

# The History and Archaeology of City Hall Park



Prepared for the New York City  
Department of Parks and Recreation  
by  
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# *The History and Archaeology of City Hall Park, New York*

<b>Table of Contents</b>	ii
Acknowledgements	iv
Chapter 1: Management Summary and Introduction	1
Chapter 2: Parsons Engineering Science <i>Scope of Work</i> And <i>Field Notes</i>	
Background and Scope of Field Research	5
Archaeological Fieldwork at City Hall Park: Methods and Description	9
Chapter 3: History and Land Use of City Hall Park	
Background History	103
A Documentary History of City Hall Park, 1652-1838 ( <i>Mark Cline Lucey</i> )	129
Chapter 4: Laboratory and Analysis Methods	182
Chapter 5: Description and Analysis of the Remains	187
Introduction: Features and Stratigraphy	187
Trash Features Analysis	192
The Site as a Whole	198
Features Analysis	210
Architectural Features	288
Burial Features	319
Conclusions	396
Chapter 6: Analytical Papers	
Editorial Note	400
Zooarchaeology of the Almshouse in New York City Hall Park ( <i>Julie</i> <i>Anidjar Pai</i> )	401
The British Soldier and Material Culture In Feature 88, City Hall Park, New York City ( <i>Elizabeth Martin</i> )	434
New York City Hall Park: An Analysis of Features 85/86, 71 and 55 ( <i>Diane</i> <i>George</i> )	473
An Analysis of British Barracks During the Revolutionary War in New York City ( <i>Jennifer Borishansky</i> )	526
Preliminary Faunal Analysis ( <i>George</i> <i>Hambrecht and Seth Brewington</i> )	557

Chapter 7: Summary and Conclusions	590
References and Sources Consulted	608
Appendices:	
A. Primary Sources for the History of City Hall Park	637
A. <i>Minutes</i> of the Common Council	637
B. Newspaper and Journal References to City Hall Park	673
C. Churchwardens' Minutes	675
B. References to City Hall Park from I. N. Phelps Stokes, <i>The Iconography of Manhattan Island,     1491-1909</i>	681
C. Timeline of City Hall Park Land Use	686
D. Artifact Database	DVD
E. Illustrations	DVD

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## ***Chapter 1: Management Summary and Introduction***

In the summer of 2001, the City University of New York (CUNY) was asked by the City of New York – Department of Parks and Recreation (Parks) to undertake a unique research project. A few years prior, in 1998-1999, Parks undertook a major renovation to City Hall Park (CHP) in lower Manhattan (Block 122, Lot 1). Parsons Engineering Science (PES) was hired to undertake the cultural resource management study. As part of their project PES monitored and excavated portions of the Park, but they did not undertake any conservation or data analysis of the material remains recovered. The Departments of Anthropology and Archaeology at Brooklyn College and Hunter College, with the assistance of the Ph.D. Program in Anthropology of the CUNY Graduate Center, were tasked by CUNY to wash, record and analyze the material remains uncovered during PES' field work. The Brooklyn College Archaeological Research Center (BC-ARC) was chosen as the main center to undertake the project.

City Hall Park forms part of the African Burial Ground and Historic Commons Historic District, designated by the New York City Landmarks Preservation Commission (LPC) in 1993 (New York Landmarks Preservation Commission 1993). This historic district is unique in New York City having been designated for its archaeological resources, rather than for its standing architecture. Any subsurface work in the district requires prior review and approval by the LPC and issuance of a permit or binding report. Plans to conduct a major restoration of CHP were first proposed by Parks in July 1998<sup>1</sup>. These plans called for substantial infrastructural upgrades to the Park and a significant amount of subsurface disturbance. In the binding report on this action (LPC Binding Report number CRB 98-635), LPC required an assessment of the probable impact on the archaeological resources known to be in the park from earlier studies (NYLPC 1990; see Hunter 1994 with literature).

After the Landmarks Commission hearing and approval of the project in June 1998, PES conducted a cultural resource management study (Parsons 1999a). From this study, a

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<sup>1</sup> Proposal, plans, and LPC Commission Report are on file at the New York City Landmarks Preservation Commission.

detailed scope of work was developed (Parsons 1999b) that outlined the archaeological impacts projected from the construction and the actions which would be taken to mitigate the damage to resources. PES was then retained by Parks to conduct archaeological excavations to mitigate the impact of the Park renovation on the resources contained therein.

The excavation phase ultimately lasted eight months, from December 1998 to August 1999, due in part to the large volume of material present and changes in the impact areas caused by redesign during the course of the renovation. The project consisted of excavation and monitoring of the fifteen thousand three and twenty-five (15,325) square foot area. The result of the eight-month-long project was the identification of fifty-one (51) features consisting of twenty-five (25) trash pits and twenty-six (26) architectural features, and the recovery of more than an estimated two hundred fifty thousand (250,000) artifacts and faunal remains. Given this amount of material, and the complexity of the reconstruction, the length of the excavation is understandable. . At the close of the excavation phase, PES and Parks could not agree on the financial issues regarding the analysis and report, and the artifacts were placed in storage, where they remained for almost two years.<sup>2</sup>

In 2001, CUNY reached an agreement with Parks to conduct the cataloguing, stabilization and analysis of the artifacts. In September 2001, students from the City University of New York Graduate Center, Hunter and Brooklyn Colleges began work on the collection. Faunal remains, with the exception of shell, were analyzed at Brooklyn College under the direction of Dr. Thomas McGovern and Dr. Sophia Perdikaris. Dr. Edwin Burrows, from the Department of History at Brooklyn College, supervised and advised students conducting documentary research. The cleaning, analysis and inventory of all other material remains were conducted at BC-ARC under the direction of Dr. H. Arthur Bankoff and Laboratory Director, Alyssa Loorya, M.A., a Ph.D. candidate in anthropology at the CUNY Graduate Center. As previously stated, all human remains were sent to the Smithsonian Institution in Washington, D.C. through a separate contract with Parks. The collection was analyzed by Marilyn London, under the direction of Dr. Douglas Owseley. Undertaking the washing,

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<sup>2</sup> This does not include the human remains, which had already been sent to the Smithsonian Institution for analysis, as part of a separate contract from PES.

cataloging and analysis of a large material collection that one did not excavate themselves is a difficult task. This presented many obstacles to the team, which will be detailed further in this report.

This mitigation report is an important first step in the long process of analyzing the material remains from CHP. It presents the data and several possibilities of interpretation for that data. It is the hope of the editors that the information in this report will be used and combined with other data sets from similar sites in and around the New York City area to piece together a more complete picture of what life was like in this city.

The report relies on data and analyses of the data by various undergraduate and graduate students who worked on the project. Their finds are presented throughout, as well as in the various papers and reports they submitted. It was decided that this overall project would be used, in part, as a learning experience for students. The ability to use this as a pedagogical tool was one of the great incentives for CUNY in agreeing to Parks' request to undertake the project.

The report consists of 7 chapters and 5 appendices.

Chapter 1 comprises the description of the field work and the excavation of the individual features. This, except where explicitly noted, is the work of PES compiled from unpublished reports submitted to the LPC and Parks as well as from partial field notes, day books and maps.

Chapter 3 presents a history of City Hall Park. This chapter is primarily the work of Mark Cline Lucey, and was submitted as his Masters thesis (Department of History at Brooklyn College) on the development of City Hall Park. Alyssa Loorya contributed a large portion of the contextual and general history to this chapter.

Chapters 4-6 comprise the data report. Information is presented from the approximately forty-eight thousand artifacts analyzed from the features identified by PES. It should be

noted that the majority of artifacts recovered in the excavation were from secondary disturbed contexts or did not contain provenience information, which led to the decision to focus on the contexted features. These chapters incorporate the various student project undertakings, written at different times during the period 2002 - 2006. Some of these are M.A. theses, others are the analyses which will be used as portions of doctoral dissertations. The authors are identified. The trash feature descriptions and analyses are primarily the work of Alyssa Loorya, who will present the analyses of the trash features as part of her doctoral dissertation for the Department of Anthropology at the CUNY Graduate Center.

Chapter 7 gives interpretations and conclusions. Possible “future work” is discussed in the hopes that the questions that cannot be answered at this time may be investigated in the course of further work on this material. This chapter is primarily the work of H. Arthur Bankoff.

Appendices to the report include definitions and taxa of the classification system used for the artifact analyses, bibliographies and partial transcriptions of primary and secondary documentary sources, chronology and chronological methods.

## ***Chapter 2: Parsons Engineering Science's Scope of Work and Field Notes.***

The following chapter presents work completed by PES. Two documents, the *Scope of Field Research* and *Preliminary Field Report* were written and submitted to the LPC by PES in 2000 (PES 2000a, 2000b). These two reports, prepared for and submitted to Barney Skanska, Incorporated, Parks and LPC, have not been altered by the editors, except to include illustrations where necessary. The former (2000a) has been excerpted, with sections inserted into the text of this report at their proper places. The latter, revised report (2000b) has been included in its entirety in this chapter. However, there are several comments inserted into the *Preliminary Field Report* to indicate where PES did not complete their assessment.

Following the presentation of both reports, a critical analysis is presented. This analysis looks at both documents and discusses specific issues that evolved during PES' portion of the project as well as CUNY's. This is necessary since there were several issues that arose from these documents that forced, in part, a certain direction to the current project's theoretical and methodological approaches.

### ***Background and Scope of Field Research*** **By: Parsons Engineering Science,( 2000a)**

#### **Background**

City Hall Park is part of the African Burial Ground and The Commons Historic District, designated in 1993. The earliest use of the park was for a communal pasture, beginning in the 1660s and continuing through the 18<sup>th</sup> century. By the 1720s, the property was being used for executions, and a powder house erected in 1728.

At this time, the Harris house existed at the west edge of the property. The first major structure on the site was the First Almshouse, constructed in 1735 where City Hall now

stands. In 1757, the New Gaol was built to the east of the almshouse and the first of several military barracks, the Upper Barracks, was built parallel to present-day Chambers Street, at the north end of the park. The three Teller Houses, located at the northwest corner of the park, were constructed in 1760. Other barracks were erected southeast and southwest of the Upper Barracks in the 1770s. The Bridewell was built east [sic]of the First Almshouse in 1776 (LPC 1993; Hunter 1994).

The First Almshouse and its associated outbuildings and grounds were in use until 1797, when the larger Second Almshouse was built on the property, where the Upper Barracks had lately stood. Several other buildings, including a school house, a dispensary, and a workshop, were built west of the new almshouse during the first decade of the 19<sup>th</sup> century. A stable, soup house, and engine house were built to the east of the Second Almshouse during this period as well. Construction of City Hall began in 1803, in the location of the former First Almshouse, and the Rotunda was built in 1818, at the northeast end of the property. The Second Almshouse was used until 1812, when its residents were transferred to a new facility. Afterwards, the Second Almshouse building was leased for other uses, including the American Museum and city government offices. It was razed in 1857, after a fire destroyed it (LPC 1993; Hunter 1994).

During the second half of the 19<sup>th</sup> century, the park was dedicated primarily to municipal facilities. The City Courthouse was built in 1851, east of the Second Almshouse building, and two engine houses were constructed along the northeastern edge of the park. The New Gaol became the Hall of Records. During the Civil War, several temporary barracks were erected on the property, east and west of City Hall, and other military structures, including a hospital, were built at the northwest end of the park. In the 1870s, the park was regraded, repaved, and relandscaped. The last building to be constructed in northern part of the park was Tweed Courthouse, completed in 1881. Today, only City Hall and Tweed Courthouse remain on the property (LPC 1993; Hunter 1994).

Several previous archival and archaeological investigations were undertaken within and adjacent to the park. Extensive archival research about the district was performed by Harris et al. (LPC 1993) and Hunter (1994). Archaeological investigations were undertaken within the park at several locations. Between City Hall and Tweed Courthouse, archaeologists uncovered remains of what is believed to be the First Almshouse kitchen and deposits associated with the structure's demolition (LPC 1990; Grossman 1991). Human remains were found at the northeast corner of the park and beneath the southern sidewalk of Chambers Street (LPC 1993). In 1991, excavations for public toilets at the northeast corner of the park revealed late 18<sup>th</sup>- and early 19<sup>th</sup>-century artifacts in the backfill. These materials may have been associated with the nearby British barracks or almshouse, or alternatively, could have been redeposited with soils excavated when other buildings on the property were built (LPC 1993). Extensive archaeological excavations also occurred within the African Burial Ground to the north of City Hall Park, and within the Foley Square project area to the northeast of the park (LPC 1993).

The [current] archaeological investigations at City Hall Park are the most extensive undertaken on the property to date. While previous archaeological studies were confined to specific portions of the property, the present project encompasses the entire park, and has produced comprehensive data which will be used to generate a more holistic view of the site's history.

### **Site Description**

City Hall Park can be divided into two halves, with the parking lot in front of City Hall serving as the middle point between the northern and southern portions of the property. Archaeological sensitivity was low for the southern half of the property, as this triangle-shaped part of the park had been severely disturbed by 20<sup>th</sup>-century construction. In particular, the U.S. post office at the southern end of the park (1870-1938), the Delacorte Fountain (built in the late 1970s), and the I.R.T. subway line destroyed potential archaeological resources once located there. The entire southern end of the park was

reconstructed in 1938, as part of the Robert Moses plan, and again in the late 1970s (LPC 1993).

Archaeological monitoring in the southern part of the park, undertaken as one of the first tasks of the current field work, confirmed that the area was severely disturbed from modern construction. The majority of the soils impacted during reconstruction activities consisted of redeposited fill. Although archaeologists continued to monitor construction efforts within the southern part of the park, no significant resources were recovered.

By contrast, the northern portion of the park has had significantly less modern disturbance, and archaeological sensitivity here was high. Although fencing and pavement were replaced during the 20<sup>th</sup> century, the landscape retains the configuration of the 1870 plan. Many areas were covered with fill, preserving archaeological deposits below. The following sections describe the findings of the archaeological investigations within the northern portion of City Hall Park.

***Archaeological Fieldwork at City Hall Park: Methods and Description***  
**By: Parsons Engineering Science, (2000b)**

**Field Methods**

Archaeological field work at City Hall Park consisted of monitoring, sampling or testing, and excavation. Since archaeologists were limited to excavating only within the footprint of the construction impacts, an archaeological research design was not formulated in advance. Rather, prior to the onset of field work, and based upon review of historical documents, known subsurface disturbances, and previous cultural resources investigations within and adjacent to the park, Parsons ES completed an archaeological sensitivity study that determined which construction impact locations would be monitored, which would be sampled or tested, and which would be fully excavated (Parsons ES 1999a). Those areas that the study slated for monitoring were thought to be disturbed by previous earthmoving activities, or covered by modern fill to the depth of the construction impact. If it was not clear whether or not an area had been disturbed or covered by fill, the sensitivity report proposed archaeological sampling or testing. In areas thought to contain potentially intact archaeological resources, the study recommended complete manual excavation by archaeologists.

This sensitivity study guided field investigations for the majority of the construction impacts. In a number of cases, New York City Parks Department personnel finalized additional impacts after the archaeological field work had already begun. In these instances, Parsons ES, in consultation with Landmarks Preservation Commission staff, assessed the archaeological sensitivity of the new impacts on a case-by-case basis, and made field decisions accordingly. At other times, previously unanticipated field results conflicted with the sensitivity assessment made earlier, and excavation strategies had to be modified or changed to accommodate new data. This was particularly true in the northeast section of the property, where the sensitivity model predicted disturbed soils and thick modern fill episodes, but where excavations revealed intact archaeological deposits at surprisingly shallow depths below the present ground surface.

Monitoring entailed having an archaeologist or an archaeological team observed manual and mechanical ground disturbing activities conducted by construction crews. When construction personnel encountered cultural features, the earth moving stopped, and archaeologists examined and documented the features. All of the features were photographed and drawn in plan view, as well as mapped onto an overall site map. In some cases, archaeologists partially removed, or sampled the features before construction continued. In other instances, archaeologists excavated the features completely.

For human burials found during either monitoring, testing, or excavation, the archaeological team followed the following protocol: in order to determine whether the burials were in primary or secondary deposition, archaeologists removed the overlying soil to expose the bones and document their position and association. If the burials were found to be primary interments, they were left *in situ* and covered over whenever possible. Those primary burials that could not be avoided were hand excavated in their entirety under the supervision of a bioarchaeologist. [*Editor's note: Primary burials were never disinterred. Exposed skeletons were cleaned and preserved in place.*] For secondary interments or human bones found in redeposited contexts, archaeologists noted proveniences for the remains, then collected them.

Archaeological sampling or testing entailed excavating test units at systematic intervals along impact areas. The size of the test units depended upon the dimensions of the impact. Those test units with a vertical impact of 1.5 feet or less measured 2x2 feet in plan, and were spaced with their center points 10 feet apart. Labeled TU 1, TU 2, etc., archaeologists placed these excavation pits along island perimeters, generally where plans called for the installation of new curbs and bollard and chain fencing foundations. When intact cultural deposits appeared in the test units, archaeologists expanded them at 2-foot intervals within the impact alignment until they reached the horizontal limit of the resource. Where vertical impacts were deeper than 1.5 feet, test units measured 3x3 feet in plan, also spaced with their center points 10 feet apart. Because these 3x3 foot units were tied to specific construction impacts, such as deep drain lines, they were labeled according to their type of impact. For example, those test units associated with the deep

drain line on Islands #1, 2 and 3 were designated DL1-1, DL1-2, etc. Test units from deep drain lines on Island #11 were labeled DL2 and DL3. Depths of the 3x3 foot test units ranged from 3 feet to 4 feet, depending on the vertical extent of the proposed impact. Like the smaller test units, when these excavation areas encountered significant cultural deposits or features, archaeologists expanded them at 3-foot or 3.5-foot horizontal intervals within the impact alignment until they reached the limit of the resource. With all test units, archaeologists drew profiles, and when warranted, plan views. Selected profiles and features were photographed. Supervisors mapped all test units onto an overall site map.

The remainder of the investigations entailed manual excavation of entire impact areas. Archaeologists configured these test units in various ways to accommodate specific situations. For the proposed light poles, they laid test units directly over the impact location. Test units for “C poles” excavated prior to new curb installation measured 3x3 feet in plan and 4 feet in depth, whereas those excavated after new curb installation measured 3x1.5 feet in plan and a total of 4 feet in depth. In the latter case, excavation for the new curb and removal of the adjacent, existing asphalt pathway and associated bedding had already brought the excavation level down 1-2 feet. “H pole” test units generally measured 8x8 feet in plan and a total of 8 feet in depth, except in areas where removal of modern overburden by mechanical means had already brought the excavation level down several feet. In order to comply with OSHA regulations requiring 1:1 stepping of all grades, archaeologists excavated the 8x8x8 foot test units in two stages. First, they excavated an 8x8 foot square hole to a depth of 4 feet. Second, they excavated a 4x4 foot square hole at the base of, and in the center of, the 8x8 foot unit, to a final depth of 8 feet.

