Phase 1B Archaeological Testing
Block 2430, Lots 23, 24, and 25
354 Bedford Avenue
Borough of Brooklyn, New York

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I. EXECUTIVE SUMMARY

Project Site 1 consists of the vacant lots 23, 24, 25 and 28 on block 2430 (Cover and Fig. 3), which is bounded on the north by South 3rd Street; on the east, by Bedford Avenue (formerly 4th Street); on the south, by South 4th Street, and on the west by Berry Street (formerly 3rd Street). This is one of three project sites to be co-developed by Yuco Real Estate Company, Inc. and the New York City Department of Housing Preservation and Development (HPD) in this mixed-use commercial/residential section of Williamsburg, Brooklyn. The plan for Project Site 1 is to construct a five-story building containing twenty affordable housing units, as well as to provide space for local retail and community facilities and a storage cellar. Project Sites 2 and 3 of the Maujer Street Community Development Plan were tested in 2010 (Bergoffen 2011).

The present report of archaeological testing follows the recommendations set forth in the Phase IA archaeological assessment report (Bergoffen 2010), which concluded that lot 28 was not sensitive for archaeological remains, but that the former backyards on the three contiguous lots 23, 24 and 25 *were* sensitive for archaeological remains associated with 19th century occupation, specifically cisterns and privies (Figs. 1, 2 and 3). Archaeological testing was therefore recommended to determine if these features were present, assess their state of preservation, and where indicated, excavate them.

The 19th century village of Williamsburg became urbanized after 1835 when New York State appointed commissioners to lay out streets and roads. Water and sewer service, however, did not become available until ca. 1860 at the earliest. During the 1850s, public cisterns located largely between North 6th and South 6th Streets, the main center of population in Williamsburg, would have served the needs of nearby residents, but those living further afield to the east or north might well have needed to build their own cisterns in their backyards (Bergoffen 2004, 19-20). There were no sewer connection records for either lot 23 or lot 24. The sewer connection record for lot 25 was in the lost book 1, dating to the early 1860s.

Research of tax assessments, City Directories, census records and conveyances, allowed a partial reconstruction of the occupational history of each lot.

The residents of the house on Lot 23, traced from 1847, approximately the time when the lot was first developed, to 1874 were:

Joseph Boughton	(b. 1826, New York)	Lawyer	1847-48
John Skinner		Surgeon Dentist	1852-1854
Lloyd Slade		Dentist	1853-1855
Henry B. Robertson	(b. 1809, New York)	Bank clerk	1858-63, 1870-74
Henry H. Robertson	(b. 1840, son of Henry B.)	Gas company clerk, Cashier	1863-1874

No later residents could be traced.

The same owners resided in the building on lot 24 between 1847 and 1869. They were: William Adams, a grocer also recorded as a livery stable owner(?) who appears at this address in the City Directories for 1847-48 and 1851-1854, and Johanna or Joanna Adams, his widow, who was a dress maker living here between 1857 and 1869. Although she continued to own the property up to 1894, she no longer resided there and the later occupants, following her, are unknown.

For lot 25, only the resident for the years 1853-1854 was found: James Beekman's confectionary. Later owners of the property did not reside here.

The location of the test trenches was based on the evidence provided by historic maps, which indicated that neither of the 19th century buildings on lots 24 or 23 had been enlarged, nor had their rear yards been impacted by subsequent construction (Fig. 2). These lots were therefore sensitive for both privies, generally located in the rear portion of the backyards, and cisterns, which were either built against the rear wall of the buildings or as independent structures in the yard, the latter type illustrated by the recently discovered, nearby cistern on Project site 3, Ten Eyck Street (Bergoffen 2011). Accordingly, test trenches were opened across the rear of each lot, to test for the presence of privies; down the center, to tests for either privies or cisterns, and across the lot along the line of the former buildings' back walls, to test for the presence of cisterns (Fig. 4). On lot 25 any cistern built against the building's rear wall would have been negatively impacted by the construction of a two-story rear wing. But a portion of the rear yard was never built on and could still contain the remains of a privy. A trench was therefore opened across the back of the former yard, to test for the presence of a privy, but none was found.

The field testing was conducted between June 24th and July 1st, and between July 11th and 15th, 2011. One circular, stone-lined privy, Feature 1 (F1) was found on lot 24 towards the rear of the lot (Figs. 15, 16 and 17). This feature was not sealed, and the top of its shaft was damaged when the lot was paved. We nevertheless sectioned it and excavated half of its contents by hand down to the bottom of the pit, which was 9.4 feet below grade. All material culture remains were collected, although the deposit was too dense to sift. Stone-lined, beehive-shaped cisterns were encountered at the rear of the buildings on both lots 23 and 24. The cistern on lot 23, Feature 4 (F4) was sealed under a brick pavement below the asphalt (Figs. 21 and 22). We therefore sectioned it and excavated half of its contents down to the bottom of the structure, 8.9 feet below grade, sifting 100% of the soil and collecting all material culture remains (Figs. 23, 27 and 28). Between the cisterns, and accessible through a doorway from the rear stairs of the former building -- also partly excavated by hand -- we discovered a rectangular, vaulted structure that was probably used for storage (Figs. 8 though 14). Neither this structure nor the cistern on lot 24 was sealed (Figs. 18, 19 and 20), but judging by the presence of labeled beer bottles and other items, had remained open until the last decade or so of the buildings' existence, in the 1960s.

The analysis of the ceramics and glass from the privy on lot 24 and the sealed cistern on lot 23 suggested that assemblages were deposited no earlier than the late 19th or early 20th centuries. The material culture remains therefore postdated the known residents and could not have been related to their periods of occupation on these lots.

This report includes descriptions of the excavations of the test trenches and architectural features; a catalogue and discussion of the material culture remains from the privy and the cistern**,** and Thomas Amorosi's analysis of the faunal remains from these features. Readers should note that since the dimensions of the lots and the plans are in feet, the measurements used in the description of the trench locations and the excavations of the features are given in feet and tenths (although the meter stick included in the photographs is 39.37" long). The measurements of the artifacts and the scale used in the artifact photographs are given in centimeters, as is standard in all scientific reports.

The report concludes that the archaeological testing and excavation has been completed and that there are no further archaeological concerns for this site.

2. FIELD REPORT

Approximately two-thirds of the south side of the project site is bounded by the wall of the adjacent building on lot 26, whose ground floor is currently occupied by a bodega (Fig. 3). The western third is open to the contiguous vacant lot 28, which was not considered archaeologically sensitive. The west side of the project site is enclosed by the wall of the apartment buildings on the adjacent lot. There is a fence on the north side, at the west corner, enclosing the rear yard of the apartment building on lot 22, which bounds the project site on the north. Bedford Avenue borders the east side of the project site.

Eight test trenches, designated TT1 to TT8, were opened using a backhoe, while individual architectural features were defined by hand excavation (Fig. 3). All the trenches were backfilled.

There were several very large boulders at the rear of lots 23 and 24. Household garbage was more concentrated at the rear of the lot, together with building debris, but except from one large pit near the middle of lot 23, there was very little building detritus overall. Across the site, the uppermost layer of dark grey or grayish-brown sandy silt was followed by a yellowish-brown silty sand layer of varying depths with very dark grey or black laminations. Below this was a grayish-brown sandy silt layer. Virgin soil was a reddish yellow clay or fine silt.

2.1. TT1 (Fig. 5)

The north-south running TT1 was the only trench excavated on lot 25. It was opened on June 24th across the rear, western end of this 70.0 foot long lot, between 62.0 and 70.0 feet west of its east lot line. The purpose was to test for the presence of a privy. Below a layer of dark grayish-brown soil containing some brick debris, we encountered a denser concentration of brick detritus over a layer of reddish-brown, slightly sandy soil. At a depth of 1.8 feet below grade, 70.0 feet west of lot 25's east lot line, we uncovered the east brick face and northeast corner of the building that formerly stood on the adjacent lot 28 (Wall 1). Three courses of this brick wall, the lowest laid as headers, were preserved over a stone foundation of roughly dressed blocks,

which reached a depth of 2.7 feet below grade. A second wall, one brick wide ran parallel to Wall 1, a mere 1.7 feet east of it, Wall 2. Wall 2 made a corner with another narrow wall, one brick wide that ran back to and abutted Wall 1. Although located in the former rear yard of lot 25, Walls 2 and 3 were apparently part of the building on lot 28. They do not appear on any of the historic maps consulted for Bergoffen 2010. Aside from a small pit 3.5 feet wide and 0.4 feet deep, located approximately 8.0 feet east of Wall 1, TT1 was sterile. The pit contained items made of plastic, glass bottles with threaded mouths, and other modern garbage.

The closing depth of TT1 was 6.2 feet below grade.

2.2. TT2 (Fig. 6)

The north-south running TT2 was opened on June 24th at the rear (western end) of lot 24 to test for the presence of a privy. It was approximately 10.0 feet wide and ran between 1.0 and 11.0 feet east of the west lot line, beginning 34.0 feet south of the north lot line and extending 18.0 feet south into lot 28.

The top 1.5 feet was loose, dark grey soil. This was followed by brownish-yellow sandy silt interspersed with grey. A thin layer of black decomposed organic matter lay 3.6 feet below surface. The brownish-yellow sandy silt then continued to a depth of 6.2 feet below surface. At that depth, we encountered a fine, yellowish-red silt, which we took to be virgin soil. There were no material culture remains. TT2 was closed at a depth of 6.5 feet below surface.

2.3 TT3 (Fig. 7)

This approximately 8.0 foot wide, north-south running trench was opened on June 24th at the rear (western end) of lot 23 to test for the presence of a privy. It was located between 93.0 and 101.0 feet west of the east lot line, beginning 2.5 feet south of the north lot line and extending to the north end of TT2.

The surface was strewn with broken brick and stone. The top layer, approximately 1.7 feet thick, consisted of dark grayish-brown soil containing further building detritus, a small

amount of household garbage, and eight or nine large cobbles. From this layer, a pit extended from the northern edge of the trench to about 7.0 feet south, reaching a depth of 2.9 feet. It contained a large amount of household garbage including beer cans and bottles, as well as building detritus such as metal fittings and linoleum. Immediately south of the pit, in the following reddish-yellow soil layer, was a large boulder. Two other extremely large boulders, one up to 5.0 feet in length, lay in the southern portion of the trench. Below the reddish-yellow soil beginning about 5.7 feet at the northern end of the trench, and 4.8 feet below surface at the south was a layer of dark grayish-brown clayey soil. This layer was sterile. The trench was excavated to a depth of between 5.9 feet (south) and 6.3 feet (north) below surface.

2.4 TT4 – Features F2 and F3 (Figs. 8, 9 to 14 and 18 to 20)

The north-south running TT4 was opened on June 27th on Lot 24, initially 25.0 to 30.0 feet west of the east lot line to trace the rear wall of the building that formerly stood on the lot and any cistern that may have been built onto it (Fig. 9). The trench was 17.0 feet long, extending from approximately 2.0 to 19.0 feet north of the south lot line of lot 25. At a depth of 2.95 feet, we excavated the two parallel north-south walls, 3.0 feet apart, of a stairway chamber at the rear of the 30.0 foot (east-west) deep building that formerly stood on the front of the lot. The outer wall of this building was exposed to the south lot line of lot 24. The inner wall of the stairway chamber was built of brick. At least four stairs (the bottom of the stairway was not reached) led down to a doorway, filled in with cinder blocks that once led through the outer wall into an underground, vaulted brick chamber, Feature F3 (Fig. 8). This was presumably used for storage (see further on this feature in section 2.5).

Immediately south of, and both abutting and partly cutting into the western end of F3, was a circular structure, 6.0 feet in diameter, 8.4 feet high, and reaching a depth of 10.9 feet below grade (Fig. 8). This feature, F2, was built of large field stones and lined with a thick coat of concrete, indicating that it was used as a cistern (Fig. 18). A few bricks set in mortar remained attached at the top. This was presumably once part of a capping, represented by a large concentration of brick debris immediately over the opening, whose outline was defined at a

depth of 1.4 to 1.6 feet below the surface. Over the brick debris was a layer of concrete. A brown-glazed ceramic pipe fed into the north side of the cistern.

On July 14th, we investigated the construction of F2 further, opening up a deep trench on its southern and western faces and reaching, on the west face, the base of the structure, at 10.9 feet below grade. Six courses of bricks were preserved at the top, above the stone body of the structure (Fig. 19). The inner diameter, at the base of the brickwork, was 6.0 feet; the outer, 7.2 feet. The eastern edge of the cistern was bonded to the north-south brick back wall of the building that formerly stood on the lot. This wall continued to approximately 13.0 feet north of the south lot line of lot 25, where it abutted the west-east brick outer wall of the building that formerly stood on lot 25. A curving brick conduit 5.7 feet below grade, sloped down from an opening in the wall and ran around the southern half of the cistern. This conduit was one brick length wide and a one brick width high, but was open on the bottom. We did not locate its western end, but did remove its top to observe the opening in the house wall to which it led, and the conduit's contents. It was filled with brown soil and very dark grayish-black soil, apparently sewage -- not a very sanitary arrangement! A second brick conduit, one brick-length wide, ran west from the middle of the west face of the cistern to a stone lined, circular feature, F6, which we took to be an overflow tank for F2 (Fig. 20). Only the base of this feature was defined, at a depth of 5.9 feet below grade. F6 was much more crudely built than the corresponding feature F5, which was similarly connected to cistern F4, on lot 23 (Figs. 24, 27 and 30, and see section 2.7). Below F6 we noted a layer of fine silt with chunks of shale and limestone, and fragments of coke.

