

Fuel Cell Installation Project –  
City Hall Park, New York, New York –  
Phase IB Archaeological Monitoring Project



*Prepared for:*

City of New York - Landmarks Preservation Commission  
New York, New York and

City of New York - Department of Citywide Administration Services  
New York, New York

*Prepared by:*

Alyssa Loorya, M.A., R.P.A., Principal Investigator  
Christopher Ricciardi, Ph.D., R.P.A. and  
for: Chrysalis Archaeological Consultants, Incorporated

*Submitted to:*

Hill International  
One Penn Plaza – Suite 3415  
New York, New York 10119

FINAL REPORT – October 2013

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## MANAGEMENT SUMMARY TABLE

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Involved State/Federal Agencies:	City of New York – Landmarks Preservation Commission City of New York – Department of Parks and Recreation City of New York – Department of Citywide Administration Services
Phase of Survey:	Phase IB – Archaeological Field Monitoring
Location Information:	New York, New York County, New York
Survey Area:	N/A
USGS 7.5 Quad Map:	Jersey City
Archaeological Survey Overview:	Uncovered portion of feature originally found in 1999; brick pathway; a portion of the nineteenth century drainage system
Results of Archaeological Survey:	No further archaeological testing in this specific area is required
Results of Architectural Survey:	not undertaken – within the African Burial Ground and the Commons Historic District
Buildings within Project Area:	1
Buildings adjacent to Project Area	South Street Seaport Historic District
Previous N/R Buildings:	several
Eligible N/R Buildings	several
Report Authors:	Alyssa Loorya, M.A., MPhil., R.P.A. Christopher Ricciardi, Ph.D., R.P.A.
Date:	October 2013

## MANAGEMENT SUMMARY (TEXT)

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The City Hall Rehabilitation Project (2010–2013) has been a multi-phase project undertaken to upgrade the 200-year-old City Hall. Built from 1803–1811, the building was in need of infrastructural and structural upgrades. City Hall and City Hall Park are listed on the National and State Register of Historic Places. New York’s City Hall, Block 122, Lot 01, is located in lower Manhattan within City Hall Park, bordered by Chambers Street to the north, Park Row to the south, Centre Street and Park Row to the east, and Broadway to the west. It is located within the African Burial Ground and the Commons Historic District, part of New York City’s first, and only, archaeological district.

In 2012, Hill International retained Chrysalis Archaeological Consultants, Inc. to monitor excavation for the installation of additional utility lines. The work was undertaken under the auspices of the City of New York – Department of Citywide Administrative Services.

Due to its landmark status, the City of New York – Landmarks Preservation Commission (LPC) maintains direct supervision over all site activities, including archaeology. Any subsurface work requires permit approval from LPC prior to the commencement of activity.

All cultural resources work was conducted in accordance with the LPC’s 2002 *Guidelines for Archaeological Work in New York City*; the National Historic Preservation Act of 1966, as amended; the Advisory Council on Historic Preservation’s “Protection of Historic and Cultural Properties” (36 CFR 800); and the New York Archaeological Council’s 1994 *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York State*, as amended, adopted by the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO).

The area monitored for the utility trenching was partially tested as part of the 1999 archaeological project. Several features that were initially uncovered during that period were reconsidered, thus providing a more complete picture of the archaeological history of the area. These features include brick walkway and a large trash deposit. Some features documented in 2010 were also re-exposed. No new *in situ* deposits were uncovered as all features and material remains were disturbed.

Although no further archaeological monitoring/testing is recommended in the areas excavated as part of this particular project, to the already impacted depths, City Hall Park, overall, maintains a high sensitivity for the recovery of archaeological material, feature and stratigraphic remains and monitoring/testing is recommended in those areas that still remain high significance.

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Michael Brothers, Jenny Huang and all at Hill International for the opportunity to continue to work on this site. The City of New York – Department of Citywide Administrative Services for supporting the project and URS Corporation for their continued support.

Finally, thanks to Amanda Sutphin from The City of New York – Landmarks Preservation Commission who was most helpful in shaping the nature of the project.

## **I: INTRODUCTION**

The City Hall Rehabilitation Project (2010–2013) has been a multi-phase project undertaken to upgrade the 200-year-old City Hall. Built from 1803–1811, the building was in need of infrastructural and structural upgrades. City Hall and City Hall Park are listed on the National and State Register of Historic Places (and structures). New York’s City Hall, Block 122, Lot 01, is located in lower Manhattan within City Hall Park, bordered by Chambers Street to the north, Park Row to the south, Centre Street and Park Row to the east, and Broadway to the west (Map 01). It is located within the African Burial Ground and the Commons Historic District, part of New York City’s first, and only, archaeological district.

Chrysalis Archaeological Consultants, Inc. (Chrysalis) was retained in 2009 to undertake all cultural resource management (CRM)/archaeological tasks associated with the City Hall Rehabilitation Project (2010-2011) under the oversight of City of New York – Department of Design and Construction (DDC). In consideration of the scale of the project, Chrysalis teamed with URS Corporation’s Archaeology and Historic Architecture Group (URS), located in Burlington, New Jersey, for the excavation and analysis phase of the project.

In 2012, Hill International, once again, retained Chrysalis to complete cultural resource management/archaeological work associated with an additional phase of the overall City Hall Rehabilitation project. This additional phase was to install an uninterrupted power module on a solid oxide fuel cell to provide backup power to City Hall in the event of an electrical grid outage and was undertaken under the auspices of the City of New York – Department of Citywide Administrative Services (DCAS).

Due to its landmark status, the City of New York – Landmarks Preservation Commission (LPC) maintains direct supervision over all site activities, including archaeology. Any subsurface work requires permit approval from LPC prior to the commencement of activity.

All cultural resources work was conducted in accordance with the LPC’s 2002 *Guidelines for Archaeological Work in New York City*; the National Historic Preservation Act of 1966, as amended; the Advisory Council on Historic Preservation’s “Protection of Historic and Cultural Properties” (36 CFR 800); and the New York Archaeological Council’s 1994 *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York State*, as amended, adopted by the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO).

The archaeological team consisted of archaeologists from Chrysalis and URS. All key personnel satisfy the qualifications specified in 36 CFR 61.





Map 01: City Hall Park, Google Earth 2012.

The site supervisory archaeologists were Alyssa Loorya, Chrysalis, who served as Principal Investigator for the overall project, and Daniel Eichinger, URS, Field Director. Christopher Ricciardi and Edward Morin served as Project Managers for Chrysalis and URS, respectively. Ian Roy and Eileen Kao provided additional archaeological staff support. Additionally, the on-site construction company, Rockmore Construction, undertook the physical excavation work. Rockmore's Site Supervisor Brien Weiss and his team assisted with all phases of excavation.

