracing and the remainder were undecorated. The remaining six artifacts were glass bottle and decorative furnishing fragments. The

most complete object was a tall light aqua English-import liquor (possibly gin) bottle that was missing its neck and finish. The base was embossed with the mark of Edgar Breffit and Company and is consistent with a mark utilized by that company in the 1880s (SHA Bottle Research Group n.d.). Other glass fragments include the neck and tooled prescription finish of a clear medicine bottle; a fragment of thick, unmarked clear bottle glass; and two mending fragments of the base of a dark green wine bottle with a deep kick-up. The base of a thick, decorative clear glass vase or jar was also collected.

Twenty-three artifacts were recovered from the fill materials situated between the asphalt ground surface and the top of the feature between approximately 12 inches of the ground surface, although some of these artifacts may have been located at slightly greater depths. The majority were non-diagnostic glass fragments, faunal remains, and corroded or otherwise unidentifiable metal objects. Four non-mending fragments of the same refined white earthenware decorative vessel were recovered. Several of the fragments featured a dark green external glaze and the vessel—likely a vase—appears to have been decorated with a gold cartouche inside of which was painted a scene featuring a woman and a bird. Other artifacts included a gray earthenware plate fragment with a metallic gold geometric design and a fragment of an opaque light blue milk glass decorative vessel embossed with a floral motif. Twelve non-mending fragments of a thick, dark aqua or light blue glass jar were also recovered.

Thirteen artifacts were recovered during shovel skimming of the top of the feature, between approximately 12 and 20 inches below the ground surface. These artifacts were similar in nature to those recovered from the upper level and may have originally been located in the same context before the mechanical excavation uncovered the feature. The artifacts from this context included non-diagnostic ceramic and glass fragments, including a hexagonal floor tile and at least two additional fragments of the light blue or dark aqua jar described above. The only object to which a specific date could be assigned was a small ceramic-coated metal seal fastener embossed "NY Edison CO." on one side and "Dist. Dept. PATD April /14 08" on the other. The fastener is consistent with United States patent 884604 (issued April 14, 1908) and was likely used by the New York Edison Company to secure cables or for other equipment. The New York Edison Company became Consolidated Edison in 1936 (Epstein 2010).

In addition to the artifacts recovered from within and above the feature, three artifacts were recovered from the brown sand beneath the feature: two mending mammal rib fragments and a very thick glass bottle fragment bearing a partial painted logo. A single artifact—a late-19th century blob-top soda bottle embossed "J. Burnett, Philadelphia"—was recovered from the backdirt of Trench 5.6. Its original provenance is unknown and it may or may not have been associated with the coal ash deposit.

TRENCH 5.7

Trench 5.7 was opened near the northwest corner of Site 5 within Property 5-33, formerly at 191 Clinton Street. The trench was located in an area that was at the same grade as Grand Street to the south but was several feet higher than the fire house property to the east and Broome Street to the north. Only a small portion of this parcel could be excavated because of the elevation change and a disabled car that obstructed the western portion of the area of sensitivity.

The trench measured 9.5 by 6 feet and was excavated to ta depth of 6.5 feet. The trench contained extremely dense rubble and metal refuse including large pipes and sheet metal (see **Photograph 20**). Looser, clean dark yellowish brown (10YR4/4) sandy soil was encountered at a depth of 6.5 feet. Excavation could not continue to greater depths because the removal of the large metal objects from

the upper levels undermined the surrounding area and caused the trench walls to collapse. No artifacts were recovered from the trench and no evidence of intact shaft features was observed.

G. RESULTS OF PHASE 1B FIELDWORK: SITE 6

Four large trenches were originally proposed for Site 6, which is bounded by Broome, Clinton, and Delancey Streets and the interior of Block 347. However, as a result of on-site obstructions, four much smaller trenches were excavated (see **Table 7** and **Figure 8**). Parking spaces on the lot on Site 6 are leased by the City to private citizens, and as such, many cars were not moved in advance of the archaeological investigation.

Table 7 Summary of Test Trenches on Site 6

Testing Location (See Figure 7)	Historic Property Tested (see Figure 3)	Results
Tranch 6.4	Property 6-1: 124 Clinton Street	No suidence of intest archaeological recourses
Trench 6.1		No evidence of intact archaeological resources
	Property 6-6:	
Trench 6.2	174 Broome Street	No evidence of intact archaeological resources
	Property 6-7:	
Trench 6.3	172 Broome Street	No evidence of intact archaeological resources
	Property 6-8:	
Trench 6.4	170 Broome Street	No evidence of intact archaeological resources
Notes: See full excar	vation record in Appendix A.	

DESCRIPTION OF INDIVIDUAL TRENCHES WITHIN SITE 6

TRENCH 6.1

Trench 6.1 was opened within Property 6-1, formerly at 124 Clinton Street. This property had later been redeveloped with a police station, and the area of archaeological sensitivity was located within a courtyard area where no disturbance had been documented (see **Figure 3**). While a trench was originally proposed along the rear lot line of Property 6-1, because of parked cars surrounding the area of sensitivity, Trench 6.1 was excavated within the sensitive area's southeast corner. The trench measured 10 feet in length, 3.5 feet in width, and was excavated to a depth of 8.5 feet below the ground surface.

The asphalt on the ground surface of the trench was underlain by sandy fill. A concrete wall running perpendicular to the trench obstructed the trench at a depth of 4 feet within the western portion of the trench. A second wall, parallel to the first, obstructed the eastern end of the trench at a depth of 2.5 feet. Additional foundation walls were observed in the southern and eastern walls of the trench. Between the walls, the trench was filled with heavy stone rubble that extended to a depth of 5 feet below the ground surface. Beneath the fill was a 1.5-foot-thick layer of fine, clean sand. At a depth of 6.5 feet, a second level of loose, light-colored, fine sand was observed. It was unclear if these sandy levels were fill deposits or natural subsoil. No artifacts were recovered and no evidence of intact shaft features was observed.

TRENCH 6.2

Trench 6.2 was opened within the former rear yard of Property 6-6, located at 174 Broome Street. The trench measured 9 feet in length and because of cars parked in close proximity to the trench, was 2 feet wide. A concrete foundation wall—likely associated with Properties 6-3 and 6-10 to the north—lined the northern side of the trench. A 2-foot-thick layer of dense brick rubble was present

immediately beneath the asphalt. Beneath the rubble was light-colored, fine sand similar to that seen in Trench 6.1. The sand continued to a depth of 8 feet, where the trench was terminated. No evidence of shaft features was observed. A single artifact was recovered from the trench: a clear glass medicine bottle. While the bottle had some markings, a specific date of manufacture could not be established, although it appeared to date to the 20th century.

TRENCH 6.3

Trench 6.3 was opened along the line of Trench 6.2 and to the east, within Property 6-7, formerly at 172 Broome Street. The two properties shared a similar development history and as seen on **Figure 3**, were historically combined and developed with a single, large structure. The profile observed within Trench 6.3 was identical to that seen in Trench 6.2 (see **Photograph 21**). The concrete foundation wall observed in the northern wall of Trench 6.2 continued through Trench 6.3. Beneath the wall and a layer of brick rubble, the same light-colored fine sand over coarse sand of a similar color was observed to a depth of 9.5 feet, where the trench was terminated. No artifacts were collected from this trench and no evidence of shaft features was observed.

TRENCH 6.4

As initially proposed, two long trenches were to be excavated along the southeastern side of Site 6 to test the rear yards of the historic lot formerly at 170 Broome Street (Property 6-8). While this property had originally been oriented north-south and fronted on Broome Street, it was later divided and incorporated into east-west oriented properties to the east. The area of archaeological sensitivity included areas without documented basements to the rear (west) of two large tenements that fronted on attorney Street, as depicted in **Figure 3**. The area of sensitivity measured almost 60 feet in length and almost 15 feet in width. However, the northern 50 feet of the area of sensitivity was obstructed by parked cars whose owners refused to move their vehicles to allow the archaeological testing to occur. Therefore, a single, nearly-square trench measuring 10.5 by 9.5 was opened within the southern portion of the area.

The trench contained extremely dense brick rubble and demolition debris and 20th century refuse beneath the asphalt (see **Photograph 22**). The rubble extended to a depth of 7 feet below the ground surface. The trench was abandoned before subsoil could be reached as a result of collapsing trench walls. Substantial foundation wall remnants were observed in the south wall and the northwest corner of the trench. No artifacts were collected from this trench and no evidence of shaft features was observed. As the area that was tested shared an identical development history to the remainder of the area of sensitivity to the north, it is likely that the portion of the sensitive area that could not be tested was similarly disturbed.

Chapter 5: Conclusions

A. SUMMARY OF TESTING

As described previously, 36 trenches were excavated (some in multiple segments) and 39 of the 45 identified areas of archaeological sensitivity were physically tested. A summary of the testing completed on each site is provided below.