Along the proposed fence alignments, on the north and east sides of Island #1, contiguous test units within larger trenches measured 5x2.5 feet in plan and 1.5 feet in depth. Trench 1 and Trench 1A were within the proposed footprint of the Chambers Street fence line, Trench 2 was on the northeast side of Island #1, and Trench 5 was on the southeast side of Island #1.

In the area where design plans proposed pneumatic bollards and fence foundations, along Chambers Street on either side of Tweed Courthouse, archaeologists excavated contiguous test units within the construction impact footprint. On the west side of Tweed Courthouse (PB1), the test units measured 4x4 or 4x3.5 feet in plan and 4 feet in depth. On the east side of Tweed Courthouse (PB2), the test units measured 4 x 4 feet in plan and 4 feet in depth. A set of manual bollards and fence foundations, located parallel to Centre Street near the subway elevator, included two sets of contiguous test units, labeled with prefixes MB1 and G1. For the manual bollard footprint, the test units measured 5x5 feet in plan and x feet in depth, and for the gate footprint, the test units were 5x5 feet in plan and 4 to 6 feet in depth. Locations where archaeologists excavated for the footprint of new trees measured 5x5 feet in plan and 2 feet in depth. These locations were labeled T1, T2, etc. based upon the order that they were excavated.

Last, in the area south of Islands #9 and 10 and north of Island #11, where design plans called for creation of a new triangular-shaped island and the construction of new pathways, archaeologists excavated a 100% sample of soils, to a depth of 1-1.5' below the projected curb grade, to document primary and secondary interment human remains from a section of the property used as a historic graveyard. Here, archaeologists established a horizontal datum, and laid out 5x5' square test units oriented along city grid north, which they labeled using north and east grid coordinates tied to the datum.

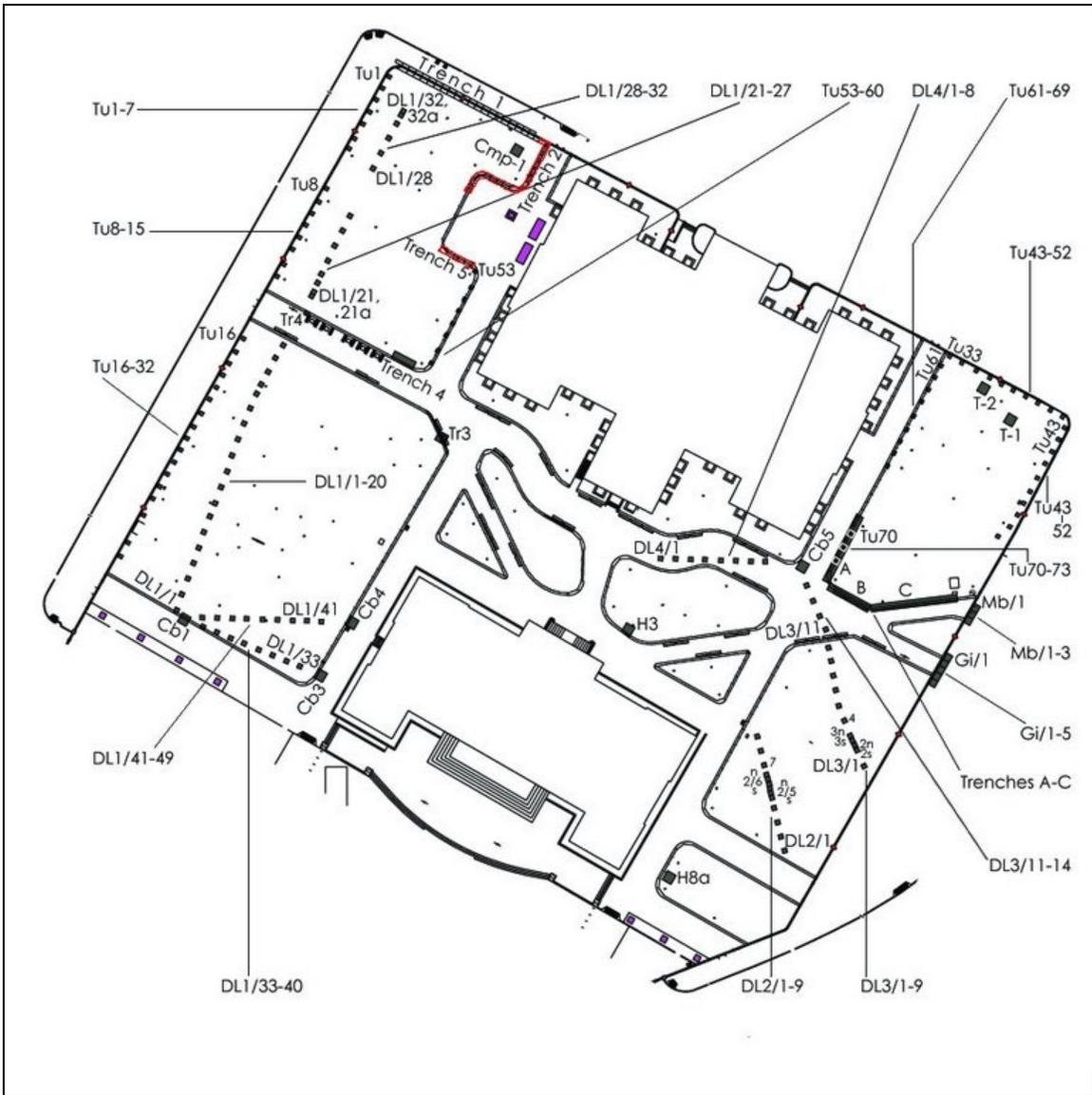


Fig. 2-1: Excavation operations in the northern half of City Hall Park, 1999.

Table 2-1 below, summarizes the nomenclature, dimensions, and locations for all the test units archaeologists excavated on the property. Figures x-x illustrate the location of these test units on the property. The remainder of the construction impacts were monitored, and are not included in this table.

Table 2-1

Test Unit Name	Horizontal Dimensions	Vertical Dimension	Location on property	Type of excavation
TU 1 to TU 7	2x2'	1.5'	West side of Island #1	Testing

<b>Test Unit Name</b>	<b>Horizontal Dimensions</b>	<b>Vertical Dimension</b>	<b>Location on property</b>	<b>Type of excavation</b>
TU 8 to TU 15	2x2'	1.5'	West side of Island #2	Testing
TU 16 to TU 32	2x2'	1.5'	West side of Island #3	Testing
TU 33 to TU 42	2x2'	1.5'	North side of Island #8	Testing
TU 43 to TU 52	2x2'	1.5'	East side of Island #8	Testing
TU 53 to TU 60	2x2'	1.5'	East side of Island #2	Testing
TU 61 to TU 69	2x2'	1.5'	West side of Island #8	Testing
TU 70 to TU 72	2x2'	1.5'	West side of Island #9	Testing
DL1-1 to DL1-20	3x3'	3 to 4'	Island #3	Testing
DL1-21 to DL1-27	3x3'	3 to 4'	Island #2	Testing
DL1-28 to DL1-32	3x3'	3 to 4'	Island #1	Testing
DL1-35 to DL1-49	3x3'	3 to 4'	Island #3	Testing
DL2-1 to DL2-9	3x3'	3 to 4'	Island #11	Testing
DL3-1 to DL3-13	3x3'	3 to 4'	Island #11	Testing
DL4-1 to DL4-8	3x3'	3 to 4'	Path north of Island #6	Testing
Trench 1, 0-5', 5-10', etc.	2.5x5'	1.5'	North side of Island #1	Excavation
Trench 1A, 0-5', 5-10', etc.	2.5x5'	1.5'	North side of Island #1	Excavation
Trench 2, 0-5', 5-10', etc.	2.5x5'	1.5'	East side of Island #1	Excavation
Trench 5, 0-5', 5-10', etc.	2.5x5'	1.5'	Northeast side of Island #2	Excavation
T1, T2, etc.	5x5'	2'	Various locations	Excavation
CB-1	4x4'	2.5'	East side of Island #3	Excavation
CB-2	6x6'	6'	South side of Island #3	Excavation
CB-3	5x5'	4'	East side of Island #3	Excavation
CB-4	4x5'	4'	East side of Island #3	Excavation
CB-5	6x6'	6'	Southeast corner of Tweed Courthouse	Excavation
CMP-1	5x5'	5'	North side of Island #1	Excavation
PB1-1 to PB1-15			Path east of Island #1 at Chambers Street	Excavation
PB2-1 to PB2-2			Path west of Island #8 at Chambers Street	Excavation
C1 to C3	3x3'	4'	Path east of Islands #1 and #2	Excavation
C4 to C6	3x3'	4'	Path between Islands #2 and #3	Excavation
C12 and C13	3x1.5'	4'	Path east of Island #3	Excavation
C20	3x1.5'	4'	Path between Island #11 and #13	Excavation
H1	8x8'	8'	Island #5	Excavation

Test Unit Name	Horizontal Dimensions	Vertical Dimension	Location on property	Type of excavation
H2	8x8'	8'	Island #4	Excavation
H3	8x8'	8'	Island #6	Excavation
H4	8x8'	4'	Island #7	Excavation
H5	8x8'		Island #3	Excavation
H6	8x8'		Island #11	Excavation
H7			Island #3	Excavation
H8, H8a	8x8'		Island #13	Excavation
G1-1 to G1-5	5x5'		Area northeast of Island #11	Excavation
MB1-1 to MB1-3	5x5'		Area southeast of Island #10	Excavation
N500/E500, etc.	5x5'	1-1.5'	Area south of Islands #9 and #10	Excavation

Archaeologists excavated each test unit in 6-inch arbitrary levels according to natural stratigraphy. They gave all strata alphabetic designations based upon the order that they appeared in the soil column, beginning with Stratum A in each test unit. Field supervisors later universalized stratigraphic labels where warranted. Archaeologists drew profiles from most test units, and supervisors photographed selected profiles. Personnel halted excavation of test units upon reaching the construction impact depth.

Unlike the strata nomenclature, features, whether found in test units or during monitoring, followed a numeric sequence based upon order of appearance on the site (beginning with Feature 1). In other words, while stratum designations repeated for each test unit, feature numbers were unique. Archaeologists excavated features in 6-inch arbitrary levels according to natural stratigraphy, where applicable. They drew all features in plan view, and in profile where possible. Photographs documented the features as necessary. In most cases, feature excavation halted at or near the construction impact depth, although in some instances LPC staff gave permission to extend the excavation depth so as to better document the features.

Recovery of artifacts entailed screening soils through ¼ inch hardware cloth during excavation, and either collecting materials *in situ* or trowel sorting them from backdirt piles during monitoring. Archaeologists bagged artifacts in resealable ziplock bags, or in

the case of large assemblages, in large plastic bags inserted into cardboard storage boxes. They recorded all proveniences in indelible ink on labeling tags.

Collection strategy consisted of bagging all artifacts older than 50 years (and frequently a small sample of more recent artifacts), with the exception of certain types of materials. For example, while archaeologists collected all nails and window glass, they sampled other construction materials such as brick, wood, plaster, mortar, building stone, slate, concrete, and drain pipes. Other sampled materials included fuel products and byproducts like coal, clinker, charcoal and cinder. While excavators collected all bone, they only retained a sample of shell for most proveniences, with the exception of large, intact pit features, where shell was collected in its entirety. Of note, archaeologists bagged bone separately from all other artifacts, so that the bioarchaeologist could identify all human remains before the remainder of the collection was sent to the Parsons ES archaeological laboratory in Fairfax, Virginia for washing, cataloging, and analysis.

### **Construction Impacts**

The purpose of this section is to describe the different types of subsurface construction impacts that occurred during the reconstruction of City Hall Park; to describe the archaeological responses to these impacts, including their field nomenclature; to explain the rationale for the responses based upon the archaeological sensitivity study (Parsons ES 1999) and current field conditions; and to summarize the archaeological findings for each response. For ease of identification, the project area is divided into three parts: the northwest portion, the northeast portion, and the southern portion.



*Fig. 2-2: Lawns (“Islands”) and paved areas in the norther half of City HallPark*

The project area consists of two basic landscape components: areas of grass and planted trees (referred to in this report as “islands”), and paved surfaces separating the islands. At the time of the archaeological field work, City Hall and Tweed Courthouse were the only two structures (other than subsurface subway components on some portions of the property) that currently existed on the site. The vast majority of the construction impacts occurred either within or along the perimeters of the islands, within the paved pathways and surfaces separating the islands, or straddled both areas.

Design specifications called for removing existing fencing and curbstones surrounding the islands, and all existing asphalt and concrete surface paving within park pathways, so that new ornamental fences could be installed around the islands and new bluestone pavement could be laid within the walkways. Under the stone pavement, plans called for the installation of new subsurface utility lines (including pipes for water, storm water,

and electricity). Deep drain lines were to traverse the park in several areas, running across both islands and pathways, with catch basins at certain junctions. The drain lines were to connect with mains under adjacent streets. Plans called for the installation of two large subterranean conduit boxes (one at each end of the park) to monitor and regulate the various utility lines. Design specifications required four types of light poles and bases to be either installed or restored in place within the park. Some fell within the islands; others were located within the pathways. Additional trees were to be planted at various locations on the islands.

At each pathway entrance to the park, plans called for the construction of security measures. These consisted of either manual bollards or pneumatic bollards. Two pneumatic bollards are located at pathway entrances on the Chambers Street side of the park, and required an associated subterranean compressor box to be installed nearby. A third pneumatic bollard is located within the southern portion of the park. All of the other bollards within the park are manual bollards, and as such did not require compressor boxes. Plans called for the construction of new gates at several path entrances.

Each of the construction impact types is described below, according to its location on the park property. Those impacts that are not addressed in the archaeological sensitivity report, because planning personnel added them once field work had already begun, are marked with an asterisk (\*).

### **Chapter 1 Northwest**

**Impact:** Removal of sidewalks and pavement surfaces, and installation of concrete foundation for sidewalks and pavement areas

The scope of work called for a backhoe to remove the existing sidewalks and pavement areas, and construction workers to install a concrete subgrade surface in all areas to be

covered by bluestone pavement. The depth of the total impact was 18 inches below the current ground surface.

**Archaeological Response:**

Planning personnel suspected that beneath the current asphalt and concrete pavement (estimated to be slightly over 1 foot in thickness), certain areas of the property could contain shallowly buried, significant cultural resources, including human remains. Archaeologists identified certain portions of the walkways, designated Areas A-F, as locations of heightened archaeological sensitivity, based upon previous cultural resources studies and projected former locations of historic structures on the property using archival documents. The sensitivity study recommended that archaeologists either manually excavate soils or implement STPs at regularly spaced intervals in Areas A-F between the bottom of the current pavement and the depth of the new subgrade surface, a total of approximately 4-5 inches. All other pavement locations were to be monitored. Figure x illustrates the location of the six areas slated for manual excavation.

The following is a synopsis of the archaeological resources predicted to exist within the six areas, the field conditions encountered in the areas, and the results of the investigations.

**Area A**, located north and west of Island #1, had a high probability to contain human remains, as well as architectural and occupational features (such as from the 18<sup>th</sup>-century Block house and Teller houses, and the 19<sup>th</sup>-century Dispensary).

Due to revisions in the project contract, the area north of Island #1, under the Chambers Street sidewalk, was omitted from the current investigation after field work had already begun, although construction personnel did remove a 2-foot wide section of the sidewalk as part of the new curb installation (see below). Results of systematic STPs excavated along the west perimeter of Island #1 (see below) prior to removal of the adjacent Area A pavement revealed that soils within the 18-inch impact depth here consisted entirely of redeposited fill. Based upon this knowledge, archaeologists did not manually excavate

this portion of Area A, but rather monitored the area instead. No cultural features were found.

**Area B**, located at the northeast corner of Island #1 and south of Area A, also had a high probability to contain human remains. However, this area also was omitted from the present construction contract after the field work had begun.

**Area C** is located between the west side of Tweed Courthouse and Island #2. It had a high probability to contain architectural or occupational features associated with the 18<sup>th</sup>-century British Barracks.

Like Areas A and B, this section of the walkway was omitted from current project plans once field work had commenced. At the time that the plans changed, the backhoe had already removed the current pavement surface (revealing no cultural features), but construction personnel halted further excavation for installation of the subgrade surface.

**Area D** is located along the west side of Island #2. Archaeologists believed soils in this area could have contained cultural deposits associated with the 18<sup>th</sup>-century British Barracks or the 19<sup>th</sup>-century Charity School.

The sensitivity report called for a series of STPs excavated at systematic intervals within Area D. However, results from another series of STPs, excavated along the adjacent west perimeter of Island #2 (see below), revealed that soils within the 18-inch impact depth here consisted entirely of redeposited fill. Based upon this knowledge, archaeologists monitored Area D instead of excavating additional STPs. No cultural features were found.

**Area E** is located between Islands #2 and #3. It represents the approximate former location of the 18<sup>th</sup>-century British Barracks.

Based upon the prior excavation of “C” light pole test units C4, C5 and C6 within this walkway (see below), coupled with the previous excavation of curbs for the south side of Island #2 and the north side of Island #3 (see below), archaeologists knew that the majority of the soils within Area E’s 18-inch impact depth consisted of redeposited fill. For this reason, archaeologists monitored Area E rather than excavating additional STPs, as the sensitivity report had recommended. No cultural features were found.

**Area F** is located at the intersection of Islands #3, 4 and 5. It had a high probability to contain architectural or occupational features associated with the 18<sup>th</sup>-century British Barracks and/or the 18<sup>th</sup>-century First Almshouse complex.

As with the other areas, prior excavations for adjacent curbs surrounding the islands revealed that the majority of the soils within the 18-inch impact depth consisted of redeposited fill. Therefore, archaeologists monitored this area rather than excavating STPs, as the sensitivity report had recommended. No cultural features were found.

**Remaining pavement and sidewalk areas:** The archaeological sensitivity report recommended monitoring all other areas that required removal of current paving and installation of an 18-inch deep subgrade surface.