On July 15th we began excavating the fill inside F2. The top was not sealed, but lay approximately 2.5 feet below the asphalt, under a layer of very dark soil mixed with plastic, clothing, wire, and other debris. We removed part of the stone wall of the cistern to a depth of approximately 4.3 feet below grade, and part of a vinyl record fell out, along with a man's shirt, decomposing Styrofoam, a red plastic comb, glass, a screw cap bottle, a plastic wrapper from a [Fla]-vor- ice pop, a plastic bottle, and plastic bags. As seen in the opening of F2 visible from the inside of F3, described in section 2.5, the bottom of the cistern on its east side was filled with building detritus, mostly brick (Fig. 14). On the western side, we removed the stone and plaster

lining of the wall to within three feet of the bottom of the structure and found a Miller High Life bottle with its label still attached, together with plastic containers (Fig. 18). Other finds included tile, metal pipe, pieces of plastic tablecloth(s), window glass, cloth, and metal hardware. Below the Miller bottle, the cistern was filled with loosely packed brick debris, together with more plastic items and beer bottles. Having fully satisfied ourselves that there was no uncontaminated 19th century deposit in the cistern, or any 19th century material at all for that matter, we did not excavate the contents in further detail.

2.5 TT5 – Features F2 and F3 (Figs. 10, 11, 12, 13, 14 and 15)

The east-west running TT5 was opened on June 28th on lot 24, between 31.0 and 39.4 feet south of the north baulk for a length of 40.0 feet. It extended west from part of the west face of the vaulted structure F3 in TT4 to the east edge of TT2 (Fig. 15). In the portion of the exposed west face of F3 were two rectangular brick plugs protruding about 0.6 feet from the vertical wall of the vault, two feet below its top and one foot apart. The southern one measured 1.7 feet wide by 1.3 feet high; the northern, 2.0 feet wide by 1.8 feet high. A third plug was found when the rest of the west face of F3 was exposed in TT7 (Fig. 10 and see below). The west face of F2 was exposed to its base, 10.4 feet below the surface. Its walls were 6.5 feet high, not including the height of the vault.

In the south face of TT5, the foundation trench of F3 was observed, filled with yellowish-brown silty sand. The foundation trench was cut through a layer of grey clay followed by a second, lighter grey clay layer. Below the foundation trench and the grey layers was virgin soil, composed of reddish-yellow clay and devoid of artifacts. At the bottom of the trench, 8.7 feet below surface, the reddish-yellow clay became finer.

At the western end of TT5, 16.5 feet east of the west lot line and 2.6 feet below grade, we encountered the large stones of the east face of a circular privy pit, F1 (Fig. 15). This feature was excavated by hand and is described in more detail in section 3.1 below.

On July 12th, the east end of TT5 was extended northward to reveal the entire west face of the vault F3. The inner length of the vault was 10.275 feet north-south by 5.2 feet east-west.

A third brick plug to the north, in a line with the first two and measuring 1.5 feet wide by 1.3 feet high (Fig. 10). We broke this plug off the wall and found that it sealed a rectangular opening 0.95 feet wide by 1.1 feet high lined with slate slabs on the top and bottom. Sitting on the sill was part of a metal jerry can (Bag 31) and a complete cylindrical metal can. We then removed the middle plug and southernmost plugs and found a Miller High Life beer bottle in the former. (Fig. 11). It was possible to look inside the vault from the southernmost opening and see a sloping pile of dirt mixed with household garbage that had evidently been thrown in through a rectangular opening in the top of the vault, whose underside was also visible (Fig. 13). This opening, measuring 2.75 feet north-south by 1.85 feet west-east, had been blocked by a concrete slab. On the eastern interior wall of the vault, we observed a rectangular, window-sized niche opposite the southernmost of the three brick plugs that was also lined top and bottom with slate slabs (Fig. 12). The north side of the cistern F2 could be seen cutting through the vault and in the cistern wall, a large rectangular opening with a slate slab lining its upper side (Fig. 14). The fill inside the cistern, consisting mainly of brick and stone, was visible, packed behind the opening.

We dismantled the vault F3 with the backhoe in order further to check its contents, but found that the deposit was largely modern – probably from the 1960s or later – and therefore not historically significant or requiring further archaeological testing.

2.6 TT6 (Figs. 21 and 22)

This 9.0 foot wide trench opened on June 28th was excavated from the north side of F3 northward to approximately 2.0 feet south of the north lot line. Almost immediately below the asphalt and a thin layer of black soil and scattered brick debris was a large stone slab with the remnants of a brick pavement built over it. The slab rested on a bed of concrete overlapping the west, outer wall of the stairway chamber and the north end of the vaulted structure F3.

Further north in TT6, in lot 23, we uncovered a well preserved brick pavement that extended over this entire end of the trench. It lay directly under the asphalt and a thin layer of black soil. Portions of the pavement had evidently subsided in those places where a second course of bricks had been added to fill the cavities. The pavement ran over and sealed a circular

structure, F4, of the same construction as F2. It too had a brick crown, only the base courses of which were preserved, over roughly dressed fieldstone walls. The contents of F4 were sectioned and excavated by hand. A description of the operation may be found in section 3.2 below.

2.7 TT7 FEATURES F4 AND F5 (Figs. 23, 24 and 27)

This trench was opened on July 11 north south along the southwest side of TT6 in order to trace F4 to its base and to expose the northwest corner of F3.

We discovered a square brick conduit, one brick thick and three courses high running westward, down from an overflow outlet on the western face of cistern F4 for two feet, into a circular shaft lined with undressed stones, F5. The mortared brick conduit was based on one course of undressed stone blocks, seen in a small probe opened between F5 and F4 along the north side of the conduit. F5 measured 2.2 feet in diameter on the exterior with an inner diameter of 0.9 feet. Its opening was still half sealed by an irregularly shaped, thick stone slab. The brick pavement previously found in TT6 running over cistern F4 was picked up again a few feet north of F5.

Since the excavation of TT6 established that the deposit in F4 was sealed by a brick pavement and it would be necessary to excavate it stratigraphically, we enlarged TT7 to the east and deepened it to 9.1 feet below grade to expose the outer wall of F4 fully and to determine if there was a connection between it and F3, but no connection was observed. The base of F4's stone wall was reached at 8.1 feet below grade (Fig. 27, right). We also exposed the south faces of the brick conduit and F5. A shallow deposit of yellow running up to the west wall of the cistern and a layer of yellowish brown soil following it may have been part of a foundation trench. The latter adjoined a deep and extensive layer of mottled very dark grey and dark brown soil that continued westward under the conduit and F5. There was a possible packing of small cobbles and stones lining the exterior wall of the cistern, whose large stone blocks were bonded to the cistern's cement lining. The excavation of the fill within the cistern is described in section 3.2 below.

2.8 TT8 (Figs. 25 and 26)

The 8.0 wide west-east trench TT8, opened on July 13th, extended from about 11.0 to 19.0 feet south of the north lot line of lot 23, and 43.0 feet west to the east side of TT3. Below the topsoil, we encountered the same yellowish-brown soil as noted elsewhere. There was a large garbage pit in the trench's southern wall, towards the rear of the lot; two large boulders and about a dozen small cobbles were also noted. TT8 was excavated to a depth of 5.5 feet without encountering any traces of privies or cisterns.

3. FIELD REPORT - FEATURES F1 and F4

3.1. PRIVY – FEATURE F1 (Figs. 16 and 17)

This feature was discovered on June 29th at the western end of TT5. As can be see in Fig. 16, part of the east wall of this feature and a small part of its contents were removed by the backhoe. The privy was lined with small and medium-sized undressed cobbles. No mortar was used and the shaft was not lined.

After determining that more than a couple of feet of F1 were still preserved, TT5 was widened and deepened on the east side of the feature with a view to exposing and then gradually removing the stones prior to sectioning and excavating its contents. We excavated the southern half of the privy's fill to the bottom of the shaft, which was reached on June 30th at 7.4 feet below the top of the opening or 9.4 feet below grade.

At a depth of 1.9 feet below the top of the opening, we observed some brick detritus. From approximately 2.4 to 3.3 feet below the top of the opening, the shaft was filled with heavily corroded metal in a matrix of grey to grayish-brown compact clayey soil. Although we collected most of the metal, it was in such a degraded state that it was hardly possible to identify the types of objects. Ceramic and glass fragments were found in much smaller quantities, as were animal bones, these last analyzed by T. Amorosi (Section 5, below).

From approximately 3.0 to 5.1 feet below the top of the opening, the matrix was a very dark grey to black, very dense and moist, sticky clay-like deposit that could only be night soil. Although there was no odor, this was very unpleasant to excavate and impossible to screen. Between 4.6 and 5.0 feet in depth we noted a 0.8 foot long section of a brown glazed ceramic pipe (not kept).

Below the night soil, the matrix became a grey clay, also very dense. There were very few finds in this material: one lump of metal and two tiny fragments of ceramic (not kept), as well as two marbles and one button. This light grey layer continued to within 0.2 feet of the bottom of the shaft, where the matrix turned to a yellowish-brown sand devoid of artifacts. There was no indication that the shaft was lined on the bottom, and this sand layer, which was below

the lowest course of the stone lining, was understood to be virgin soil. This layer was also visible in the baulk adjoining and below F1.

A total of twenty-four bags of artifacts was collected from F1. The levels and contents are listed in Appendix A below.

3.2. CISTERN – FEATURE F4 (Figs. 27 and 28)

The cistern was sectioned west east and approximately two-thirds of its southern half was stratigraphically excavated, sifting 100% of the soils removed. We proceeded by removing one to two feet of the cistern's stone wall and concrete lining at a time to expose the fill, then excavating the fill, then removing another section of the wall and lining and so on, until we reached the concrete bottom of the cistern. Appendix B contains a list of the fifty-nine bags of finds that were collected (Nos. 25-83). T. Amorosi's analysis of the animal bones is in Section 5, below.

The top of the opening of the cistern, as preserved, was 2.5 feet below grade. The heights given in the following description are of the deposit within the cistern, measured from the top of the opening.

The deposit within the cistern was covered with a layer of brick detritus in a yellowish-brown to reddish-brown and brown silt with a small amount of sand, Layer 1. The depth of this deposit varied in depth from a fairly thin layer on the top of the opening to 0.8 feet on the west below the top of the opening. Aside from the brick detritus, one bag (No. 25) of mixed metal and ceramic fragments was collected from the top of this layer.

Below and adjacent to Layer 1, Layer 2 was a deposit of light yellowish-brown sand up to 1.2 feet below grade on the east side of the excavated area that did not contain any material culture remains.

Layer 3 was composed of reddish brown soil mixed with crushed particles of white stone, charcoal, and shell. It extended across the entire excavated area to a depth of between 2.0 feet on the west to 2.5 feet on the east. The lowest portion of this layer was mixed with patches of brown

soil and a course grey friable material, possible decomposed limestone. This was concentrated in the northwest corner of the excavated area.

Layer 4, beginning approximately 2.5 feet (east) below the top of the opening and continuing to approximately 3.65 feet below the top of the opening was finer grained than L3 and composed of a light reddish-brown soil mixed with reddish-white striations and coal. In the northeast corner, it was separated from L3 by a layer of grey and white ash.

Layer 5, first defined at 3.4 feet, was composed of a thin layer of decayed wood in a post hole, followed by the post itself, located approximately in the center of the cistern. The post, which turned out to be the trunk of a sapling with stubs of lopped off branches, continued to the bottom of the cistern but had not grown through the floor. Instead, it seems to have been placed in this position. One of the few artifacts associated with this layer was a large, hook-shaped piece of metal with a square, bolt-like terminal (Fig. 38, 1). It is tempting to imagine that the hook and the post were used together, but water was not drawn out of cisterns by a bucket on a pulley: it was piped into the house. Fragments of pipe were found both in the cistern, while an *in situ* section of pipe, observed leading into the top of the cistern on the north side may have conducted water from the roof into the installation.

Layer 6, adjacent to layers 3 and 4, extended from 1.2 to 5.5 feet. It was a coarse-grained, dark reddish-brown soil mixed with a large amount of coke and stone chips. This layer was concentrated around the perimeter of the deposit. Glass, ceramic, metal and bone were collected from it. Since this material was very loosely packed, it was not always possible to differentiate clearly from the adjacent layers, which probably accounts for the joins between materials collected from L.4 and others from L.6.

Layer 7, below level 4 and adjacent to and below layer 6, was a fine, light reddish-brown soil laminated with black and dark grey lenses. Most of the ceramics, glass, metal and bone remains came from this layer, which extended from 3.65 to 6.0 feet. Joins between objects collected at the top of L.7 and other found near its bottom indicate that this layer was deposited over a short period of time.

At the bottom of the deposit, Layer 8 was a shallow deposit from 6.0 to 6.3 feet below the opening composed of a fine silty grayish-brown soil that contained small fragments of coke and charcoal along with some clamshells.

4. ARTIFACT ANALYSIS - OVERVIEW

This section discusses the glass, ceramics and special finds from the privy F1 first, then those from the cistern F4. The objects are referenced in parentheses by their bag numbers, which can found listed in the catalogues for F1 and F4 in the appendices. Dimensions and further details about each object may be found there. Cross-mends between bags are noted in the catalogue as well as in the following text.

The best evidence for dating the contents of F1 and F4 is the manufacturing techniques used to form the glass vessels. Pontil marks, when associated with free-blown vessels, are rare after the 1870s but still found on mold-blown vessels. The latter normally have visible seams on opposite sides. Cup base molds, which usually leave a visible seam around the bottom of the vessel, above its heel, were prevalent from the late 1880s to the late 1910s. Embossed labels, though present by the mid-19th century, were most common from the late 1870s to the 1920s.

A few of the ceramic vessels have makers' marks of British potteries. The metalwork, as noted in section 3.1 above, was mostly heavily encrusted with corrosion products, but cans and a variety of hardware items could be identified.

4.A. ARTIFACTS FROM F1

4.A.1. GLASS

Machine made bottle finish

Although the type of aqua glass bottle cannot be identified, this fragment of a bottle finish is the only machine-made vessel in the assemblage (Bag 5). The Owens Automatic Bottle Machine came into general use ca. 1905 but a post-1910 date for mold-made bottles is more usual (Lindsey 2011).