SUMMARY OF TESTING ON SITE 2

No archaeological features or suspected features were observed within Site 2. Clean subsoil was encountered at depths of 8 to 9 feet in five of the seven trenches and could not be reached in two. The subsoil was brown (10YR5/3) and dark yellowish brown (10YR 3/6, 10YR 4/4, and 10YR 4/6) sands and silts. A total of 28 artifacts were recovered from Site 2, representing almost 20 percent of the total assemblage recovered during this Phase 1B investigation. The majority of the diagnostic artifacts dated to the first half of the 20th century.

As described in greater detail in Chapter 4, dense brick rubble and foundation walls were encountered within the trenches extending to a minimum of 8 feet below the ground surface. Each trench was excavated in an area that historic maps indicated was occupied by a rear yard that had never been disturbed by basement excavation. However, the presence of 8 or more feet if disturbed fill, brick rubble, and demolition debris confirms that these areas of sensitivity were disturbed by extensive excavation at some point. No evidence of shaft features was observed within any of the trenches and there is no indication that intact archaeological resources are present on Site 2.

SUMMARY OF TESTING ON SITE 3

No archaeological features or suspected features were observed within Site 3. Clean sandy subsoil could only be reached in four of the nine excavated trenches. In three of the four trenches, the subsoil was comprised of dark yellowish brown (10YR4/4) sand or clayey-silty sand. The clean sand was encountered between 3.5 and 10 feet below the ground surface. The historic rear yards observed in two trenches—Trench 3.3 and the western portion of Trench 3.6—did not appear to have been completely disturbed by basement excavation, however, no evidence of intact archaeological resources or shaft features were observed in either location. A total of 16 artifacts were recovered from Site 3, representing approximately 11 percent of the total assemblage recovered during this Phase 1B investigation. The majority of the diagnostic artifacts dated to the late-19th century, but many had broad production date ranges.

As described in greater detail in Chapter 4, the majority of the trenches contained dense brick rubble, concrete floors, and foundation walls were encountered to depths ranging between 8 and 11 feet below the ground surface. Clean sandy soils were observed at shallower depths in Trenches 3.3 and 3.6. Each trench was excavated in an area that historic maps indicated was occupied by a rear yard that had never been disturbed by basement excavation. However, the presence of extensive disturbed fill, brick rubble, and demolition debris confirms that these areas of sensitivity were disturbed by extensive excavation at some point. No evidence of shaft features was observed within any of the trenches and there is no indication that intact archaeological resources are present on Site 3.

SUMMARY OF TESTING ON SITE 4

No domestic shaft features were observed within Site 4. In most cases, the trenches contained only brick rubble and demolition debris to depths greater than 8 feet below the ground surface. Yellowish brown (10YR5/4 and 10YR5/6) and dark yellowish brown (10YR4/4 and 10YR4/6) clean sand was observed beneath the rubble in many of the trenches. Each trench was excavated in an area that historic maps indicated was occupied by a rear yard that had never been disturbed by basement excavation. However, the presence of 8 or more feet if disturbed fill, brick rubble, and demolition debris confirms that these areas of sensitivity were disturbed by extensive excavation at some point. Those trenches that appeared to contain clean sand rather than rubble yielded no evidence of intact archaeological resources or shaft features. Extensive excavation around Feature 2, an angled wall, indicated that it was not part of a shaft feature or substantial structure and that it may have been constructed for decorative purposes.

A total of 43 artifacts was recovered from Site 4, representing more than 30 percent of the total assemblage recovered during this Phase 1B investigation. The majority of the diagnostic artifacts had broad date ranges covering the early 19th century through the present. Dense concentrations of intact, contemporaneous artifacts were not observed in any of the trenches. No evidence of shaft features was observed within any of the trenches and there is no indication that intact archaeological resources are present on Site 4.

SUMMARY OF TESTING ON SITE 5

Each of the seven trenches excavated within Site 5 contained some level brick rubble and demolition debris. In four of the trenches, clean brown or yellowish brown sand was observed beneath the rubble. In several trenches, concrete floors or dense rock prevented excavation to the depth of clean subsoil. Foundation walls were observed in many of the trenches, confirming undocumented basement excavation in many of the historic rear yards.

One suspected shaft feature was investigated through Trench 5.6 in the northeast corner of the site. The feature appears to have been a narrow alley between two long brick walls that had been filled with coal ash and a low concentration of 19th and 20th century artifacts. No evidence of intact shaft features was observed within any of the trenches and there is no indication that intact archaeological resources are present on Site 5.

SUMMARY OF TESTING ON SITE 6

Each of the four trenches excavated within Site 6 contained brick rubble and demolition debris. In three of the four trenches, clean, light colored sand was observed beneath the rubble and in the fourth, subsoil could not be reached. Each of the trenches contained one or more foundation walls. A single artifact, representing less than one percent of the total assemblage, was recovered from Site 6. No evidence of shaft features was observed within any of the trenches and there is no indication that intact archaeological resources are present on Site 6. In addition, the development histories of the areas that could not be tested to the north of Trench 6.4 would appear to suggest that those areas were as disturbed as the large area within the trench. Therefore, it is not likely that the areas obstructed by parked cars during the completion of the Phase 1B survey are likely to yield intact archaeological resources.

B. CONCLUSIONS AND RECOMMENDATIONS

No intact archaeological features or resources were observed within any of the 36 trenches opened as part of this investigation. Any suspected features that were encountered appear to have low research

value and do not appear to be eligible for listing on the State and National Registers of Historic Preservation. It therefore appears that extensive undocumented basement or rear yard excavation occurred across all five sites within the archaeological APE. Even those historic properties that did not appear to have been disturbed and refilled with dense brick rubble and demolition debris showed no evidence of containing intact shaft features or archaeological deposits. Because of the extensive disturbance observed across the archaeological APE and the lack of observed archaeological remains, no further archaeological investigation (e.g., a Phase 2 archaeological survey) is recommended.

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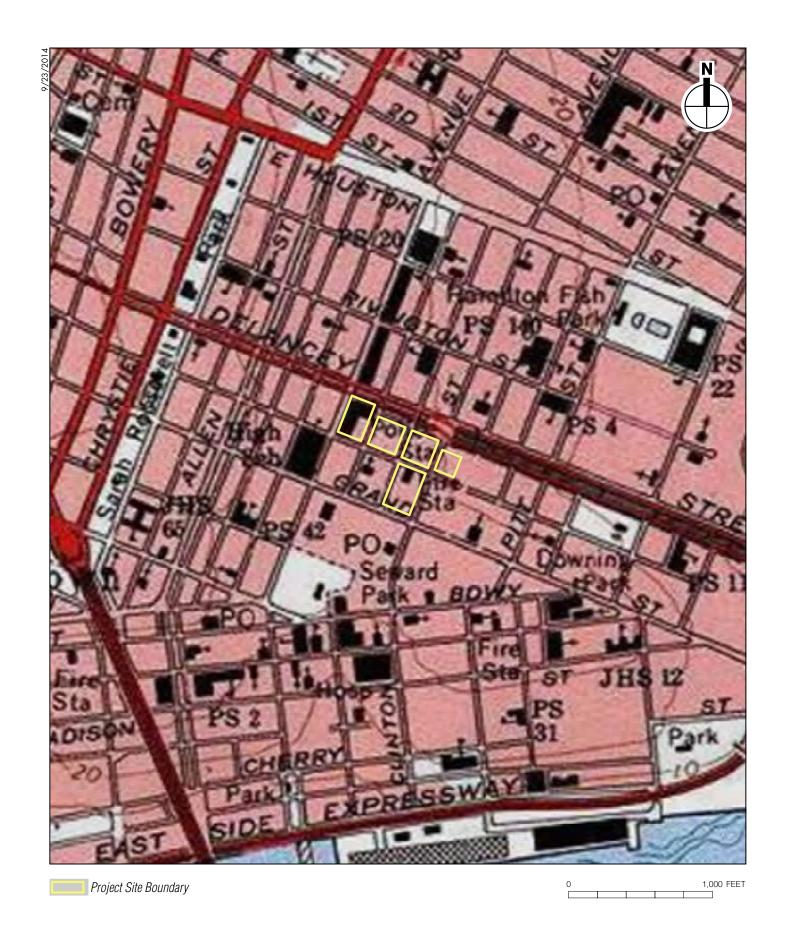
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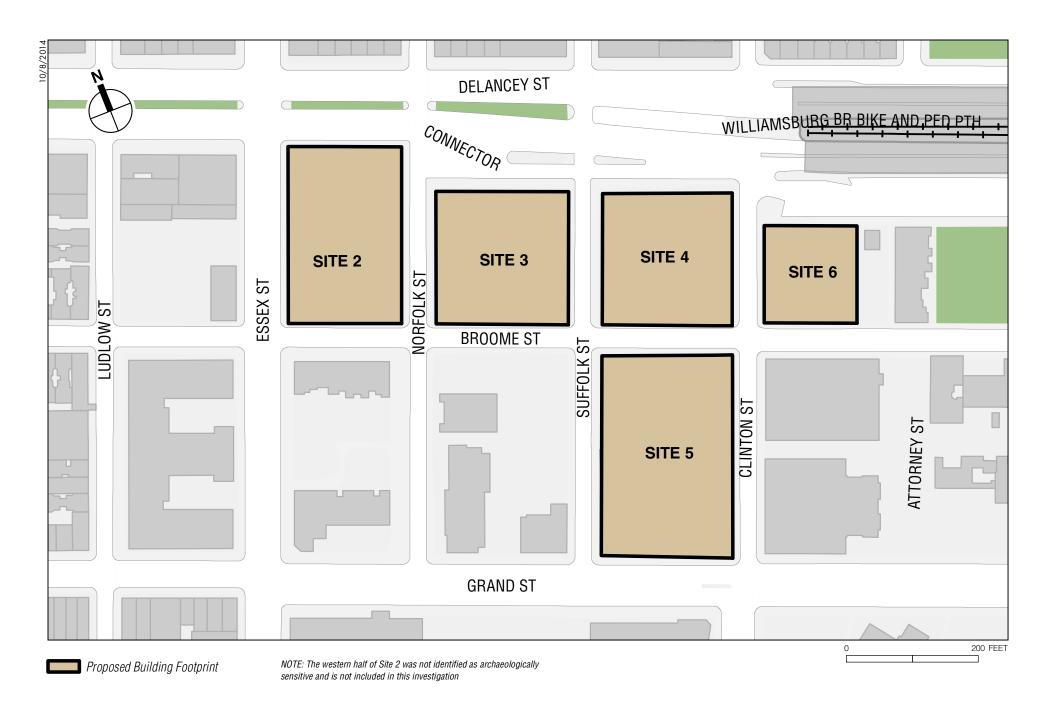
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Figures	
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USGS 7.5 Minute Topgraphic Map, Brooklyn Quad Project Site Location