**Archaeological Findings:**

No human remains, architectural or occupational features were found within any of the six areas specifically designated for archaeological excavation or testing. However, two architectural features were revealed within portions of the pavement areas not assigned a high archaeological sensitivity. In the portion of the walkway between Area B and Area C, removal of pavement revealed a square, brick-lined shaft that Tweed Courthouse personnel confirmed was associated with a former utility system linked to the building’s basement. Archaeologists photographed this shaft, but did not give it a feature designation.

On the north side of City Hall, immediately west of the building's rear steps, archaeologists encountered a red sandstone-constructed "box" or shallow shaft (designated Feature 52), lined with brick and capped by a tabular stone. The feature measured 2.3 feet square, and was excavated 1.5 to 2 feet below grade before the narrowness of the opening made further excavation too difficult to continue. The cut sandstone pieces forming the box measured 3 inches in width. The interior of the feature had been filled with demolition debris.

Although the feature resembled the sandstone-constructed pump mechanism housing found in association with the three cisterns on the site (see below), there is no indication that this feature represents the remains of a cistern at this location. Since the feature is bounded by a stone wall for a handicapped access ramp adjacent to City Hall on the south, it is likely that any architectural remnants or associated archaeological deposits were truncated when the wall and the ramp were constructed. It appears, however, that the feature is associated with City Hall, although its date of construction is unclear.

**Impact:** \*Installation of subsurface utility lines and electrical boxes within pathways

Within the majority of the park's interior pathways, plans called for the excavation of subsurface utility trenches for plumbing and electrical pipes, as well as ca. 3x3 foot square holes for the placement of concrete electrical boxes where the lines merged. The impact depths varied according to the type of utility being installed, but generally ranged from ca. 1 foot to ca. 3 feet below the current grade. The deepest sections were those where the electrical boxes lay, and the shallowest areas were where the electrical lines traversed.

**Archaeological Response:**

Because planning personnel added these impacts after the archaeological field work had already begun, and because by the time installation of these lines started, much of the adjacent curb areas had already been excavated, revealing mostly redeposited fill or sterile sand throughout the area, LPC staff concurred that archaeologists should monitor

these trenches, rather than implement a program of manual excavation or systematically placed STPs.

### **Archaeological Findings:**

Throughout the vast majority of the utility trenches excavated in the park's interior pathways, archaeologists observed redeposited fill sequences and/or sterile sand. Trenching revealed only one archaeological feature, a brick domed cistern within the pathway to the west of City Hall, labeled Feature 96. Initially, the backhoe impacted a square-shaped stone pump housing mechanism situated above the dome's center point, and subsequently archaeologists exposed a 6-foot wide swath of the underlying dome by hand so that they could draw and photograph the feature. The cistern measured 16 feet in diameter and the stone pump housing measured approximately 2 feet 8 inches in width.

According to archival records, at least four "stone reservoirs" or cisterns were built surrounding City Hall. In 1811, the Common Council authorized "...that two reservoirs of stone sufficient to contain two hundred hogsheads each be built and placed at or near each wing of the New City Hall and to be supplied from the roof thereon: and that the water be used for no other purpose than the extinguishment of fires" (Stokes 1915-28:1534). The cisterns appear to have been filled manually by the Manhattan Company, rather than by rain water collected off a rooftop (Hunter 1994:2-207-208). These two cisterns, as well as two additional cisterns, are shown on a 1834 map (Wenman 1834). Hunter (1994) indicates that the two cisterns built in 1811 were located south of the two cisterns constructed by 1834. Although Feature 96 probably represents one of the second set of cisterns, its actual location is ca. 25 feet south of the projected location shown in Hunter 1994 (site number 187).

Since the electrical line trenching would not impact the cistern itself, LPC staff concurred that construction personnel could dismantle the stone pump housing box so that the new pavement could be installed, they could lay the utility pipes directly over the dome, and they could backfill the area once they were finished. Archaeologists did not excavate any of the cistern fill, nor did they dismantle any of the dome (although the backhoe

dislodged one brick from the dome during trenching, which revealed that the cistern had in fact been filled with soil after its use-life had ended).

**Impact:** Removal of curbstones surrounding islands, and installation of fence foundation and perforated perimeter drain line

Design plans specified construction of new fencing and a drain line surrounding the exterior of Islands #1, 2 and 3. In order to install the new fencing and drain lines, concrete foundations needed to be poured in continuous stretches, much like sidewalks. These foundations and their associated gravel bedding had a total impact depth of 18 inches below the current grade. Trenches for the foundations measured approximately 5 feet wide.

In order to pour the concrete foundations, construction personnel first had to remove the existing wrought iron fencing and fence posts, and stone curbs surrounding the islands. The first step was to dismantle the above-ground fencing, using a skill saw. Once this was completed, the backhoe simultaneously removed the existing stone curbs, the subsurface iron fence posts, and excavated the trench for the new fence foundations. Depending on the location, this occurred either after the archaeologists had completed their excavations, or during archaeological monitoring.

**Archaeological Response:**

The north side of Island #1 had a high probability to contain human remains, as well as architectural and occupational features (such as from the 18<sup>th</sup>-century Block house and Teller houses, and the 19<sup>th</sup>-century Dispensary). For this reason, the sensitivity report recommended archaeologists manually excavate this entire area and screen all the soils.

Since removing the curbstones first, as the report suggested, would have irrevocably disturbed the surrounding soil, archaeologists excavated this area in two stages. Initially, they excavated a series of contiguous test units, measuring 5 feet east-west, 2.5 feet north-south, and 18 inches below the current sidewalk grade, for the length of the island's

north boundary, on the south side of the curbstones. The overall excavation area was designated “Trench 1” and each excavation unit within the trench received a separate nomenclature, in 5-foot increments. Thus, the test unit proveniences were “Trench 1, 0-5 feet”, “Trench 1, 5-10 feet”, etc. Numbering began on the east and moved west, so that the lowest numbers were closest to Tweed Courthouse and the highest numbers were closest to Broadway.

Once archaeologists completed the Trench 1 test units, construction workers dismantled and removed the curbstones by hand, then jackhammered and removed the existing sidewalk 2 feet to the north of the curbstones so that the remaining excavation could occur. Archaeologists designated the second set of test units “Trench 1A, 0-5 feet”, “Trench 1A, 5-10 feet”, etc. Of note, at the extreme east end of the Trench 1/1A alignment, the existing curbstone curved to the south, creating test unit shapes and sizes that did not match the others. Archaeologists labeled these oddly-shaped areas Trench 2 and Trench 2A, since they were added to the excavation area after they started the initial numbering sequence. Trench 2 test units continued south along the east side of Island #1 (see below).

The west side of the three islands had the potential to contain both architectural and occupational features from the 18<sup>th</sup>-century British Barracks, the 18<sup>th</sup>- and 19<sup>th</sup>-century Bridewell, and associated outbuildings or activity areas. However, it was unclear to what extent the subway construction along Broadway had disturbed the original deposits. For this reason, the sensitivity report recommended excavation of a series of STPs at 10-foot intervals along the perimeter of islands to sample the stratigraphic profile down to the impact depth of 18 inches. These test units, labeled TU 1 through TU 32, measured 2x2 feet square, and were excavated 18 inches below the current sidewalk grade.

### **Archaeological Findings:**

### North side of Island #1

Excavation of Trenches 1, 1A, and parts of Trenches 2 and 2A along the north edge of Island #1 revealed a generally redeposited stratigraphic profile, with several areas of intact cultural deposits. In Trench 1, archaeologists always characterized the upper stratum as a very dark loamy topsoil dating to the late 20<sup>th</sup> century. This stratum could be found covering every island in the park, and included artifacts such as plastic and other obviously modern refuse. In Trench 1, the soil also included redeposited materials such as unarticulated human bones and 19<sup>th</sup>-century artifacts. Beneath the topsoil throughout most of Trench 1 was a stratum of coarse red sand, which in most places appeared to be redeposited as well. This sand resembled the naturally occurring subsoil on the property, but usually contained obviously redeposited materials (most notably unarticulated human remains scattered throughout much of the trench). In some places this red sand also included modern artifacts, but in most areas the latest artifacts consisted of mid-19<sup>th</sup> materials, specifically small sherds of whiteware and ironstone. Artifact counts generally decreased with depth, and in some test units, the lowest levels of excavation were culturally sterile. In these cases, the soil profile appeared to consist of fill overlying subsoil. Because the red sand fill so closely resembled the red sand subsoil, archaeologists frequently had difficulty making the distinction between the two strata, unless they took artifacts (or lack thereof) into account. In Trench 1A, the soil profile consisted of modern fill and bedding for the overlying sidewalk, followed in some places by red sand fill, and in other places by additional modern fill sequences.

At either end of the trenches, the red sand stratum did not occur within the 18-inch impact depth, due to soil disturbances associated with installation of the modern concrete curbstones and sidewalk. Generally, where the curbstones lay in a straight line, parallel to Chambers Street, the soil profile (excepting the curbstone builder's trench) consisted of dark, modern topsoil over red sand fill, and sometimes red sand subsoil. The eastern ca. 17 feet of the trench and the western ca. 12 feet of the trench (where the curb curved to the south) consisted of redeposited modern fill for the entire impact depth, implying

that the curved portions of the concrete curb had disturbed the existing soil more than the straight portions of the curb.

## Chapter 2 Architectural Features

Several discrete areas within Trenches 1 and 1A contained intact features. Within test units Trench 1, 70-75 feet and Trench 1, 75-80 feet (located 32-42 feet east of Island #1's west boundary), two north-south trending stone walls appeared (Features 6 and 10), separated by a linear trench (Feature 9) with two possible post holes at its base. Archaeologists found all of these features beneath the overlying topsoil, cut into the red sand fill stratum.



*Fig. 2-3: Trench 1, 75-80', Features 6 and 10*

The upper portion of both walls consisted of demolition debris and mottled soil, presumably dating to the destruction of the building. The lower sections of the walls consisted of unmortared stones (mostly quartzite) of various sizes and shapes, fitted together to form parallel, straight-sided foundations. Both walls contained at least two

courses of stones separated by clean sand fill. Feature 6 was 24 inches wide, and Feature 10 was 16 inches wide. The trench between them (Feature 9) measured 16 inches wide. Archaeologists identified the tops of the features at approximately 8 inches below the current sidewalk grade, while the tops of the foundation walls (under the demolition fill) were approximately 16 inches below the current sidewalk grade. In order to better document the foundation features, archaeologists received permission from LPC staff to extend these two test units below the 18-inch impact depth. They halted excavation at approximately 24 inches below grade, although the features continued below this depth. Notably, under the demolition fill within Feature 9, archaeologists observed two possible post holes containing the remains of wood posts, which they did not label or excavate, as instructed by LPC staff.

The similarities in raw materials, orientation, and artifact dates from foundation Features 6 and 10 strongly suggest a paired function.



Fig. 2-4 : Trench 1, 75-80', Features 9 and 10

Both features consisted mostly of large quartzite stones, were parallel to and aligned with one another, and contained artifacts from the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, presumably deposited as fill over and between the stones. The most recent class of datable artifacts from the two features was pearlware; perhaps significantly, no whiteware appeared in either feature assemblage. The presence of pearlware and the absence of whiteware suggests the features had been both created and destroyed before about 1820, the date archaeologists assign to when whiteware became available in the United States.

Feature 9, the trench separating the two walls, contained fill probably dating to the destruction of the building supported by the walls. However, its assemblage also contained pearlware but no whiteware, suggesting a deposition date prior to 1820.



*Fig. 2-5 : Features 6, 9, and 10*

The function of trench Feature 9 is less clear than adjacent foundation wall Features 6 and 10. Since there was no builder's trench on either exterior side of the wall features, it

is possible that this trench represents an interior builder's trench for both foundations. Alternately, this trench could have represented an infilled void, that was open, or partially open, during the use-life of the structure supported by the walls.

Since the artifact assemblage from all three features (including areas associated with both the construction and the demolition of the features) was temporally similar, it is likely that this structure, or structures, was built and destroyed in a relatively short span of time. Historical records indicate this corner of the property contained a structure occupied by the city dispensary and the Board of Health offices during the first two decades of the 1800s. The building was oriented north-south, like the features. Hunter (1994) explains:

The Office of the Board of Health as shown in an 1808 painting by the Baroness Hyde de Neuville, was a small, wood-frame, one-story rectangular building with a gable roof. The building was sheathed with clapboards with corner boards and had a wood shingle roof. On the north side the gable bore the lettering reading "OFFICE/of the/BOARD of HEALTH." The wall below had two nine-over-sixteen pane double-hung sash windows to the east and a door with lights at the top to the west. The east wall had a door to the south end and a window to the north. The openings were framed by simple architraves. (Hunter 1994:2-202).

According to Hunter (1994), the dispensary building was situated approximately 25 feet further to the west than the location of Features 6, 9, and 10. It is possible that the archival documents are inaccurate in siting the dispensary, and these features do represent the remains of this building. Alternately, it is possible that these features are from another structure located near the dispensary at about the same time, but which is not as well documented in the archival record. For example, Harris et al. (LPC 1993:22) write that there was a school house, built in 1805, which was located at the northwest corner of the park. The exact location of this structure is unknown. Regardless of which structure these features represent, several drawings of this corner of the project area, made in the 1820s, depict a total absence of buildings other than the former almshouse (now the

American Museum) and the Bridewell. That no buildings existed on Island #1 by the 1820s confirms the conclusions generated by the artifacts found within the features.

### Burial Features

In addition to the architectural features, described above, archaeologists uncovered three human burials in primary deposition within Trenches 1 and 1A. Feature 8 was in Trench 1, 25-30 feet; Feature 12 was in Trench 1, 20-25 feet; and Feature 45 was in Trench 1A, 30-35 feet (which corresponded to the north half of Trench 1, 40-45 feet).

Archaeologists exposed the tops of the burials to confirm that they were primary interments, then drew and photographed the bodies *in situ*. Once the burials had been documented, construction personnel covered them with burlap and wooden boxes, and then placed fill over the boxes to protect the burials from further deterioration. The bioarchaeologist examined each burial once they had been exposed, but since the bones could not be exhumed (per instructions from LPC staff), and only portions of the burials survived, she could make only preliminary conclusions about the individuals represented.

All three burials were oriented north-south (in this case, magnetic north rather than city grid north), with the heads at the south. The bodies were all adults, laid supine (or, on their backs). Each burial was found within the red sand fill stratum, but none contained coffins or grave goods. Slight soil discolorations distinguished the interments from the surrounding soil matrices.

Feature 8 consisted of the partial upper body of an adult, and included cranial fragments, portions of the mandible and teeth, the right and left humeri, part of the left clavicle, and the left scapula. The bioarchaeologist could not determine age, sex, or race of the individual based upon her brief evaluation and limited number of the bones *in situ*. This burial had been severely disturbed, both vertically and horizontally. The top of the burial was approximately 10 inches above the current sidewalk grade, at the interface of the dark topsoil stratum and the underlying red sand fill stratum. Because the body had been

buried so shallowly, the modern topsoil impacted portions of the grave when it was deposited. The extant portions of the burial were located primarily to the south of Trench 1, and intruded only about 6 inches horizontally into the test unit. Most of the body had been truncated after original interment. Archaeologists found evidence of substantial disturbance associated with the concrete curbstone builder's trench to the north, the adjacent iron fence post hole and concrete mold, and an additional modern disturbance in the center of the test unit of unknown origin. Disarticulated human remains from the burial had been redeposited throughout the test unit as a result of these disturbances.



*Fig. 2-6 : Feature 12*

Feature 12 was a less disturbed adult burial found approximately 4 feet east of Feature 8. The top of the burial was 7 inches below the current sidewalk grade, within the red sand fill stratum. The portion of the body inside the test unit footprint included the top of the arms to the middle of the pelvis, with the hands crossed over the pelvis. According to the bioarchaeologist, the individual was a young adult male, based upon the size of the bones. She could not determine the exact age or the race of the individual. Like Feature 8, this burial had been truncated to the north by the modern concrete curbstone builder's

trench, where archaeologists recovered redeposited, disarticulated human remains. The northern half of this test unit (designated Trench 1A, 10-15 feet) contained human remains (including part of a femur) in its southwest corner at 14 inches below grade, which may represent redeposited portions of the same individual, although the bones were not articulated.



*Fig. 2-7 : Feature 45*

Feature 45 was a third adult burial, found approximately 15 feet west of Feature 8 and 19 feet west of Feature 12. It was contained completely within Trench 1A, unlike Features 8 and 12 which fell within Trench 1. The test unit revealed the burial from the top of the cranium to just above the elbows. The rest of the body extended beneath the Chambers Street sidewalk and could not be exposed. Archaeologists uncovered the top of the

cranium at approximately 15 inches below the current sidewalk grade. Although the burial was contained completely within the red sand stratum, the left side of the cranium (which was facing up) had been crushed, presumably when the overlying modern fill and sidewalk went in. The bones were very poorly preserved.

### West side of Islands #1, 2 and 3

Throughout Test Units 1-32, archaeologists encountered redeposited fill sequences within the 18-inch impact depth. In every test unit, the overlying stratum was the same very dark loamy topsoil found all over the property, deposited in the mid-to-late 20<sup>th</sup> century. In most cases, the lower strata consisted of either 19<sup>th</sup>- or 20<sup>th</sup>-century redeposited fill. Archaeologists found no intact deposits, nor any cultural features (including human burials) in these test units. However, with the exception of Tus 30-32, which surrounded a subway vault at the southern end of Island #3, none of the test units exhibited evidence of subway disturbances.

**Impact:** Removal of curbstones surrounding islands and installation of curbs, bollard and chain fencing foundations

Design plans specified construction of new fencing surrounding the interior of Islands #1, 2 and 3, the entirety of Islands #4 and 5, and the west and south sides of Tweed Courthouse. During the course of the field work, personnel from Barney Skanska removed the portions bordering Tweed Courthouse from the scope of work.

Since these fences were similar in design to those surrounding the exterior parts of the islands, concrete foundations needed to be poured in continuous stretches here as well. Like the foundations for the exterior fencing, these foundations and their associated gravel bedding had a total impact depth of 18 inches below the current grade. Foundation trenches measured approximately 5 feet wide.

The same construction methodology applied to these fence foundations as to the exterior fences. Construction personnel first removed the existing wrought iron fencing and fence posts, and stone curbs surrounding the islands, dismantling the above-ground fencing using a skill saw. Then, the backhoe simultaneously removed the existing stone curbs, the subsurface iron fence posts, and excavated the trench for the new fence foundations. Depending on the location, this occurred either after the archaeologists had completed their excavations, or during archaeological monitoring.