Ink Bottle

One cylindrical ink or glue bottle, made in a cup-base mold, had the embossed label SANFORD MFG. CO. 100 on its base (Fig. 32, 6). The company was founded in 1857 in

Worcester, Massachusetts as an ink and glue manufacturer and is still in business today as a division of the multi-national Newell Rubbermaid Company, which acquired it in 1992 (Company History 2011). In 1866, Sanford moved to Chicago. Although the factory was damaged in the great fire and burnt down in 1899, the company survived and prospered.

The ink bottle from F1 certainly pre-dates 1940, when the Sanford Manufacturing Company changed its name to the Sanford Ink Company, and, since it was blown in a mold, it probably also predates the 1910s (Lindsey 2011). The cracked-off finish (top) suggests a date between the 1890s and ca. 1910, when such finishes were commonly found on cylindrical ink bottles imported from Great Britain (Ibid.)

Perfume Bottles

There were four complete, clear glass, oval perfume bottles with an embossed "Palmer" label on the side and on one, the number 3 on the bottom (Bags 12, 19 and *19, Fig. 32, 9 and Fig. 31, 5 and 6). They were blown in molds and have tooled finishes.

In 1847, Solon Palmer opened his perfumery in Cincinnati in a shop front rented from the Presbyterian Church, which held services in the rear. Solon moved to New York in 1870 or 1871 (Hummel 2010). His son Eddy took over the business in 1892. It later continued under Solon M. Palmer until 1947. In addition to the over one hundred perfumes that the company created between ca. 1885 and the 1920s, Palmer's produced a variety of cosmetics including face powder, toilet soaps, sachet powders, rouges, lotion, cold creams, etc. (Hummel 2010).

Although it's not labeled, the faceted, decorative clear glass bottle illustrated on Fig. 32, 8, was probably also a perfume or cosmetic bottle. The embossed label on its base, "C L G CO" was used by the Baltimore-based Carr-Lowrey Glass Company from its founding in 1889 until ca. 1920 (Whitten n.d.). The company is identified both as a manufacturer of druggists' bottles (Higby and Stroud 1999, 98), and of "small specialty bottles for the cosmetics and toiletries markets" (Anchor Hocking 1996). This vessel provides a *terminus post quem* for the privy deposit of ca. 1890.

Druggists' Bottles

A cylindrical vial with a cracked off finish and a pontil mark on its base probably dates at the latest to the end of the 19th century (Bag 12). Fig. 31, 4 is a cylindrical vial with a laid on, tooled finish and a pontil-marked base. A third, fragmentary vial with a rounded base seems to have been mold-blown, as there is no trace of a pontil mark (Bag *19). T

The fragmentary aqua glass, oval bottle, Fig. 33, 1, which was probably a druggists' bottle, was made in a cup-base mold. As noted above, the date range for this technique is largely ca. late 1880s to late 1910s.

The cylindrical, aqua glass bottle, Fig. 31, 9, was also made using this technique and has an unevenly formed, tooled finish. Another, clear glass bottle fragment with part of an embossed label "…SEBROU…", has a similarly short, wide neck, but an applied finish (a separately added ring), Fig. 31, 10. This technique was superseded by tooled finishes by the mid-1890s (Lindsey 2011). The bottle contained Vaseline made by the Chesebrough Manufacturing Company, as evidenced by an identical jar with embossed label offered on ebay. Later Chesebrough Manufacturing Company Vaseline jars, also seen for sale on ebay and other sites, have screw thread finishes. Such "improved" tool finishes appear by the late 1890s (Lindsey 2011). Vaseline was introduced in 1859 by Robert A. Chesebrough, who invented the process of extracting petroleum jelly from "rod wax" after observing oil rig workers collecting this residue from their drilling rigs and smearing it on their skin. By 1870, Chesebrough was selling his refined product as "Vaseline", but he patented his process only in 1872.

The square aqua glass bottle Fig. 32, 7 is a typical druggists' shape known as a "French square" (Lindsey 2011). As typical for such bottles, this example has beveled corners, was made in a post-base mould, and has an applied, tooled finish. The date is likely to be in the 1880s to 1890s.

Clear glass fragments of a square or rectangular vessels probably also came from druggists' bottles (Bags 12, 26).

The aqua glass stopper (Fig. 31, 2) is similar to types used in druggists' bottle (for instance, tincture bottles made by the Carr-Lowrey Glass Co. of Baltimore, whose products are represented in this assemblage, Bag *19).

Miscellaneous

Judging by its small size, Fig. 32, 5 may have been an ink bottle, though no parallel for the shape was found. Multi-faceted ink bottles were mainly in use from ca. 1835 to 1865 (Covill 1971, 117, Fig. 543, with similar proportions and finish).

The top half of one milk bottle with tooled finish was identified (Bag 15).

Two vessels were identified as tablewares: parts of the base of a clear glass tumbler (Fig. 33, 3), and the faceted base of a cake or fruit stand (Bag 35).

A small amount of clear and aqua glass window fragments were distributed throughout the deposit (bags 2, 5, 8, 9, 12, 19, *19).

A few fragments of clear glass lamp chimneys were identified, one with a scalloped finish (bags 8, 9, 12 (two vessels), 15, 19, *19).

One jar (?) base was made of red glass.

4.A.2. CERAMICS

A complete restored dish with a pink band around the inner edge of the scalloped rim is divided along the rim by pairs of shallow ridges marking the edges of each scallop and decorated by raised dotted designs on opposite sides of the rim in the form of simple opposing “C” scrolls (Fig. 34, 7). No parallels were found for this ware, but the raised, dotted decoration and blurred edges of the pink glaze recall Flow Wares from the end of the 19th century (below).

The only fragment of porcelain was a bowl base (Bag *19), and there were relatively few sherds of the normally very common undecorated stonewares, the latter consisting of fragments of dinner and smaller plates (Bags 1, 4, 8, 19); bowls (Fig. 34, 1 and Bag 19), and a teacup (Bag 12).

A teacup with a Flow Blue band along the rim and gold overglaze painted floral swags on the exterior and on the bottom of the interior probably belongs to the 19th or early 20th century, when an abundance of gold overglaze painting was common (Bags 1, 2, and 3). Another, identically decorated shallow, straight-sided dish went with the cup. A tiny saucer with overglaze

gold decoration may have been part of a child's tea set (Bag 1). All three of these vessels had whiteware bodies.

There was one fragment of blue shell-edged whiteware (Fig. 34, 3).

There were fragments of a white stoneware dinner plate (Bag 8).

A handful of flowerpot sherds were sprinkled through the deposit (Bags 1, 2, 4, 8, 15, 19, *19), and pieces of brown glazed ceramic pipes were also collected (Bags 5, 15, 19)

4.A.3. METAL AND SMALL FINDS

The metal finds included fragmentary cans (Bags 3, 7, 14, 15, 21); parts of a larger vessel, possibly a jerry can (Bag 10), like the one found in F3 (Bag 31); nails and bolts (Bags 5, 10, 14, 18); parts of furniture frames, one with what appears to be horsehair still attached, another with a piece of cloth (Bags 4, 18), and a copper rivet (12).

One thin strip of vulcanite came from F1 (Bag 9), but several fragments of vulcanite combs were found in F4 (see below). Henry B. Goodyear patented the process for making vulcanite in 1851 (the patent was re-issued May 18, 1858). This opaque black material is made of India (or natural) rubber combined with sulphur and heated to produce a substance that could be molded while still hot but became hard and durable once it cooled (Frazer 1858, 115). The most commonly made popular items in this material were jewelry, buttons, and combs (Metropolitan Museum, 2006).

A small strip of white celluloid labeled "BRANCHES: 95 Liberty Street 74 Ba…" may have been part of a trade or business card (Bag 3). The material, cellulose nitrate, was invented in England but first manufactured commercially in the United States by John Wesley Hyatt using his own patented process and new machinery that made mass production possible. His first venture was the Albany Dental Plate Company, opened in 1870. In 1871, he established the Celluloid Manufacturing Company and in 1872, moved the firm to Newark. Celluloid was used for a variety of products including combs and brushes, knife handles, toys, combs and, by at least the mid 1880s, for collars and cuffs (Merriam 1918, 208). Business trade cards were also made of celluloid. A fragmentary molded object made of a white, shiny material that is hard and friable

when broken, may have been part of a celluloid hair comb (Fig. 35, 6). Hyatt obtained a patent for his celluloid comb producing process in 1878 (U.S.P. 199909).

Aside from the miniature saucer (above), other children's toys found were a small ball, possibly made of rubber, and three glass marbles (Bag 24).

Fig. 36, 6 (Bag 8), a small blue sphere apparently made of ceramic, was probably once attached to other beads such as the one smaller bead found, which has two small, circular breaks at the former points of attachment (Bag 5). One of the two broken points of attachment on the larger bead is visible in the photograph.

There were several wooden, adult-sized shoe heels, leather soles and uppers, complete with eyelets (Fig. 38, 2; Bags 5, 6, 12, and 15). The uppers were attached with small tacks to the soles and heels, as can be seen in Fig. 38, 2.

A hollow wooden bobbin with a knob finial scored across the top was similar to examples from the Maujer Street and Five Points excavations (Bergoffen 2011, #15, Fig. 38: J; Griggs 2000, 296, Fig. 86).

4.B. ARTIFACTS FROM F4

4.B.1. GLASS

Druggists' Bottles

The impressed label on a fragmentary aqua glass bottle identifies it as from Eli W. Vondersmith's Bowery Drug Store at No. 158 Bowery (Fig. 33, 2). Eli earned his M.D. from University Medical College in New York City in 1852 (NYU), and both he and his brother Samuel served in the 6th Regiment infantry as surgeons during the Civil War (Adjutant General 1868, 191). The earliest record of Eli's activities in the drug business found was this newspaper advertisement in the New York Times (April 4, 1854, p. 4):

> PIMPLES AND FRECKLES can be removed from the face by using ELI W. VONDERSMITH'S EXTRACT OF ROSES AND ELDER FLOWERS. I will warrant it, or the money will be returned. Camphor Ice - Camphor Ice - A certain cure for chapped hands and lips. Persons who are troubled with Salt (Rhoom?)

> will find this an excellent remedy. Prepared only at ELI W. VONDERSMITH'S Bowery Drug Store. No 158 Bowery, above Broome-st., and sold by Mrs. HAYES, No. 175 Fulton-st., Brooklyn.

Though Eli died in 1887 (NYU), the E.W. Vondersmith drug store at 158 Bowery was still in business in 1907 (Druggists' 1907).

The applied finishes on the following three bottles indicates that they predate the mid-1890s, as noted above. An aqua glass druggists' bottle with an applied finish and rounded shoulder preserves part of the embossed label of "FORD & …[M?]" preserved on an indented panel (Fig. 32, 3). This name was not found in the city directories checked. The cylindrical aqua glass bottle, which tapered towards the base, is the castor oil shape, but it other contents and other uses, other for druggists' products, are also possible (Fig. 32, 2). Fig. 31, 12, a rectangular, aqua glass bottle with beveled corners made in a two-piece mold and having an open pontil mark on its base, probably dates before 1880 since by the mid 1870s, both pontil marks and two-piece molded bottles had "largely disappeared" (Lindsay 2011). The same would apply to a small cylindrical vial with an applied finish and pontil mark on its base (Fig. 31, 8). A ground-down pontil mark is visible on the base of a small, faceted cylindrical vial, which could also have been a perfume bottle – no exact parallel was found for this shape (Fig. 31, 7). The finish was not preserved.

The aqua glass fragment embossed "…ORATIVE", was probably originally "Restorative" and was one of the side panels of a rectangular druggists' bottle (Fig. 31, 14).

Clear glass stoppers with plain tabs were often used for druggists' bottles (Fig. 31, 3).

A finish with flanged rim was probably also from a druggists' bottle (Fig. 31, 1).

Perfume Bottles

A tall aqua glass bottle with an illegible embossed design with rounded edges on both sides of the neck, was made in a two-piece mold (snap-case), and has an applied finish (Fig. 32, 1). The glass body is full of air bubbles. These features, especially the two-piece mold, suggest a date ca. 1855-1875 (Lindsey 2011)

The proportions of this cylindrical vessel with tall neck and sharply carinated shoulder recalls the bottles used for Florida water, an alcohol-based eau-de-cologne perfumed with lavender and other essences. This product was invented in the United States in the early 19th century and had become a generic product by the 1830s, thanks to its many and varied applications (Sullivan 1994, 78, 80, 83; Fig. 4). In addition to its use as a perfume, Florida water could also serve as a room freshener; a mouth wash; an astringent against tan, freckles or acne or, when taken internally, as a cordial or stimulant (Sullivan 1994, 79). The principal purveyor of Florida Water was the New York firm of Lanman & Kemp, which was using an embossed version of this shape, blown in a two-part mold, by the 1870s.

Wine Bottle

A dark green glass bottle base with kick-up was probably from a wine bottle (Fig. 32, 4).

Table and decorative wares

There were very few drinking glasses or glass dishes in the assemblage. Fragments of one pressed glass tumbler were distributed among bags 56, 62 and 74. Other pressed glass fragments probably came from a bowl (Bag 26).

Miscellaneous

There were a few fragmentary, clear and aqua glass lamp chimneys, most with cracked off and fire polished finishes (Bags 26 (three clear and one aqua); 35, 43, 49, 52, 56, 65, and 74).

Fragments of clear and aqua window glass were distributed throughout the deposit (Bags 25, 26, 35, 43, 49, 56, 62, 71, 74, and 79).

A few fragments of either glass slag (or vitrified glass?) were present (Bags 26, 35).

4.B.2. CERAMICS

Banded Annular Ware

A nearly complete (restored) Banded Annular whiteware carinated bowl was decorated with three slightly raised horizontal black bands framing a wide, muted blue band (Fig. 34, 9).

The ware, produced in England, ranges in date from ca. 1820 to 1850, and is uncommon after the 1840s, although blue Banded Annular ware continued to be produced into the 20th century (Miller 1991, 6).