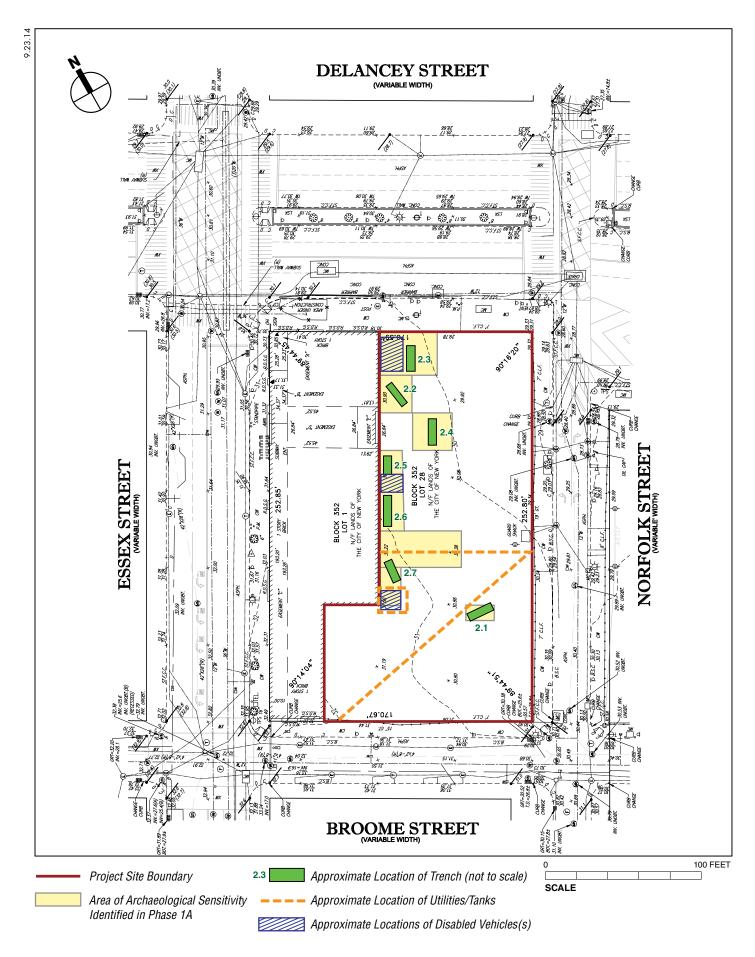
Project Site Location Figure 2

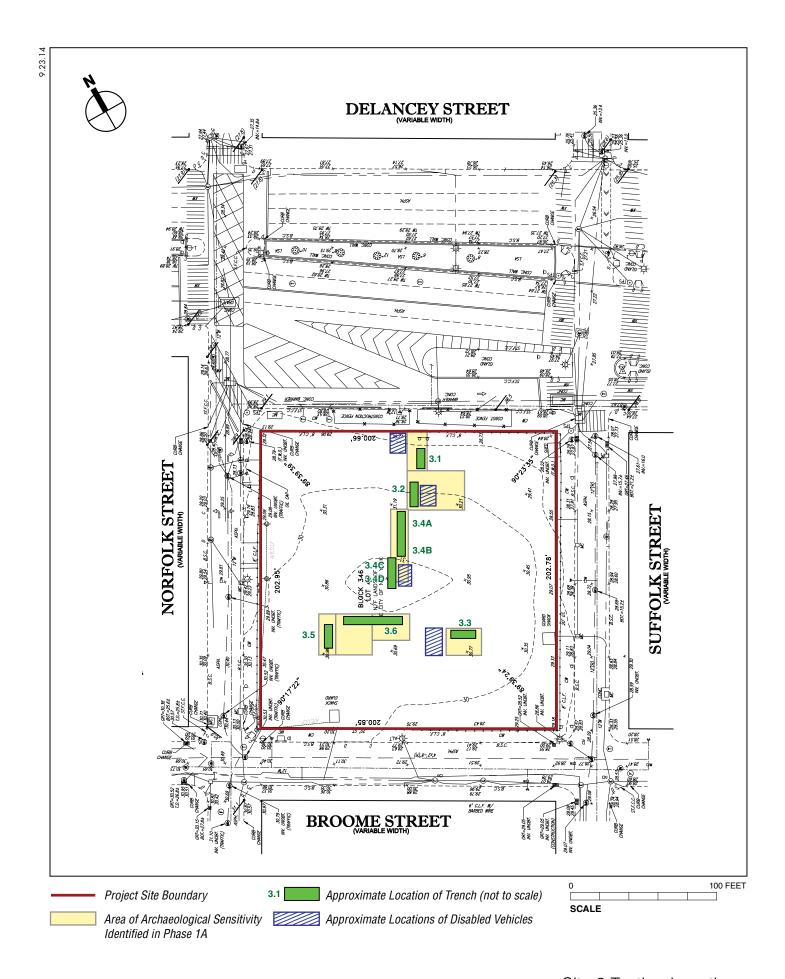


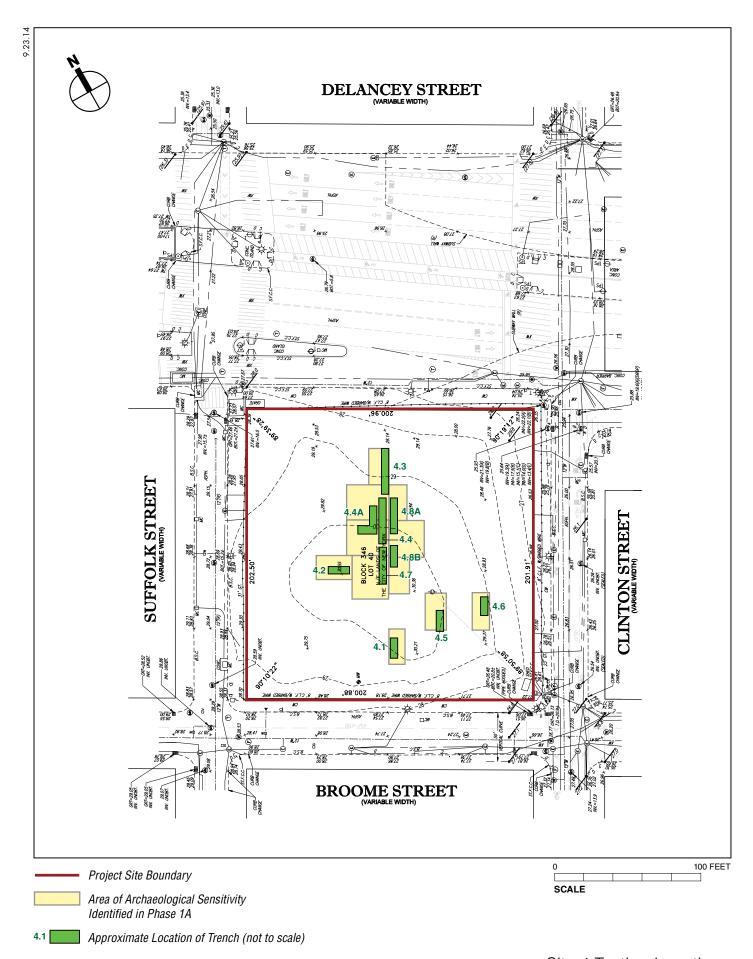
Showing Areas of Archaeological Sensitivity Identified in the Phase 1A