Alyssa Loorya authored this technical memo on behalf of the archaeological team with assistance from Christopher Ricciardi and Eileen Kao.

## **II: BACKGROUND**

As part of the 2010-2011 project Chrysalis prepared and submitted a comprehensive report of the cultural resource management work including historical research and analysis. The report contained significant information on the history, environmental background, summary of previous CRM reports, methodology, etc. Therefore, that information, which is normally included in reports of this nature, is not included in this technical memo. Please refer to *The City Hall Rehabilitation Archaeology Project 2010-2011* (Loorya et.al. 2013).



Image 01: Mapping the gas line.

### III: FIELD MONITORING

The excavation work for the fuel cell project was subject to archaeological monitoring in all areas that had not been previously excavated during the 2010-2012 phase of the project. The Archaeological Scope of Work detailing procedures and protocol submitted and accepted for the 2010-2012 project remained in effect. In accordance with that plan any areas not slated for monitoring or testing were subject to the Unanticipated Discoveries Plan. Detailed information and methodology regarding the Scope of Work is available in *The City Hall Rehabilitation Archaeology Project 2010-2011* (Loorya et.al. 2013).

Archaeological monitoring associated with the Fuel Cell portion of the project occurred in May 2013.

Excavation for the utility line support for the fuel cell occurred in two locations. The most extensive was the excavation for the gas line on the eastern side of the property. The water line excavation occurred in the northeast area behind City Hall (Map 02).

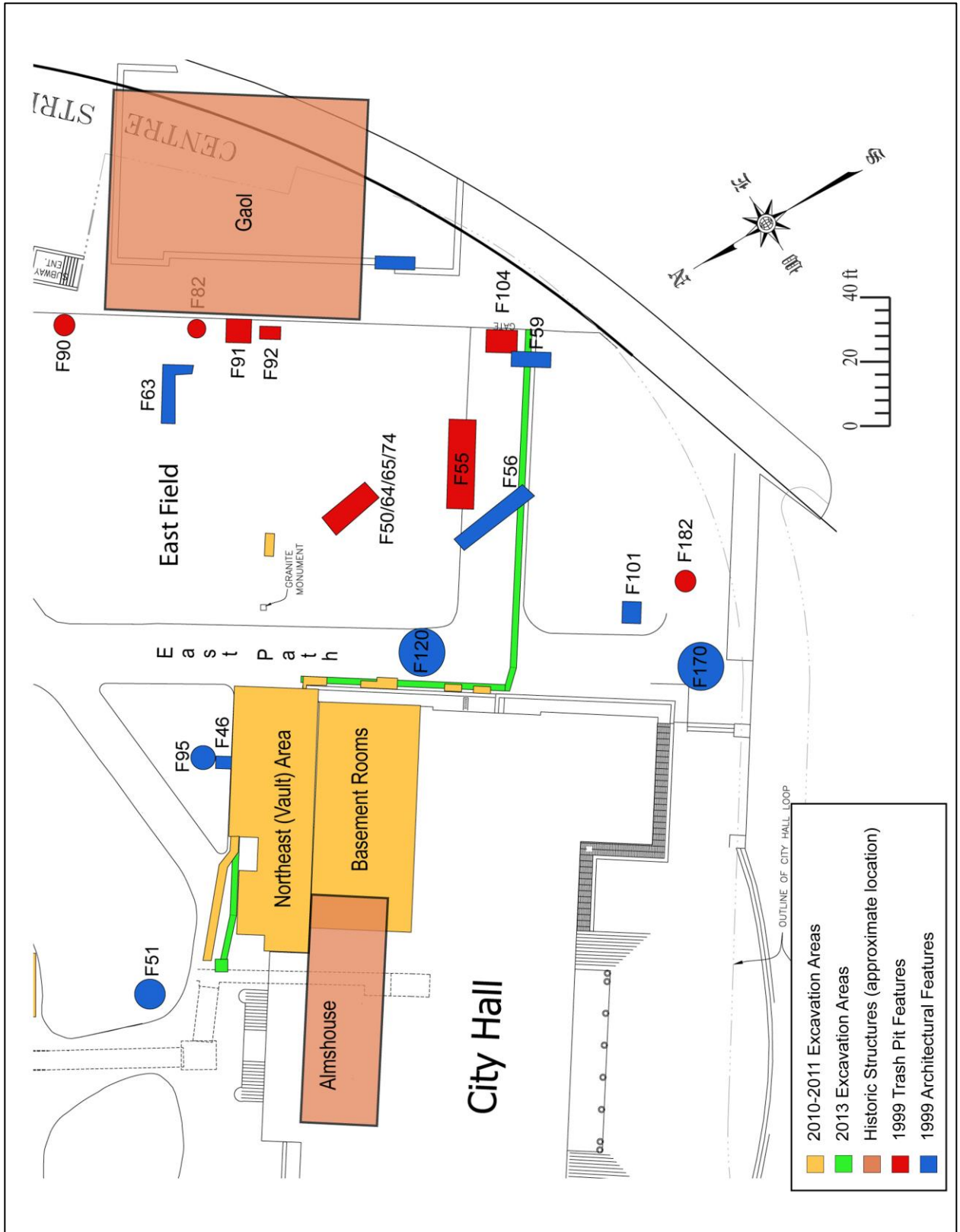
#### GAS LINE EXCAVATION

Excavation for the gas line occurred from the Centre Street/Park Row entry gate proceeding west to the East Path where the trench turned north proceeding alongside the east entryway ramp. It culminated adjacent to the northeast corner of City Hall before proceeding into the previously excavated Northeast Vault area where the fuel cell will be situated (Map 02). The path of the gas line was located to deliberately avoid a nineteenth century cistern that had been identified and partially exposed during the 1999 excavation project undertaken by Parsons Environmental Sciences (PES) (see Bankoff and Loorya 2008) (Image 02).

Though located to avoid the cistern the excavation path would potentially cross other features located during the 1999 project.