Flow Blue, Transferware, and White Ironstone

Flow Blue is a type of transfer printed ware in which the blue glaze was allowed to flow, thereby creating designs with blurred outlines. This decoration was applied to several different types of clay bodies. The sherds in this assemblage were white wares with white slips. The most important fragment is an octagonal pitcher decorated in a floral pattern, with an embossed leaf on the outside of the spout (Fig. 34, 8). The shape, with its raised spout and sharply angled handle, was popular in Gothic style pottery (Brighton 2000, Fig. 33). A small rim fragment of a teacup with faceted sides is in this style as well (Bag 51).

The Flow Blue pitcher is stamped on the underside of the base: "NANKI…DAVENPORT". The Davenport pottery, begun in 1794 and run by the family until 1887, was England's largest producer of Flow Blue (Snyder; Birks 2009). "Nanki…" is no doubt Nankin or Nanking, referring to the pseudo-Chinese style of the painted design. A second fragment from the rim of a dish with a scalloped edge and beading along the edge was decorated with a dense, floral pattern including a peony (Fig. 34, 6). The raised designs of this vessel and the pitcher are characteristic of Late Victorian Flow Blue, ca. 1885 to 1920, but the naturalistic treatment of the blossoms rather than the more exaggerated, curvilinear *art nouveau* style, which became popular later, suggest a date for both earlier in this production period, in late 1880s for the pitcher (before 1887) and broadly, the late 19th century for the dish. Part of a twisted handle, probably from the lid of a serving vessel was decorated in Flow Blue (Fig. 34, 5). A chip of a Flow Blue decorated vessel was decorated with a spiral design (Bag 69). Finally, two very small fragments of Flow Blue, possibly from the same vessel, were decorated on both sides (Bags 69 and 78). The design on the exterior of the smaller sherd, possibly floral, is too blurred to be legible, while the interior is a blue blob. There were two small fragments of blue transferware, one a tiny rim fragment (Fig. 35, 4 and Bag 59).

Flow Blue and other blue and white pottery styles imitated the patterns used on Chinese porcelain and while they were among the most expensive British-made pottery styles, they were still much cheaper than the imported wares. They therefore allowed middle-class Victorians with social aspirations to display their refinement at an affordable price. Matching blue and white toiletry sets of pitchers and basins in each bedroom was considered "the height of gentility" (Snyder).

A purple transfer-printed saucer stamped on the underside of the base with part of the Davenport mark is decorated with a scene of flat-roofed buildings between trees (Fig. 35, 8). The figurative scene is circled by a spiral border framed between narrow bands.

Gothic-style wares suited Victorian middle class ideas of respectability by bringing "the sanctity and communal aspects of Gothic churches into the home" (Brighton 2000, B-29). These were popular in America from ca. 1840 to ca. 1860. An ironstone dish is stamped on the base "MALTESE SHAPE E. CORN BURSLEM". This style is in the Gothic taste. The Maltese shape refers to the tri-lobed or leaf-shaped raised decoration on the interior of the rim. Edward Corn opened his pottery works in Burslem and ran it until ca. 1850, after which it was taken over by his two sons, William & Edward until 1890 (Birks 2009). The mark refers to the fact that the shape was created by E. Corn, but does not necessarily mean that the dish must have been produced before 1850. The shape may however belong to an earlier phase of production, ca. 1840-1860. A rim fragment from a faceted porcelain cup is in typical Gothic style (Bag 72).

Other forms in ironstone were: a dinner plate with scalloped rim (Fig. 35, 9, may go with a fragment from Bag 59); a bowl or basin with a rolled rim (Bag 51), and a small plate or saucer (Bag 69). A base fragment from an oval dish made of white ironstone bore part of the maker's mark of one of the potteries in Burslem, England (Alcock? Fig. 35, 6).

Porcelain

The few porcelain sherds were: a delicate teacup decorated on the inside of the rim with gold bands and a foliate band (Fig. 35, 3); a fragment of a base possibly from a dish (Bag 59); a wavy rim fragment from a spouted vessel, possibly a creamer, decorated in overglaze gold (Bag 34), and a knob handle, similarly decorated (Bag 69).

Jasperware / relief-decorated ware

A fragmentary small bowl was decorated with a scene in white relief against a matt blue, unglazed background, framed in raised scroll border or medallion (Fig. 35, 7). The cameo-like style of decoration is called Jasperware or also Cameo ware. The heads and part of one foreleg of a team of two harnessed, galloping horses with a hand, bent at the wrist, next to one of the horse's necks is all that is preserved of the figurative relief, but this is enough to identify the very common and long-lived motif of Aurora, the Greek goddess of dawn, riding in her chariot. Compare our fragment with the black jasperware plaque made by Wedgwood c. 1780-1800 (Fig. 35, 7A).

Miscellaneous

Fig. 34, 4 is a salt-glazed cup with blue sponge decoration. Fig. 35, 5 is also from a salt-glazed vessel with a relief ridge, apparently.

One sherd of yellow ware from a flat-bottomed vessel, possibly a tray (Bag 72), and one cap-shaped fragment of brown-glazed red ware (Fig. 34, 2) were identified.

Flowerpot sherds were distributed in small numbers throughout the deposit (Bag 27; Bag 59 restoring with 72; Bag 78).

A few fragments of brown glazed water pipes were also found (Bag 27).

4.B.3. METAL, SMALL FINDS AND MISCELLANEOUS

Metal finds included nails (Bags 28, 37, 53, 57, 60, 73); bolts (Bags 60, 73) including one copper bolt from Bag 37; fragments of metal cans (Bags 28, 37), fragments of small, bent lead rods (Bags 28, 57); what may have been be a loop-shaped drawer pull (Bag 57), and pieces of metal attached to slivers of wood, possibly furniture fragments (Bag 37). As in the privy, the material was heavily encrusted and there the many unidentifiable lumps of various sizes may have included additional bolts or can fragments. There was also boiler scale.

The most interesting metal object was an Indian head copper penny whose encrusted and slightly oxidized surface was cleaned by soaking in vinegar (Fig. 36, 9). The date of 1859 was

just visible with a magnifying glass, under raking light. This is the first year Indian head pennies were struck. The coin is probably the oldest artifact in the cistern, and nicely demonstrates not only that these pennies remained in circulation for a long time, but also that objects may be quite old by the time they reach their final resting places, in this case, some fifty years old.

The large hook on Fig. 38, 1 was discussed above, in Section 3.2.

There were many fragments of a friable material, paper-like or perhaps decomposed fabric or basketry, all heavily coated with dirt. One very large piece was attached to what appeared to be a loop-shaped, horizontal handle, possibly made of rope, with two small holes, as if for tacks, running through the wall to the handle attachments (Fig. 33, 4). Note the woven pattern on this item seen in the photograph.

A porcelain door or drawer knob was found near the bottom of the deposit (Fig. 36, 12). Two other porcelain objects were a small, closed hand either from a figurine or a relief-decorated serving vessel (Fig. 35, 2), and part of a butterfly wing, mat painted in pale pink and pale green, with two blue dots circled in red at the edge (Fig. 36, 5).

Items connected with dress consisted of fabric - a few unidentifiable fragments of woven black cloth (Fig. 36, 11 and other fragments from Bags 30 and 63); a small copper thimble (Fig. 36, 10); ten small, white two- and four-hole glass buttons (Fig. 36, 2-4, Bags 42 and 76), and one metal button back with a loop for attachment, whose face is missing (Bag 37).

Fig. 36, 3 is decorated with ridges around the rim, similar to those found in the Five Points excavation in Feature H, which dated to the 1850s-1860s (Yamin 2000, 133, Fig. 66). Another button is decorated with alternating rows of lightly etched diagonal hatches and dots (“calico” decoration, Fig. 36, 4).

Three fragments of vulcanite combs were recovered (Fig. 36, 8). The handle of one was decorated with a raised rope pattern; another had a rounded edge, and the third was flat. This material was described in the preceding section.

A white ceramic marble was decorated was decorated with painted green and brown bands crossing at right angles (Fig. 36, 7).

There were a few fragments of graphite (Fig. 36, 9).

A small number of broken pipe stems were found throughout the deposit (Bags 34, 76, 82). There were two pipe stems decorated with fluting and banding but unfortunately no makers' marks (Fig. 36, 1). The fluted decoration is characteristic of 19th century pipes and is not chronologically diagnostic (Asadorian 1973, 160).

5. ARCHAEOFAUNAL ANALYSIS, PROJECT SITE 3

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INTRODUCTION

This report is a description of the Archaeofauna recovered from the Bedford Avenue Site located on the Project Site 1 (lots 23, 24, and 25 on block 2430) in Brooklyn, New York.

Reported are the faunal remains recovered from the 2011 excavations, covering Feature 1 (a privy) and Feature 4 (a cistern). All methodological considerations follow those that were detailed a year ago in Amorosi (2010) for Project site 3. No further discussion of these issues will be raised here and interested readers are recommended to review that report. Only the overall broad data trends will be noted for this faunal assemblage.[1] The report's discussion will be limited to what can be seen of its Biogeographic representation of species and some of the Paleoeconomic implications patterned within this assemblage.

PALEOECONOMIC DIFFERENCES FROM THE 2010 ASSEMBLAGE

The interpretation of past economy is based upon a number of factors. Often the first set of factors to consider involves the recovery of the faunal remains and the nature of the archaeological deposit. Sampling of such deposits is a key issue in Zooarchaeology. Concerns over assemblage sample size and being representative of the archaeological site will affect interpretations of the past economy. Certainly when examining the Bedford Avenue faunal assemblage this is the case. The 2010 season materials from the Ten Eyck site (Project site 3) yielded a somewhat different suite of taxa from those recovered from the Bedford Avenue site.

There is a very notable shift within the mammalian component from Bedford Avenue as compared to those recovered from the Ten Eyck site in 2010. In the 2010 assemblage, pigs were the predominate domestic mammal. The 2011 cistern designated as Feature 4, show a reliance more on Bovid and more specifically targeted to caprines (Sheep/Goats). This difference most

[1] This is similar to the Stage 1 style of description now used by many Environmental Archaeologists and Zooarchaeologists (O'Connor 2003).

likely is due to site sampling of the extant site outbuilding features rather then historical economic reasons. If both reports are viewed together, the reliance of caprines and pigs would be consistent to what has been reported for other 19th century Brooklyn Archaeofauna and the wider New York City catchment area assemblages. Within the caprines category, the materials assignable to a species level are only represented by *Ovis aries,* Sheep. Again this is consistent with to what is known for the mix of 19th century domestic livestock in the Hudson Drainage. Goat remains (*Capra hircus*) are a much rarer caprine in the Mid to Lower Hudson 19th century Archaeofauna..

What is also different between the Ten Eyck and Bedford Avenue assemblages is the lack of cranial skeletal elements within the Bovid remains. The Bovids from the Bedford Avenue site are only represented from the neck down. Still the pattern of whole skeletal elements and regions are represented within the Bovids. This is suggestive of meat units or cuts for stewing and roasting.

The pig remains are much harder to get a better fix of what is actually being reflected within the assemblage. The remains from the Ten Eyck site reflect the same pattern of what occurred with the Bovid remains; large meat units being used for stewing and roasts and a possibility of on-site butchery. The pig sample from the Bedford Avenue site is far too small to know what is being reflected in these proxy data.

Likewise there is a shift within the avian component, with a reliance of domestic fowl and more likely Chickens. It is very tempting to claim that the materials from the Ten Eyck site might represent an earlier set of outbuilding features (as evident by both wild Ducks and domestic Turkeys); however, the concerns for sampling still have to be raised. Similarly, there is also a reversal of preferences for Oyster over Hard Shell Clams (Ten Eyck assemblage) to Hard Shell Clams over Oysters (Bedford Avenue remains). Without being able to control for site sampling of feature deposits (admittedly an unfair criticism as most CRM Urban-Historical Archaeology is a rescue effort of what is left) it is almost impossible to known if these economic shifts are true trends of the site's economic past. Still these board patterns are noted for future researchers.

Table 1. Mammalian Species Diversity List from the Bedford Avenue Site, Brooklyn, New York

Class Mammalia – Mammals	NISP[2]	Relative Percentages		
		% Family	%Mammal	%NISP
Superfamily Bovidae				
Family Bovidae				
Bos taurus – Domestic Cattle	12	17.14	1.44	9.09
Ovis aries – Domestic Sheep	9	12.90	1.08	6.81
Ovis/Capra – Domestic Sheep/ Goat or Caprines	49	70.00	5.88	37.12
Total Bovid = 70				
Family Suidae				
Sus scrofa – Domestic Pig	7	100.00	0.84	5.30
Total Susid = 7				
Family Muridae				
Rattus norvegicus – Norway or Brown Rat	1	100.00	0.12	0.75
Total Rat = 1				

Fragmentary Mammalian Remains Sorted by Size Class

	TNF[3]	Relative Percentage	
		%Mammal	% Mammal TNF
Large Terrestrial Mammal Size	67	8.05	8.88
Medium Terrestrial Mammal Size	687	82.57	91.12

Total Mammalian TNF = 754

Total Mammalian Counts (NISP + TNF) = 78 + 754 = 832

Assemblage Total (All Taxa NISP + TNF) = 925

Table 2. Avian Species Diversity List from the Bedford Avenue Site, Brooklyn, New York.

[2] The abbreviation NISP refers to the quantitative measure known as the Number of Identified Specimens per Taxon (Amorosi 1996, Grayson 1984, Lyman 2008).

[3] The abbreviation TNF refers to a similar quantitative measure known as the Total Number of Fragments.

	NISP	Relative Percentage %Avian	%NISP
Class Aves			
Order Galliformes			
Family Tetraonidae			
Gallus gallus – Domestic Chicken	17	30.4	12.87

Total Galliformes = 17

Fragmentary Avian Remains sorted by Size Class

	TNF	Relative Percentage % Avian
Medium Aves	39	69.6

Total Avian NISP = 56

Assemblage Total (All Taxa NISP + TNF) = 925

Table 3. Fish and Shellfish Remains from the Bedford Avenue Site, Brooklyn, New York.