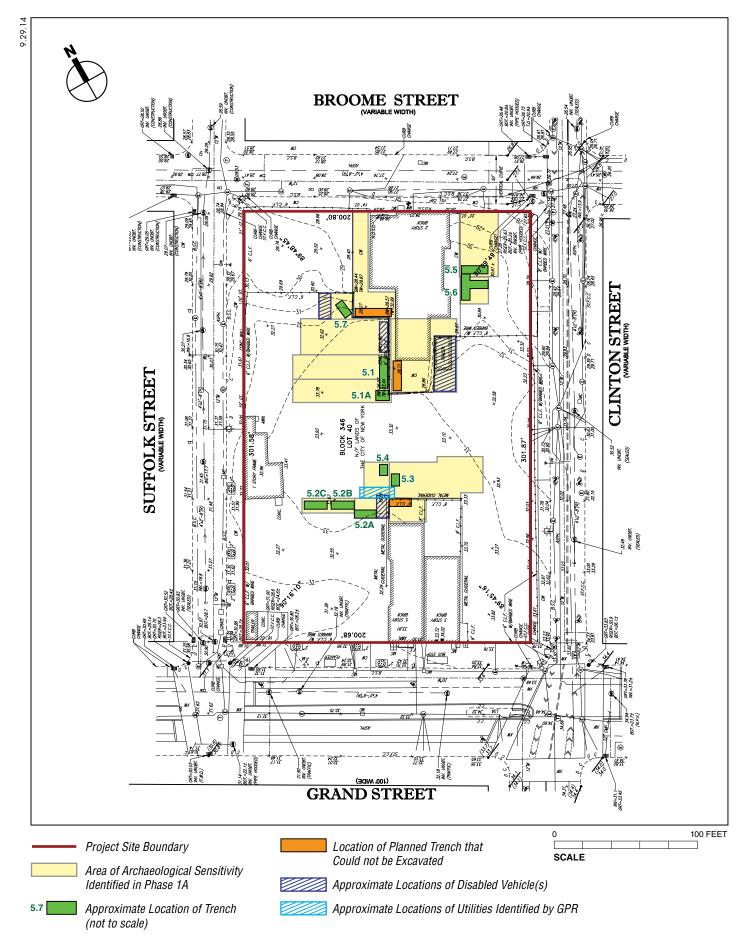
Figure 3

SCALE

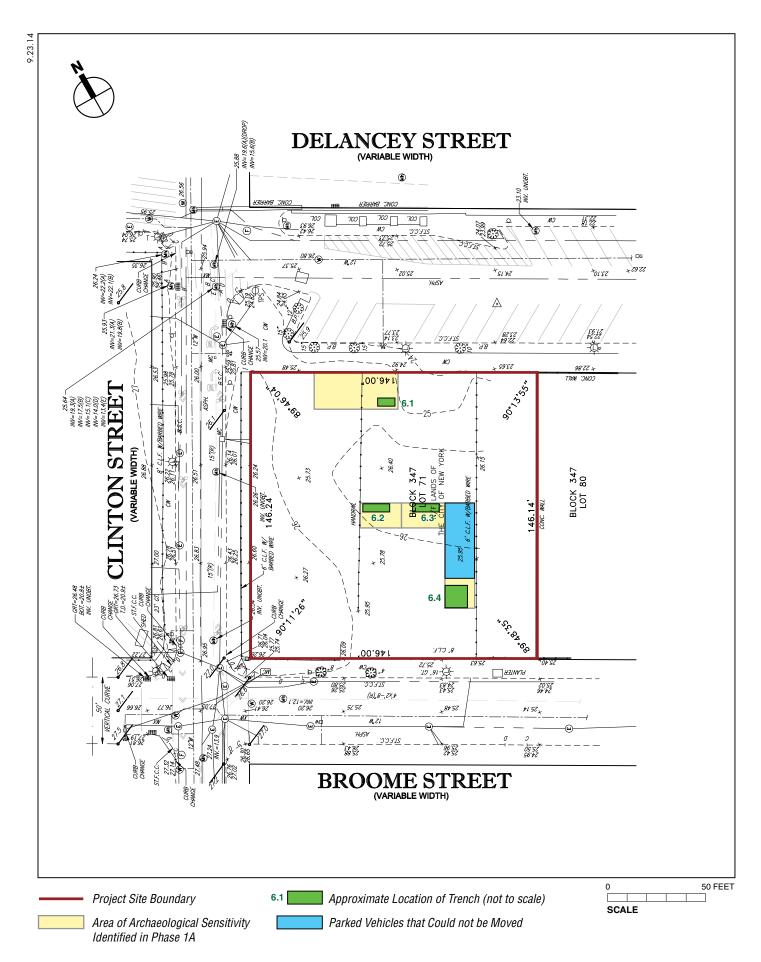


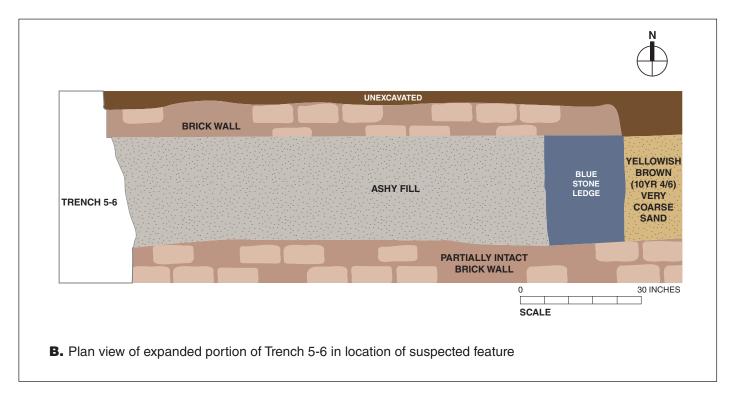


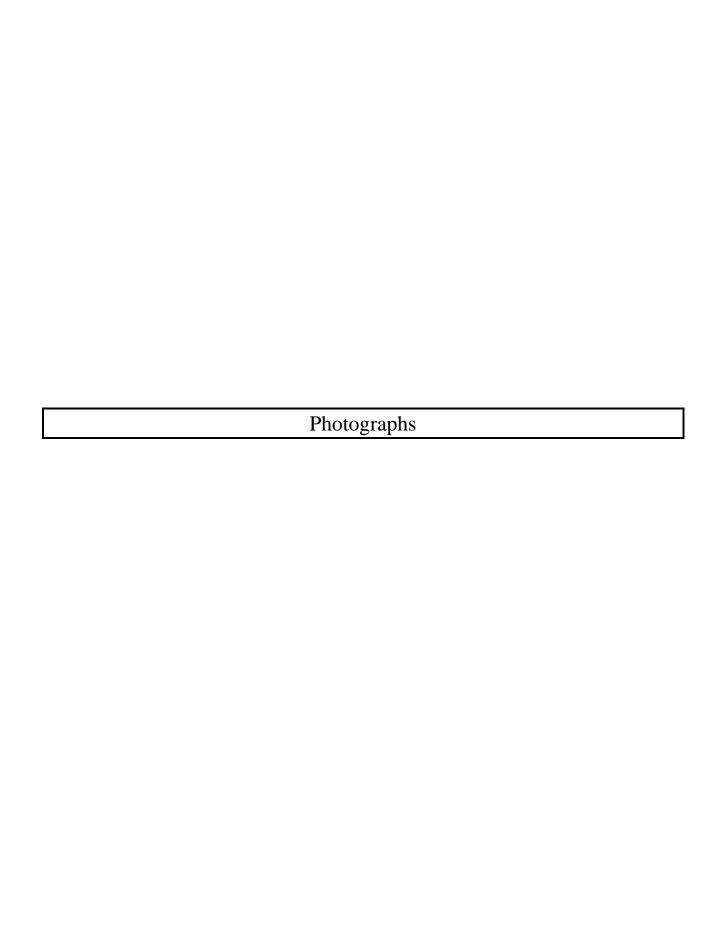




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The deep brick foundation wall remnants observed in the southern wall of Trench 2.1



Dense brick rubble and demolition within Trench 2.3

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SEWARD PARK - ESSEX CROSSING Photographs



Brick and stone foundation wall lining the eastern wall of Trench 2.5



The brick foundation wall lining the northern end of Trench 2.6 and the dense rubble observed throughout the trench



A brick foundation wall along one wall of Trench 3.2. Clean dark yellowish brown sand is visible at the bottom of the trench, beneath the depth of the wall

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The northern wall of Trench 3.3. The undocumented basement foundation is to the right (east) of the photograph and clean sandy soil is to the left (west)