Image 02: Gas line work



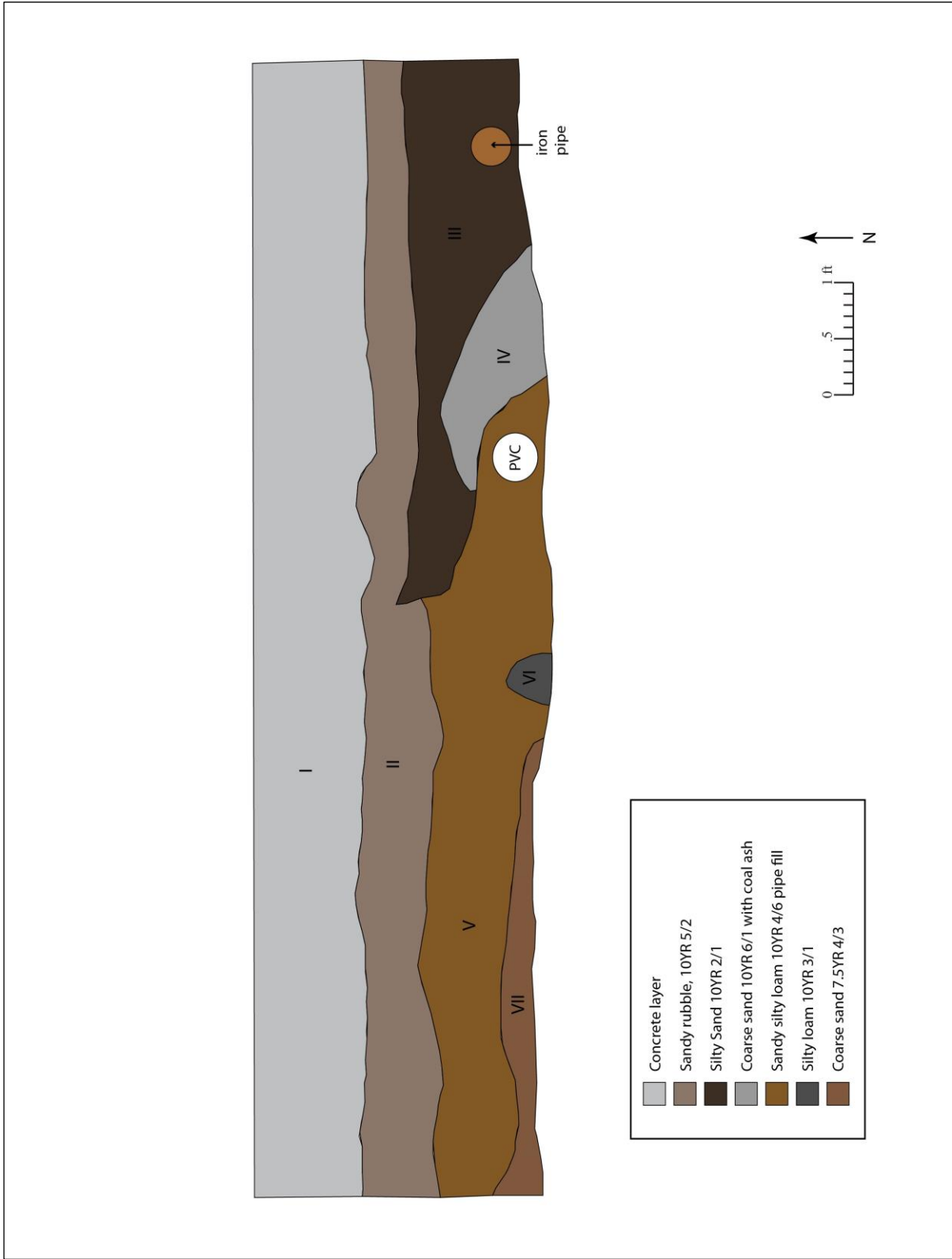
Map 02: 2013 Utility line work in support of the Fuel Cell Project highlighted in green.

### *Centre Street/Park Row Path*

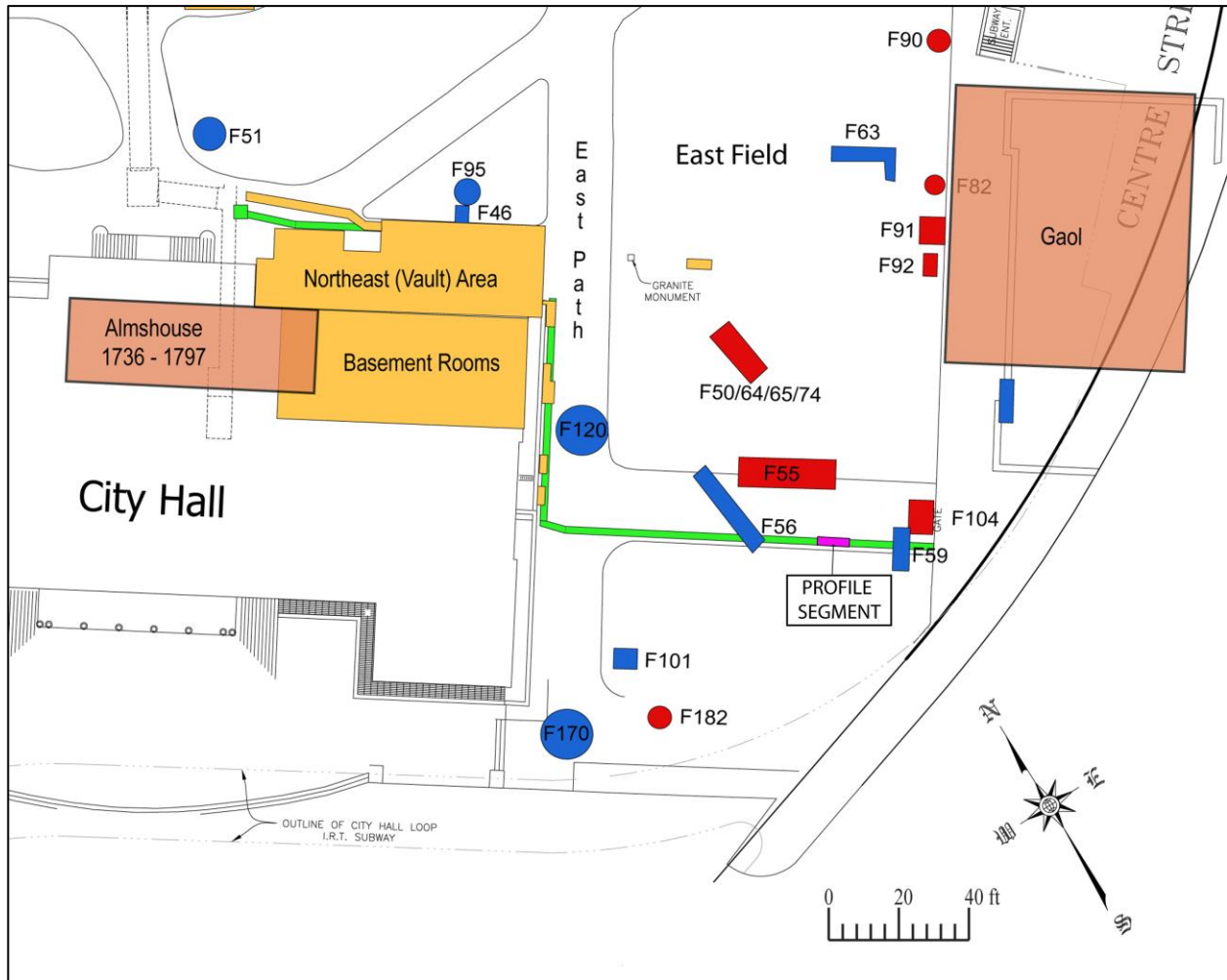
The gas line excavation occurred in two segments, along the Centre Street/Park Row path and along the East Path (Map 02). The Centre Street/Park Row portion of the gas line trench measured approximately 88' long by approximately 2.5' wide and was excavated to a depth of 3.5' below surface (bs). This trench segment exhibited some degree of disturbance from various utility installations and landscaping within the last half of the nineteenth through the twentieth century (Image 03). Maps 03 and 04 and Table 01 provides a representative stratigraphic profile of this area.