### **Archaeological Response:**

Due to the high potential for recovery of human remains, as well as cultural materials associated with the 18<sup>th</sup>-century British Barracks, archaeologists selected one area along the northeast side of Island #1 and one area along the northeast side of Island #2 to be manually excavated in their entirety. The remainder of Island #2's east side was systematically sampled, using STPs measuring 2x2 feet square and spaced 10 feet apart. Archaeologists slated the remainder of the foundation trench areas for archaeological monitoring.

Archaeologists assigned trench provenience numbers sequentially, in the order they excavated them. As described above, Trench 2 encompassed the northeastern corner of Island #1. Trench 3 included the north and east sides of Island #3. Trench 4 was the south side of Island #2. Trench 5 was a short stretch along the north side of Island #2. Finally, Tus 53-60 were along the east side of Island #2.

### **Archaeological Findings:**

#### Trench 2

Like Trenches 1 and 1A, the majority of Trench 2 exhibited a redeposited stratigraphic profile. The overlying stratum was always the very dark loamy modern topsoil found throughout the site. Beneath this layer were 19<sup>th</sup>- and 20<sup>th</sup>-century fill episodes, in most areas bottoming out on the distinctive red sand fill found in Trench 1 and 1A. Since

Trench 2 was closer to Tweed Courthouse and the former location of the Second Almshouse, much of the fill contained building debris, presumably associated with demolition of the almshouse in 1857 and/or construction of the present courthouse in 1861, as well as modifications to the courthouse and adjacent pathways and curbstones. As with Trenches 1 and 1A, many of the test units included redeposited, unarticulated human remains in the fill layers.



*Fig. 2-8 :Trench 2 stratigraphy*

Features in Trench 2 consisted of Feature 21, a post hole in Trench 2, 55-60 feet, which dated to the 20<sup>th</sup> century; and Feature 23, a mortared brick alignment found under the curbstones for Trench 2, 65-70 feet and Trench 2, 70-75 feet, also dating to the 20<sup>th</sup> century. Feature 23 may have functioned as a chinking device to support the curbstone in an area that was lower in elevation or contained a depression from a previous excavation.

### Trench 3

Archaeologists monitored the excavation of Trench 3. In the process, they identified two artifact concentrations. Feature 30 was found along the northern side of Island #3, at ca. 18 inches below the current pathway grade, and consisted of an amorphously-shaped pit measuring approximately 3.5 feet north-south by 2.5 feet east-west. Archaeologists excavated the feature fill to ca. 21 inches below the depth at which it was first identified, although they did not reach the bottom of the pit. With the exception of brick fragments, which they noted and discarded, excavators retained all of the artifacts from the pit fill. They halted excavation when a second soil stratum within the pit became visible. At this point, supervisory personnel concluded that since the pit continued to extend deeper (significantly beyond the construction impact depth), excavation should stop, and the artifacts from the feature should be treated as a sample assemblage.



*Fig. 2-9 : Feature 30*

Archaeological monitors identified another artifact concentration at the northeast corner of Island #3. Since it was not clear whether this concentration represented the top of a pit feature, supervisors superimposed a 6x6 foot test unit (labeled Trench 3, Unit 1) over the area where the artifacts had appeared.

#### Trench 4

On the south side of Island #2, archaeologists identified a scatter of artifacts and architectural materials (such as building stones, construction rubble, a wooden board and three wood stakes oriented east-west in the trench). While there did not appear to be any clear association between these elements, archaeologists nonetheless made measured drawings of their locations, and collected a sample of the associated artifacts. They labeled the excavation area Trench 4, Unit 1. Of note, during the final excavation of Drain Line 1 (DL1), archaeological monitors found a pit feature (Feature 60) under this test unit. It is described below, under the section concerning the drain line impacts.

### Trench 5

Trench 5 consisted of four test units (each 2.5 x 5 feet in plan), with two on either side of a “B”-style light pole slated to be restored in place. Trench 5, 0-5 feet and 5-10 feet were on the east side of the light pole, and Trench 5, 10-15 feet and 15-20 feet were on the west side of the light pole.

Stratigraphy in this trench consisted of an upper modern topsoil stratum, as was found on every island throughout the site, followed by fill episodes with heavy building debris content, presumably associated with the demolition of the Second Almshouse and/or the construction of Tweed Courthouse. The red sand stratum, found in Trenches 1 and 2, did not appear within the 18-inch impact depth, except at the far western edge of the trench. Three of the four test units contained only demolition fill deposits under the topsoil. Some of this demolition fill included redeposited, unarticulated human remains.

A single feature appeared in Trench 5: Feature 36 was a concentration of schist-like flat rocks, bricks and marble found at the base of Trench 5, 0-5 feet. It may represent a former surface, although its specific function is unclear.

### Tus 53-60

Test Units 53-60, located along the east side of Island #2, contained redeposited fill sequences within the 18-inch impact depth. The top stratum in every test unit was the same very dark loamy topsoil found all over the property, deposited in the mid-to-late 20<sup>th</sup> century. The lower strata consisted of either 19<sup>th</sup>- or 20<sup>th</sup>-century redeposited fill, usually with high concentrations of building debris and gravel, probably associated with the demolition of the Second Almshouse and/or the construction of Tweed Courthouse. Archaeologists found no intact deposits, nor any cultural features (including human burials) in these test units.

#### Islands #4 and 5

Archaeologists monitored the trench excavations surrounding Islands #4 and 5. Soils generally consisted of 19<sup>th</sup>- and 20<sup>th</sup>-century fill sequences within the 18-inch impact depth. No human remains were found in either of the two island locations.

#### Features

Two cultural features appeared along the south side of Island #4. Feature 44 was a dry-laid stone shaft and Feature 57 was a brick- and stone-constructed drain line leading into the shaft.

The backhoe encountered Feature 44 (the shaft) at ca. 21 inches below the current asphalt pathway grade. Only the southern part of the shaft was visible in the excavation trench. Once archaeologists identified the feature, the backhoe removed additional soil within the island so that the entire top of the shaft could be exposed. When first found, the shaft was capped with several large, tabular stones, oriented roughly north-south. The backhoe removed these stones so that the archaeologists could document the interior of the feature.

The shaft was constructed of large, irregularly-sized stones, some of which had been deliberately shaped to match the curve of the interior. There was no mortar or other binding agent holding the stones together. The shape of the feature was roughly oval. The interior cavity measured ca. 3 feet, 4 inches in diameter in one direction and ca. 3 feet, 1 inch in diameter in the other direction. The exterior diameter of the shaft measured ca. 5 feet, 6 inches in one direction and ca. 5 feet in the other direction.

The interior of the shaft had been backfilled with clean red sand after its use-life had ended, and when the backhoe removed the capstones and surrounding soil, several feet of modern topsoil had fallen into the feature. Archaeologists removed the recently-deposited overburden soil, revealing the original top of the deposit at ca. 3 feet, 8 inches below the top of the shaft's rim. They excavated the feature fill in two 1-foot levels, revealing the bottom of the shaft at 5 feet, 8 inches below the rim. The soil was a mixture of coarse red sand, darker sand, and clayey loam, distributed in lenses and mixed with gravel. It was nearly sterile. At the base of the shaft, the soil consisted of very fine sand mixed with decaying wood.

Feature 57 (the drain) first appeared within the shaft's east interior wall. Two tabular stones enclosing a rectangular cavity had been placed two and four courses down from the top of the shaft's rim. At the time of discovery, another tabular stone blocked the cavity at the exterior edge of the shaft.

Archaeologists uncovered the top of the stones (now labeled Feature 57) to the east of the shaft. They found a drain line consisting of tabular stones on the top and the bottom, with mortared bricks lining the sides of the cavity. The drain line emanated from the east, and emptied into the shaft at a slightly downward-sloping angle.

Upon removal of the upper tabular stones, archaeologists found the drain cavity filled with soil and a limited number of artifacts.

The relatively shallow depth of the shaft, above the natural water table, coupled with the presence of the drain line, implies that these features do not represent a well, but rather a runoff water receptacle, such as a catch basin. Because archaeologists could not pursue the alignment of Feature 57 (the drain line) further to the east, the origin of the water source is still unknown.

**Impact:** Installation of light poles

Design specifications called for the placement of three types of light poles within the northwest portion of the property, each having an impact depth of approximately 4 feet. Four “A” type poles, measuring 2x2 feet in plan and 4 feet in depth, were to be installed along the Broadway sidewalk. Two “B” type light poles were to be restored in place, requiring additional excavation totaling up to 3x3 feet in plan and 4 feet in depth. Last, 13 “C” type light poles, measuring 20x20 inches in plan and 3 feet, 6 inches in depth were to be placed adjacent to the new fence foundations surrounding the islands.

After the field work had already begun, personnel from Barney Skanska removed the light poles located within the walkways bordering Tweed Courthouse from the scope of work. Those excavation units that archaeologists had already completed are described below, while those that had not been started are omitted.

**Archaeological Response:**

All of the “A” type light poles, located within the Broadway sidewalk, were believed disturbed from subway construction. The sensitivity report recommended archaeological monitoring for these locations.

At the time that the first design plans became available, archaeologists presumed that the “B” type light poles would be removed from their current locations, restored, and then reinstalled. Hence, the sensitivity report recommended archaeologists excavate test units adjacent to the light poles so that they could be removed and/or reinstalled in the same location without damaging the surrounding soils. However, as plans became more

precise, it became clear that the “B” type light poles were not to be removed from their present locations. Rather, the electrical wiring would be adjusted at their junctures with the lamps. For this reason, LPC staff concurred that archaeologists should monitor soil removal around the lamp posts rather than excavate additional test units at these locations.

Since the “C” type light pole bases needed to be excavated to 3 feet, 6 inches in depth, the sensitivity report recommended placing 3x3 foot square test units at each “C” pole location (excavating the actual footprint of 20x20 inches would be too confining at that depth). For test units C-1 through C-6, which were excavated prior to removal of the adjacent pavement surfaces, archaeologists followed these measurements. In other areas, where the pavement had already been removed to a depth of 18 inches, and/or where the new fence foundations had already been installed, archaeologists modified the test unit size accordingly. For instance, test units C-12 and C-13 measured 3x1.5 feet in plan and 2 feet in depth. Those test units surrounding Island #4 were monitored rather than manually excavated, since the adjacent areas also were being monitored at the same time.

### **Archaeological Findings:**

“A” poles (*Editor’s note –see above; there is no further discussion by PES.*)

#### “B” poles

As construction workers removed soil surrounding the “B-1” lamp post (located at the northeast corner of Island #2, adjacent to Trench 5), archaeological monitors identified disarticulated human remains in the backdirt. To investigate whether these bones had been dislodged from a primary interment, archaeologists straightened the sidewalls of the pit that the construction workers had excavated, and screened all the loose soil.

Archaeologists concluded that the human bones came from a redeposited context, and that there was no primary burial present at this location.

Archaeological monitoring of soil excavation surrounding light pole “B-2” (at the northeast corner of Island #3) revealed no intact cultural deposits and no human remains.

### “C” poles

#### C-1

Test Unit C-1 was located in the pathway near the northwest corner of Tweed Courthouse, immediately south of the pneumatic bollard (PB-1, described below). Archaeologists excavated this test unit before it was removed from the scope of work. It measured 3x3 feet in plan and 3.5 feet in depth.

Soils in C-1 consisted of decomposed asphalt and other modern fill, followed by a dark yellowish brown (10 YR 3/4) very coarse sand fill with gravel, followed by a reddish brown (5 YR 4/4) coarse sand fill.

No features or human remains were found.

#### C-2

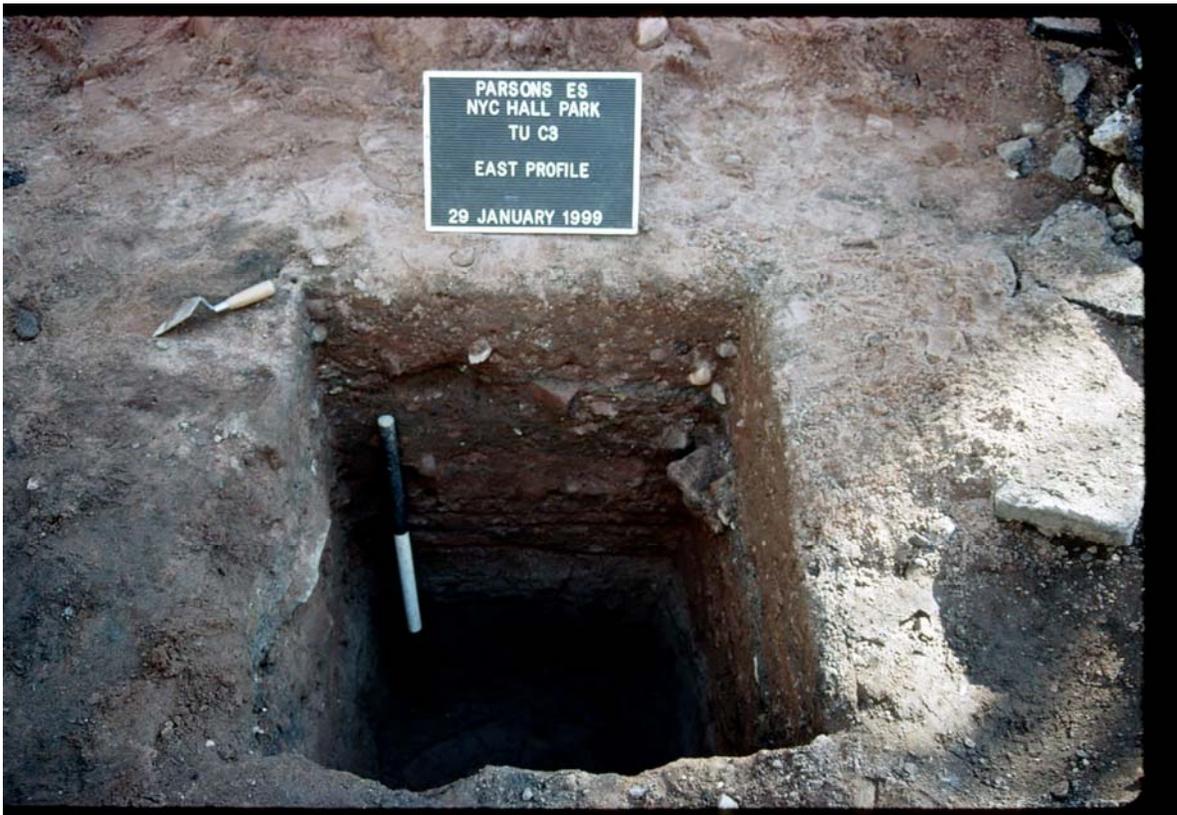
Test Unit C-2 was located at the southeast corner of Island #1, just south and east of Trench 2. The initial test unit measured 3x3 feet in plan and 4 feet in depth. However, LPC staff granted permission to extend the unit to a depth of 5 feet after archaeologists found a large, deep pit feature. Later, archaeologists expanded the test unit 1 foot to the west and 3 feet to the south, labeling this expansion Test Unit C-2A.

Soils in Test Unit C-2 consisted of a demolition fill layer dating to the late 19<sup>th</sup> or early 20<sup>th</sup> century (Stratum A), followed by a stratum of early 19<sup>th</sup>-century fill (Stratum B), in turn overlying nearly sterile subsoil (Stratum C). Archaeologists found a large pit feature

(Feature 11) underneath Stratum B and cut into Stratum C. The artifacts in this pit consisted mostly of domestic materials (such as ceramics, glass, bone and shell), with a lesser amount of architectural materials (like small brick fragments, nails, window glass, mortar and plaster). Included in the assemblage was an 1804 coin made in Java. The remainder of the artifacts are consistent with an early 19<sup>th</sup>-century deposit date.

### C-3

Test Unit C-3 was located adjacent to the fence foundation surrounding Island #2, near the southwest corner of Tweed Courthouse. The test unit measured 3x3 feet in plan and 3.5 feet in depth.



*Fig. 2-10 : Test Unit C3*

Soils in this test unit consisted of four strata of mid-19<sup>th</sup>-century fill (Strata A-D) with considerable amounts of building debris and architectural materials, such as nails, mortar, plaster, bricks, and window glass. These construction or demolition episodes probably date to the destruction of the Second Almshouse in the late 1850s and/or the construction

of Tweed Courthouse in the 1860s. Stratum E was mostly sterile subsoil or clean fill. A single feature (Feature 4) was cut into Stratum E, and was characterized as a straight-sided, flat-bottomed shallow cut. The artifacts in this feature date to the early 19<sup>th</sup> century.

#### C-4

Test Unit C-4 was located at the northwest corner of Island #3. The test unit measured 3x3 feet in plan and 3.5 feet in depth.



*Fig. 2-11 :Test Unit C4*

All of the soils in this test unit were disturbed from installation of two large utility pipes at the base of the unit, as well as an adjacent square, concrete manhole lined with wooden boards. The redeposited sandy fill dated to the 20<sup>th</sup> century.

#### C-5

Test Unit C-5 was located along the south side of Island #2. It measured 3x3 feet in plan and 3.5 feet in depth.

The majority of the soils in the test unit consisted of red sand fill dating to the mid-19<sup>th</sup> century. A single feature, designated Feature 3, consisted of a linear trench cut into the red sand and located along the north wall of the test unit. The limited artifacts in this feature dated to the early 19<sup>th</sup> century.

#### C-6

Test Unit C-6 was located near the northeast corner of Island #3. It measured 3x3 feet in plan and 3.5 feet in depth.

Like Test Unit C-5, the majority of the soil in this test unit consisted of red sand fill containing limited amounts of artifacts dating to the early- to mid-19<sup>th</sup> century. A pit feature cut into the sand fill in the southeast corner of the test unit (designated Feature 2), and dated to the mid-19<sup>th</sup> century.

#### C-7 through C-11

Archaeologists monitored excavation of all of these test units. No intact cultural deposits or features were found.

#### C-12

Test Unit C-12 was located along the east side of Island #3. Because construction personnel had already installed the adjacent concrete fence foundation and had removed the overlying pavement to a depth of 18 inches, archaeologists modified the size of the test unit to 3x1.5 feet in plan. They removed the soil to 3.5 feet below the newly-laid

concrete foundation (or 2 feet below the current grade). A live gas pipe ran immediately east of the test unit, further constricting the excavation area.

All of the soils within the test unit consisted of redeposited 19<sup>th</sup>- and 20<sup>th</sup>-century fill. Archaeologists did not retain any of the artifacts.