SEWARD PARK - ESSEX CROSSING Photographs



Brick foundation walls and brick rubble observed in Trench 3.5



The northern wall of Trench 4.2; the dark soot and ash that filled Feature 1 can be seen in the center of the photograph beneath brick and stone rubble



The narrow alley created by existing brick foundation walls encountered in the eastern and western walls of Trench 4.3



Looking south at Trench 4.4 during excavation; the brick wall separating the former yards of Properties 4-3 and 4-4 can be seen in the center of the photograph

SEWARD PARK - ESSEX CROSSING
Photographs



The angled brick wall identified as Feature 2 within the western wall of Trench 4.4



A portion of the eastern wall of Trench 4.4A, showing the brick wall dividing Properties 4-3 and 4-4. A builder's trench is visible to the south (right) of the wall and the area



View south at Trench 4.7, showing the party wall that appears to have divided Properties 4-4 and 4-9



Brick foundation walls and rubble within Trench 4.8A



The area to the west of the existing fire house on Site 5, which is at a lower elevation than the parking lot to the south (in background). Testing was proposed but not completed in this area



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Foundation and ladder fragments observed within the disturbed soils of Trench 5.2B

Photographs **SEWARD PARK - ESSEX CROSSING**



Decomposing shallow rock observed within Trench 5.4



The eastern wall of Trench 5.6, showing the exposed side of Feature 3 (center) and the adjacent brick walls to the south (right)



View west of the expanded trench opened over the top of Feature 3. The coal ash deposits within the feature were shovel skimmed in this area





Dense refuse and metal debris within Trench 5.7

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Concrete foundation wall observed within the northern wall of Trench 6.7 (at right) and the clean sand observed within Trenches 6.1, 6.2, and 6.3 $\,$

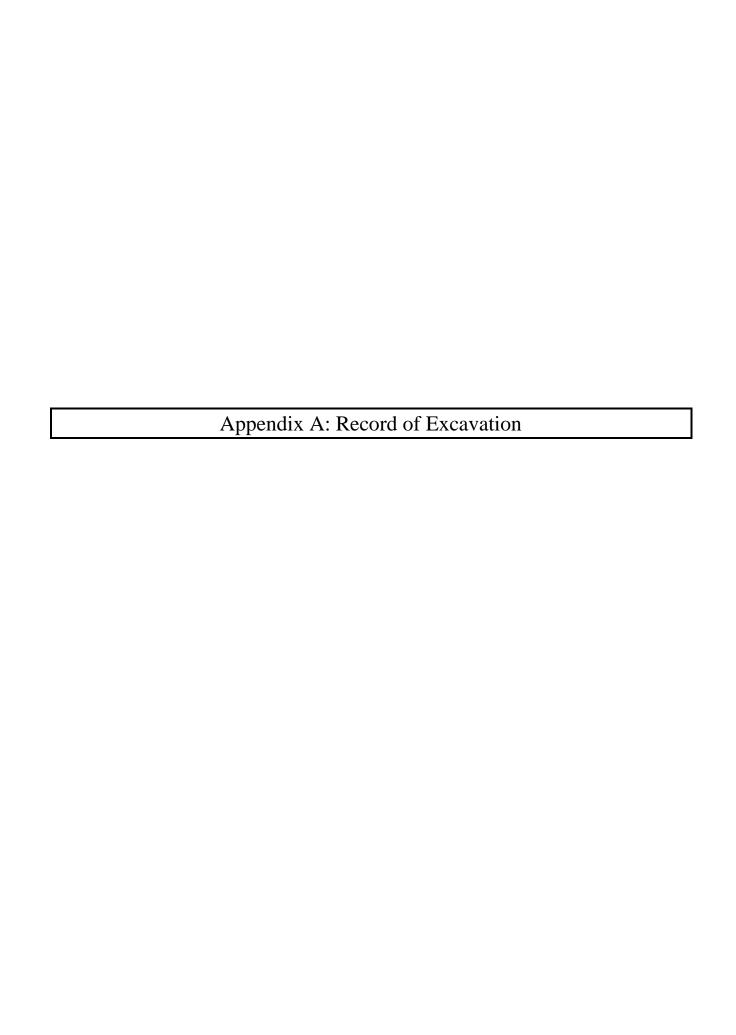




Brick foundation walls and dense rubble and refuse observed within Trench 6.4

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Appendix A: Record of Excavation

Trench Number	Orientation	Length	Width	Depth	Depth of Clean Subsoil	Subsoil Color	Subsoil Texture	Notes
2-1	Northeast- Southwest	13	4.6	11.5	8 feet	Dark Yellowish Brown (10YR4/6)	Coarse sand	Opened at an angle to avoid vehicles and mapped utilities; Extremely dense brick rubble to a depth of approximately 8 feet. Rubble contained domestic refuse including records, silverware, and a partial metal sign advertising sewing machines. Foundation walls observed in southeast corner and along southern wall of trench.
2-2	Northwest- Southeast	13	4	1.7	N/A	N/A	N/A	Opened at an angle to avoid disabled vehicles; concrete pad encountered beneath 20 inches of black fill and brick rubble along the entire length of trench. Trench abandoned.
2-3	North-South	14.5	4.5	11	9	Dark Yellowish Brown (10YR3/6 over 10YR4/4)	Silty sand over sand	Opened 20 feet east of planned testing location because of disabled vehicles; Brick rubble and demolition debris including plastic bottles to a depth of 9 feet.
2-4	North-South	14.5	5	8	8	Dark Yellowish Brown (10YR4/6)	Sand	Very dense brick rubble beneath asphalt, including large mortared brick wall sections. Foundation wall encountered in the northern 3 feet of the trench, its top was 2.5 feet below the ground surface.
2-5	North-South	13	4	8.5	8	Dark Yellowish Brown (10YR3/6)	Clayey Silty Sand	Small trench opened north of a disabled vehicle; dense brick rubble under the asphalt. A brick over stone foundation wall lined the eastern side of the trench. Rubble continued to approximately 8 feet below ground surface and contained an almost whole stoneware jug.
2-6	North-South	17.5	5.5	9	N/A	N/A	N/A	Trench opened between a disabled vehicle to the north; southern edge of the trench 10 feet north of marked utility line identified by GPR. Up to 5 feet below grade composed of brick rubble and late 20th century refuse; very dense rubble continued to 9 feet where excavation was terminated because of collapsing trench walls. Foundation walls encountered along northern and eastern trench walls.
2-7	Northwest- Southeast	9.5	3.5	8.5	8	Brown (10YR5/3)	Fine sand	Northern end of trench 5 feet south of marked electric line; southern end of trench north of suspected tank location and disabled van. Asphalt was very thick and underlain by black fill. Brick rubble and demolition debris was present but less dense. Large mortared brick wall sections were present. Clean sand was observed immediately beneath the brick rubble.

Trench					Depth of Clean	Subsoil	Subsoil	
Number	Orientation	Length	Width	Depth	Subsoil	Color	Texture	Notes
3-1	North-South	12.5	4	11	N/A	N/A	N/A	Opened 5 feet east of planned location because of disabled car. Very dense brick rubble with modern refuse to a depth of 11 feet where trench was abandoned because of collapsing walls. Brick foundation wall in west wall of trench.
3-2	North-South	15	4.5	9.5	9	Dark Yellowish Brown (10YR4/4)	Fine, clayey silty sand	Brick foundation wall encountered in east and west walls of the trench; some brick rubble and demolition debris encountered beneath the asphalt, but significantly cleaner than that seen in the trench to the north. In situ terra cotta pipes observed at 54 inches below grade in the southwest corner of the trench.
3-3	East-West	13	4.5	7.7	3.5 to 7.7	Dark Yellowish Brown (10YR4/4)	Coarse, damp sand	Light brick rubble with cobbles under the asphalt. A brick foundation was encountered within the eastern half of the trench, with clean sandy soils to the west. A thick layer of darker soil, possibly representing a buried ground surface, was observed approximately 3 feet beneath the brick rubble within the western wall of the trench. No evidence of shaft features was observed within the clean sandy soils in the west half of the trench.
3-4A	North-South	13	5	9	N/A	N/A	N/A	Concrete floor encountered 9 feet below grade beneath demolition debris and brick rubble containing 20th century refuse. Fieldstone wall observed within the east wall of the trench.
3-4B	North-South	12	6	9	N/A	N/A	N/A	Foundation along east wall continues from Trench 3-4A; loose fill with demolition debris and brick rubble; concrete floor not observed in this trench.
3-4C	North-South	16	4	10	N/A	N/A	N/A	Excavated to the west of Trenches 3-4A and 3-4B because of a disabled car. Foundation wall encountered along west wall of trench; steel obstructed further excavation at the base of the trench.
3-4D	North-South	14	4	10.5	N/A	N/A	N/A	Foundation wall along west side of trench continues; brick rubble and demolition debris continued to the bottom of the trench.
3-5	North-South	15	4	10	8 to 10	Brown	Sand	Concrete floor encountered 8 feet below ground surface in the southern portion of the trench. Brick rubble and demolition debris present; intact brick foundation wall encountered 5 feet below the ground surface within the southern trench wall. Stone wall encountered within northern trench wall. Possible 19th century artifacts collected from the backdirt excavated from 8 to 10 feet below the ground surface.
3-6	East-west	45	4	9 (west half) to 10.7 feet (center)	7 (western third)	Dark Yellowish Brown (10YR4/4)	Coarse, damp sand	Brick rubble and demolition debris beneath asphalt. Brick foundation wall encountered in the south wall. Within center of the trench; a substantial brick and stone wall (oriented perpendicular to the trench) was encountered at a depth of 10 feet. The eastern portion of the trench (including a concrete floor encountered at a depth of 9.5 feet) were within an undocumented basement void. To the west of the wall was a builder's trench containing clean, dark sandy fill. Within the western third of the trench, brick rubble extended to a depth of 5 feet, followed by a white and yellow clay layer above the clean sandy fill. No evidence of shaft features within the western portion of the trench.
4-1	North-south	10+	4	2 to 5	N/A	N/A	N/A	Compact brick rubble and demolition debris; concrete and rubble obstructions at 2 to 5 feet that were large enough to cause damage to the backhoe; trench abandoned.