Image 03: Excavation along the Center Street/Park Row path, facing west.



Map 03: North profile of a segment of the Centre Street Park Row excavation trench.



Map 04: Zoom of the site map highlighting the location of the profile depicted in Map 03.

Table 01: Representative stratigraphic profile of Centre Street/Park Row Path.

STRATUM	DEPTH	DESCRIPTION
I	0 – 1'	Concrete
II	1' – 1.6'	10YR 5/2 sandy rubble, loamy sand with concrete and stone inclusions
III	1.45' – 2.4'	10YR 2/1 fill horizon, silty sand fill with coal ash
IV	1.5' – 3.3'	10YR 6/1 coarse sand with coal ash
V	1.6' – 3.5'	10YR 4/6 sandy silty loam coal ash and brick inclusions
VI	2.25' – 2.7'	10YR 3/1 silty loam pocket of fill
VII	2.2' – 3.5'	7.5YR 4/3 coarse sand with iron inclusions

Along the excavation path four areas of note were encountered. The first was the exposure of a PVC pipe installed in 1999 at 2.3' bs. In this location PES had recovered an artifact deposit, labeled as Feature 104.

Feature 104 was a refuse pit that was manually excavated and 100% screened. The feature contained 509 artifacts, most of which (70% or 364 pieces) were shell based faunal remains. The mean ceramic date for the assemblage was 1792. Its size did not suggest long term or heavy usage and it was likely a secondary dump (Loorya, *in process*).

Though there was no remaining artifact or stratigraphic evidence of Feature 104; the location of the PVC pipe, indicated that Feature 104 was incorrectly located on earlier site maps. The location of this feature has been modified on the current comprehensive archaeological site map produced as part of the larger City Hall Rehabilitation Project and updated for this report (Map 06).

The next area of note encountered was a brick path that had been noted (as Feature 56) but not documented during the 1999 project. For the purposes of consistency with the current Chrysalis/URS project's record keeping it has been (re-)labeled as Feature 45.

Feature 45 consisted of two courses of dry-laid brick on a stone slab. The brick was exposed at 2' bs and the stone slab was located at 2.5' bs. The fill soil surrounding the bricks consisted of 10YR 4/2 silty sand and 10YR 5/6 coarse sand with brick and pebble inclusions. It was located approximately 32' west of the entry gate on Park Row (Map 02).

No artifacts were identified in association with the path. The bricks are late nineteenth century machine made brick. The depth of the path at 2' below surface provides additional information regarding the increase in elevation of the landscape surrounding City Hall as discussed in the 2010-2011 report. Analysis identified the landscape surrounding City Hall to have been 3' lower than the present grade when City Hall was constructed, 1803–1811. The elevation of this path suggests that there was a 1' variation in grade from this area to the location to City Hall or that the landscape had been raised by 1' between the construction of City Hall and installation of this path (Image 04 and 05). The latter is the most likely scenario as the elevation of the island begins to decrease toward the east from Broadway, which is the high point along this lateral of Manhattan Island.

Feature 45 was disassembled and removed to facilitate the construction.





Image 04: Feature 45, brick path.



Image 05: Profile view of Feature 45.

Approximately 58' from the Centre Street/Park Row entry gate a 6" iron pipe surround by what appeared to be a highly disturbed re-deposited artifact deposit was encountered at 3' bs.

Slightly further west (approximately 4') along the trench another area containing artifacts was also exposed at 3' bs. These materials are similar to those identified as Feature 55 during the 1999 excavations. Feature 55 was a large trash deposit assemblage consisting of almost 8,000 artifacts excluding faunal remains. The documentation for Feature 55 was exceedingly sparse to non-existent. Field notes recorded its initial discovery and the only descriptive notation regarding the feature concerned its contents, which were labeled "18<sup>th</sup> century." Analysis confirmed this deposit as a large eighteenth century primary trash deposit that was incompletely documented and recovered (Bankoff and Loorya 2008).

The area 45'–55' from the entry gate appears to be the southern limits of 1999's Feature 55. This is based on the location and type of artifacts observed and recovered. A total of 246 artifacts, that may be part of 1999's Feature 55, were recovered in this area as part of a general collection. Faunal remains ( $n=1120$ ) account for the majority of the assemblage, followed by Household remains ( $n=86$ ) (see Table 02).

Table 02: Artifact Count by Functional Group for artifacts potentially associated with 1999's Feature 55.

Functional Group	Artifact Count
Architectural	2
Faunal	120
Household	86
Indeterminate	1
Personal	37
Toy/Recreation	1

Only 2 Architectural related artifacts were recovered, both were window glass shards. The 120 Faunal remains consisted of 13 bovine/large mammal teeth and various fragmented mammal skeletal elements. 76 of the 120 faunal remains were too fragmented to identify to either species or element.

Of the 86 Household remains 24 are glass. Among these are wine/liquor bottle fragments, 2 shards from a case bottle and 2 artifacts representing a drinking vessel and stemware. None of the glass remains had dateable identifying features. The ceramic remains include 5 sherds of slip-decorated British Slipware (1670–1795) with trailed, trailed and combed or dot decoration. Three trailed slip decorated redware sherds were also recovered.

A total of 31 creamware sherds (1762–1820) were recovered. Only one of the creamware sherd exhibits any decoration, a green painted lid fragment with an indeterminate pattern (1790–1820). Of the 8 Pearlware sherds (1775–1840) recovered; 3 exhibited blue painted decoration. One of these is a Chinese landscape decoration with a 1775–1810 date range (Miller et.al. 2000), another has a trellis decoration and the third is indeterminate (Image 06). Two of the 3 Porcelain sherds recovered are Chinese import porcelain and the third is English soft-paste porcelain decorated with red painted bands. The English soft-paste porcelain sherd dates 1745–1795 (Miller et.al. 2000).