### C-13

Test Unit C-13 also was located along the east side of Island #3. The original location for this test unit was over a live utility line running east-west from City Hall. In consultation with personnel from Barney Skanska, archaeologists offset the test unit 1.5 feet to the north to avoid this pipeline. Like Test Unit C-12, archaeologists modified the size of the test unit to 3x1.5 feet in plan, because the concrete fence foundation had already been installed and the pavement surface had already been removed to a depth of 18 inches.

Soils in this test unit consisted of modern sandy fill (including pieces of asphalt and concrete) to a depth of 3.5 feet below the concrete curb in the north half of the unit, and overlying a 4-inch thick stratum of 19<sup>th</sup>-century rubble fill in the south half of the unit. No intact surfaces or features appeared in the unit, and archaeologists did not collect any of the artifacts.

**Impact:** Installation of flood light poles with deep bases

In addition to the three types of light poles discussed above, plans called for the installation of four flood light poles with deep bases within the northwest portion of the project area. These type “H” poles have a horizontal footprint of 2.5x2.5 feet and a vertical impact of 8 feet below the present ground surface. In order to comply with OSHA standards, archaeologists had to significantly expand the horizontal footprint of these poles to reach a vertical depth of 8 feet. The solution was to approach these impacts in two stages. First, archaeologists excavated a 8x8 foot test unit to a depth of 4 feet. If the test unit surrounded a pre-existing light pole base, the 4 foot depth was

enough to expose the concrete footing so that construction workers could then remove it without affecting the surrounding soil. Once the pre-existing pole base had been removed, archaeologists excavated a 4x4 foot test unit in the center of the larger 8x8 foot test unit, to a depth of 4 feet, making the total depth 8 feet.

### **Archaeological Response:**

The sensitivity report recommended manual excavation of all four “H” poles within the northwest portion of the project area. Poles H-1 and H-2 are located in proximity to the former 18<sup>th</sup>-century British Barracks and the outbuildings and activity areas associated with the First Almshouse. Poles H-5 and H-7 are located in an area formerly occupied by outbuildings and activity areas associated with the Bridewell.

### **Archaeological Findings:**

#### H-1

Test Unit H-1 was located at the southwest end of Island #5, and surrounded a pre-existing concrete light pole base. The test unit measured 8x8 feet in plan, to a depth of 4 feet, then measured 4x4 feet in plan and 4 feet in depth, for a total depth of 8 feet.

Soils in this test unit consisted of an overlying topsoil, dating to the 20<sup>th</sup> century; followed by a stratum of 19<sup>th</sup>-century silty loam fill. Beneath this fill stratum was a very large area (encompassing approximately three-quarters of the 8x8 foot test unit’s horizontal extent) characterized as a “cut and fill” episode. This area began at ca. 1.5 to 2.5 feet below the top of the test unit, extended to ca. 6 to 7.5 feet in total depth. The concrete light pole base had been installed within this area. Soils were a mixture of silty loam and silty clay, with redeposited artifacts dating to the early 19<sup>th</sup> century. Beneath this large disturbance was a naturally occurring stratum of sterile coarse red sand subsoil.

The function of this large “cut and fill” episode is unclear. While the boundaries of the disturbance were evident when viewed against the distinctive red sand subsoil, they were

not straight sided (as might be expected if the original cavity represented cellar or privy walls), nor did they contain any building materials (like remnants of wooden boards or nails) which would indicate a possible architectural function. In comparison to other refuse pits found on the site, the artifact count for this area was low, and the materials (particularly the ceramics) were very small and spalled, suggesting secondary rather than primary deposition.

## H-2

Test Unit H-2 was located at the southeast end of Island #4, and surrounded a pre-existing concrete light pole base. The test unit measured 8x8 feet in plan, to a depth of 4 feet, then measured 4x4 feet in plan and 4 feet in depth, for a total depth of 8 feet.

Soils in this test unit consisted of an overlying stratum of 20<sup>th</sup>-century topsoil, followed by several strata of 19<sup>th</sup>-century fill that had been impacted by installation of the concrete light pole base and associated iron pipes containing the electrical wiring. The lowest layer of 19<sup>th</sup>-century fill consisted of a coarse red sand, which in turn overlay a coarse red sand subsoil.

## H-5

Test Unit H-5 was located along the eastern side of Island #3. Since the new light pole location was slightly different than the pre-existing light pole location, this test unit did not surround a concrete base, like many of the other “H” poles. The test unit measured 8x8 feet in plan, to a depth of 4 feet, then measured 4x4 feet in plan and 2.5 feet in depth, for a total depth of 6.5 feet. Supervisors halted excavation of the 4x4 foot test unit before archaeologists reached the 4-foot impact depth because they had encountered sterile subsoil.

Much of the soil in this test unit consisted of redeposited pit, trench, and fill episodes. The overlying stratum was a 20<sup>th</sup>-century topsoil, which gave way to a 19<sup>th</sup>-century fill

stratum. Beneath this was a pipe trench along the east side of the test unit, and a pit disturbance in the center of the test unit. The pipe within the pipe trench lay at ca. 3.5 feet below the top of the test unit, and was embossed “SALAMANDER WORKS/NEW YORK.” The fill deposits overlay a subsoil of coarse red sand.

#### H-7

Test Unit H-7 was located along the eastern side of Island #3. Since the new light pole location was slightly different than the pre-existing light pole location, this test unit did not surround a concrete base, like many of the other “H” poles. Additionally, in the process of installing an adjacent pipeline some soils from this area had been mechanically removed with a backhoe prior to archaeological excavation. Since the upper 3-4 feet of soil in the new light pole location had already been removed, archaeologists excavated a 4x4 foot test unit rather than an 8x8 foot test unit. They excavated the 4x4 foot test unit to a depth of ca. 3 feet, or to the top of sterile subsoil.

Soils in Test Unit H-7 consisted of 19<sup>th</sup>- and 20<sup>th</sup>-century fill, interspersed with several small pits or animal burrows. The artifact yield for all strata was very sparse.

#### **Impact:** Installation of deep drain lines

As originally scoped, design plans called for removing an existing 12-inch diameter drain line and replacing it with a new drain line. The trench for the drain line was supposed to be 3-4 feet deep. However, once archaeological field work started, the drain line location shifted, so that construction personnel had to install a new drain line and trench, rather than reusing the footprint of the existing drain line and trench. In the northwest portion of the property, the new drain lines traversed Islands #1, 2 and 3 and the east-west pathways separating them. New catch basins were located at selected junctions, and are described in a separate section below.



staff concurred that archaeologists should excavate a series of 3x3 foot test units, spaced with their center points 10 feet apart for the length of the drain line alignment. The depth of these test units varied from 3 to 4 feet, depending on the subsurface vertical angle of the projected pipeline.

In total, supervisors laid out 49 3x3 foot test units within Islands #1, 2 and 3. They labeled these test units DL1-1, DL1-2, etc. (the “DL” stood for “drain line”). DL1-1 through DL1-32 ran from the south boundary of Island #3 to the north end of Island #1. DL1-33 through DL1-40 ran from the east boundary of Island #3 to the south boundary of Island #3. Of these test units, archaeologists excavated only DL1-35 and DL1-36, because the discovery of a large brick-domed cistern (Feature 40) within the footprint of projected catch basin CB-3 (see below) necessitated moving the catch basin location and associated drain line alignment further north to avoid impacting this resource. These two test units had already been completed when archaeologists first encountered the cistern, and so the results are included here. The remaining test units (DL1-41 through DL1-49) ran from the east boundary of Island #3 to the south boundary of Island #3, but beginning further north than the original alignment.

Despite assurances from personnel at Barney Skanska that the construction workers would only excavate the drain line trench to a depth of 3-4 feet (the depth of the test units), when it was time to install the pipe, backhoe operators covertly removed soil to a depth of between 4 and 8 feet, without permission of LPC or Barney Skanska. In the process, they impacted several significant, intact archaeological deposits, which are described below. Since all of these features were located within the ca. 3-foot wide trench, at depths over 4 feet deep, archaeologists could not safely enter the trench, but rather were forced to cull artifacts from the backdirt piles placed on the side of the trench by the backhoe.

### **Archaeological Findings:**

Throughout the majority of the DL1 test units, soils consisted of redeposited fill episodes. Few of the test units encountered intact deposits, mostly because the elevation of the islands had been raised by several feet during the 19<sup>th</sup> and 20<sup>th</sup> centuries. The original ground surface, where archaeologists found intact deposits during monitoring (and in a few cases, in test units), ranged from 3 to 6 feet below the present ground surface, and sloped downward from north to south. For instance, on Islands #1 and 2, in those test units where the original ground surface had not been disturbed by later cutting and filling episodes, archaeologists encountered the top of the distinctive coarse red sand subsoil at ca. 3 feet below the present ground surface. On Island #3, archaeologists excavated all of the test units to 3-4 feet below the current grade, but did not reach subsoil. Monitoring activities on this island revealed the original ground surface at ca. 6 feet below the current grade.

The fill within the DL1 test units can be broken down into several depositional events. Across the entire alignment, the upper stratum was a dark loamy topsoil deposited in the mid-to-late 20<sup>th</sup> century. Beneath the topsoil throughout most of the alignment was a dark yellowish brown silty loam fill, probably initially deposited during the 1870s when the park was relandscaped. Because this fill was also the exposed ground surface for a number of years following its deposition (and was subjected to additional earthmoving disturbances), the artifacts within it generally range from the 1870s through the early to mid-20<sup>th</sup> century.

On Island #3, the lowest layers of fill within the 3-4 foot projected impact zone appeared to post-date 1838, when the Bridewell was razed. Many of these test units contained strata of demolition debris, including stones, bricks, large quantities of mortar and plaster, and window glass, presumably emanating from the destruction of the Bridewell and its associated outbuildings. The other artifacts are consistent with a late 18<sup>th</sup> and early 19<sup>th</sup>-century occupation date, and a ca. 1838 deposition date.

Islands #1 and 2: late 20<sup>th</sup> century topsoil, 1870s fill, 1857 fill (destruction of second almshouse), 1820ish fill (destruction of buildings at nw corner of island)

### Features in test units

Several test units within the DL1 alignment deserve individual mention. In Test Units DL1-21 and DL1-32, archaeologists found cultural features that warranted expanding the excavation areas to pursue their extents. Test Unit DL1-21 (at the southern end of Island #2) contained a pit or cavity filled with cobbles, angular stones, brick fragments, mortar, animal bone, oyster and clam shells, and some ceramics labeled Feature 28. The top of the feature was ca. 2 feet below the current grade on the west, and ca. 3 feet below the current grade on the east. It extended to the base of the test unit, at ca. 4.5 feet below grade. Archaeologists halted excavation when the test unit became too deep to enter safely, but the feature continued below this depth.



*Fig. 2-13 :DL1-21 and 21A, Features 28, 34 and 35*

The feature encompassed the entire horizontal limit of DL1-21, so LPC staff gave archaeologists permission to open a second, contiguous test unit directly north of DL1-

21, which they labeled DL1-21A. The purpose of the second test unit was to determine the horizontal boundaries and function of Feature 28, if possible.

Excavation of Test Unit DL1-21A revealed that Feature 28 extended only an inch or so beyond the northern wall of Test Unit 21. At the northern edge of Feature 28, archaeologists recorded a linear trench, oriented east-west, labeled Feature 33. The function of the trench is unclear, but it appears to post-date Feature 28. Archaeologists also encountered two additional features in DL1-21A. Feature 34 was a probable post hole containing an upright wood plank or post and several brick fragments (perhaps used as support for the post). It was located in the northwest corner of DL1-21A. Feature 35 was another straight-sided cut or pit in the northeast corner of DL1-21A, although there was no wood support, like in Feature 34. It may represent a post hole in which the post was pulled before it was filled. Both Features 34 and 35 appear to post-date Feature 28, and were cut into coarse red sand subsoil. The only artifacts were architectural. Archival documents do not indicate any historic structures on this part of Island #2.

In Test Unit DL1-32, at the northern end of Island #1, archaeologists encountered a basin-shaped pit (labeled Feature 29) ca. 3 feet below the current ground surface. The top of the pit appears to have been disturbed from two utility pipes and their associated pipe trenches: a 6-inch diameter ceramic water pipe running northwest-southeast, and an earlier 2-inch diameter iron pipe running northeast-southwest, both located immediately above the feature. The feature encompassed the majority of Test Unit DL1-32, and appeared to extend into the south and west walls.

Based upon the large number of artifacts found in Feature 29, LPC staff granted permission to open a second, contiguous test unit immediately south of DL1-32, which archaeologists labeled DL1-32A. Unfortunately, Feature 29 did not appear in Test Unit DL1-32A; the pit ended at approximately the edge of the two test units. Moreover, Test Unit DL1-32A contained largely disturbed soils to the depth of the excavation.

Finally, archaeologists encountered a cobblestone surface (labeled Feature 37) in Test Units DL1-35 and DL1-36, at the south end of Island #3. The feature was composed of fist-sized and slightly larger quartzite cobbles, tightly laid with their flat sides facing up, to form a horizontal, flat surface. In both test units, Feature 37 appeared at ca. 3 feet below the current ground surface. Beneath the feature in Test Unit DL1-35, archaeologists found a stratum of densely packed coarse red sand fill and many brick fragments. Archaeologists excavated this stratum to a depth of ca. 4.5 feet before safety considerations required them to stop. The stratum continued to extend deeper into the test unit. The cobblestone surface is probably associated with landscaping activities surrounding City Hall during the 19<sup>th</sup> century. In the 1830's, flagstones were installed on the plaza and walk in front of City Hall.

#### Features found during monitoring

In addition to the features encountered in the test units, archaeologists found several deeply buried features when they monitored the final excavation of the drain line by the backhoe.

Feature 54, a shallow, basin-shaped refuse pit, was located at the northern end of Island #2. Archaeologists documented it at ca. 3 feet below the existing ground surface; it was 8 inches thick at its midpoint, and tapered to 1 inch thick at its north and south ends. The feature was approximately 4 feet long. The soil was a 10 YR 3/2 silty clay loam, with ash, charcoal, artifacts, and faunal materials. Based upon the range of artifacts in the assemblage, the feature appears to have been deposited in the early 19<sup>th</sup> century.

Feature 60 was a second shallow, basin-shaped refuse pit, found at the southern edge of Island #2. This feature lay almost directly under a concentration of cultural materials recorded as Trench 4, Unit 1 during the previous installation of the curbs, bollard and chain fencing foundations at the same location. However, while archaeologists found the Trench 4, Unit 1 materials within the 18-inch construction impact zone, Feature 60 appeared at ca. 4 feet below the current ground surface. It measured 4 feet north-south, 3

feet east-west, and 6 inches thick. The feature soils were a 10 YR 3/2 silty clay loam. Only 13 artifacts were found (described below, page 236).

By far the largest pit feature found within the DL1 alignment was Feature 58, a basin-shaped midden containing kitchen-related artifacts, including heavy concentrations of animal bones. The feature was located ca. 20 feet south of the northern edge of Island #3. Archaeologists observed the feature from ca. 6 to 8.5 feet below the current ground surface, although the bottom of the feature was not visible. The feature measured ca. 20 feet long north-south. The soil was a dark brown sandy loam, similar in color and texture to the topsoil found throughout the site. Archaeologists screened and collected artifacts from three backhoe buckets of backdirt from the feature that had been deposited on the side of the deep trench.

The southernmost feature within the DL1 alignment was Feature 61, a stone foundation pier and associated demolition debris from the Bridewell, located in the approximate middle of Island #3. The northern end of Feature 61 consisted of a 3x3 foot square stone pier, probably representing part of the Bridewell's north foundation wall. Archaeologists documented a thick lens of brick rubble and plaster extending ca. 20 feet to the south of this pier, which appeared to represent architectural debris from the building's foundation and superstructure that was backfilled into the Bridewell's basement cavity when the building was razed in 1838. Archaeologists saved a sample of the building material, including the gray stone and mortar used for the exterior walls of the Bridewell.

**Impact:** \*Installation of catch basins

In association with the new drain lines, construction personnel installed new catch basins at certain pipeline junctions throughout the park, and reused existing catch basins locations elsewhere. The size of the new catch basins varied slightly, ranging from 4x4 feet in plan and 4 feet in depth to 6x6 feet in plan and 6 feet in depth.

**Archaeological Response:**

In those locations where construction personnel needed to install new catch basins, archaeologists excavated test units (labeled CB-1, CB-2, etc.), sized depending on the measurements of the basin itself. Where construction personnel reused existing catch basin locations, archaeologists monitored the excavations.

The new catch basin locations were under the new curblines of Island #3. CB-1 measured 4x4 feet in plan and 2.5 feet in depth, and was on the northeast side of the island. CB-2 measured 6x6 feet in plan and 6 feet in depth, and was on the south side of the island. CB-3 measured 5x5 feet in plan and 4 feet in depth, and was on the southeast side of the island. CB-4 measured 4x5 feet in plan and 4 feet in depth, and was ca. 25 feet north of CB-3, along the east side of the island.

Archaeologists monitored two existing catch basin locations on the southwest side of Tweed Courthouse and the north side of Island #4.

### **Archaeological Findings:**

#### CB-1

The soils within CB-1 consisted of redeposited 20<sup>th</sup>-century fill over coarse red sand subsoil. Archaeologists excavated the test unit to a depth of 2.5 feet below the newly poured curb, and halted the excavation once they reached subsoil. No intact deposits or cultural features appeared in this test unit.

#### CB-2

In CB-2, soils consisted of redeposited 20<sup>th</sup>- and 19<sup>th</sup>-century fill sequences over coarse red sand subsoil. An iron pipe with a right-angle bend was located in the west half of the test unit, and probably carried gas when it was in use. Archaeologists documented several cultural features (Features 38, 39, 41 and 43) which appear to be post holes and

other related disturbances related to the former iron fencing along the south side of the island. This is probably mid-19<sup>th</sup> century in date.

### CB-3

Archaeologists excavated Test Unit CB-3 to a depth of ca. 33 inches below the top of the newly poured curb, at which point they uncovered the top of a brick domed cistern, labeled Feature 40. The cistern encompassed the northeast portion of the test unit. The dome had been breached in the northeast corner of the test unit from an iron utility pipe running north-south immediately east of the test unit. Archaeologists cleaned off the top of the cistern, revealing a brick seat (or rim wall) surrounding the dome. The bricks were held together with a dense mortar or cement. Extrapolating from the curve of the seat's arc, the cistern appears to measure ca. 12.8 feet in diameter.