	NISP	Relative Percentage %Order	%NISP
Class Osteichthyes – Bony Fish	9	100.0	6.81

Total Fish NISP = 9

	NISP	Relative Percentage %Family	%NISP
Class Bivalvia			
Order Veneroida			
Family Veneridae			
Mercenaria mercenaria - Hard Shell Clam or Quahog	26	92.9	19.69
Family Ostreidae			
Crassostera virginicia - Oyster	2	7.1	1.51

Total Shellfish NISP = 28

Assemblage Total (All Taxa NISP + TNF) = 925

Table 4. Breakdown of the Bedford Avenue Archaeofauna.

	CT.	%

Assemblage Total

NISP	132	14.3
TNF	793	85.7
	925	

NISP Breakdown of the Archaeofauna

Mammals	78	59.0
Birds	17	12.9
Fish	9	6.81
Shellfish	28	21.2
	132	

TNF Breakdown of the Archaeofauna

Mammals	754	95.0
Birds	39	5.0
	793	

Comparison of Cattle to Caprines to Pigs

Cattle	12	15.6
Caprines	58	75.3
Pigs	7	9.1
	77	

Note: The Caprines category includes both sets of remains Identified to Sheep/Goat (*Ovis/ Capra*) and Sheep (*Ovis aries*).

Table 5. Species distribution of the Bedford Avenue Archaeofauna

Feature 1

Taxon	Levels - NISP 3.6'-4.0'	4.2'-4.6'	4.6'
Bos taurus	0	1	0
Ovis aries	0	0	2
Ovis/Capra	0	1	0
Sus scrofa	0	0	0
Rattus norvegicus	0	0	0
LTM	15	17	9
MTM	0	283	29
Aves	0	0	0
Gallus gallus	0	0	0
Osteichthyes	0	0	0
Hard Shell Clam	0	0	0
Oyster	0	0	1

Total = 358

Table 6. Species distribution of the Bedford Avenue Archaeofauna

Feature 4 – Cistern

	Levels - NISP											
Taxon	3	4	5	6.1	6.2	6.3	7.1	7.2	7.3	7.4	7.5	8
Bos taurus	6	2	0	0	0	0	0	0	0	0	3	0
Ovis aries	4	1	0	0	0	0	0	0	0	0	0	2
Ovis/ Capra	17	10	0	0	4	4	0	0	2	0	7	4
Sus scrofa	0	2	0	0	0	0	0	1	1	1	2	0
Rattus norvegicus	1	0	0	0	0	0	0	0	0	0	0	0
LTM	1	1	0	5	1	4	2	0	0	6	3	3
MTM	39	55	1	15	1	17	11	7	8	20	142	59
Aves	1	4	0	2	0	2	19	5	0	2	3	1
Gallus gallus	0	6	0	0	1	4	0	1	3	0	0	2
Osteichthyes	1	0	0	1	0	0	0	0	0	0	1	6
Hard Shell Clam	0	1	0	0	0	0	0	0	8	1	8	8
Oyster	0	0	0	0	0	0	0	0	0	0	0	1

Total = 567

Levels	Recorded Depths
3	
4	
5	
6.1	3.65’-4.25’
6.2	4.25’-4.9’
6.3	4.9’-5.5’
7.1	3.65’-3.9’
7.2	3.9’
7.3	5.3’-5.4’
7.4	5.1’-5.4’
7.5	5.4’-6.0’
8	6.0’-6.3’

6. CONCLUSIONS AND RECOMMENDATIONS

Backyard Water, Sewage and Storage Installations on lots 23 and 24

While testing on lot 25 did not reveal any backyard features of archaeological significance, the former backyards on lots 23 and 24 contained impressive subsurface constructions. Each of the former buildings on these lots was equipped with a massive, beehive-shaped cistern built of large, roughly dressed stones lined with concrete. These reached depths of 10.9 feet below grade (F2) and 8.9 feet below grade (F4). Like the pointed tip of a soft-boiled egg, the domes of both structures had been leveled when pavements were laid over them, leaving however the rest of the cylindrical portion of each intact. Near the top of the remaining portion of each cistern, a single brick conduit led to a small but deep overflow tank (F5 and F6), built of the same rough stones as the cisterns but unlined, presumably to allow the excess water to seep out into the soil. The conduit from F4 was still open, but the one from F2 had been blocked off. Cistern F4 was sealed under a brick pavement, while Cistern F2, which contained a great deal of brick debris as well as household garbage from the 1960s and later, had no doubt remained open until the building on lot 24 was demolished, after 1965 (Bergoffen 2010, Fig. 13).

On its north side, cistern F2 had a large, window opening into an equally deep, rectangular vaulted brick structure. This structure, F3, cut into the side of F2 and therefore postdated it, as did the opening connecting the two, which would not have made sense while F2 was still being used as a cistern. Indeed, F2's brick conduit may have been sealed off precisely to keep the interior dry so it could be used for storage in conjunction with F3. The vaulted brick structure F3 was built against the rear wall of the building on lot 24. A short flight of stairs enclosed in a stairwell at the back of the building led down to a doorway in the southeast wall of F3, later sealed off with cinder block. The purpose of the three openings on the rear, west wall of F3, which were plugged on the exterior with brick, remains unexplained: there was no sign of another structure or open area immediately west of F3, only fill.

The black sludge at the bottom of the brick conduit leading out of the southwest side of the building on lot 24 indicates that it was used for sewage disposal. Since it curves around the

cistern, and was built in the same manner as the latter's conduit, it was probably part of the same system. The earlier sewage disposal system on lot 24 was its privy, F1.

Dating and Interpretation of the Deposits in Privy F1 and Cistern F4

In F1, below the top two feet or so of soil mixed with what was probably lime, there was some brick debris and about another foot solidly packed with clumps of heavily encrusted metal detritus. Below this was about two feet of sticky, very densely packed night soil. This was followed, in the lowest layer, by over two feet composed of an equally dense, silty grey clay that contained hardly any artifacts. The nightsoil layer was the richest in artifacts.

The top two feet contained restorable material distributed in Bags 1, 2 and 3, which indicates a single episode of deposition, but this need not necessarily have much after the rich deposit of artifacts in the nightsoil. Flow Blue, represented by a teacup and shallow dish, was found only in the first three bags, the overglaze gold embellishments on these vessels in keeping with the Late Victorian style of the ware, made between ca. 1885 to 1920. The chronologically diagnostic material in the nightsoil similarly indicates a date range of ca. 1890 to 1910. The datable objects in this layer consist of fragmentary and complete glass bottles, in particular, the perfume bottle bearing the stamp of the Carr-Lowrey Glass Company, found in the bottom of the nightsoil layer. This by itself establishes a *terminus post quem* for the deposit of 1889, the year that the factory began production. A terminal date of ca. 1910 is suggested by the presence of vessels blown in molds together with the appearance of a single machine-made bottle finish (Bag 5).

The cistern assemblage may also have been deposited over a relatively short period of time, as suggested by the joins between fragments from L.4 and L.6, and throughout L.7. The earliest datable material actually comes from the upper part of the deposit. This includes the restorable Annular Ware bowl, the copper penny, and the few gothic ware sherds. The first two were probably quite old by the time they were discarded and are not useful in establishing a *terminus post quem* for the deposit. One of the best indicators perhaps is the Vaseline bottle, which pre-dates the mid-1890s, when screw-top lids were introduced. Since this is not the kind of object to be kept for very many years on the shelf, its likely date of discard will have been at

the latest the mid- or late 1890s. This date is also in keeping with other glass vessels probably made in the 1880s, and the gold-trimmed, Flow Blue Wares, which may belong to the late 1880s or 1890s.

The early users of the privy on lot 23 were William Adams, a grocer and livery stable owner, who is attested at this address in the City Directories of 1847-1848 and 1851 to 1854, and his widow, Johanna or Joanna Adams, a dressmaker, who lived in the two and a half story building on this lot from 1857 to 1869 (Bergoffen 2010, 13). But the privy assemblage probably did not come from their household. Judging by the date ranges of the artifacts, it is more likely that the late 19th century residents, whose names were not traced, were responsible for depositing the garbage in the privy.

The owners and residents of the two-and-a-half story building on lot 24 from 1858 to 1874 were the New York born Henry B. Robertson, a clerk, and his son, Henry H., who followed in his father's footsteps. But again, judging by the date range of the artifacts, the deposits in the cistern are probably attributable to later residents, following the Robertsons. The larger number of tablewares in this assemblage suggests that they maintained a conservative, tasteful Victorian household.

Both the cistern and the privy deposit were reminiscent of the patterns of deposition observed in the features excavated on Ten Eyck Street (Bergoffen 2011). Both F1 and F4 similarly contained almost the full complement of household artifacts including: furniture (cloth and stuffing); glass lamp chimneys; wooden heeled and leather soled, lace-up shoes; clothing (cloth and buttons); grooming aids (vulcanite combs); sewing articles (bobbins and thimble); ceramic and glass tablewares; druggists' and household bottles (ink); food (milk) bottles and cans; childrens' toys, and flowerpots. Flow Blue pottery was however not represented in the privy and cistern assemblages excavated at the nearby Ten Eyck site nor any of the same druggists' or perfumers' products, possibly because the Bedford Avenue deposits are a decade later or more than the former. The archaeofaunal remains are unfortunately too limited to draw any conclusions. As Amorosi notes, there seems to have been a preference for beef here, though the beef heads and other evidence for butchering found at the Ten Eyck site is missing. Also notably absent -- except for one lone kick-up base from the cistern -- are any wine or spirits

bottles, or any stemware to go with them, all of which was represented at the Ten Eyck site. Apparently, the residents here were not given to drink.

Recommendations

The excavation of test trenches on lots 23, 24, and 25 on block 2430; the sectioning and excavation of features F1 and F4, and the full cataloguing and analysis of the material culture sample recovered from these features and presented in this report, have contributed to our understanding of the neighborhood's character in the late 19th century. There are no further archaeological concerns for this site, project site 1. We therefore recommend that the investigation of the archaeological potential of this site be considered completed.

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APPENDIX A - BAG LIST FOR FEATURE 1

Bag	Date	Level[4]	Matrix	Type
1	**6-29**	**0 – 0.8'**	**Black clayey soil w/ white speckles (lime?)**	**Mixed**

- Flower pot base fragment
- Small ball, rubber?
- Clear pressed glass, multiple base fragments from a tumbler
- Miniature whiteware saucer, base fragment, gold-painted overglaze arabesque on the interior, ca. 8.0-8.5 cm. diam.
- Flow Blue rim fragment from a teacup, 8 cm. diam., blue band along the top of the rim, over glaze gold band below the rim and floral decoration, gold floral decoration on the interior, restores with fragments from bags 2 & 3
- Flow Blue shallow bowl, cobalt band along the inside of the rim, overglaze gold floral swag, goes with the Flow Blue teacup, height 3.6 cm., base diam. 10 cm., rim diam. ca. 12.5-13 cm.
- Whiteware rim fragment from a dinner plate

2	**6-29**	**0.8-1.5'**	**Black clayey soil w/ white speckles (lime?)**	**Mixed**

- Flow Blue whiteware rim and base fragments from a teacup, restores with fragments from bags 1 & 3
- Clear glass bottle fragment with edge of an impressed label
- Aqua window glass fragment
- Ceramic flowerpot fragment

3	**6-29**	**1.5-1.9'**	**Black clayey soil w/ white speckles (lime?)**	**Mixed**

- Flow Blue whiteware rim and base fragments from a teacup, restores with fragments from bags 1 & 2
- Piece of stiff white celluloid with printed lettering: BRANCHES: 95 Liberty Street 74 Ba…
- Clear glass molded base fragment
- Small cylindrical cup, orange floral design, both under and overglaze painted, partial hand painted number on the base, height 5.7 cm., rim diameter 5.5 cm.
- White stoneware plate base fragment
- Fragments of metal cans, very encrusted and corroded
- Encrusted metal rod with white glass ball inserted at one end as if for a foot

4	**6-29**	**1.9-2.4'**	**Brick detritus**	**Mixed**

- Flowerpot sherd
- Three white stoneware sherds, one part of a plain plate rim, on base fragment
- Fragment of an aqua glass bottle neck with tooled finish
- Heavily corroded metal, one fragment with horsehair (?) stuffing, possibly furniture

[4] The levels were measured from the top of the opening, as preserved, which was 2.0 feet below grade.