Of the 6 Stoneware sherds recovered all but one are salt-glazed. The remaining sherd is engine-turned with a reddish body and a geometric pattern. This sherd dates 1763–1820 (Azizi et.al. 1999). The ceramic assemblage is rounded out by 2 white salt-glazed sherds; one an undecorated teaware sherd (1720–1790) and the other with a molded pattern (1740–1765) and 3 tin-glazed sherds (1640–1800) (Miller et.al. 2000) (Image 07).

The personal items consist of 37 clay smoking pipe fragments, 36 stem fragments and 1 bowl fragment. The single Indeterminate artifact is a white composite material that is stamped with the partial word “ANES”. One artifact was identified as part of the Toy/Recreation category, a white porcelain doll leg. The leg contains a notch where it would have been faceted to the doll body. There are incised markings on the inner leg reading “3 ½” and “130”

The TPQ for this assemblage is 1790 based on the green painted creamware lid fragment.



Image 06: Blue painted pearlware sherd with trellis decoration.



Image 07: Stoneware sherd with impressed geometric pattern.

*East Path*

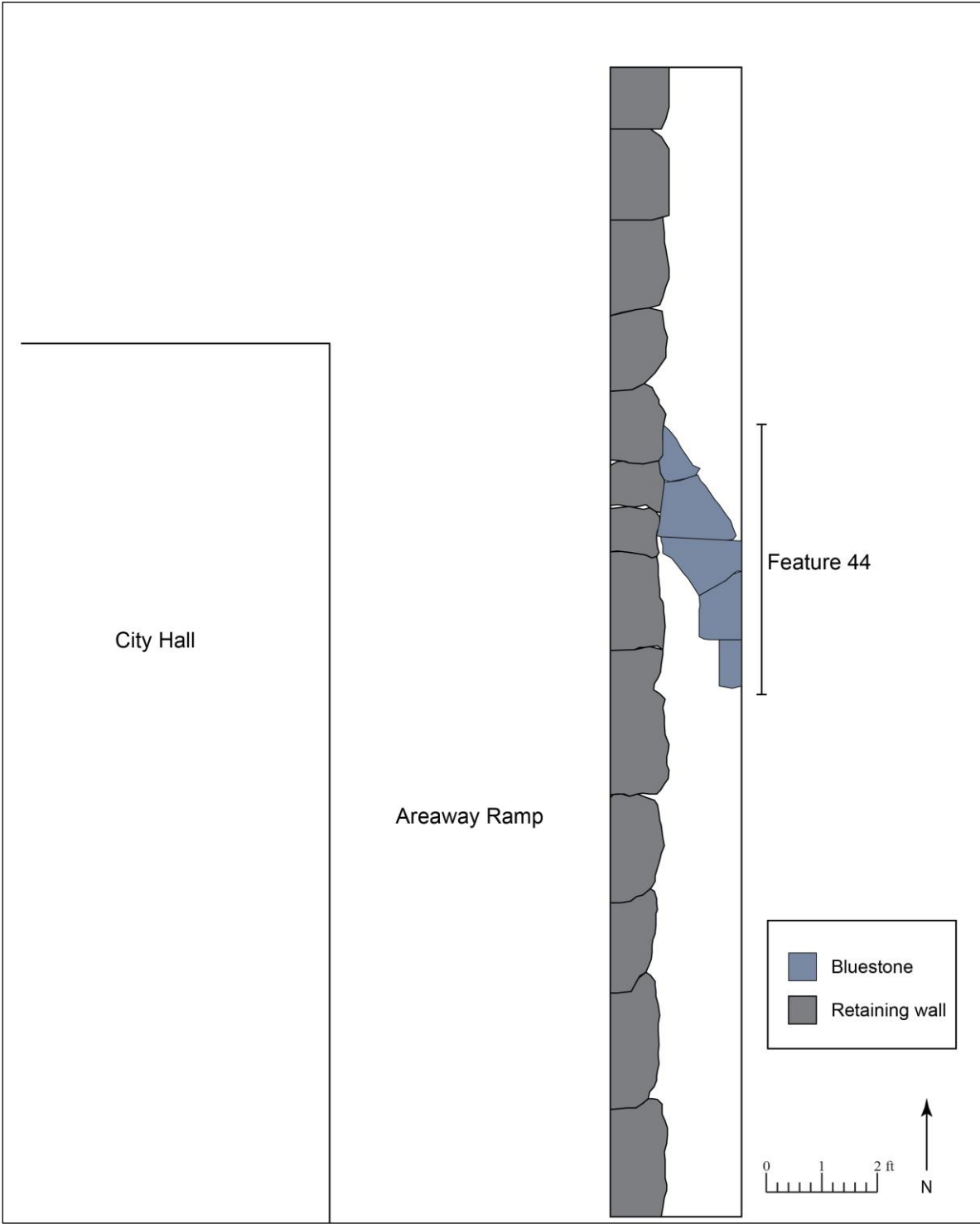
Excavation along the east path extended north alongside the ramp entry retaining wall. Several segments of this had been previously excavated during excavations in 2010 (Map 02). Current excavations exposed the retaining wall as previously documented (Map 05). The stratigraphy was consistent with that observed during the 2010 excavations (Table 03).

Table 03: Typical Stratigraphy along the East Path

Stratum	Depth	Soil Description
I	0' - 0.6'	Concrete
II	0.6' - 2.3'	10YR 3/4 sandy loam
III	2.3' - 3.5'	10YR 4/4 with 3/4 coarse brown sand

Toward the northern end of the trench a small segment of the nineteenth century drain line, exposed and documented throughout the northeast area in 2010, was exposed. Labeled as Feature 44 this segment extended from beneath the stone retaining wall and curved toward the southeast. The stone and brick materials of the drain were consistent with those documented in 2010. The feature was surrounded by 7.5YR 4/3 sand fill. No artifacts were observed in association with this feature. Feature 45 was disassembled and removed to facilitate the construction.

No additional artifacts were observed along the east path excavation.



Map 05: Plan view of East Path excavation trench.

## WATER LINE EXCAVATION

Excavation for the water line occurred in two stages within the northeast vault area. The first was the excavation of a 4' by 4' area to locate the top of an existing utility tunnel installed in the 1980s (Map 02). Excavation of this area was uneventful exposing fill soils and eventually the top of the tunnel. The second stage of the excavation was a trench that extended east to west along the northern edge of a brick feature (Feature 4) exposed during excavations in 2010. The trench excavation measured approximately 39' in length by approximately 2.5' wide and extended to a depth of 3.5' (Image 08).