According to archival records, this cistern probably was built in 1811, in order to provide a source of water to fight fires. As described above, in that year, the Common Council decreed "...that two reservoirs of stone sufficient to contain two hundred hogsheads each be built and placed at or near each wing of the New City Hall and to be supplied from the roof thereon: and that the water be used for no other purpose than the extinguishment of fires" (Stokes 1967:1534). The cisterns appear to have been filled manually by the Manhattan Company, rather than by rain water collected off a rooftop (Hunter 1994:2-207-208). These two cisterns, as well as two additional cisterns, are shown on a 1834 map (Wenman 1834). Archival records do not indicate when the cisterns were abandoned or backfilled, but it is likely this occurred after city-supplied piped water became available in the 1840s.

Knowing that the diameter of the cistern is 12.8 feet, and that it was built to hold 200 hogsheads of water (a hogshead is 63 gallons), then the depth of the cistern should be about 13 feet, based upon the formula for determining the volume of a cylinder.

In consultation with LPC staff, personnel from Barney Skanska decided to move the catch basin and associated drain line further north, to avoid impacting the cistern. After

drawing and photographing the feature, archaeologists abandoned the test unit and construction workers backfilled the area.

#### CB-4

In Test Unit CB-4, archaeologists encountered redeposited 19<sup>th</sup>-century fill overlying coarse red sand subsoil. Along the north wall of the test unit, they uncovered an east-west trending brick runner, labeled Feature 66, which had been cut into the subsoil. The top of the feature appeared at ca. 3 feet below the newly poured concrete curb. The runner was 4 bricks high, and was held together with mortar. The sloppiness of the mortar application, at least on the south side in the test unit, suggests that this portion would not have been visible when the feature was in use, and probably was a below-ground component of the resource. A narrow builder's trench bordered the runner on the south, but did not contain any artifacts. Because the feature extended into the north wall of the test unit, archaeologists could not determine how wide the feature was. The runner had been impacted at a later date by a north-south running iron utility pipe (the same pipe found in CB-3, to the south).

Hunter (1994) indicates an east-west running linear resource (unnumbered on their maps), 20 feet wide, stretching from the approximate center of City Hall's western wall to the fence at Broadway. It appears that this resource is a pathway. Archaeologists found Feature 66 at the location of the former "pathway's" southern edge. Thus, it is likely that the brick runner was a foundation for a paved surface, above.

#### Existing catch basins

Archaeologists monitored excavation for the two remaining catch basins (located at the southwest corner of Tweed Courthouse and along the north side Island #4). Both of these catch basins had been installed previously, and construction personnel refitted them for present use. No intact deposits or cultural features were found at either location.

**Impact:** \*Connection of deep drain line to Chambers Street main line

The final step in creating the new deep drain lines for the park was to connect the north-south alignment traversing Islands #1, 2, and 3 with a trunk line underneath Chambers Street. This last segment of pipeline ran from the north end of Island #1 under the Chambers Street sidewalk and into Chambers Street itself, to meet the existing main line running east-west under the street.

**Archaeological Response:**

In consultation with LPC staff, it was agreed that archaeologists should monitor the pipe trench excavation.

**Archaeological Findings:**

Monitoring of excavated soil in the pipe trench indicated redeposited fill with sporadic 19<sup>th</sup> and 20<sup>th</sup> century artifacts. No intact archaeological deposits or human remains were encountered.

**Impact:** Installation of security measures

Design plans specified construction of a pneumatic bollard and an associated subsurface compressor box at the Chambers Street entrance to the park, just west of Tweed Courthouse, and a manual bollard at the Broadway entrance to the park, opposite Warren Street.

**Archaeological Response:**

At the Chambers Street entrance to the park, the sensitivity report recommended complete manual excavation of the pneumatic bollard footprint, due to a high likelihood of recovering human remains there. As originally scoped, the associated compressor box was to be installed in an area known to be previously disturbed. However, plans changed after field work had already begun, and Barney Skanska personnel selected a new

location for the box on ground equally likely to contain human burials. Therefore, archaeologists manually excavated this area as well.

The Chambers Street pneumatic bollard footprint, designated “PB1,” measured 34 feet east-west by 7 to 7.5 feet north-south. Since this area was too large to excavate as one test unit, archaeologists divided the footprint into 16 individual test units, numbered PB1-1, PB1-2, etc., in order of excavation. The test units measured either 5x4 feet in plan and 4 feet in depth or 4x3.5 feet in plan and 3.5 feet in depth, depending on the configuration of the bollard impact. All unit depths were taken from the current Chambers Street sidewalk grade. Figure 2-1 illustrates the layout of the test units and their nomenclature.

The compressor box test unit, designated CMP-1, measured 5x5 feet in plan and 5 feet in depth. It was located at the extreme northeast corner of Island #1.

Since the manual bollard excavation at the Broadway entrance to the park was in an area that had been obviously disturbed from prior utility work, archaeologists monitored excavation by the backhoe in this location.

### **Archaeological Findings:**

#### Chambers Street Pneumatic Bollard (PB1)

As described above, archaeologists laid out 16 test units within the PB1 footprint. Eight test units lay north of the Chambers Street sidewalk and 8 units lay south of the sidewalk. The centerline of the pathway west of Tweed Courthouse served as the east-west dividing line for the impact area: 8 test units were east of the centerline and 8 units were west of the center line. Of note, the 16<sup>th</sup> test unit (located at the extreme southeast corner of the bollard footprint) was not manually excavated because it was located under a curblin which could not be removed without also dismantling a chain link fence surrounding Tweed Courthouse. When construction workers installed the bollard, they removed the curblin and archaeologists monitored excavation of this last test unit.



*Fig. 2-14 :PB1-1*

Those test units west of the pathway centerline contained redeposited 19<sup>th</sup>- and 20<sup>th</sup>-century fill sequences over coarse red sand subsoil. They revealed no intact archaeological deposits, nor any cultural features, including human remains. The soil profile generally consisted of disturbed gravelly soils associated with the overlying asphalt surface (dating to the 20<sup>th</sup> century), which in turn overlay redeposited red sand fill, containing very limited numbers of 19<sup>th</sup>- and 20<sup>th</sup>-century artifacts. Beneath the red sand fill was coarse red sand subsoil.

All of the cultural features found within the bollard footprint occurred within the eastern half of the impact area. They are described below, in order of appearance in the stratigraphic profile.

Feature 25 was a large pit containing asphalt and other modern debris. It occurred within the south third of Test Units PB1-13 and PB1-14. Archaeologists encountered the pit at 10 inches below the sidewalk grade, and it extended to 52 inches below grade.



*Fig. 2-15 : PB1-4, Feature 17*

Feature 17 was a brick runner or wall, and associated rubble debris, oriented east-west within Test Units PB1-4, PB1-6, and PB1-9. The top of the wall appeared at 20 inches below grade, and it extended to 30 inches below grade. Where it was intact, in PB1-4 and the west portion of PB1-6, the feature was three courses of bricks in depth, held together with mortar. In the north profile of PB1-4, the wall (or perhaps a second, adjacent wall) appeared to extend north, beyond the limits of the test unit, at a right angle

to the east-west alignment.



*Fig.2-16 : PB1-6, Features 17 and 22.*

Feature 17 also included large quantities of crushed stone and mortar, particularly to the south and east of the brick runner or wall. Archaeologists gave the southern section of this crushed stone and mortar concentration a separate feature designation (Feature 22). In PB1-4, there was a dark stain under Feature 17 in the northwest corner of the test unit, extending from 31 to 34 inches below grade. This discrete area was included with Feature 17.



*Fig. 2-17 : PB1-4, Feature 17 from above*

Feature 18 was a square-shaped patch of darker coarse sand fill, found at 21-33 inches below grade. It occurred in the southeast corner of PB1-4, the southwest corner of PB1-6, and very minimally in the northeast corner of PB1-13. The function of this feature is unclear.

Two 1-inch diameter lead pipes and associated pipe trenches occurred within the bollard footprint. Feature 24 was an east-west running pipe and pipe trench found under Feature 17 in Test Units PB1-4, PB1-6, and PB1-9. Feature 27 ran north-south, and was found only in Test Unit PB1-14. Both pipes appeared at roughly the same depth below grade (ca. 27-30 inches).

Last, Feature 20 consisted of a linear-shaped trench containing a deteriorated piece of lumbered wood with four copper or brass nails attached to one end. Archaeologists found this feature in Test Units PB1-1 and PB1-4, oriented east-west at 40-54 inches below the sidewalk grade. The wood board appeared at 48 inches below grade.

### Chambers Street Compressor Box (CMP-1)

Soils within the 5x5 foot compressor box test unit consisted of redeposited fill over coarse red sand subsoil. The upper stratum was 20<sup>th</sup>-century topsoil, and overlay a stratum of mid to late 19<sup>th</sup>-century fill, which in turn overlay two strata of early 19<sup>th</sup>-century fill. The test unit contained three features: two pits (Features 15 and 16, both dating to the early 19<sup>th</sup> century), and a possible post hole (Feature 19), which was sterile. Archaeologists identified the two pits (Feature 15 in the southeast corner and Feature 16 in the northeast corner) at 22 inches below the present grade, and the possible post hole (which measured ca. 6 inches square) at 30 inches below the present grade.

### Broadway Manual Bollard

Archaeological monitoring of the manual bollard along Broadway confirmed that the area had been disturbed, to the depth of the impact zone, from previous construction of the subway and various utility lines. No cultural features or intact archaeological deposits were found at this location.

### Summary

The northwest section of the park had large amounts of fill, particularly within islands where soils had been bermed up. Most of the intact deposits were buried deep, and were not reached by test units. As one moved west toward Broadway the fill depth increased. On the Chambers Street side the fill is lower. Here intact deposits survived in places where disturbance from the sidewalk and curbstones did not impact them.

### **Chapter 3 Northeast**

**Impact:** Removal of sidewalks and pavement surfaces and installation of concrete foundation for sidewalks and pavement areas

The scope of work called for a backhoe to remove the existing sidewalks and pavement areas, and construction workers to install a concrete subgrade surface in all areas to be covered by bluestone pavement. The depth of the total impact was 18 inches below the current ground surface.

**Archaeological Response:**

Planning personnel suspected that beneath the current asphalt and concrete pavement (estimated to be slightly over 1 foot in thickness), certain areas of the property could contain shallowly buried, significant cultural resources, including human remains. Archaeologists identified certain portions of the walkways, designated Areas G-J, as locations of heightened archaeological sensitivity, based upon previous cultural resources studies and projected former locations of historic structures on the property using archival documents. The sensitivity study recommended that archaeologists manually excavate soils in Areas G-I between the bottom of the current pavement and the depth of the new subgrade surface, a total of approximately 4-5 inches. All other pavement locations were to be monitored. Figure x illustrates the location of the four areas slated for manual excavation.

The following is a synopsis of the archaeological resources predicted to exist within the six areas, the field conditions encountered in the areas, and the results of the investigations.

**Area G**, located between Tweed Courthouse and Island #8, had a high probability to contain either primary or secondary interment human remains.

Due to revisions in the project contract, the pathway east of Tweed Courthouse, including Area G, was omitted from the current investigation after field work had already begun, although construction personnel did remove the existing pathway surface to install subsurface utility lines, and to install a pneumatic bollard at the Chambers Street entrance. The results of these investigations are presented below.

**Area H**, located south of Area G within the pathway east of Tweed Courthouse, had a high probability to contain deposits and/or features associated with the Second Almshouse. However, this area also was omitted from the present construction contract after the field work had begun. Results of utility line installation in this area also are presented below.

**Area I** is located between Islands #8 and 12, and along Chambers Street. It was the location of the 18<sup>th</sup>-century Upper Barracks, the Second Barracks, and the 19<sup>th</sup>-century Soup Kitchen, Dispensary, Rotunda, and Firehouses. Because adjacent curblines excavations for both islands had revealed redeposited fill down to the 18-inch impact depth, LPC staff concurred that archaeologists should monitor the pavement removal rather than manually excavate soils in this area.

**Area J** is located between Island #11 and a new island to be created along Park Row. It was the location of the 18<sup>th</sup>-century New Gaol, which later became the 19<sup>th</sup>-century Hall of Records, and was demolished in 1903. Like Area I, by the time pavement removal occurred in this area, construction workers had already excavated adjacent curblines to the 18-inch impact depth, revealing redeposited fill sequences. Therefore, LPC staff agreed to have archaeologists monitor rather than manually excavate this area.

**Remaining pavement and sidewalk areas:** The archaeological sensitivity report recommended monitoring all other areas that required removal of current paving and installation of an 18-inch deep subgrade surface.

#### **Archaeological Findings:**

No human remains, architectural or occupational features were found within any of the four areas specifically designated for archaeological excavation or testing. However, an architectural feature was revealed within a portion of the pavement areas not assigned a high archaeological sensitivity. In the portion of the walkway on the east side of City

Hall, removal of pavement revealed a brick-domed cistern with a cut stone “box” for a pumping mechanism. They labeled the cistern Feature 120.

F120 Cistern (*Editor’s note – there is no discussion by PES.*)

burials north of triangle (*Editor’s note – there is no discussion by PES.*)

**Impact:** \*Installation of subsurface utility lines and electrical boxes within pathways

Within the majority of the park’s interior pathways, plans called for the excavation of subsurface utility trenches for plumbing and electrical pipes, as well as ca. 3x3 foot square holes for the placement of concrete electrical boxes where the lines merged. The impact depths varied according to the type of utility being installed, but generally ranged from ca. 1 foot to ca. 3 feet below the current grade. The deepest sections were those where the electrical boxes lay, and the shallowest areas were where the electrical lines traversed.

**Archaeological Response:**

Because planning personnel added these impacts after the archaeological field work had already begun, and because by the time installation of these lines started, much of the adjacent curb areas had already been excavated, revealing mostly redeposited fill or sterile sand throughout the area, LPC staff concurred that archaeologists should monitor these trenches, rather than implement a program of manual excavation or systematically placed STPs.

**Archaeological Findings:**

F102 brick and stone walls and floors (Second Almshouse?) (*Editor’s note – there is no discussion by PES.*)

F103 (secondary burial) (*Editor’s note – there is no discussion by PES.*)

F105 (primary burial) (*Editor's note – there is no discussion by PES.*)

F106 (secondary burial) (*Editor's note – there is no discussion by PES.*)

Other burials near triangle (*Editor's note – there is no discussion by PES.*)

**Impact:** Removal of concrete curbstones surrounding islands (stone curbs) and installation of fence foundations and perforated perimeter drain line

Design plans specified construction of new fencing and a drain line surrounding the exterior of Islands #8, 10, 11, and 13. In order to install the new fencing and drain lines, concrete foundations needed to be poured in continuous stretches, much like sidewalks. These foundations and their associated gravel bedding had a total impact depth of 18 inches below the current grade. Trenches for the foundations measured approximately 5 feet wide.

In order to pour the concrete foundations, construction personnel first had to remove the existing wrought iron fencing and fence posts, and stone curbs surrounding the islands. The first step was to dismantle the above-ground fencing, using a skill saw. Once this was completed, the backhoe simultaneously removed the existing stone curbs, the subsurface iron fence posts, and excavated the trench for the new fence foundations. Depending on the location, this occurred either after the archaeologists had completed their excavations, or during archaeological monitoring.

**Archaeological Response:**

The sensitivity report originally recommended that the north and east sides of Island #8 be manually excavated by archaeologists, since there was a likelihood that primary or secondary human remains could exist there. However, once field work began, LPC staff concurred that previous disturbances from a utility tunnel and the City Courthouse (1852-1928) had probably compromised the integrity of any surviving archaeological deposits

along these curb lines. Since it was unclear to what extent these construction activities had disturbed the original deposits, LPC and Parsons ES downscaled the archaeological response to a series of STPs at 10-foot intervals along the perimeter of island to sample the stratigraphic profile down to the impact depth of 18 inches. These test units, labeled TU 34 through TU 52, measured 2x2 feet square, and were excavated 18 inches below the current sidewalk grade.

Along the east side of Islands #11 and 13, the sensitivity report recommended archaeological monitoring.

### **Archaeological Findings:**

#### Tus 34-52, North and East sides of Island #8

With the exception of Test Unit 36, described below, all of the test units located along the north and east sides of Island #8 contained redeposited fill sequences within the 18-inch impact depth. The top stratum in every test unit was the same very dark loamy topsoil found all over the property, deposited in the mid-to-late 20<sup>th</sup> century. The lower strata consisted of either 19<sup>th</sup>- or 20<sup>th</sup>-century redeposited fill, some with demolition debris, presumably associated with the destruction of the City Courthouse in 1928. Archaeologists found no intact deposits, nor any cultural features (including human burials) in these test units.

Test Unit 36 contained somewhat different deposits from the remainder of the Test Units surrounding Island #8. The lowest stratum within the 18-inch impact zone contained large fragments of mid-19<sup>th</sup> century ceramics, including blue, brown, and black printed whiteware and undecorated ironstone, as well as large portions of glass bottles. The size of the ceramics and the glass suggested that this deposit could be part of an intact feature rather than redeposited fill. LPC staff gave archaeologists permission to open additional, contiguous test units to the east and west of Test Unit 36 (in 2-foot blocks), until they reached the edge of the cultural deposit.



*Fig.2-18 : TU36A*

Archaeologists excavated two additional test units on the east side of Test Unit 36, and three additional test units on the west side of Test Unit 36. They labeled them TU 36A, TU 36B, etc., in order of excavation. The stratigraphic profile for this block of test units indicated that the modern topsoil overlay several strata of 20<sup>th</sup>-century demolition fill, probably from the destruction of the City Court House in 1928. The lowest stratum contained the 19<sup>th</sup>-century ceramics, glass bottle fragments, and other domestic materials, as well as brick fragments, some sewer pipe pieces, and several building stones. Surprisingly, the deposit also contained moderate amounts of 20<sup>th</sup>-century materials such as machine-made bottle glass and wire nails, and late 19<sup>th</sup>- or early 20<sup>th</sup>-century materials such as solarized glass and decalcomania-decorated ceramics. The soil matrix was a 10YR 5/8 yellowish brown very compact sandy loam.

The presence of the 20<sup>th</sup>-century artifacts within a predominantly mid-19<sup>th</sup> century assemblage poses some interpretive problems. It is possible that this stratum represents a mid-19<sup>th</sup> century deposit that was first capped by the City Court House and later partially impacted when the building was razed in 1928. Alternately, while less likely, it is possible that all of the materials were deposited after 1928, and the mid-19<sup>th</sup> century assemblage is actually in secondary deposition.