Bag	Date	Level	Matrix	Type
5	**6-30**	**2.4-2.9'**	**Grey& grayish-brown soil**	**Mixed**

- Blue and white ceramic bead with small circular breaks on the sides, as if from a necklace, probably goes with the larger bead from bag 8
- White molded shiny object, celluloid (?) composed of straight and curving rods in the form of a belt buckle, possibly part of a comb, Fig. 35, 6
- Three fragments of white glazed stoneware, one the base of a small bowl or cup, diam. ca. 4.5 cm. diam.
- Fragment of brown glazed ceramic pipe
- Piece of window glass
- Two heavily encrusted metal bolts
- Basket? Woven (?) object with a handle, multiple fragments in several bags possibly from more than one object
- Two fragments of leather shoe soles
- Half an aqua glass bottle finish, machine-made (vertical side mold seams run to the top of the finish, onto the lip)

6	**6-30**	**2.9-3.1'**	**Dark grey to black nightsoil**	**Mixed**

- Shoe uppers with eyelets, wooden shoe heel, wood and leather shoe sole, part of a leather upper, Fig. 38, 2

7	**7/1**	**3.1-3.3'**	**Dark grey to black nightsoil**	**Metal**

- Large piece of metal hardware, 18 cm. long, approximately 1 kg (2 lbs.) with one splayed end
- Three fragments of metal cans, including one base, ca. 5.5 cm. diam.
- Lumps of unidentifiable material, some possibly boiler scale

8	**7/1**	**3.0-3.4'**	**Dark grey to black nightsoil**	**Mixed**

- Dish with underglaze pink border, wavy rim edge, raised dotted floral design, Fig. 34, 7
- Rose glass jar base fragment
- Flowerpot fragment
- White stoneware plate fragments
- Blue and white ceramic bead with small circular breaks on the sides, as if from a necklace, probably goes with the bead from bag 5, Fig. 36, 6
- Clear glass lamp fragments
- Clear glass jar fragment, short neck, applied finish, embossed label "SEBROU…" rim diam. 3.6 cm., Fig. 31, 10
- Clear glass vessel fragments
- Clear glass bottle fragment with embossed label "….SS'S…"
- Aqua glass oval bottle, three part mold, width 3.6 cm., length not preserved, Fig. 33, 1
- Aqua window glass fragments
- Small green glass fragment

Bag	Date	Level	Matrix	Type
9	**7/1**	**3.3-3.6'**	**Dark grey to black nightsoil**	**Mixed**

- Complete aqua glass ink bottle, cup base mold, stamped SANFORD MFG. CO. 100 on the base, cracked off and fire polished finish, base diameter 4.8 cm., height 5.8 cm. Fig. 32, 6
- Clear window glass fragments
- Clear glass lamp fragments
- Strip of vulcanite, 0.6 cm. wide 9.7 cm. long

10	**7/1**	**3.3-3.6'**	**Dark grey to black nightsoil**	**Metal**

- Two bolts
- Approximately one kilo (two pounds) of fragments from cans or a large metal vessel (i.e. jerry can, watering can)

11	**7/1**	**3.6-4.0'**	**Dark grey to black nightsoil**	**Metal**

- Boiler slag and unidentifiable lumps of concretion, discarded

12	**7/1**	**3.6-4.0'**	**Dark grey to black nightsoil**	**Mixed**

- Clear glass lamp fragments from minimum two vessels, openings 5 cm. diameter
- Complete clear glass cylindrical vial, cracked off finish, pontil mark on the base, 1.8 cm. diam.
- Complete perfume bottle with embossed "Palmer" label, tooled finish, 1.0 by 2.7 cm. wide, height 6.5 cm.
- Fragment of a clear glass square or rectangular bottle
- Clear window glass fragments
- Stoneware teacup fragment, white glaze
- Wood bobbin, 1.5 cm. long
- Wood shoe heel, leather sole
- Copper rivet

13	**7/1**	**3.6-4.0'**	**Dark grey to black nightsoil**	**Metal**

- Boiler slag and unidentifiable lumps of concretion, discarded

14	**7/1**	**4.0 to 4.2'**	**Dark grey to black nightsoil**	**Metal**

- Three heavily encrusted bolts or nails (?) lumps of unidentifiable material including fragments of metal cans (180 g. / 6 oz.)

15	**7/1**	**4.0 to 4.2'**	**Dark grey to black nightsoil**	**Mixed**

- Clear glass milk bottle, tooled finish, rim diam. 5.2 cm.
- Clear glass fragment with embossed letters: "…O / BE…/ A…
- Clear glass fragment, with etched leaf design

Bag	Date	Level	Matrix	Type

- Clear glass lamp fragments
- Flowerpot fragment
- Brown glazed ceramic pipe fragment
- Wood heel fragment and small piece of leather
- Metal can base

Bag	Date	Level	Matrix	Type
16	**7/1**	**4.0 to 4.2'**	**Dark grey to black nightsoil**	**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
17	**7/1**	**4.0 to 4.2'**	**Dark grey to black nightsoil**	**Special finds**

- Strip of vulcanite

Bag	Date	Level	Matrix	Type
18	**7/1**	**4.2 to 4.6'**	**Dark grey to black nightsoil**	**Metal**

- Large bolt ca. 12.0 cm. long, bulbous end, piece of cloth adhering to it, probably furniture part
- Smaller bolt, ca. 6.0 cm. long
- Lumps of indefinable material, possibly boiler scale ca. 350 g. (10 oz.)

Bag	Date	Level	Matrix	Type
19	**7/1**	**4.2 to 4.6'**	**Dark grey to black nightsoil**	**Glass, ceramic**

- Two complete clear glass perfume bottles, flattened oval, stamped "Palmer", height 6.3 cm., 1.0 by 2.6 cm. base, 1.3 cm. rim, Fig. 31, 5 and 6
- Complete aqua glass cylindrical druggists' bottle, post-base mold, tooled finish, asymmetrical rim, diam. 3.4 cm., base diam. 4.2 cm., Fig. 31, 9
- Complete, circular aqua glass stopper, circular concavity on the top of the knob with two pairs of shallow parallel ridges at opposite edges and perpendicular to the opening, Fig. 31, 2
- Clear glass bottle, neck and tooled finish, rim diam. 3.0 cm., neck 2.0 cm. high
- Clear glass vial, complete, 3.8 cm. long, 0.9 cm. diam. rim, pontil mark on the base, Fig. 31, 4
- Clear glass bottle fragment with embossed label "TH… / T…" & second fragment, possibly from the same bottle, with embossed label "…s. C.RID…" Fig. 31, 11
- Aqua glass jar (?) or bottle base, 7.5 cm. diam., post-base mold, Fig. 31, 13
- Very dark green bottle base fragment with kick-up, Fig. 32, 4
- Clear glass fragment probably from a lamp
- Porcelain fragment with etched floral design on the inner side
- White stoneware rim sherd from a plate
- White stoneware bowl rim sherd with scalloped rim, vertical channels on the body, Fig. 34, 1
- Shell-edged ware plate rim sherd, blue border, Fig. 34, 3
- White stoneware saucer, rim sherd, brown band on the inside of the rim
- Flowerpot sherds
- Aqua window glass
- White clay pipe stem fragment
- Brown glazed water pipe (conduit) fragment

Bag	Date	Level	Matrix	Type
20	**7/1**	**4.2 to 4.6'**	**Dark grey to black nightsoil**	**Bone**

See Amorosi, section 5 above

***19**	**7/1**	**4.6 to 5.0'**	**Dark grey to black nightsoil**	**Mixed**

*Repeated number
- Complete clear glass perfume bottle, flattened oval, stamped "Palmer", height 6.1 cm., 1.0 cm. wide, cup mould, Fig. 32, 9
- Complete aqua glass druggist's bottle, square with beveled corners, post-base mould, applied finish, height 11.6 cm., width/length 3.9 cm. Fig. 32, 7
- Clear glass oval bottle, complete except for the neck and finish, post base mold, molded C L G CO on the base, preserved height 6.3 cm., width 4.0 cm. Fig. 32, 8
- Clear glass (milk?) bottle fragments, part of an impressed label "…Brooklyn Norman Ave."
- Aqua plate glass fragments
- Clear glass vial fragment, narrow tube, rounded base, mold made
- Clear glass lamp fragments
- Clear glass square bottle fragments, base of the neck with the top of the shoulder
- White stoneware fragments, shallow bowl, plain rim, ring base, clear glaze; bowl body sherd, blue band on the exterior, clear glaze; rim sherd from a cup or bowl, under glaze cobalt floral decoration, clear glaze
- Porcelain bowl base fragment
- Ceramic flower pot fragments, one rim, one base

21	**7/1**	**4.6-5.0'**	**Dark grey to black nightsoil**	**Metal**

- Small number of fragments of cans, heavily encrusted bolts (?) (approximately 30 grams)

22	**7/1**	**4.6-5.0'**	**Dark grey to black nightsoil**	**Glass, ceramic**

- Cancelled (bag not used)

23	**7/1**	**4.6-5.0'**	**Dark grey to black nightsoil**	**Bone**

See Amorosi, section 5 above

24	**7/1**	**5.0-7.4'**	**Grey clay**	**Special finds**

- Two marbles, one button

APPENDIX B – BAG LIST FOR FEATURE 4

Bag	Date	Level[5]	Matrix	Type
25	**7/12**	**L.1 - top to -1.5' yellow-brown/ red-brown silt**		**Mixed**

- White ironstone base fragment of an oval dish, maker's mark stamped on the base: "…CK & CO / [BURSL]EM ENGLAND / TRADE MARK" below part of a ribbon Fig. 35, 6
- White ironstone everted rim fragment, possibly from a basin
- White ironstone wavy rim fragment, raised roulette design near the edge of the rim, under glaze cobalt floral design, peony
- Stoneware handle fragment, white glaze
- Corroded and encrusted metal fragments, hardware
- Clear window glass fragments

Bag	Date	Level	Matrix	Type
26	**7/12**	**L.3 - 1.5' to 2.5'**	**Reddish-brown soil**	**Glass**

- Fragments of three clear glass lamps, one with preserved, cracked off finish, 3.1 cm., diameter; second lamp funnel also 3.1 cm. diam.
- Large aqua glass lamp fragments, diameter of the base opening 9.3 cm., smooth finish
- Six small lumps of glass slag
- Aqua window glass fragments
- Aqua glass bottle base, oval with pointed ends
- Clear glass bottle, probably rectangular, parts of one side
- Clear pressed glass fragments, probably from a bowl
- Clear glass base fragments, one concave, the other square, possibly belonging to one or the other of the two previous entries
- Blue glass rod fragment, 1.5 cm. long, 0.4 cm. wide

Bag	Date	Level	Matrix	Type
27	**7/12**	**L.3 - 1.5' to 2.5'**	**Reddish-brown soil**	**Ceramic**

- Flow Blue fragmentary octagonal white stoneware pitcher, beak spout with embossed leaf on the exterior, floral pattern, under glaze maker's mark stamped on the bottom, "NANKI… DAVENPORT" Fig. 34, 8
- Small porcelain hand, Fig. 35, 2
- Small fragment of a porcelain cup with over glaze gold painted bands and floral decoration on the interior of the rim, Fig. 35, 3
- Salt glazed stoneware bowl fragment with ridge, Fig. 35, 5
- Flowerpot fragment
- Fragment of brown glazed water pipe

Bag	Date	Level	Matrix	Type
28	**7/12**	**L.3 - 1.5' to 2.5'**	**Reddish-brown soil**	**Metal**

- Nails; small rectangular, thin metal plates; fragments of metal cans; small piece of lead, Fig. 37

[5] The levels were measured from the top of the opening, as preserved, which was 2.5 feet below grade.

Bag	Date	Level	Matrix	Type
29	**7/12**	**L.3 - 1.5’ to 2.5’**	**Reddish-brown soil**	**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
30	**7/12**	**L.3 - 1.5’ to 2.5’**	**Reddish-brown soil**	**Cloth**

- Small fragments of black woven material, Fig. 36, 11

(Bag 31 - from Feature 3 – see below)

Bag	Date	Level	Matrix	Type
32	**7/12**	**L.3 - 1.5’ to 2.5’**	**Reddish-brown soil**	**Glass**

- Glass bottle, complete, base diam. 5.3 cm., height 21.5 cm., two-part mould, applied finish, possibly a Florida water bottle, Fig. 32, 1

Bag	Date	Level	Matrix	Type
33	**7/12**	**L.3 - 1.5’ to 2.5’**	**Reddish-brown soil**	**Special finds**

- Part of a flat, circular stone disk

Bag	Date	Level	Matrix	Type
34	**7/13**	**L.4 -1.5’ to 2.5’**	**Light reddish-brown soil**	**Ceramic**

- Salt glazed stone ware cup or bowl with under glaze cobalt sponge design, restores with a base from bag 42, Fig. 34, 4
- Porcelain creamer (?) with wavy rim at the spout, overglaze gold bands, two other fragments, probably also from this vessel encrusted with metal, probably restores with a knob from bag 69
- Small fragment of a porcelain butterfly wing, overglaze painted in pale pink and green with two blue dots in red circles, negative of the design on the interior etched into the surface, probably mold made Fig. 36, 5
- Two fragments of white ball clay pipe stems

Bag	Date	Level	Matrix	Type
35	**7/13**	**L4 - 2.5’ to 3.65’**	**Light Reddish-brown soil**	**Glass**

- Aqua glass bottle fragment, applied two-part finish, Fig. 32, 2
- Aqua glass druggist’s bottle, rectangular with beveled corners, pontil mark on the base, embossed label: “ …VONDERSMITH / …IST & DRUGGIST / …[O]WERY N.Y.” 3.8 by 5.8 cm. wide; restores with an embossed fragment from bag 43: “158, BO…”, Fig. 33, 2
- Aqua glass druggist’s bottle fragment, rectangular with concave front (and possibly also back) panels, the front with an embossed label: “ FORD & (M?)…”, blown in mold (no seams), applied finish, Fig. 32, 3
- Aqua glass druggists’ bottle, rectangular panel from the side of the bottle, embossed “…[T]ORATIVE”, (restorative, probably), Fig. 31, 14
- Clear glass, circular faceted base fragment, probably from a cake or fruit stand, 12 cm. diameter, preserved height 4 cm., 0.5 cm. thick
- Clear glass cylindrical vial, blown, applied finish, pontil mark on the base, height 4.4 cm., diameter 1.8 cm., Fig. 31, 8
- Clear glass flattened sphere, possibly a finial, diameter 2.3 cm., 1.8 cm. thick
- Clear glass lamp fragments, rim diameter 3.0 cm.