Feature 4 was a 16.8' by 8.4' nineteenth century brick structure that was associated with the early period of City Hall. Historically it was located outside a door that led to the basement kitchen of City Hall. The original function of Feature 4 remains undetermined. See Loorya et.al 2013 for further detail (Image 09).

No artifacts were observed in association with this excavation. An approximate 4' section of the exterior north wall of Feature 4 was exposed and documented. The soils from this trench consisted of 10YR 5/4 sand (Image 10).



Image 08: Excavation the northern edge of Feature 4 as part of the water line excavation trench.



Image 09: Excavation the Water Line area



Image 10: Feature 04.

#### **IV: CONCLUSION**

While the excavation for the fuel cell work did not uncover any new features or deposits, it provided important supplemental information to the overall, and ongoing, study of City Hall and City Hall Park.

The trenching for the fuel cell line crossed areas that had been excavated in 1999 by PES. As previously discussed in the 2010-2011 report, due to various circumstances, there are gaps in the record keeping from the 1999 project. As with some of the 2010–2011 work, this recent project has been able to fill in some missing information with regard to the 1999 discoveries. This has enabled a better record/documentation of the property's historic resources. Furthermore, this information will be invaluable to future construction works on the property.

As detailed in the 2010-2011 Archaeology report (Loorya et.al. 2013) much has been learned from the efforts of all the projects about landscape use and modification in the eighteenth and nineteenth centuries and into the modern era of the twentieth century. Amongst this reconstruction of landscape, archaeology has augmented the history of the several communities that have utilized and/or occupied this very public parcel of land. The work undertaken as part of the fuel cell project has added to that expanding knowledge base. Additionally, the overall City Hall Park Archaeological Sensitivity Map has been updated to include the 2013 excavation (Map 06).

Features exposed during this monitoring included the remains of modern utility (PVC) lines, a brick pathway, artifact remains that were most likely associated with a trash feature uncovered, but not fully excavated, in 1999, and part of the early nineteenth century drainage system uncovered in 2010.

Although no further archaeological testing is recommended for the area that encompasses the fuel cell utility trench, it is recommended that archaeological monitoring and/or testing be undertaken in the areas of City Hall Park where have not been as impacted as this particular trench.



**V: REFERENCES**

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Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
502	5	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buf Bodied	Miscellaneous Brown Slip	Single Glazed	brown	Interior Slip	body	1720-1820	
502	6	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buf Bodied	Cordoned	Double Glazed	grey		body	1720-1820	
502	7	1	Household	Hollowware	Refined Earthenware	Creamware					body	1762-1820	
502	8	1	Architectural	Tile, Wall	Refined Earthenware		molded	Single Glazed	pink		fragment		modern looking wall tile with ribbed dorsal side for adhesion
502	9	1	Indeterminate	Indeterminate	Composite		Stamped		white	Lettering	fragment		partial words visible, "ANES" "NEW" and "N"
502	10	2	Personal	Smoking Pipe	Clay	White Ball Clay	Indeterminate				pipe stem fragment		4/64" bore diameter
502	11	1	Faunal	Bone	Bone						tarsal bone		indeterminate species but most likely large mammal
502	12	1	Faunal	Tooth	Other						incisor with root attached		indeterminate species but most likely larger mammal
502	13	2	Faunal	Shell Fragment	Shell						oyster shell fragment		
504	1	4	Household	Tableware, General	Refined Earthenware	Creamware					base fragment	1762-1820	indeterminate object, only the flat center of the base
504	2	3	Household	Tableware, General	Refined Earthenware	Creamware					body	1762-1820	indeterminate object, small body sherds
504	3	3	Household	Flatware	Refined Earthenware	Creamware					base	1762-1820	

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
504	4	1	Household	Hollowware	Refined Earthenware	Creamware					base	1762-1820	
504	5	1	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		4/64" bore diameter
504	6	3	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		5/64" bore diameter
504	7	1	Household	Hollowware	Refined Earthenware	Pearlware	Cordoned				body	1775-1840	
504	8	1	Household	Hollowware	Refined Earthenware	Pearlware	Painted			Chinese Landscape	body	1775-1810	china glaze, visible part of motif includes water lines and parts of tree
504	9	1	Household	Hollowware	Refined Earthenware	Tin Glazed	Indeterminate		white		body	1640-1800	thick walled vessel
504	10	2	Household	Bottle, Wine	Common Glass				dark olive		base fragments		mouth blown, sand pontil scar
504	11	1	Household	Drinking Vessel	Common Glass				colorless		base		stemware, "firing" foot formation, small portion of stem present
504	12	1	Household	Dish	Coarse Earthenware	Redware	Slip Decorated	Coggled Rim	yellow	Trailed Slip	rim	?-1850	bottom of sherd is worn, indeterminate finish on this side of sherd
504	13	1	Architectural	Window Glass	Common Glass				light aqua				
504	14	3	Faunal	Bone	Bone						small long bone fragments		indeterminate species but probably from smaller animal

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
504	15	1	Faunal	Bone	Bone						long bone fragment		from large animal, cut on both ends, narrow removed
504	16	2	Faunal	Bone	Bone						rib fragments		from medium sized animal, cut marks on ends
504	17	2	Faunal	Bone	Bone						rib fragments		from large mammal, in poor condition, edges worn
504	18	23	Faunal	Bone	Bone						indeterminate		various species, lots of bone fragments
501	1	1	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		4/64"
501	2	1	Household	Tableware, General	Non-Lead Glass		Etched		colorless	Geometric Pattern	body		swirled and loopy motif
501	3	1	Household	Indeterminate	Refined Earthenware	Creamware					body	1762-1820	
501	4	1	Household	Hollowware	Refined Earthenware	Pearlware	Painted		polychrome	Floral	body	1795-1830	green and brown floral motif beneath a thick yellow band
501	5	1	Household	Hollowware	Refined Earthenware	Pearlware	Painted		polychrome	Floral	rim	1795-1830	green leaves between yellow-filled brown half circles extended from double brown bands
506	1	4	Faunal	Bone	Bone						long bone epiphyses fragments		various sizes, indeterminate species
506	2	1	Faunal	Bone	Bone						tarsal fragment		indeterminate species, most likely large mammal