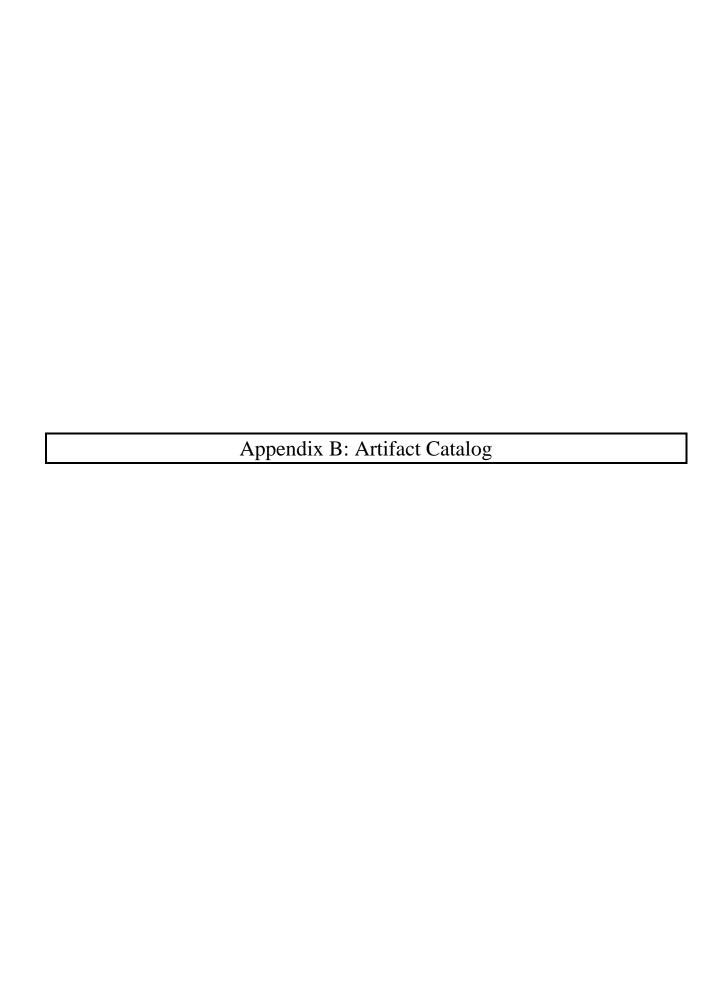
Trench Number	Orientation	Length	Width	Depth	Depth of Clean Subsoil	Subsoil Color	Subsoil Texture	Notes
4-2	East-West	14.5	7	8	4	Yellowish Brown (10YR5/4)	Silty sand	Light brick rubble under the asphalt to a depth of 4 feet. Beneath the rubble was approximately 2 feet of dark yellowish brown (10YR4/6) silty sand with a small number of historic artifacts over yellowish brown (10YR5/4) silty sandy subsoil. Brick foundation wall identified as Feature 1 in northeast corner of the trench. The feature appeared to be covered with a large rectangular piece of cut stone, although it was not clear if the stone was in situ or within the brick rubble over the feature. The feature appeared to be filled with dense, compact soot and coal ash that did not appear to contain artifacts with the exception of a single rusted nail.
4-3	North-South	30	4 to 5	9 to 10	2	Dark Yellowish Brown (10YR4/4 and 4/6)	Very coarse sand	Brick rubble was present on the ground surface, suggesting previous disturbance. Northernmost 25 feet of the trench contained dense brick rubble and modern refuse to a depth of 9 feet, where a concrete floor was encountered. A substantial brick foundation wall with window openings was encountered along the west wall of the trench (top at 1.5 feet below grade) and a second brick wall along the east side, suggesting the presence of an air shaft or alley behind an undocumented portion of the building formerly on the property. A third foundation wall, possibly a party wall separating two historic lots, was encountered 21 feet south of the north trench wall. Clean sandy soils were observed to the south of the party wall, confirming that it is a different property. No evidence of shaft features within the clean sand.
4-4	North-South	23	3	9	8	Yellowish Brown (10YR5/6)	Loose silty sand	Extension of Trench 4-3 to the south, separated by 3 to 5 feet. Clean, sandy soil observed immediately beneath the asphalt. Small amount of demolition debris mixed in, but no brick rubble. Another brick party wall was encountered 10 feet south of the northern end of the trench at a depth of 21 inches below ground surface. South of the party wall, very dense, compact fill was encountered and an angled brick wall was observed within the western wall of the trench at a depth of approximately 5 feet below grade. Terra cotta pipes were observed adjacent to and below the wall, which was at a 45-degree angle to the trench. A second brick foundation wall was located within the eastern wall of the trench and a brick floor was encountered at a depth of 7 feet.
4-4A	L-shaped	4 to 13.5	4.5 to 15.25	6	N/A	N/A	N/A	Opened in an attempt to re-locate the angled wall observed in Trench 4-4. The party wall observed in the center of Trench 4-4 was observed and further documented. A builder's trench was visible to the south of the wall and to the south of the builder's trench was clean sandy soil similar to that seen in Trench 4-4. Coal ash and refuse were observed above the sand. A large steel girder (the end of which had been observed in Trench 4-4) obstructed the trench to the north of the party wall and threatened to undermine the parked cars to the west of the trench, so excavation was stopped. The east wall of the trench to the south of the party wall was scraped down with the backhoe and the angled wall was not re-located and no additional walls associated with it were present, suggesting that it was insubstantial and not part of a feature and was possibly a decorative garden wall. An asphalt deposit was encountered at a depth of 3.5 feet.

Trench Number	Orientation	Length	Width	Depth	Depth of Clean Subsoil	Subsoil Color	Subsoil Texture	Notes
4-5	North-South	15	3	8 to 8.5	7.5 (in northern end)	Yellowish Brown (10YR5/4)	Very fine sand	Brick rubble visible on ground surface, suggesting previous disturbance. Asphalt was very thick and underlain by brick rubble with large pieces of stone and large metal objects. A stone wall (running east-west, perpendicular to the trench) was encountered within the southern portion of the trench. Excavation to the south of the wall continued to a depth of 8.5 feet below the ground surface and contained rubble and demolition debris. A second wall extended north of the wall within the western end of the trench. The footprint of the foundation contained dense brick rubble. A layer of dark sand was present between the brick rubble and the clean sand beneath it.
4-6	North-South	11	3	8.5 to 9	N/A	N/A	N/A	Asphalt was thick in this location and underlain by very dense brick rubble and demolition debris. Large metal object (including a radiator) excavated from a depth of approximately 8 feet below the ground surface. Debris continued past 9 feet below the ground surface and the trench was abandoned after the walls began to collapse.
4-7	North-South	24	2.5 to 4	8 to 9	8 (north of wall only)	Yellowish Brown (10YR5/4)	Medium to coarse sand	Southern extension of Trench 4-4; a think brick party wall was encountered approximately 6 feet south of the northern end of the trench. Clean subsoil encountered north of the party wall under a level of light brick rubble. Very dense brick rubble was present to the south of the wall and subsoil could not be reached. Brick walls were encountered within the southern and western walls of the trench south of the party wall. Minimal excavation was completed to the south of the wall at the southern end of the trench, which confirmed that it was an insubstantial wall (not part of a feature) and that fill deposits were present behind it.
4-8A1	North-South	16	5	9	N/A	N/A	N/A	Concrete pad encountered 6 feet south of the northern edge of the trench that was constructed on top of brick rubble. The entire trench contained brick rubble and demolition debris throughout its entire depth and subsoil was not encountered. An intact foundation wall was encountered along the eastern wall of the trench beginning at a depth of 3 feet below ground surface. Utility pipes were encountered in the southern portion of the trench.
4-8A2	North-South	14	3.5	11.5	N/A	N/A	N/A	Continuation of Trench 4-8A1 to the south; A brick and rock wall was encountered at a depth of 5 feet approximately 5 feet south of the northern edge of this segment of the trench. Fill extended to the base of the trench, but was generally cleaner than that seen in the segment to the north. The trench was abandoned before the base of the brick/rock wall could be reached.
4-8B	North-South	13	3	11.5	N/A	N/A	N/A	Opened approximately 3 to 5 feet south of the southern end of Trench 4-8A2. Brick walls were encountered in the western and northern walls of the trench at a depth of 5.5 feet below the ground surface beneath a layer of brick rubble. A layer of clean, coarse brown sand was encountered at a depth of 9 to 11 feet, but it was unclear if it was fill or natural deposits.
5-1	North-south	12	2 to 5	10.5	8.5	strong brown	sand	Six feet of clean fill were present beneath the asphalt in the location of this trench, which was at a higher elevation than the property of the existing firehouse to the northeast. It appears that the elevation of this area may have been raised through the introduction of clean fill. Beneath the clean fill, the fill contained bricks and concrete. A layer of ashy rubble was encountered between 6.5 and 8.5 feet above clean sand.