Bag	Date	Level	Matrix	Type

- Clear glass vessel, short flaring neck, faceted body
- Clear glass vial, two fragments, faceted body, applied finish (broken off), faint pontil mark on the base, diameter 2.4 cm., Fig. 31, 7
- Aqua window glass fragment
- Fragment of glass slag

Bag	Date	Level	Matrix	Type
36	**7/13**	**L4 - 2.5' to 3.65'**	**Light Reddish-brown soil**	**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
37	**7/13**	**L4 - 2.5' to 3.65'**	**Light Reddish-brown soil**	**Metal, Special finds**

- Indian head copper penny dated 1859, Fig. 36, 9
- Metal button with loop, raised border around the edge as if for an inlaid face
- Copper bolt, 3 mm. wide
- Six or more nails, covered in concretion
- Approximately 500 g (half a pound) of metal can fragments, possibly furniture fragments with wood attached

Bag	Date	Level	Matrix	Type
38	**7/13**	**L.5 - 2.5'**	**Decayed wood**	**Ceramic**

- Small fragment of a square or rectangular shape with gold glaze exterior, white and gold interior, red fabric

Bag	Date	Level	Matrix	Type
39	**7/13**	**L.5 - 2.5'**	**Decayed wood**	**Mixed**

- Cancelled (Bag not used)

Bag	Date	Level	Matrix	Type
40	**7/13**	**L.5 - 2.5'**	**Decayed wood**	**Metal**

- Large metal hook, circular section at one end, the rest rectangular; thick bolt (?) Fig. 38, 1

Bag	Date	Level	Matrix	Type
41	**7/13**	**L.5 - 2.5'**	**Decayed wood**	**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
42	**7/13**	**L.6 - 3.65' to 4.25'**	dark reddish-brown soil	**Special finds**

- Salt glazed stone ware teacup base with under glaze cobalt sponge design, restores with most of the rest of the vessel from bag 34
- Brown glazed red ware cap-shaped object, 3 cm. diam. opening, Fig. 34, 2
- Three fragments of pipe stems from the end near the bowl, two with molded decoration of striations around the stems, running lengthwise, and three to four raised bands each side running across the stem, Fig. 36, 1.
- Three white, four-hole buttons, one 1.0 cm. diameter, the others 1.2 cm. diameter
- Three white glass four-hole buttons

Bag	Date	Level	Matrix	Type
43	**7/13**	**L6 - 3.65 to 4.25'**	**Dark reddish-brown soil**	**Glass**

- Fragment of the aqua glass VONDERSMITH druggist bottle from bag 35, embossed "158, BO…", Fig. 33, 2
- Complete aqua glass druggist's bottle, rectangular with beveled corners, blown in a two-part mold, applied finish, pontil mark on the base, 2.1 X 4.5 cm. wide, 10 cm. high, Fig. 31, 12
- Base of a clear glass lamp, 3.1 cm. diameter
- Aqua glass bottle, tooled finish
- Aqua window glass fragments

44	**7/13**	**L.6 - 3.65 to 4.25'**		**Metal**

- Lump of corroded metal and stone accretion

45	**7/13**	**L.6 - 3.65 to 4.25'**		**Bone**

See Amorosi, section 5 above

46	**7/13**	**L.5 - 2.5'**	**Decayed wood**	**Wood**

- Part of a post (?) that stood in L.5

47	**7/13**	**L.7 - 3.65 to 3.9'**	**Light reddish-brown soil**	**Metal**

- Six heavily corroded lumps of metal, including boiler scale

48	**7/13**	**L.7 - 3.65 to 3.9'**	**Light reddish-brown soil**	**Bone**

See Amorosi, section 5 above

49	**7/13**	**L7 - 3.65 to 3.9'**	**Light reddish-brown soil**	**Glass**

- Clear glass lamp fragments
- Aqua window glass fragment

50	**7/13**	**L.7- 3.65 to 3.9'**	**Light reddish-brown soil**	**Special finds**

- One white four-hole button, 1.1 cm. diam., etched pattern of alternating rows of dots and rows of diagonal dashes, Fig. 36, 4; one complete and one half white four-hole buttons, 1.8 cm. diam.
- Three fragments of black vulcanite combs, one with a braid-pattern border, Fig. 36, 8
- Piece of graphite

51	**7/13**	**L.6 - 4.25' to 4.9'**	**Dark reddish-brown soil**	**Ceramic**

- Banded annular ware carinated deep bowl, wide blue band between three narrow black bands, stoneware, rim diam. 15 cm., Fig. 34, 9
- Gothic style faceted teacup, rim fragment, 9 cm. diam., semi-porcelain
- Thick rolled rim of a stoneware vessel, bowl or basin (too small to measure)
- Salt-glazed stoneware decorated in blue, small rim fragment, teacup with the base of a handle

Bag	Date	Level	Matrix	Type
52	**7/13**	**L.6 - 4.25’ to 4.9’**	**Dark reddish-brown soil**	**Glass**
- Clear glass lamp, in multiple fragments				
53	**7/13**	**L.6 - 4.25’ to 4.9’**	**Dark reddish-brown soil**	**Metal**
- One nail				
54	**7/13**	**L.6 - 4.25’ to 4.9’**	**Dark reddish-brown soil**	**Bone**
See Amorosi, section 5 above				
55	**7/13**	**L.7 - 3.9’ to 5.1’**	**Light reddish-brown soil**	**Ceramic**
- One small fragment of a white ware rim				
56	**7/13**	**L.7 - 3.9’ to 5.1’**	**Light reddish-brown soil**	**Glass**
- Clear pressed glass rim fragment from a tumbler, diamond design with an oval in the center of each diamond, restores with Bags 62 and 74, Fig. 33, 3 - Clear glass lamp fragment - Aqua window glass fragment				
57	**7/13**	**L.7 - 3.9’ to 5.1’**	**Light reddish-brown soil**	**Metal**
- Three nails - Metal ring drawer pull (?) - Metal and stone concretion				
58	**7/13**	**L.7 - 3.9’ to 5.1’**	**Light reddish-brown soil**	**Bone**
See Amorosi, section 5 above				
59	**7/14**	**L.7 – 5.1 to 5.3”**	**Light reddish-brown soil**	**Ceramic**
- Flower pot rim fragment, restores with most of the rest of the pot from bag 72 - Sherds from a white stoneware dish with embossed pattern, restores with fragments from Bags 64, 69 and 72 - White stoneware plate fragment, possibly goes with the fragment from Bag 78 - Porcelain base fragment, possibly from a dish - White stoneware blue transfer printed bowl rim fragment				
60	**7/14**	**L.7 – 5.1 to 5.3”**	**Light reddish-brown soil**	**Metal**
- Possible nails and bolts - Concretion of metal and stone				
61	**7/14**	**L.7 – 5.1 to 5.3”**	**Light reddish-brown soil**	**Bone**
See Amorosi, section 5 above				

Bag	Date	Level	Matrix	Type
62	**7/14**	**L.7 – 5.1 to 5.4'**	**Light reddish-brown soil**	**Glass**

- Complete clear glass cylindrical faceted (ink?) bottle, post base mold, applied finish, height 6.6 cm., diameter 3.3 cm., Fig. 32, 5
- Clear and aqua window glass fragments
- Clear pressed glass rim fragment from a tumbler, diamond design with an oval in the center of each diamond, restores with most of the rest of the tumbler from bags 56 and 74, Fig. 33, 3

63	**7/14**	**L.7 - 5.1 to 5.4'**	**Light reddish-brown soil**	**Special finds**

- Black woven cloth
- Small segment of a pipe stem, ball clay
- Small cylindrical piece of graphite, Fig. 36, 9
- One white two-hole button, 1.0 cm. diam. Fig. 36, 2
- One white four-hole button, 1.1 cm. diam. Fig. 36, 2
- One white four-hole button, fragment, 1.9 cm. diam. Fig. 36, 2
- One brown button, wood pattern, 1.2 cm. diameter

64	**7/14**	**L.6 - 4.9'- 5.5'**	**Dark reddish-brown soil**	**Ceramic**

- White stoneware dish with embossed pattern, base has an impressed makers mark, "MALTESE SHAPE E.CORN BURSLEM", restores with fragments from Bags 59, 69 and 72, Fig. 35, 1
- part of a handle, restores with fragments from Bags 59, 69 and 72
- Jasperware fragment, restores with Bag 72
- White ironstone base fragment, possibly from an oval vessel
- White ironstone plate rim fragment
- Porcelain knob, may go with the vessel in bag 34
- White ironstone handle fragment
- Stoneware vessel fragment, under glaze cobalt

65	**7/14**	**L.6 - 4.9'- 5.5'**	**Dark reddish-brown soil**	**Glass**

- Clear glass lamp, multiple fragments

66	**7/14**	**L.6 - 4.9'- 5.5'**	**Dark reddish-brown soil**	**Bone**

See Amorosi, section 5 above

67	**7/14**	**L.7 – 5.3 to 5.4'**	**Light reddish-brown soil**	**Metal**

- Metal and stone concretion, discarded

68	**7/14**	**L.7 – 5.3 to 5.4'**	**Light reddish-brown soil**	**Metal**

- Concretion of metal and stone, discarded

Bag	Date	Level	Matrix	Type
69	**7/14**	**L.7 – 5.3 to 5.4'**	**Light reddish-brown soil**	**Ceramic**

- Parts of a handle, restores with a fragment from bag 64
- Porcelain lug handle with overglaze gold painted band
- White ironstone rim of a small bowl or saucer, ca. 14 cm. diameter
- White ironstone low ring base, 14 cm. diam.
- Small fragment of porcelain
- Small fragment of Flow Blue stoneware decorated with spirals
- White stoneware dish with embossed pattern, base has an impressed makers mark, "MALTESE SHAPE E.CORN BURSLEM", restores with fragments from Bags 59, 64 and 72, Fig. 35, 1

70	**7/14**	**L.7 – 5.3 to 5.4'**	**Light reddish-brown soil**	**Bone**

See Amorosi, section 5 above

71	**7/14**	**L.7 – 5.3 to 5.4'**	**Light reddish-brown soil**	**Glass**

- Aqua window glass fragments
- Clear glass fragment of a vessel

72	**7/14**	**L.7 – 5.4 to 6.0'**	**Light reddish-brown soil**	**Ceramic**

- Flower pot, restores with a rim fragment from bag 59, base diam. 5.4 cm., rim diam. 7.5 cm.
- Jasperware miniature vase fragments, rim diam. ca. 8.6 cm., relief scroll framing part of a relief of two horse heads and a human hand on a mat blue background, restores with a sherd from bag 64, Fig. 35, 7
- Porcelain base fragment, restores with a fragment from bag 59
- White stoneware dish with embossed pattern, base has an impressed makers mark, "MALTESE SHAPE E.CORN BURSLEM", restores with fragments from Bags 59, 64 and 69, Fig. 35, 1
- Purple transfer printed stoneware plate fragment, scene of buildings and trees, stamped on the base …NPORT, probably Davenport Fig. 35, 8
- Yellow stoneware base, tray?
- Porcelain wavy rim fragment, gold over painted short strokes pendent from the rim
- Porcelain cup rim fragment, faceted
- White stoneware cup rim
- Flow Blue Twisted handle, whiteware, Fig. 34, 5

73	**7/14**	**L7 – 5.4 to 6.0'**		**Metal**

- Three nails
- One bolt
- Metal and stone concretion

74	**7/14**	**L7 – 5.4 to 6.0'**		**Glass**

- Clear pressed glass rim tumbler, fragment, diamond design with an oval in the center of each diamond, restores with rim fragments from bags 56 and 62, 6.8 cm. base diameter, Fig. 33, 3

Bag	Date	Level	Matrix	Type

- Clear glass stopper with plain tab, probably from a druggist's bottle, Fig. 31, 3
- Clear glass bottle neck with applied, flanged rim, two-part mould, Fig. 31, 1
- Piece of partly melted, burnt clear glass
- Clear glass lamp fragments
- Aqua window glass fragments

Bag	Date	Level	Matrix	Type
75	**7/14**	**L7 – 5.4 to 6.0'**		**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
76	**7/14**	**L7 – 5.4 to 6.0'**	**Light reddish-brown**	**Special finds**

- Two fragments of graphite
- Fragment of a white clay pipe stem
- Half a white four-hole button, 1.2 cm. diameter

Bag	Date	Level	Matrix	Type
77	**7/14**	**Pit**		**Mixed**

- Discarded (bag not used)

Bag	Date	Level	Matrix	Type
78	**7/15**	**L.8 - 6.0' to 6.3'**	**Dark reddish-brown soil**	**Ceramic**

- White stoneware plate with scalloped rim, ca. 21.3 cm. (8½") diameter, Fig. 35, 9
- White porcelain knob, 5.6 cm. diameter, Fig. 36, 12
- Fragment of blue transfer printed white ware, Fig. 35, 4
- Small fragment of Flow Blue stoneware
- Fragment of a flowerpot

Bag	Date	Level	Matrix	Type
79	**7/15**	**L.8 – 6.0 to 6.3**	**Dark reddish-brown soil**	**Glass**

- Aqua window glass fragments

Bag	Date	Level	Matrix	Type
80	**7/14**	**L.8– 6.0 to 6.3**	**Dark reddish-brown soil**	**Bone**

See Amorosi, section 5 above

Bag	Date	Level	Matrix	Type
81	**7/15**	**L.8 – 6.0 to 6.3**	**Dark reddish-brown soil**	**Metal / slag**

- Metal and metal slag encased in accretions
- Tiny copper cap probably a miniature thimble, Fig. 36, 10

Bag	Date	Level	Matrix	Type
82	**7/15**	**L.8 – 6.0 to 6.3'**	**Dark reddish-brown soil**	**Special finds**

- White marble with green and brown bands crossing at right angles in a kind of plaid design, Fig. 36, 7.
- Two fragments of white ceramic pipe stems

Bag	Date	Level	Matrix	Type
83	**7/14**	**L.7 - 5.3 to 5.4'**	**Light reddish brown**	**Special finds**

- Small white ceramic finial resembling a pipe stem, but half covered with a lead casing, and the other half not pierced
- White four-hole button with ridges around the rim, Fig. 36, 3

Bag list for Feature 3

Date	Bag #	Layer (L.) & depth	Type	Description
7/12	31		--	Metal

Jerry can, cylindrical metal can, metal screw top, with from the northern window on the west face of the structure