Although Test Units 35 and 37 did not contain this deposit (and artifact counts were lower at the far eastern and western ends of the deposit, suggesting it was tapering off), archaeologists did not find the exact edges of the deposit, particularly on the south side where they did not excavate further. Thus, the function of this deposit is still unknown. Unlike other refuse pits found on the site, the soil in this deposit was not particularly organic (which would suggest a midden), nor did it appear to be redeposited subsoil (as was the case in several other pit features). Rather, the compactness of the soil, combined with its color and texture, lends credence to the idea that it may represent another fill episode, albeit one with large, fairly intact artifacts.

#### Monitoring, East side of Island #8

Archaeologists recorded a series of overlapping refuse pits (designated Feature 84) and the curved stone foundation wall of the Rotunda (labeled Feature 89) within the excavation trench for the curb and fence along the east side of Island #8. The features were found in close proximity to one another, but separated by a deposit of sandy soil.



*Fig.2-19 : Feature 88 in course of excavation*

The top of Feature 84 appeared at ca. 15 inches below the current asphalt pathway grade. Archaeological monitors observed a concentration of artifacts within the trench, and halted the backhoe excavation until the area could be examined. Shovel skimming revealed a refuse pit measuring ca. 9 feet long north-south and up to 4 feet wide east-west. The pit extended beyond the west boundary of the trench. As excavators removed the upper extent of the pit, it became clear that Feature 84 represented several intersecting pits. Archaeologists gave each discrete pit a unique provenience designation within the Feature 84 nomenclature, and excavated them separately. The pits extended to ca. 4 feet below the asphalt grade.

At 25 inches below the asphalt grade on the north, and 31 inches below the asphalt grade on the south, archaeologists uncovered the top of Feature 89, the curved Rotunda foundation wall. The wall measured ca. 20 inches in width, and was composed of large

mortared stones, with smaller stones filling some of the cavities. The interior of the foundation wall had been backfilled with soil and rubble, presumably when the building was razed in 1870. Along the exterior of the wall, archaeologists documented a v-shaped cut, filled predominantly with cobbles, but also including flat, angular stones and brick fragments. It may represent a drainage feature installed to draw water away from the subsurface foundation wall.

#### Monitoring, East side of Island #11

Archaeologists also documented three refuse pits during backhoe monitoring along the east side of Island #11, labeled Features 90, 91, and 92.

Feature 90 was a shallow basin-shaped pit measuring ca. 3.5 feet north-south, ca. 1.5 feet east-west, and ca. 6 inches deep. The feature was surrounded by a thin sheet midden, ca. 0.5-1.5 inch thick, which covered the trench floor here at the 18-inch impact depth. A 2-inch iron utility pipe impacted the feature on its west side. Archaeologists excavated the entirety of the feature.

Features 91 and 92 were located in close proximity to one another. Both were found at ca. 17 inches below the current asphalt pathway grade. They were separated by an area of sandy fill, discovered upon excavation to be a large redeposited pit for an iron fence post. In order to better document the features, archaeological supervisors superimposed test units over the horizontal limits of the features. The test unit for Feature 91 measured 50 x 56 inches in plan and the test unit for Feature 92 measured 3x3 feet in plan. Both pits were amorphous in shape when first identified, and changed shape as they got deeper.

Feature 91 was the larger and deeper of the two features. Archaeologists excavated the pit to ca. 4 feet below the current asphalt pathway grade, but could not reach the bottom. As the pit became deeper, the dimensions increased, so that when the excavations ceased,

the pit encompassed most of the test unit's south end (the area covered by the fence post pit above).

Archaeologists excavated Feature 92 to a depth of ca. 2 feet below the current asphalt pathway grade. At the base of excavation, the feature included only the northwest end of the test unit.

It appears that Features 91 and 92 are the same pit, but separated by the iron fence post pit disturbance.

**Impact:** Removal of concrete curbstones surrounding islands (stone curbs) and installation of curbs, bollard and chain fencing foundations

Design plans specified construction of new fencing surrounding the interior of Islands #8, 9 and 10 (merging these three islands into one larger island), the interior of Islands #11 and 13, the entirety of Islands #6, 7, and 9, and the east and south sides of Tweed Courthouse. In addition, two new islands were to be created, one south of Island #10 and one east of Island #11. During the course of the field work, personnel from Barney Skanska removed the portions bordering Tweed Courthouse from the scope of work.

Since these fences were similar in design to those surrounding the exterior parts of the islands, concrete foundations needed to be poured in continuous stretches here as well. Like the foundations for the exterior fencing, these foundations and their associated gravel bedding had a total impact depth of 18 inches below the current grade. Foundation trenches measured approximately 5 feet wide.

The same construction methodology applied to these fence foundations as to the exterior fences. Construction personnel first removed the existing wrought iron fencing and fence posts, and stone curbs surrounding the islands, dismantling the above-ground fencing using a skill saw. Then, the backhoe simultaneously removed the existing stone curbs, the subsurface iron fence posts, and excavated the trench for the new fence foundations.

Depending on the location, this occurred either after the archaeologists had completed their excavations, or during archaeological monitoring.

### **Archaeological Response:**

With the exception of the east side of Tweed Courthouse and the west side of Island #7, which were slated for complete manual excavation by archaeologists, the sensitivity report recommended monitoring the remainder of the curblines excavations surrounding the islands. As described above, after field work began, personnel from Barney Skanska removed the portions of the curblines surrounding Tweed Courthouse from the scope of work. Additionally, potential utility disturbances along the west side of Island #7 prompted LPC staff to downgrade the manual excavation here to systematic sampling, using STPs measuring 2x2 feet square and spaced 10 feet apart. Archaeologists labeled these test units Tus 61-72.

### **Archaeological Findings:**

#### Tus 61-72

As suspected, Test Units 61-72, located along the west sides of Islands #8 and 9, contained redeposited fill sequences within the 18-inch impact depth. The top stratum in every test unit was the same very dark loamy topsoil found all over the property, deposited in the mid-to-late 20<sup>th</sup> century. The lower strata consisted of either 19<sup>th</sup>- or 20<sup>th</sup>-century redeposited fill. Archaeologists found no intact deposits, nor any cultural features (including human burials) in these test units.

#### Monitoring, Island 9

Although test units along the west side of Island #9 failed to reveal any intact cultural deposits or features, when the backhoe excavated the complete trench for the curbstone installation, several features appeared that the test units had not impacted. Archaeologists identified concentrations of human remains at four locations along the periphery of the

island, and later recovered disarticulated human remains in fill strata elsewhere within the trench footprint. For ease of recordation, they divided the curbline area into three individual “trenches.” Trench A was located on the west side of the island, Trench B was located on the south side of the island, and Trench C was located on the southeast side of the island. Once the backhoe excavation had ceased, archaeologists manually excavated the remainder of the soils from the curbline trenches. They screened the soil from these areas and collected the human remains found randomly deposited throughout the trench. When distinct concentrations of human remains appeared, archaeologists assigned them feature numbers, and excavated them separately. These features are described below.

#### Trench A, Feature 53

Along the west side of Island #9, archaeologists identified a cache of human remains, in obvious secondary deposition. The concentration, designated Feature 53, was found in the east wall and floor of the trench, and extended east into the island itself.



*Fig.2-20 : Feature 53*

Trench B, Feature 68

On the south side of Island #9, a second cache of human remains appeared along the north side of the trench bordering the island. Archaeologists labeled this concentration Feature 68.

Trench C, Feature 67, Feature 77

Within the curbline trench itself, archaeologists identified two concentrations of secondary interment human remains, labeled Features 67 and 77.



*Fig. 2-21 : Feature 67*

Monitoring, Island 11

F55 (large midden/pit) (*Editor's note – there is no discussion by PES.*)

F56 (*Editor's note – there is no discussion by PES.*)

Monitoring, Island 6

On the south side of Island #6, just west of Test Unit H-3 (described below), archaeologists uncovered a 7.5 foot diameter stone and brick-lined cylindrical shaft,

capped with four cut stone rim pieces (Feature 51). The bottom of the shaft curved, towards City Hall to the south. The function of this shaft or tunnel is unknown, although the cut stones on the top are similar to those used to build City Hall, and the feature may have been built at approximately the same time. There was no soil in the shaft, and archaeologists did not collect any artifacts associated with the feature.

### Monitoring, Island 7

Along the southern side of Island #7, just south of Test Unit H-4 (described below), archaeological monitors discovered a brick-lined drainage feature, oriented north-south, at ca. 1.4 inches below the current asphalt pathway grade. They labeled this drain line Feature 46. The feature was covered by tabular cut stones, also oriented north-south, which the backhoe impacted during excavation. Since Test Unit H-4 was to be located immediately north of this feature, the drain line was cursorily documented at this time, with the expectation that it would be further exposed once the test unit was excavated. Additional description of Feature 46 is provided below, under Test Unit H-4.

### **Impact:** Installation of light poles

Design specifications called for the placement of three types of light poles within the northeast portion of the property, each having an impact depth of approximately 4 feet. Five “A” type poles, measuring 2x2 feet in plan and 4 feet in depth, were to be installed along the Park Row sidewalk. Six “B” type light poles were to be restored in place, requiring additional excavation totaling up to 3x3 feet in plan and 4 feet in depth. Last, eight “C” type light poles, measuring 20x20 inches in plan and 3 feet, 6 inches in depth were to be placed adjacent to the new fence foundations surrounding the islands.

After the field work had already begun, personnel from Barney Skanska removed the light poles located within the walkways bordering Tweed Courthouse from the scope of work.

**Archaeological Response:**

All of the “A” type light poles, located within the Park Row sidewalk, were believed disturbed from subway construction. The sensitivity report recommended archaeological monitoring for these locations.

At the time that the first design plans became available, archaeologists presumed that the “B” type light poles would be removed from their current locations, restored, and then reinstalled. Hence, the sensitivity report recommended archaeologists excavate test units adjacent to the light poles so that they could be removed and/or reinstalled in the same location without damaging the surrounding soils. However, as plans became more precise, it became clear that the “B” type light poles were not to be removed from their present locations. Rather, the electrical wiring would be adjusted at their junctures with the lamps. For this reason, LPC staff concurred that archaeologists should monitor soil removal around the lamp posts rather than excavate additional test units at these locations.

Since the “C” type light pole bases needed to be excavated to 3 feet, 6 inches in depth, the sensitivity report recommended placing 3x3 foot square test units at each “C” pole location (excavating the actual footprint of 20x20 inches would be too confining at that depth). Where the pavement on the northeast side of the park already had been removed to a depth of 18 inches, and/or where the new fence foundations had already been installed before commencement of “C” pole excavation, archaeologists modified the test unit size accordingly, when necessary. As it turned out, because archaeologists were monitoring adjacent areas to the “C Pole” locations, LPC staff gave them permission to monitor excavation of these test units as well. Only if construction workers encountered potentially intact deposits did archaeologists switch to manual excavation. For example, when a concentration of artifacts appeared in the footprint for C-20, archaeologists implemented a test unit, measuring 3x1.5 feet in plan and 2 feet in depth. Those test units surrounding the remaining islands were monitored rather than manually excavated, since the adjacent areas also were being monitored at the same time.

## **Archaeological Findings:**

“A” poles (*Editor’s note – there is no discussion by PES.*)

“B” poles

Archaeological monitoring of soil excavation surrounding all of the “B” light poles revealed no intact cultural deposits and no features, including human remains, at any location.

“C” poles

With the exception of Test Unit C-20, described below, archaeologists monitored all of the “C Pole” locations within the northeast section of the property. They found no intact cultural deposits and no features, including human remains, at any location.

Test Unit C-20 was located along the southeast curblineline of Island #11. As archaeologists were monitoring mechanical excavation of this light pole footprint, they noticed a deposit containing a visible concentration of artifacts. Halting the backhoe, they implemented a test unit measuring 3x1.5 feet in plan and 2 feet in depth below the newly poured curblineline. Excavation revealed that the artifacts were from a redeposited fill stratum, which overlay a coarse red sand subsoil. No features or human remains were found.

**[artifacts]** (*Editor’s note – there is no discussion by PES.*)

**Impact:** Installation of flood light poles with deep bases

In addition to the three types of light poles discussed above, plans called for the installation of four flood light poles with deep bases within the northeast portion of the project area. These type “H” poles have a horizontal footprint of 2.5x2.5 feet and a vertical impact of 8 feet below the present ground surface. In order to comply with

OSHA standards, archaeologists had to significantly expand the horizontal footprint of these poles to reach a vertical depth of 8 feet. The solution was to approach these impacts in two stages. First, archaeologists excavated a 8x8 foot test unit to a depth of 4 feet. If the test unit surrounded a pre-existing light pole base, the 4 foot depth was enough to expose the concrete footing so that construction workers could then remove it without affecting the surrounding soil. Once the pre-existing pole base had been removed, archaeologists excavated a 4x4 foot test unit in the center of the larger 8x8 foot test unit, to a depth of 4 feet, making the total depth 8 feet.

**Archaeological Response:**

The sensitivity report recommended manually excavating two “H” poles and monitoring the other two “H” poles within the northwest portion of the project area. Poles H-3 and H-4 are located in proximity to the former 18<sup>th</sup>-century British Barracks and the outbuildings and activity areas associated with the First Almshouse. The report recommended manual excavation of these poles by archaeologists. At the time that the sensitivity report was written, archaeologists assumed that Islands #11 and 13 (the location of “H” poles H-6 and H-8, respectively) did not contain significant archaeological resources. However, after excavation of test units on Island #11 associated with drain lines DL2 and DL3 (see below), it became apparent that intact cultural deposits and features had survived at relatively shallow depths below the present ground surface. Therefore, LPC staff concurred that archaeologists should manually excavate poles H-6 and H-8 as well.

**Archaeological Findings:**

H-3

Test Unit H-3 was located at the southwest end of Island #6, and surrounded a pre-existing concrete light pole base. The test unit measured 8x8 feet in plan, to a depth of 4 feet, then measured 4x4 feet in plan and 4 feet in depth, for a total depth of 8 feet.

Soils in this test unit consisted of an overlying stratum of 20<sup>th</sup>-century topsoil, followed by several strata of 19<sup>th</sup>-century fill that had been impacted by installation of the concrete light pole base and associated iron pipes containing the electrical wiring. The lowest layer of 19<sup>th</sup>-century fill consisted of a coarse red sand, which in turn overlay a coarse red sand subsoil.

**[artifacts].** (*Editor's note – there is no discussion by PES.*)

#### H-4

Test Unit H-4 was located at the southeast end of Island #7. Because a large tree had grown adjacent to the existing concrete light pole base, park designers decided to move the new light pole several feet to the west to avoid impacting the tree. For this reason, the test unit did not surround a pre-existing concrete light pole base, like most of the other “H” poles on the site. The test unit measured 8x8 feet in plan and was excavated to a depth of ca. 3-4 feet, at which point it was abandoned due to time constraints, and because archaeologists had reached subsoil.

Soils in this test unit consisted of an overlying stratum of 20<sup>th</sup>-century topsoil (measuring ca. 1 foot in thickness), followed by various lenses and pockets of 19<sup>th</sup>-century fill, to a depth of ca. 2 feet. Four features appeared under the 19<sup>th</sup>-century fill, which were cut into a dark yellowish mottled sandy clay fill and an underlying coarse red sand subsoil.

Feature 46 was the brick-lined and cut stone-capped drainage line, described above. It also included the interior fill and exterior builder's trench for the drain line. The drain line was constructed with bricks and mortar, and had a rounded bottom and sides, with

the flat top made of cut stones. The drain line was higher on the north end, implying the water would have drained to the south.

**[artifacts]** (*Editor's note – there is no discussion by PES.*)

At the northern end of the drain line, archaeologists documented Feature 95, a cut stone alignment oriented perpendicular to Feature 46 that may represent a structure, a cistern, or a well. Because it was located at the very edge of the test unit, archaeologists could only expose a small portion of the feature, and could not determine its overall shape. For this reason, the exact function of Feature 95 is not clear. The Feature 46 drain line emanated from Feature 95, suggesting that it carried runoff water downslope from Feature 95. **[artifacts]** (*Editor's note – there is no discussion by PES.*)

Test Unit H-4 contained two additional features. Feature 93 was a trench-like cut found west of Feature 46, and containing fill that included cut stones, large cobbles, and artifacts. **[artifacts]**. Its function is unclear. Feature 94 was a 1-foot diameter post hole, with a spiral-shaped bottom. The evenness of the hole and the spiral-shaped bottom suggests it was excavated mechanically, perhaps for a utility pole.

**[artifacts]**. (*Editor's note – there is no discussion by PES.*)

## H-6

Test Unit H-6 was located on the west side of Island #11, and surrounded a pre-existing concrete light pole base. The test unit measured 8x8 feet in plan, and was excavated manually to a depth of ca. 2 feet, at which point supervisors halted archaeological excavation. The backhoe removed the remainder of the test unit mechanically.

The soils in Test Unit H-6 consisted of an overlying stratum of 20<sup>th</sup>-century topsoil, followed by a stratum of very dense sandy clay fill on the south and west sides, and a pit filled with compact, dark silty soil mixed with manure (labeled Feature 83) in the northeast portion of the test unit. Beneath the pit and the fill was coarse red sand subsoil.

Due to time constraints, and because the test unit contained only fill deposits over subsoil, the backhoe completed excavation of the test unit to the 8-foot impact depth.

### H-8

Test Unit H-8 was located on the northwest corner of Island #13. Personnel from Barney Skanska moved the original “H” pole location slightly north to avoid a large tree. Therefore, Test Unit H-8 did not surround a pre-existing concrete light pole base. The test unit measured 8x8 feet in plan, and was excavated manually to a depth of ca. 4.5 feet below the present ground surface, at which point it was abandoned due to unavoidable utility lines.

All of the soils within this test unit consisted of fill episodes dating to the 19<sup>th</sup> and 20<sup>th</sup> centuries. In total, the test unit contained four separate utility pipes, three of which were live feeders to City Hall. When archaeologists discovered the last of the four pipes at ca. 4.5 feet below grade, designers concluded that they could not install a new light pole within this impact area without removing the live pipes. They therefore shifted the “H” pole location further south on Island #13, on the other side of the tree.

### H-8A

Archaeologists labeled the new “H” pole location Test Unit H-8A. It measured 8x8 feet in plan. The backhoe began excavating the test unit mechanically, but ceased when archaeological monitors identified a brick herringbone-pattern surface at ca. 2 feet below the present ground surface along the east side of the test unit. This surface, which was labeled Feature 101, was bordered on the south by a stone curb, and was surrounded by fill containing large quantities of crushed marble and quartzite. **[artifacts from Feature 101]**. Archaeologists removed the brick surface by hand, but utilized the backhoe to remove the stony fill surrounding the surface. Beneath the feature and the fill surrounding it was coarse red sand subsoil, which the backhoe removed to the 8-foot impact depth.