Trench Number	Orientation	Length	Width	Depth	Depth of Clean Subsoil	Subsoil Color	Subsoil Texture	Notes
5-7	East-West	9.5	6	6.5	6.5	Dark Yellowish Brown (10YR4/4)	Loose sand with gravel	Could not excavate the full proposed length of the trench because of a disabled car. This trench was located at the same grade as Trench 5-1 and Grand Street and was several feet higher than the grade of Broome Street. The trench contained extremely dense brick rubble and demolition debris, including large metal pipes and sheet metal. Looser, seemingly clean sandy soil appeared at a depth of 6.5 feet below the grounds surface, but excavation could not continue because of the risk of undermining the disabled vehicle adjacent to the trench.
6-1	East-West	10	3.5	8.5	6.5	Light	Fine Sand	Excavated around cars that were not moved prior to the start of the investigation. Asphalt underlain by sandy fill; a concrete obstruction was encountered at a depth of 4 feet below the ground surface at the western end of the trench. A second obstruction was encountered at a depth of 2.5 feet near the eastern end of the trench and foundation walls were present in the south and east walls of the trench. Heavy stone rubble was present within the trench and brick rubble extended to a depth of 5 feet below the ground surface. Beneath that was fine clean sand that extended to 6.5 feet below grade. Looser sands were present between 6.5 and 8 feet below the ground surface.
6-2	East-West	9	2	8	2	Light	Fine Sand	Dense brick rubble was present beneath the asphalt to a depth of 2 feet. The rubble was located on top of clean sandy soil similar to that seen in Trench 6-1. A concrete foundation wall was observed along the north wall of the trench.
6-3	East-West	9	3 to 4	9.5	3	Light	Fine Sand	Eastern extension of Trench 6-2; featured the exact same soil profile as Trench 6-2 and the same foundation wall was observed along the northern wall of the trench.
6-4	East-West	10.5	9.5	7	N/A	N/A	N/A	Only the southern portion of the planned trench could be excavated because car owners refused to move their vehicles. Extremely dense brick rubble and modern refuse was observed beneath the asphalt in this location. Brick foundation walls were observed in the south wall and the northwest corner. The rubble continued to depths greater than 7 feet, but excavation could not continue because of collapsing trench walls.

Notes: See Figures 4 through 8 for trench locations.

Sources: Colors identified using Munsell soil color charts.



Appendix B: Artifact Catalog

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
2-1	within rubble	Medicine Bottle	whole	clear glass	1	1950	screw-top cylindrical bottle with round base embossed "80-19/6oz/ 3 A [in circle] 50/ USA."	SHA Bottle Group n.d.
2-1	within rubble	Medicine Bottle	whole	green glass	1	1930	Small, squat screw-top bottle with oval base. Shoulders embossed "SQUIBB" on either side and base embossed "4 [Owens-Illinois Logo] 0/ 5."	
2-1	within rubble	Medicine Vial	whole	clear glass	1	20th century?	Unmarked clear glass vial; appears modern.	
2-1	within rubble	Ceramic Vessel	body fragments	white earthenware	2		One fragment has a partial green painted leaf.	
2-1	within rubble	Ceramic Vessel	rim fragment	pearlware	1	1800-1840	undecorated	
2-1	within rubble	Comb	whole	black plastic	1	20th Century	Tapered and marked "YLON by DuPont [in oval]"	
2-1	within rubble	Unidentified	fragment	red plastic	1	20th Century	Decorative handle or adornment in molded red plastic.	
2-1	within rubble	Flatware	whole	stainless steel	2		Spoon and fork stamped "stainless steel" on obverse.	
2-1	within rubble	Flatware	whole	unidentified metal	13		Spoons and forks; most badly corroded with illegible marks. One labeled, "Luft & Luft."	
2-1		Quart Milk Bottle	whole	clear glass	1	Early 20th century?	Front embossed: "4/Sheffield Farms Co Inc./ Sheffield [in diamond pattern]/ Reg U.S. Pat. Off./ New York;" Back embossed: "4/Sheffield [in diamond pattern]/Reg U.S. Pat. Off./ 1QT;" base embossed with large "4."	
2-4	0-4'	Ceramic vessel	body fragment	Whiteware	1	1815- present	-	
2-4	0-4'	Household Furnishing	body fragment	milk glass	1		Molded into a fan shape; possibly from a lighting fixture or decorative furnishing.	
2-5	Brick Rubble 8"	Stoneware Jug	whole	Gray-bodied Stoneware	1		Shoulder jug or liquor crock with handle missing. Conical upper portion appears to be made of salt-glazed stoneware with blue-gray coloring and the cylindrical lower portion (separated by a distinct ridge) is has a light gray glaze. Measures 11.75 inches in height and has a base diameter of 6.75 inches. Undecorated (may be stamped with the letter "A") with a raised dot in the center of the base. Has a poor quality finish and has glaze drips on the body.	
2-7	Brick Rubble 6'-7'	Medicine Bottle	whole	green glass	1	1936	Small , screw-top bottle; base embossed: "4 [Owens-Illinois Logo] 6/5"	

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
3-1	8'-10' Brick Rubble	Juice Bottle	whole	clear	1	Late-20th Century	Tropicana grapefruit juice bottle with plastic label bearing the "Tropic-Ana" mascot logo; base embossed "I/N/27."	
3-1	8'-10' Brick Rubble	Drug vial	whole	amber	1	Late-20th Century	small amber vial with black plastic screw top	
3-1	8'-10' Brick Rubble	Spoon	whole	stainless steel and wood	1		Spoon with decorative wood inlay in the handle	
3-2	Back dirt	Tile	fragment	Stone?	1		white	
3-2	Back dirt	Faunal	fragment	bone	1		Butchered rib fragment from a large mammal	
3-2	Back dirt	Ceramic Vessel	lid fragment	Pearlware	1	1800-1840	Dark blue floral pattern around edge	
3-2	Back dirt	Ceramic Vessel	body fragment	Whiteware	1	1815-present	undecorated; fragment is fractured and interior glaze is missing	
3-2	Back dirt	Ceramic Vessel	body fragment	Whiteware	1	1815-present	blue floral transfer print decoration	
3-4		Mug	rim/body fragment	Whiteware	1	1815-present	Decorated with diner-style green bands.	
3-5	North half, 8- 10' bgs	Flat glass	fragment	light aqua/clear glass	1			
3-5	North half, 8- 10' bgs	Faunal	fragment	Bone	1		possible bird coracoid	
3-5	North half, 8- 10' bgs	Faunal	fragment	Bone	1		possibly from a small mammal; very fragmentary	
3-5	North half, 8- 10' bgs	Ceramic Vessel	base/footring fragment	Pearlware	1	1800-1840	partial blue transfer print decoration on the exterior edge	
3-6	Center	Plate	rim/base fragment	White Granite	1	1840-present	mariey	
3-6	Eastern Side	Mug	rim/body fragment	White Granite	1	1840-present	Painted gold/yellow line around rim, thicker gold/yellow line painted around body; embossed pattern near the base.	
3-6	Eastern Side	Pomatum Pot	whole	milk glass	1	1890-	Possibly used for cold cream or other cosmetics; screw-top with round base and octagonal panels around sides; bottom embossed with "Patd Apr 15 1890" in a circle around the number "30." Consistent with US Patent 19,762.	
4-2	4'-6'	Tile?	body fragment	vitrified stoneware	1		Thick and flat with glaze on one side	
4-2	4'-6'	Ceramic Dish	body fragment	Slip-glazed redware	1	1670-1850	Dark red/brown interior glaze with yellow stripes.	
4-2	4'-6'	Ceramic vessel	body fragment	Whiteware	1	1815-present	Blue transfer print (floral/river motif) on exterior	
4-2	4'-6'	Clam	fragments	shell	1			
4-2	4'-6'	Oyster	whole	shell	1			
4-2	Within possible feature	Nail	fragments	unidentified metal	2		Fragments mend; very badly corroded and stained black	