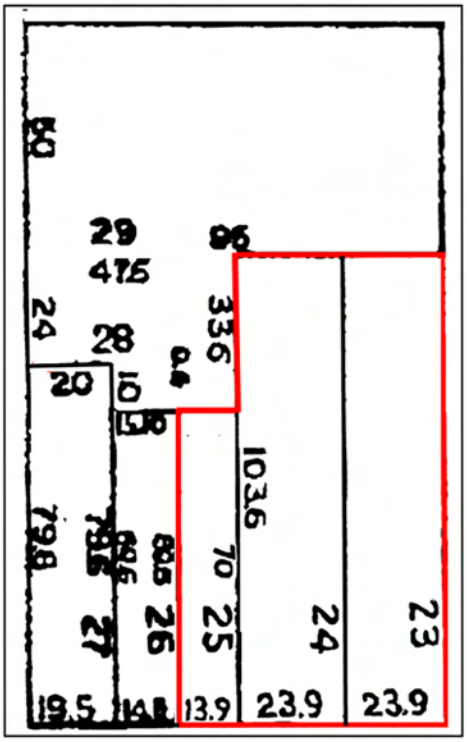

Fig. 1. Tax map of block 2430 showing the location of the project site

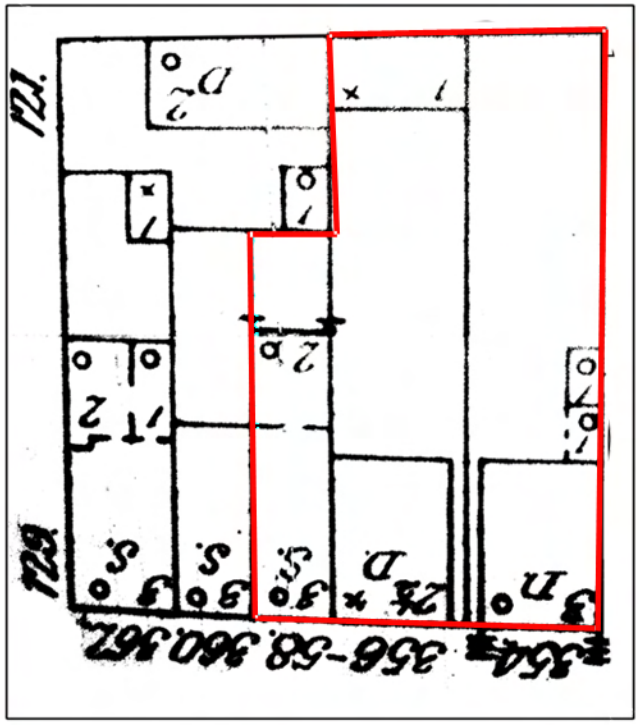

Fig. 2. 1887 Sanborn map showing the location of the project site

Fig. 3. View of the project site from Bedford Avenue

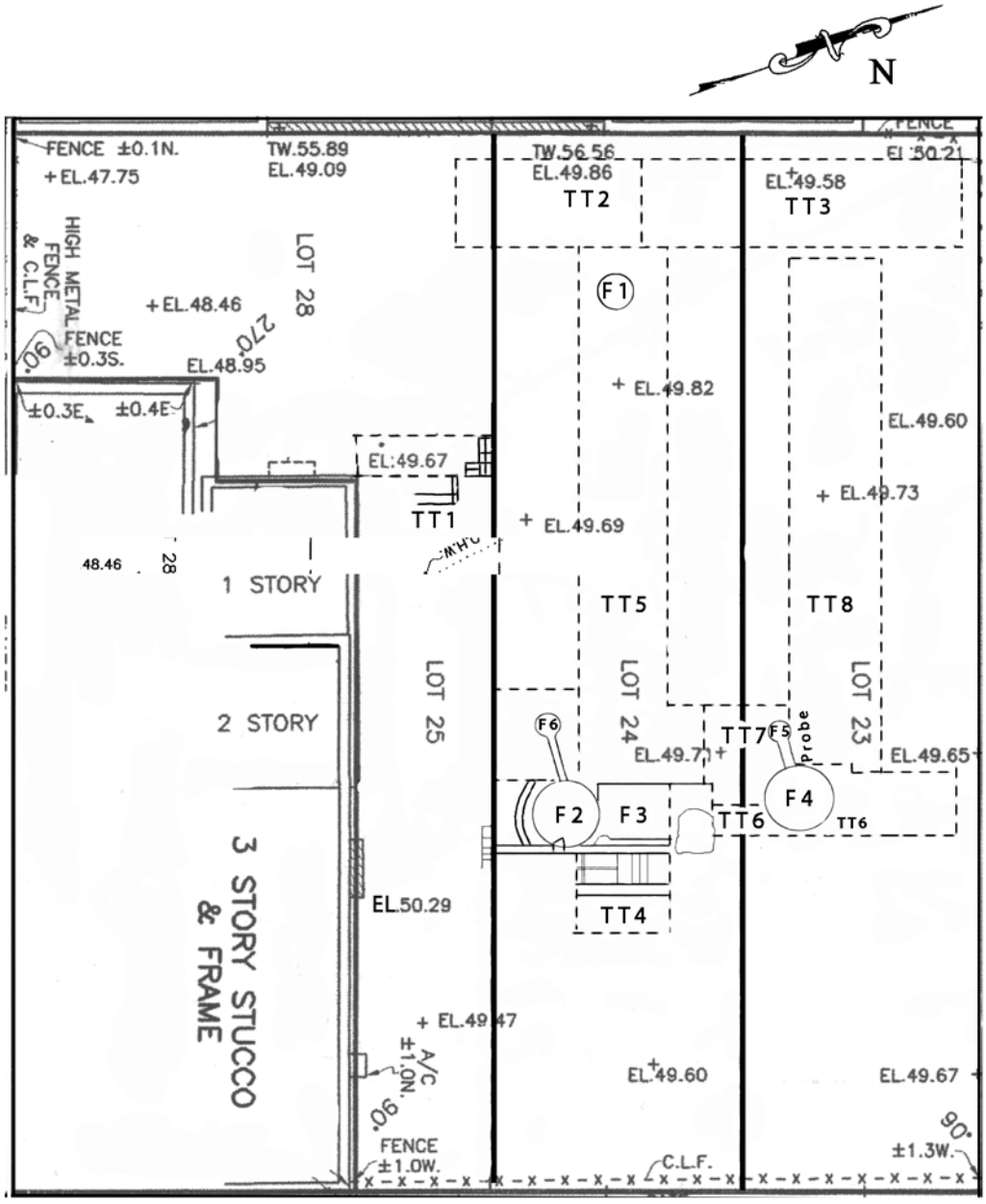

Fig. 4. Plan of the project site showing the location of the test trenches and features (Base plan courtesy of Yuco Real Estate Company)

Fig. 5. View of TT1 at the end of excavation, looking north

Fig. 6. View of TT2 at the end of excavation, looking west

Fig. 7. View of TT3 at the end of excavation, looking north

Fig. 8. View of TT4 looking east showing the tops of F3, center, and F2, right

Fig. 9. View of TT4 looking south, with the stairwell, left, flanking by walls, and the top of F3, right

Fig. 10. View of the west face of F3 at the east end of TT5 showing the three brick plugs

Fig. 11. View of the west face of F3 at the east end of TT5 after removal of the three brick plugs covering the openings

Fig. 12. View of the inside of F3, east face, showing a window-sized, blocked rectangular niche

Fig. 13. View of the inside of F3, showing the northeast corner and ceiling with blocked rectangular opening

Fig. 14. View of the inside of F3, after removal of the ceiling, looking south at the opening connecting F3 to F2

Fig. 15. View of TT5 at the end of excavation, looking west, the east profile of F1 visible at the western end of the trench

Fig. 16. View of the top of F1 as found

Fig. 17. View of the east section and part of the inner side of the west wall of F1 at the end of excavation

Fig. 18. View of the west profile of F2 after removal of its stone outer wall

Fig. 19. View of F2 and its brick conduits

Fig. 20. View of F3, rear left, and F2, rear right, with one of its brick conduits running to its overflow tank F6, in the foreground

Fig. 21. View of TT6 and TT7 showing the top of F3 in the foreground; the rear house wall, on the right; the concrete slab running over the wall and F3 in the middle ground; F4 in the background on the left and the brick pavement running over it

Fig. 22. View of TT6 and TT7 showing the top of the opening of F4 in the background

Fig. 23. View of F4 right, its brick conduit, left, and its overflow tank F5, extreme left, covered by a concrete slab

Fig. 24. View of the brick conduit and overflow tank F5 of F4

Fig. 25. View of TT8 at the end of excavation looking east, F4 visible at the end of the trench

Fig. 26. View of TT8 at the end of excavation looking west

Fig. 27. View of F4 and F5 at the end of excavation

Fig. 28. View of the profile of F4 at the end of excavation showing the layers excavated

Fig. 29. General view of the south side of the site at the end of excavation, looking east

Fig. 30. General view of the north side of the site at the end of excavation, looking east

Fig. 31. F1: 2, 4, 5, 6, 9, 11, 19 (Bag 19), 10 (Bag 8), F4: 1, 3 (Bag 74), 7. 8 (Bag 35), 12 (Bag 43)

Fig. 32. F4: 1 (Bag 32), 2 (Bag 35), 3 (Bag 39), 5 (Bag 62); F1: 4 (Bag 19), 6 (Bag 9), 7-9 (Bag 19)

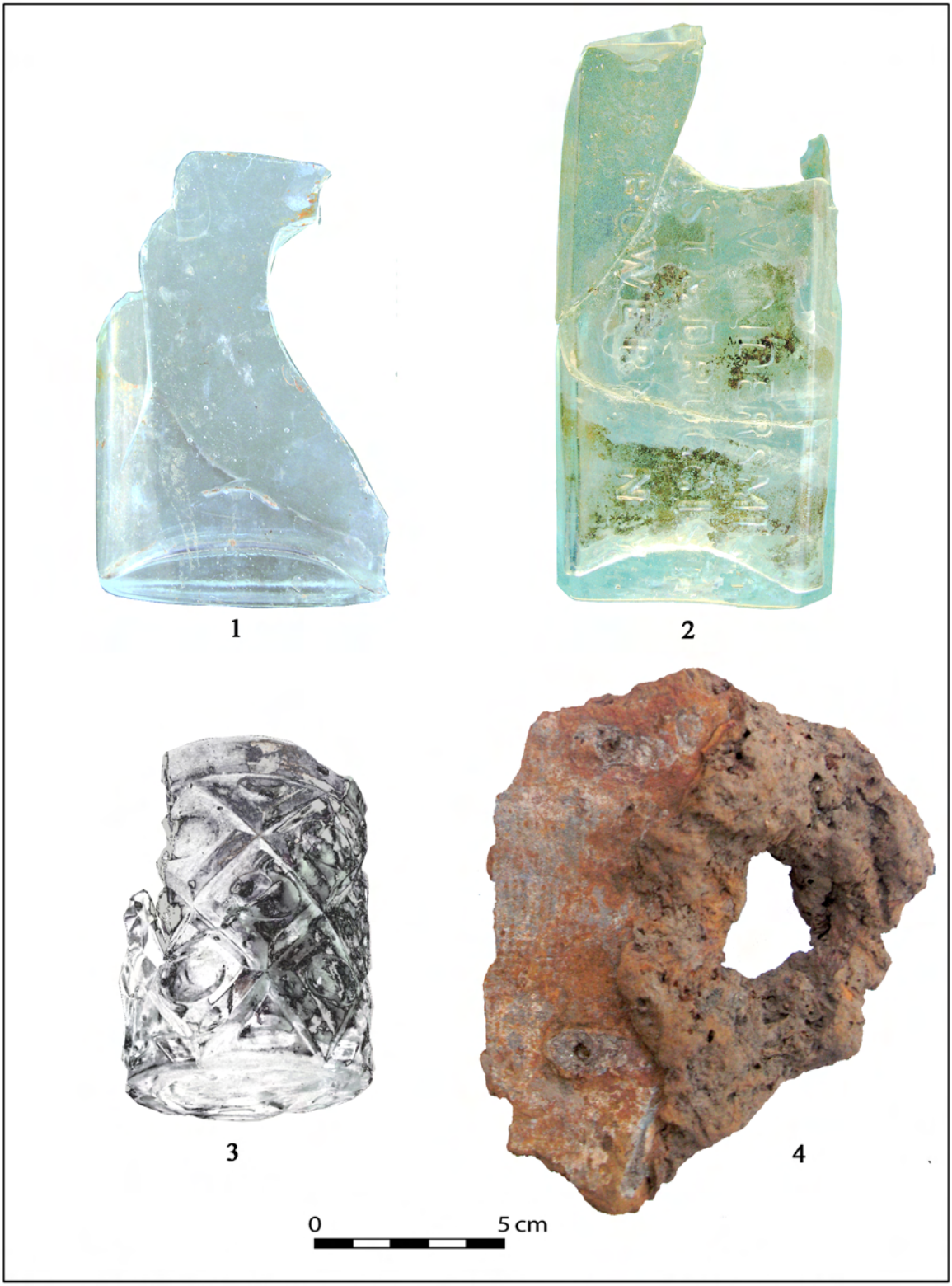

Fig. 33. F1: 1 (Bag 8) and 4 (Bag 5); F4: 2 (Bags 35+43) and 3 (Bags 56, 62,74)

Fig. 34. F1: nos. 3 (Bag 19), and 7 (Bag 8); F4: 2 (Bag 42), 4 (Bag 34), 5, 8 (Bag 72), 6 (Bag 25); 8 (Bag 27), and 9 (Bag 51)

Fig. 35. F1: 6 (Bag 5); F4: 1 (Bag 64), 2, 3, 5 (Bag 27), 4, 10 (Bag 78); 7 (Bag 25), 8, 9 (Bag 72), 7A-Victoria & Albert Museum no. 3502-1855

Fig. 36. F1: 6 (Bag 8); F4: 1 (Bag 42), 2, 9 (Bag 63), 3 (Bag 83), 4, 10 (Bag 50), 5 (Bag 34), 7 (Bag 37), 8 (Bag 82),11 (Bag 81), 12 (Bag 30), 13 (Bag 78)

Fig. 37. Nails, bolts, and metal plates, lead (at arrow), F4, Bag 28

Fig. 38. F4: 1 (Bag 40); F1: 2 (Bag 6)