**[date and association of Feature 101]** *(Editor's note – there is no discussion by PES.)*

**Impact:** Installation of additional trees

**Archaeological Response:** *(Editor's note – there is no discussion by PES.)*

**Archaeological Findings:** *(Editor's note – there is no discussion by PES.)*

T1 *(Editor's note – there is no discussion by PES.)*

T2 *(Editor's note – there is no discussion by PES.)*

**Impact:** Installation of deep drain lines

As originally scoped, design plans called for removing an existing 12-inch diameter drain line and replacing it with a new drain line. The trench for the drain line was supposed to be 3-4 feet deep. However, once archaeological field work started, the drain line location shifted, so that construction personnel had to install a new drain line and trench, rather than reusing the footprint of the existing drain line and trench. In the northeast portion of the property, the new drain lines traversed Island #11 and several adjacent pathways, including the pathway north of Island #6. New catch basins were located at selected junctions, and are described in a separate section below.

**Archaeological Response:**

Since initially the new drain lines were to reuse the existing drain line footprint, the sensitivity report recommended archaeological monitoring as construction personnel removed the current drain line and the surrounding pipe trench fill. It was thought that the trench backdirt could contain redeposited human remains. Once the drain line footprint shifted, a new archaeological response became necessary, particularly since the new alignment was to traverse areas adjacent to the First Almshouse, the New Gaol, and their associated outbuildings and activity areas. LPC staff concurred that archaeologists

should excavate a series of 3x3 foot test units, spaced with their center points 10 feet apart for the length of the drain line alignment. The depth of these test units varied from 3 to 4 feet, depending on the subsurface vertical angle of the projected pipeline.

Supervisors divided the drain line units into three alignments (see Fig. 2-1). DL2 ran from the southeast corner of Island #11 to the approximate center of its west side. DL3 began along the east side of Island #11 and ran northwest. After crossing the northwest corner of the island, the alignment continued to the southeast corner of Tweed Courthouse, where a new catch basin (CB5, described below) was installed. DL4 ran from a preexisting catch basin location at the northwest end of Island #6, to CB5 at the southeast corner of Tweed Courthouse. Archaeologists monitored the section of drain line from the northeast side of Island #13 to an existing storm water connection east of Island #11. DL2 had 9 test units (plus 4 additional test units added later), DL3 had 13 test units (plus 2 additional test units added later), and DL4 had 8 test units. Archaeologists monitored the final excavation of all of the drain line alignments by the backhoe, and recorded several additional features, described below.

### **Archaeological Findings:**

DL2 (*Editor's note – there is no discussion by PES.*)

DL2-5/6: Features 50 (pit), 64 (pit), 65 (pit), 74 (pit), 75 (post hole) (*Editor's note – there is no discussion by PES.*)

DL3 (*Editor's note – there is no discussion by PES.*)

Feature 63 (wall), 76 (possible builder's trench for 63) (*Editor's note – there is no discussion by PES.*)

### Monitoring, DL3

After completion of the test units within DL3, the backhoe completed the drain line trench mechanically. During monitoring, archaeologists recorded more of Feature 63, described above, and a previously undocumented pit feature, labeled Feature 82.

Extension of Feature 63 (*Editor's note – there is no discussion by PES.*)

Feature 82 appeared where the DL3 alignment intersected the present curblin for Island #11. Archaeologists observed a midden-filled pit within the south sidewall of the DL3 trench. The feature began at ca. 2.5 feet below the present asphalt pathway grade, and extended ca. 2 feet in depth. The pit measured ca. 3 feet east-west, and extended into the south wall. It was visible only in profile, and did not appear to extend more than a few inches north into the trench. Archaeologists collected a sample of the pit's artifacts.

DL4 (*Editor's note – there is no discussion by PES.*)

### Monitoring, Drain Line Connection East of Island #11

In monitoring the drain line connection from the catch basin at the northeast corner of Island #13 to an existing storm water connection east of Island #11, archaeologists documented a substantial stone foundation, designated Feature 79. The feature falls within the former footprint of the New Gaol, which later became the Hall of Records. This building was constructed in 1757. In 1830 it was modified to house the Hall of Records. It was demolished in 1903, to make room for the pedestrian bridge over Park Row.

Within the drain line trench footprint, Feature 79 consisted of two intersecting, massive stone walls. One wall was oriented north-south, and the other east-west. The walls were constructed of cut shist, which were mortared together. The walls appeared just under the

current concrete surface capping the soil, and extended for ca. 6 feet, which was the depth of the drain line trench. The bottom of the foundation was not reached. The east-west trending portion of the foundation was the only one in which the thickness of the walls could be measured, due to the configuration of the drain line trench alignment. Here, the wall was ca. 4 feet in width. Archaeologists did not recover any artifacts in association with the foundations.

**Impact:** \*Installation of catch basins

In association with the new drain lines, construction personnel installed new catch basins at certain pipeline junctions throughout the park, and reused existing catch basins locations elsewhere. The size of the new catch basins varied slightly, ranging from 4x4 feet in plan and 4 feet in depth to 6x6 feet in plan and 6 feet in depth.

**Archaeological Response:**

Of the two locations where construction personnel needed to install new catch basins, archaeologists excavated a test unit (labeled CB-5) near the southeast corner of Tweed Courthouse, and monitored a second location at the northeast corner of Island #13. Both of these catch basin footprints measured 6x6 feet in plan, and 6 feet in depth. Construction personnel reused an existing catch basin location on the north side of Island #6, which archaeologists monitored.

**Archaeological Findings:**

CB-5

Soils in Test Unit CB-5 consisted of redeposited fill over coarse red sand subsoil. Much of the fill contained large amounts of building debris, including broken and crushed stone, plaster, mortar, some brick fragments, window glass, and nails. Archaeologists recorded a single feature – a roughly linear-shaped pit containing redeposited human remains, including two crania (both missing mandibles) seemingly deliberately placed

side by side and upturned. Other human bones in this pit included part of an ilium (found lying on top of one of the crania) and part of a humerus (cf. London 2004). It seems likely that the redeposited soils and the pit recorded in CB-5 stem from demolition of the Second Almshouse and later construction of Tweed Courthouse in the mid-19<sup>th</sup> century.

### Monitoring, North of Island #13

During archaeological monitoring for a catch basin at the northeast corner of Island #13, the backhoe encountered a concentration of large cobbles, at ca. 2.5 feet below the current asphalt pathway grade. When archaeologists cleared off the catch basin floor, they discovered a stone wall, oriented north-south within the impact footprint. The upper stones had been dislodged by the backhoe, and were scattered somewhat randomly over the floor. Once archaeologists documented and removed these stones, the wall alignment became clear, and was labeled Feature 59.

Feature 59 consisted of large cobbles (ranging from ca. 6 inches to 1 foot in diameter) as well as some angular stones and a few brick fragments. There was no mortar or other binding agent holding the stones together. Rather, the wall appears to have been dry laid. The feature measured slightly over 2 feet in width. The top of the lowest course of stones (which archaeologists photographed and drew in plan view) was ca. 38-40 inches below the current asphalt pathway grade. Excavators recovered a limited number of artifacts from soil between the stones. Beneath the stones was coarse red sand subsoil. Archaeologists did not observe any additional deposits or features associated with this foundation wall.

### Monitoring, North of Island #6

Archaeologists monitored excavation of the existing catch basin on the north side of Island #6, and found no cultural deposits or features, including human remains.

**Impact:** Installation of security measures

Design plans specified construction of a pneumatic bollard and an associated subsurface compressor box at the Chambers Street entrance to the park, just east of Tweed Courthouse, and two manual bollards at each of the Park Row entrances to the park. The first manual bollard was between Islands #10 and 11, and included a new gate to be installed as well, and the second manual bollard was between Islands #11 and 13.

**Archaeological Response:**

At the Chambers Street entrance to the park, the sensitivity report recommended complete manual excavation of the pneumatic bollard footprint, due to a high likelihood of recovering human remains there. The original scope of work did not call for an associated compressor box here; it was added later. In consultation with LPC staff, it was agreed that archaeologists should monitor the excavation of the compressor box, since it was to be located in an area (the northwest corner of Island #8) that was known to contain previous disturbances.

The Chambers Street pneumatic bollard footprint, designated “PB2,” measured 19 feet east-west by 8 feet north-south. Because part of the footprint fell within an area covered by chain link fencing surrounding Tweed Courthouse, archaeologists excavated the bollard area in two stages. In the first stage, archaeologists divided the available footprint into two individual test units, numbered PB2-1 and PB2-2. The test units measured 5.5 feet east-west, 8 feet north-south, and 5 feet in depth. All unit depths were taken from the current Chambers Street sidewalk grade. Later, once the fence had been removed, archaeologists excavated the remainder of the bollard footprint, labeled PB2-3 and PB2-4. Each of these test units measured 4 feet east-west, 6 feet north-south, and 5 feet in depth. Figure 2-1 illustrates the layout of the test units and their nomenclature.

The PB2 associated compressor box test unit measured 5x5 feet in plan and 5 feet in depth. It was located at the extreme northeast corner of Island #1.

The sensitivity report assumed that the soils within the two manual bollard footprints along Park Row had been disturbed when the subway was installed. It recommended archaeological monitoring. However, excavation for adjacent curb lines revealed a series of intact cultural features (including several midden-filled pits) in the area, and LPC staff concurred that archaeologists should manually excavate the northern of the two manual bollards and its associated gate footprint, but that they should still monitor the southern of the two manual bollard impact areas.

Archaeologists renamed the northern manual bollard footprint MB1, and laid out 3 test units (labeled MB1-1, MB1-2, etc.), measuring 5x5 feet in plan and 3 feet in depth. The associated gate footprint required 5 test units (designated G1-1 through G1-5) measuring 5x5 feet in plan and 4 feet in depth.

### **Archaeological Findings:**

#### Chambers Street entrance

PB2

Archaeologists monitored the associated compressor box for PB2, located just southeast of the bollard footprint, on the northwest corner of Island #8. The soil profile consisted of redeposited 19<sup>th</sup>- and 20<sup>th</sup>-century fill layers over coarse red sand subsoil. No features or intact cultural deposits occurred here.

#### Centre Street entrance

With the exception of Features 85 and 86, described below, all of the soils within MB1 consisted of redeposited 19<sup>th</sup>- and 20<sup>th</sup>-century fill over coarse red sand subsoil. Other than iron utility pipes and their associated pipe trenches (found in all three test units), no other cultural surfaces or features were found.

Features 85 and 86 occurred in Test Unit MB1-1. Both appeared at ca. 12 inches below the asphalt pavement surface. Feature 85 was a pit containing very dark, organic silty loam. It was surrounded by Feature 86, a larger pit containing a lighter colored silty clay matrix. Feature 85 extended to ca. 24 inches below the asphalt ground surface, and Feature 86 reached ca. 50 inches below the current asphalt grade.



*Fig.2-22 : Feature 88*

Archaeologists excavated a very large and deep refuse pit within test units G1-2 through G1-4. Initially, the pit appeared as two, discrete horizontal concentrations of artifacts, separated by a sandy fill layer. The pits first appeared at ca. 12 inches below the current asphalt grade. Archaeologists labeled the northern concentration Feature 87 and the southern concentration Feature 88. As they excavated the two features, they recorded a number of different soil types within the features, and designated Feature 99 as another possible pit next to Feature 87. However, once all the test units had been excavated, it became apparent that Features 87, 88, and 99 all represented portions of the same large

pit. At its deepest, on the west side, the pit measured 94 inches below the current asphalt grade (construction personnel shored the test units so excavation could proceed according to OSHA standards, and LPC staff gave archaeologists permission to excavate the pit to its deepest extent, past the original impact depth). It was shallowest on the east side, and sloped down moving west. The pit was bounded by several utility pipes and pipe trenches on the south in Test Unit G1-5, and to the west outside the test units (archaeologists observed a north-south running iron pipe to the west of the pit once the sidewall collapsed after excavation had been completed).

Outside of the pit, soils consisted of 19<sup>th</sup>- and 20<sup>th</sup>-century redeposited fill layers over coarse red subsoil. The pit stratigraphy is shown in Illustration 1-x.

#### Park Row entrance

Within the manual bollard footprint at the Park Row entrance to the park (between Islands #11 and 13), archaeologists documented a pit feature (designated Feature 104) during monitoring. The pit appeared at ca. 4 feet below the top of the new curblin, and began ca. 8 inches north of the east-west pathway centerline. It measured ca. 5 feet north south, and was truncated on the north, east, and south by utility pipes and pipe trenches. The pit extended into the west wall of the bollard footprint. Archaeologists excavated the feature to ca. 4 feet below the concrete curblin, the impact depth for the bollard. However, the pit continued past this depth.

**Impact:** \*Installation of water fountain

**Archaeological Response:** *(Editor's note – there is no discussion by PES.)*

**Archaeological Findings:** burials. [See London 2004]

*(Editor's note – there is no discussion by PES.)*

**Impact:** \*Creation of new island and associated curbs, bollard and chain fencing foundations

**Archaeological Response:** *(Editor's note – there is no discussion by PES.)*

**Archaeological Findings:** burials [See London 2004]

*(Editor's note – there is no discussion by PES.)*

*Editor's note – this is the end of PES' Field Report.*

## **Discussion**

The excavation of CHP was one of the largest archaeological undertakings within the City of New York. It was comparable to Five Points and the African Burial Ground in size and scope. Unfortunately, also like those projects, the nature of Cultural Resource Management led to a great number of limitations and issues for PES. Those limitations led to a number of problems that, we assume, were unintended by PES. These limitations and ensuing problems greatly affected the outcome of the overall archaeological field report and subsequent analysis of this project.

First and foremost, although this was a mitigation project, PES was not afforded the required, and necessary, time to conduct test excavations prior to the contractor's excavations. The excavation schedule was determined by the construction schedule, with concomitant time pressure on the excavators to clear the area before destruction of the context. Excavation was construction-driven, conducted almost entirely in the locations and to the depths which were to be impacted by the subsurface work of the Park renovation. Therefore, much of the data is tantalizingly incomplete. In a few cases the archaeologists were permitted by the contractors to excavate complete features, proceeding below the impact depth.

A critical analysis of both reports by PES leads to many questions.

Within the initial Scope of Work, PES makes a number of statements that were not supported through primary documentary evidence. There was a lack of primary source references throughout the document. Although it was obvious that PES understood the documented past, their written document, in the form submitted to LPC, does not convey this as well as it might.

However, it is the initial Archaeological Report that resulted in the greatest number of questions. It appears that this report was written in June, July, and August 1999, while field excavations were still underway. Although anonymous, the preliminary report was

probably the work of Dr. Peter Glumac, Julie Abel, Shawn Frizzell and Charles McNutt. In addition to this report, the current analysis project was given access to PES field records, which also contributed to continuing questions about field techniques and data recovery.

One persistent difficulty for the analysis was that there seems to have been no site datum. Elevations were taken from randomly assigned datum points throughout the excavation process. The decision as to the “datum point” seems to have been left to the excavator(s) of the individual trenches. Datum points are anything from a curb somewhere on the property, the edge of a statue or (frequently) the surface level. The majority of the field notes do not identify the datum point even though they provide below datum readings. Most likely the site datum was known to the excavators and supervisory staff, and was so obvious to them, that it seemed redundant to include its location and relation to the numerous subsidiary data used. This information was not passed on to the team doing the analysis, and so caused problems in assessing the pre-excavation topography of the surface and the inter-trench/inter-unit depths of the strata.

As far as can be determined from the notes and maps, a formal site grid was never established. There are no coordinates except in the cemetery area in the northeast of the park. While one can assume and reconstruct a site datum from these coordinates, this is of no help in locating other trenches and features. Trenches are named for the impending constructional impact (e.g. DL-1 is Drain Line 1) and their locations are given in reference to “Islands” (large grassy areas within the Park) or other features within the park. Often notes on these locations are vague (“about twenty feet south of Island 11”), which makes it more difficult to locate one archaeological feature with respect to another. Various maps highlighting the individual construction impacts and areas of excavation do exist, but trenches were often divided into sections (e.g. DL1-1, DL1-2, etc.) which were sometimes not recorded on these maps. While many detailed sketches and some measured maps exist in the notes, there does not appear to be any one synoptic site map. This was also something that must have been planned to have been corrected in a final

PES report, most likely by GIS and CAD drawings and maps. It was reconstructed in the course of analysis (Fig. 2-1), but its accuracy is difficult to ascertain.

The site, and more particularly the features, was excavated as a series of levels that, according to the PES field methodology was supposed to follow the natural stratigraphy. The notes seem to indicate that strata were often horizontal, while levels were vertical. There are often several levels within a stratum. Though all levels were supposed to be six (6) inch arbitrary levels, this does not seem to consistently hold true. Further, according to statements from some of the field crew, strata were often identified and labeled after the excavation rather than concurrently with the excavation. The majority of the field notes do not note which levels belong with which stratum. There are no schematics, nor, for example, Harris matrices detailing the relationship of the levels for any of the excavation units to the mapped profiles. This makes associating the artifact bags with the stratigraphy extremely uncertain. It is even more frustrating because some of the profiles make it obvious that there were multiple fill episodes within the features.

Note taking was inconsistent and woefully incomplete in several instances. Some features, for example Feature 55, which is a significant trash deposit, have no associated notes. Stratigraphic drawings are more incomplete than the field notes. Several features do not have any stratigraphic drawings. Of the stratigraphic drawings that do exist, several were drawn with a minimum, if any, measurement and are largely impressionistic. The information contained within/on the stratigraphic drawings is inconsistent and often incomplete. It does not appear that PES had a standardized field note taking procedure despite the use of standardized forms.

Finally, the CUNY project was under the assumption that basic washing and storage of the entire artifact collection had occurred, or at least , had been undertaken by PES. This proved not to be the case. The majority of artifacts were unwashed from the time of collection in 1999 to when the laboratory work began in the fall of 2001. Not only did this compromise information concerning provenience, as several of the site tags had deteriorated among the unwashed and damp artifacts but, it caused an enormous

expenditure of time and resources. Over one full year was spent in the basic stabilization of the artifacts.

It is acknowledged that the excavation was undertaken under difficult circumstances. Largely done during the winter, with changing design-build plans, especially as relating to drain and utility lines, tied to a construction schedule over which they had no control and being rushed to finish by an arbitrary date, some of the apparent lacunae in the archaeologists' data are understandable. It is assumed that PES would have corrected these items overlooked from the field notes in the final excavation report, were they to have produced it. As it was, the artifact analysis was hampered by the imprecision of the contextual and associational data.