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
506	3	1	Faunal	Bone	Bone						mandible fragment		indeterminate species
506	4	1	Faunal	Bone	Bone						bovine rib fragment		
506	5	8	Faunal	Bone	Bone						long bone fragments		various species
506	6	2	Faunal	Bone	Bone						rib fragments		medium sized rib bones (smaller than human), indeterminate species
506	7	37	Faunal	Bone	Bone						various bone fragments		indeterminate species
506	8	1	Faunal	Bone	Bone						bovine hyoid bone fragment		
506	9	5	Faunal	Tooth	Tooth						bovine premolars		5 loose premolars
506	10	1	Faunal	Tooth	Tooth						premolar teeth		two teeth attached, indeterminate species
506	11	3	Faunal	Tooth	Tooth						large mammal molars		
506	12	1	Faunal	Tooth	Tooth						large molar with attached mandible fragment		
506	13	1	Faunal	Tooth	Tooth						bovine molar		partial root present
506	14	1	Faunal	Tooth	Tooth						incisor		indeterminate species

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
506	15	15	Personal	Smoking Pipe	Clay	White Ball Clay	Indeterminate				pipe stem fragment		4/64
506	16	15	Personal	Smoking Pipe	Clay	White Ball Clay	Indeterminate				pipe stem fragment		5/64"
506	17	16	Household	Tableware, General	Refined Earthenware	Creamware					body	1762-1820	
506	18	1	Household	Bowl	Refined Earthenware	Creamware					rim	1762-1820	
506	19	1	Household	Pitcher	Refined Earthenware	Creamware					rim	1762-1820	
506	20	2	Household	Bowl	Refined Earthenware	Pearlware					base	1775-1840	
506	21	1	Household	Pitcher	Refined Earthenware	Pearlware	Painted		blue	Trellis	rim	1779-1830	
506	22	2	Household	Indeterminate	Refined Earthenware	Pearlware					body	1775-1840	
506	23	1	Household	Flatware	Refined Earthenware	Pearlware	Painted		blue	Indeterminate	base	1775-1840	only small sherd, indeterminate pattern, some crosshatching visible
506	24	2	Household	Hollowware	Porcelain	Porcelain, Chinese Export	Undecorated				base		plain, thick walled vessel (large bowl?) with free-standing ring base
506	25	1	Household	Hollowware	Porcelain	Porcelain, English Soft Paste	Painted		red	Banded	rim	1745-1795	overglaze painted double bands on interior rim
506	26	1	Household	Hollowware	Refined Earthenware	Tin Glazed	Indeterminate		white		body	1640-1800	very little of glaze remains

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
506	27	2	Household	Flatware	Coarse Earthenware	British Buff-Bodied Slipware	Slip Decorated	Lead Glazed	yellow	Trailed Slip	body	1670-1795	glaze detached from body, partially mended sherds
506	28	1	Household	Plate	Coarse Earthenware	British Buff-Bodied Slipware	Lead Glazed	Cogged Rim	yellow and brown	Trailed & Combed Slip	rim	1670-1795	
506	29	1	Household	Flatware	Coarse Earthenware	British Buff-Bodied Slipware	Slip Decorated	Lead Glazed	yellow, brown, and green	Trailed Slip	body	1670-1795	some green paint between brown lines
506	30	1	Household	Flatware	Coarse Earthenware	Redware	Slip Decorated	Lead Glazed	yellow	Trailed Slip	rim	?-1850	everted rim of a dish?
506	31	1	Household	Flatware	Coarse Earthenware	Redware	Slip Decorated	Lead Glazed	yellow	Trailed Slip	body	?-1850	
506	32	1	Household	Hollowware	Refined Earthenware	Red Bodied	Lead Glazed				base		possibly base of engineturned vessel but sherd is only small portion of base and any decoration is not visible
506	33	1	Household	Teaware, General	Stoneware	White Salt Glazed	Undecorated		white		body	1720-1790	
506	34	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buf Bodied	Salt-Glazed	Single Glazed	buff		body		cream colored exterior, almost white matte interior
506	35	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buf Bodied	Painted	Single Glazed	blue	Indeterminate	body	1725-1850	poorly fired, reddish brown matted interior
506	36	3	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buf Bodied	Indeterminate		grey		body	1725-1850	grey salt glazed on both sides

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
506	37	1	Household	Hollowware	Stoneware	Indeterminate	Engine Turned		dk reddish brown	Geometric Pattern	body	1763-1820	line and dot pattern, grey bodied with dark brown glaze
506	38	1	Toy/Recreation	Doll Part	Porcelain	Indeterminate			white		partial leg fragment		incised markings in inner leg "3 1/2" and "130"
506	39	6	Household	Bottle	Common Glass				olive green		body		
506	40	2	Household	Bottle, Case	Common Glass				olive green		body		
506	41	1	Architectural	Window Glass	Common Glass				light aqua		fragment		
506	42	2	Household	Bottle	Common Glass				colorless		body		
506	43	1	Household	Stemware	Common Glass				colorless		stem fragment		very thick stem fragment, maybe not from drinking vessel at all?
00	1	34	Faunal	Bone	Bone						fragments		various bone fragments, indeterminate species
00	2	2	Faunal	Bone	Bone						rib fragments		mends, large mammal rib
00	3	4	Faunal	Tooth							fragments		possible fragments of a premolar? Large animal teeth, all in pieces
00	4	1	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		mostly whole pipe stem, 6/64"
00	5	1	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		6/64", very thick pipe stem fragment