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
4-4	South half, near angled wall and pipes	Ceramic vessel	body fragments	Whiteware	2	1815-present	cream colored; fragments mend	
4-5	Backdirt, 5'- 8' bgs	Flat glass	body fragment	clear glass	3			
4-5	Backdirt, 5'- 8' bgs	Ceramic vessel	body fragment	Pearlware	1	1800-1840	undecorated	
4-5	Backdirt, 5'- 8' bgs	Saucer	rim and base fragment	Porcelain?	1		thin gold line circling the edge of the inset ring	
4-5	Backdirt, 5'- 8' bgs	Ceramic vessel	base, footring fragment	Whiteware	2	1815-present	fragments mend	
4-5	Backdirt, 5'- 8' bgs	Ceramic vessel	body fragment	Whiteware	2	1815-present	one fragment is thick with an undulating surface and the other is thin.	
4-5	Backdirt, 5'- 8' bgs	Ceramic vessel	rim/body fragment	Whiteware	1	1815-present	Possibly from a cup or creamer; has a thick blue painted line around the rim that fades towards the bottom.	
4-5	Backdirt, 5'- 8' bgs	Ceramic vessel	base/body fragment	white earthenware	2		light gray; fragments do not mend	
4-5	Backdirt, 5'- 8' bgs	Household Furnishing	body fragment	blue glass	1		undulating surface with possible leaf or tree design embossed on the exterior.	
4-5	Backdirt, 5'- 8' bgs	Glass vessel	body fragment	light aqua glass	1		very thick	
4-7	Backdirt, South Half	Cut Nail	whole	unidentified metal	1			
4-7	Backdirt, South Half	Faunal	fragments	bone	4		Most fragments are butchered and appear to be from a large mammal.	
4-7	Backdirt, South Half	Faunal	fragments	bone	4		Appear to be bird bones.	
4-7	Backdirt, South Half	Faunal	fragments	bone	2		Mend; very worn; possibly a femur from a small mammal.	
4-7	Backdirt, South Half	Ceramic vessel	body, foot ring fragment	Pearlware	1	1800-1840	undecorated	
4-7	Backdirt, South Half	Ceramic vessel	rim, body fragment	Pearlware	1	1800-1840	Willow pattern border around edge.	
4-7	Backdirt, South Half	Ceramic vessel	rim, body fragment	Whiteware	3	1815-present	undecorated	
4-7	Backdirt, South Half	Smoking Pipe	stem fragment	white ball clay	1		5/64"-inch bore; oblong pointed ovals embossed on either side.	
4-7	Backdirt, South Half	Clam	fragment	shell	1			
4-7	Backdirt, South Half	Oyster	whole	shell	2			

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
5-6	Backdirt, unknown depth	Soda Bottle	whole	aqua glass	1	Late-19th century	blob top, embossed w "J. Brunett., Philad ^a " on one side and a large "B" on the other. Has mold seams on the sides but not on the base or finish.	
5-6	Beneath Feature	Faunal	fragments	bone	2		fragments mend; mammal rib	
5-6	Beneath Feature	Glass bottle	body fragment	clear	1		very thick with the remnants of a painted or frosted circular label reading, "ING CO" around an entwined "VB"	
5-6	Within Feature	Faunal	fragment	bone	1		butchered long mammal long bone fragment	
5-6	Within Feature	Ceramic vessel	body fragment	Porcelain?	2		pieces mend; thin body, light beige flower on exterior	
5-6	Within Feature	Plate	rim, marley, base, footring	Whiteware	1	1815-present	thin gold line along rim and scalloped edge with embossed pattern along edge.	
5-6	Within Feature	Plate	base fragment	Whiteware	1	1815-present	thin circular gold line along base	
5-6	Within Feature	Plate	base/foot ring fragment	Whiteware	1	1815-present	undecorated	
5-6	Within Feature	Ceramic vessel	handle fragment	Pearlware	1	1800-1840	white, undecorated	
5-6	Within Feature	Liquor Bottle	base/body/shoulders fragment	Light aqua	1	1880s	missing neck; mold seams on the sides and not the base; base embossed "EB & C° L ^d /10815." English import alcohol bottle?	SHA Bottle Group n.d.
5-6	Within Feature	Decorative Glass Vessel	base and body fragment	clear glass	1		vase or jar?	
5-6	Within Feature	Glass Vessel	body fragment	clear glass	1		Thick	
5-6	Within Feature	Medicine Bottle	rim, neck, shoulder fragment	clear glass	1		Prescription finish with mold seams on the sides	
5-6	Within Feature	Wine Bottle	base/body fragments	dark green glass	2		pieces mend; deep, smooth kick-up	
5-6, Expanded	Below Asphalt, Above Feature	Flat Glass	fragment	light aqua/clear glass	1			
5-6, Expanded	Below Asphalt, Above Feature	Faunal	fragment	bone	1		butchered medium to large mammal	

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
5-6, Expanded	Below Asphalt, Above Feature	Ceramic vessel	body fragment	refined earthenware	4		Four non-mending fragments that appear to come from the same vessel, possibly a decorative vase or bowl. The largest fragment has a dark green exterior and a cream-colored (with a slight greenish tint) interior. A second fragment has the same dark green interior with a bluish-green interior slip 9possibly from the mouth of the vase/vessel, which may have had a different interior slip). A third fragment has a cream-colored (with a slight greenish tint) interior and the same dark green exterior with the partial remnants of a decorative gold ring enclosing a light greenish inset area. The final fragment is a larger portion of the inset with a small portion of the decorative gold ring. The inset is painted with what appears to be the face of a woman with	
5-6, Expanded	Below Asphalt, Above Feature	Ceramic vessel	rim fragment	gray earthenware?	1		white body with metallic gold geometric design and blue/black line along rim	
5-6, Expanded	Below Asphalt, Above Feature	Decorative Glass Vessel	body fragment	opaque light blue glass	1		Curved with embossed exterior decoration, possibly a floral motif.	
5-6, Expanded	Below Asphalt, Above Feature	Glass Jar	base/body fragment	dark aqua/light blue	12		Very thick glass, large jar. Pieces do not mend but are similar in terms of color and thickness. Vessel has mold seams and a possible suction scar on the base. Possible embossed circle on the front.	
5-6, Expanded	Below Asphalt, Above Feature	Glass vessel	body fragment	clear glass	1		very thick	
5-6, Expanded	Below Asphalt, Above Feature	Unidentified	whole	metal	1		hollow metal tube with rectangular openings on one side.	
5-6, Expanded	Below Asphalt, Above Feature	Unidentified	whole	metal	1		rusted metal rod	
5-6, expanded	Top of Feature, Shovel Skim	Flat glass	fragment	clear glass	1			
5-6, expanded	Top of Feature, Shovel Skim	Seal Fastening	whole	ceramic and metal	1	1908-1936	White circular insulator with metal attachments; stamped "B39" and embossed, "Dist. Dept. PATD APRIL/14 08" on one side and embossed "NY Edison Co." on the other. NY Edison became Consolidated Edison in 1936. Consistent with US Patent 884,604, issued to T.E. Murray, April 14, 1908.	Epstein 2010

Trench	Provenience	Artifact Type	Object/Part	Material	Count	Production Date(s)	Comments	Source
5-6, expanded	Top of Feature, Shovel Skim	Tile	whole	ceramic	1	· ·	white hexagon	
5-6, expanded	Top of Feature, Shovel Skim	Tile	fragment	ceramic	1		very thick with white glaze on one side	
5-6, expanded	Top of Feature, Shovel Skim	Plate	Body/base fragments	Whiteware	2	1815-present		
5-6, expanded	Top of Feature, Shovel Skim	Ceramic vessel	fragment	White Granite	1	1840-present		
5-6, expanded	Top of Feature, Shovel Skim	Glass bottle	body fragment	brown glass	1			
5-6, expanded	Top of Feature, Shovel Skim	Glass Jar	base/body fragment	dark aqua/light blue	2		Likely from the same vessel found between the asphalt and the top of the feature	
5-6, expanded	Top of Feature, Shovel Skim	Glass bottle	shoulder, neck, rim, fragment	clear	2		fragments mend; large prescription finish with mold seams on both sides.	
5-6, expanded	Top of Feature, Shovel Skim	Decorative glass furnishing	body fragment	clear	1		Possibly from a glass lampshade; embossed with a star and has a scalloped edge.	
6-2	3'-5' bgs	Medicine Bottle	whole	clear glass	1		Flat panel front with prescription finish and a somewhat oval base; base embossed "K 6". Shield-like embossed design near the shoulder on one side embossed "3."	
Total:					141			
Sources: Ceramic dates from Azzizi, et. al. 1996.								

Appendix B-6