Table 04: Artifact Catalog

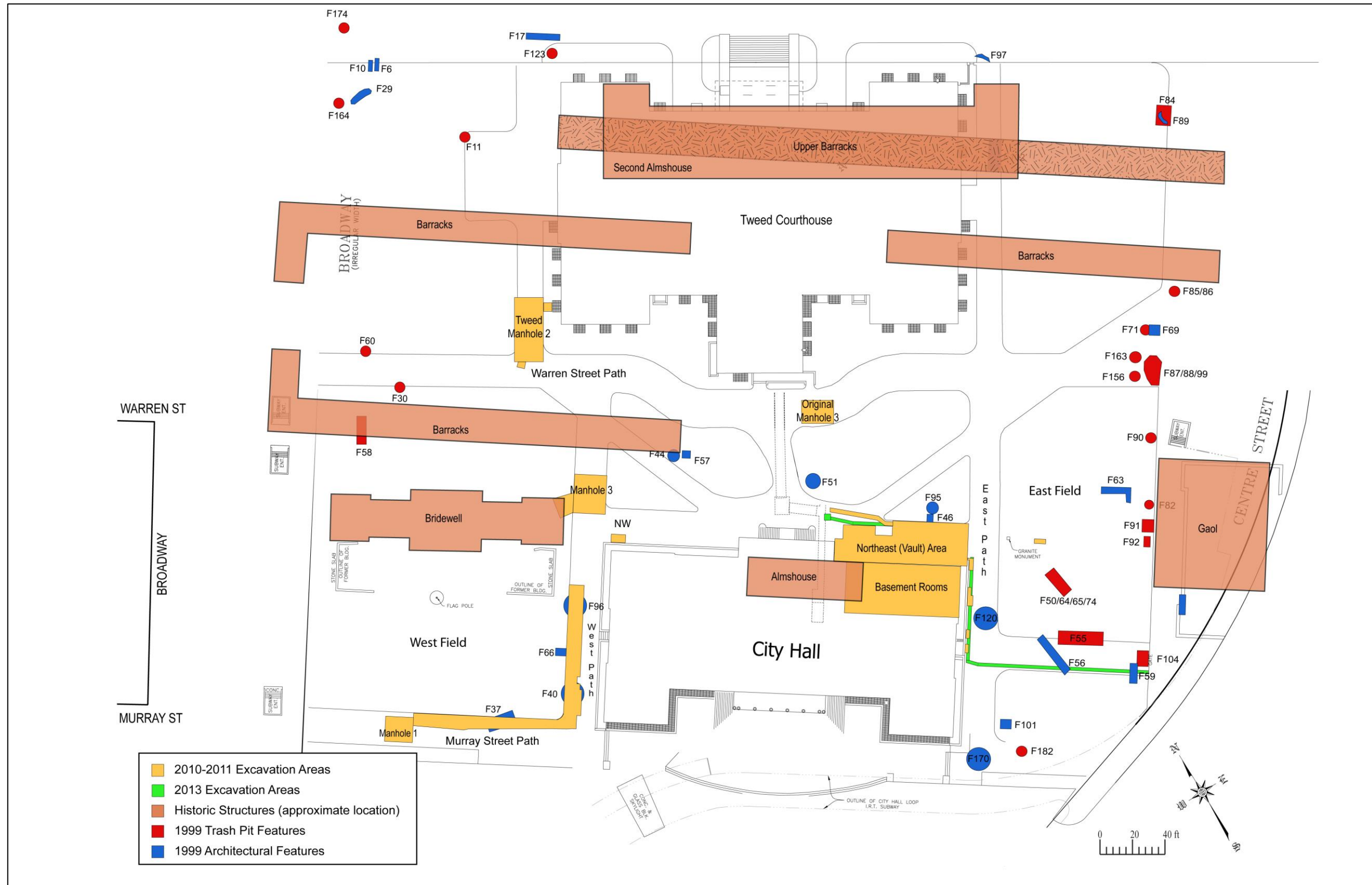
FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
00	6	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buff Bodied	Salt-Glazed	Double Glazed	grey		rim	1725-1850	stained, poorly glazed, everted rim
00	7	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buff Bodied	Cordoned	Double Glazed	grey		body	1725-1850	stained, poorly glazed, likely mends with 00.6
00	8	1	Household	Tableware, General	Refined Earthenware	Whiteware	Painted, Overglaze		red and gold	Floral	base	1815-pres	overglaze red and traces of gold paint, FLMNH says, "Liquid bright gold became available in 1836, but was not used by the potteries of Staffordshire until 1870, and at that point it began being used on cheaper wares."
00	9	1	Household	Flatware	Coarse Earthenware	Redware	Slip Decorated	Single Glazed	yellow	Trailed Slip	body	?-1850	thick walled vessel, some green staining/paint?
00	10	1	Household	Hollowware	Coarse Earthenware	Indeterminate	Lead Glazed		yellow		base		cream colored paste (poorly fired redware?) with lead glaze giving it a yellowish color
00	11	1	Household	Hollowware	Stoneware	Salt Glazed, Gray/Buff Bodied	Miscellaneous Brown Slip		grey		body	1725-1850	
00	12	1	Household	Teaware, General	Stoneware	White Salt Glazed	Indeterminate		white		body	1720-1790	
00	13	1	Architectural	Window Glass	Common Glass				olive		fragment		
00	14	1	Household	Bottle	Common Glass				olive		body		mouth blown, some patination
507	1	6	Household	Bottle, Wine	Common Glass				dark olive		base fragments		partially mended, heavily patinated, sand pontil

Table 04: Artifact Catalog

FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
507	2	4	Household	Bottle, Wine	Common Glass				dark olive		body		mouth blown, patinated
507	3	1	Household	Lid	Refined Earthenware	Creamware	Painted		green	Indeterminate	lid fragment	1790-1820	green paint with black stippled glaze, mochaware painted green?
507	4	1	Household	Indeterminate	Refined Earthenware	Creamware					body	1762-1820	
507	5	1	Household	Hollowware	Coarse Earthenware	British Buff-Bodied Slipware	Slip Decorated	Double Glazed	yellow	Dot	body	1670-1795	thick brown dot on a yellow color field
507	6	1	Household	Hollowware	Stoneware	White Salt Glazed	Molded Pattern			Banded	rim	1740-1765	
507	7	1	Household	Hollowware	Refined Earthenware	Tin Glazed	Painted		blue	Indeterminate	body	1640-1800	blue decoration on a white color field
507	8	2	Personal	Smoking Pipe	Clay	White Ball Clay					pipe stem fragment		5/64"
507	9	1	Personal	Smoking Pipe	Clay	White Ball Clay	Undecorated				pipe bowl fragment		
507	10	1	Faunal	Shell Fragment	Shell						oyster shell		
507	11	1	Faunal	Tooth	tooth						bovine molar		root attached
507	12	3	Faunal	Bone	Bone						rib fragments		small animal ribs, dog sized
507	13	1	Faunal	Bone	Bone						tarsal bone fragment		large animal tarsal, cow or horse?
507	14	16	Faunal	Bone	Bone						various bone fragments		indeterminate species, various parts and species

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FS #	Entry #	Artifact Count	Group	Object	Material	Ware	Decoration I	Decoration II	Color	Pattern	Form	Date Range	Notes
502	1	1	Household	Bottle, Wine	Common Glass				dark olive		base		mouth blown base fragment, some patination
502	2	1	Household	Hollowware	Coarse Earthenware	Redware	Lead Glazed	Double Glazed	yellow-green		body		glaze is chipping off on exterior
502	3	1	Household	Saucer	Porcelain	Porcelain, Chinese Export	Painted		blue	Trellis	rim	?-1840	trellis pattern banded along interior rim
502	4	1	Household	Saucer	Refined Earthenware	Pearlware	Transfer-printed		blue	Indeterminate	rim	1815-1840	old blue printing, intricate motif
503	1	2	Architectural	Brick, Whole	Coarse Earthenware								wire cut, most likely machine made bricks



Map 06: Current City Hall Park Archaeological Site Map – This map includes all work undertaken from 1999, 2010-2011 and 2013. The work undertaken as discussed in this memo all occurred in 2013 and is highlighted in green.