

Environmental and Planning Consultants

440 Park Avenue South 7th Floor New York, NY 10016 www.akrf.com

ARCHAEOLOGICAL ASSESSMENT: COLLECT POND PARK UNANTICIPATED DISCOVERIES

January 2012

Prepared for:

The Lower Manhattan Development Corporation
1 Liberty Plaza
New York, New York 10006

A. INTRODUCTION

During recent construction at the Collect Pond Park project site (Block 169, Lot 1), unanticipated subsurface walls were encountered. Collect Pond Park is bounded to the east by Centre Street, to the south by Leonard Street, to the west by Lafayette Street, and the Franklin Street pedestrian path to the north (the "Park"). The reconstruction of Collect Pond Park is part of the Seven Lower Manhattan Parks Project, which aims to reconstruct seven parks in Lower Manhattan in order to enhance the quality of life in Lower Manhattan and contribute toward the restoration, stabilization, and enhancement of the community. The reconstruction of the Park will include new pavement and curbs, fencing and gates, bollards, benches, drinking fountains, a water feature, park lighting, plantings, and installation of water supply and drainage systems (the "Project").

In 2007, an Environmental Assessment of the Seven Lower Manhattan Parks Project was completed by AKRF, Inc. In 2010, AKRF completed a subsequent Environmental Review Record for the Collect Pond Park Reconstruction. These environmental review documents were prepared pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) because funds from the United States Department of Housing and Urban Development (HUD), were being sought to undertake the proposed project. As part of the environmental review, consultation was initiated with both the New York State Historic Preservation Office (SHPO) and the New York City Landmarks Preservation Commission (LPC). In comments dated July 24, 2007 and July 21, 2010, LPC determined that the Project, which was not expected to result in the disturbance of previously undisturbed portions of the project site below a depth of approximately 4 feet, would not impact potentially significant archaeological resources, although LPC did identify potential sensitivity for 19th century archaeological resources below a depth of 4 feet. In comments dated August 31, 2010, SHPO also determined that the proposed project would not impact archaeological resources.

After the discovery of the walls (see below for a thorough discussion of the walls' history), the City's contractors continued to work on the project site, but they limited their work to areas safely away

from the foundations and machines were kept a minimum of 10 feet from the foundation walls, as directed by LPC and SHPO.

B. DESCRIPTION OF THE WALLS

After the discovery of the subsurface walls, representatives from the New York City Department of Parks and Recreation (DPR) and the Lower Manhattan Development Corporation (LMDC) contacted archaeologists from AKRF, Inc. On October 12, 2011, the first of the wall segments was discovered ("Wall A") and on October 17, 2011 an AKRF archaeologist went to the project site to inspect the segment. Wall A was located in the southeast corner of the park, near the northeast corner of Leonard and Centre Streets. This wall was approximately 28 feet 3 inches west of the west curb of Centre Street (see Figure 1). The top of the feature is approximately 1.5 to 2 feet below ground surface and the area on both sides of the wall was excavated to a depth of approximately 4 feet below grade. The exposed portion of Wall A measured approximately 62 feet in length and approximately 4 feet in width. It appears that the wall continues to the north and south beneath areas that have not yet been excavated.

Wall A appears to be made up of two components. The base of the feature is a stone wall (identified as schist) measuring approximately 4 feet in width and covered with a matrix that appeared to be concrete (see Figure 2). Evenly spaced across the top of the stone wall are 6 concrete boxes, each measuring approximately 3 feet square. Some of the concrete boxes appeared to be cemented to the stone wall and iron rebar was visible on several. At least one of the concrete boxes was not cemented to the stone wall and appeared to be sitting on, but not attached to the stone; it is unclear if these boxes are covering voids of some kind.

According to the construction foreman, after the discovery of the wall, the contractor excavated the area to the west of Wall A to a depth of 7 feet without encountering the base of the wall. The fill to the west of the wall, some of which was backfill as a result of the contractor's excavations, was composed of brick rubble and demolition debris. To the east of the wall, the fill is composed of a light-colored sandy fill.

Two additional walls were encountered in the northeast corner of the project site on October 20, 2011 and inspected by an AKRF archaeologist on October 21, 2011 (see Figure 3). The adjacent walls were approximately 5 feet apart and, like Wall A, both appeared to be covered with concrete. The south wall ("Wall B"), which appeared to have been constructed of pink and gray granite beneath the concrete, was curved and measured 4 feet in width. The northern wall ("Wall C"), which measured 3.5 feet in width, was more linear and featured what appeared to be the base of a rounded column. Both Walls B and C were encountered approximately 1 foot below the ground surface. Both appeared to be covered with brick rubble and modern fill.

Additional portions of these walls that were in unexcavated areas during the initial site visits were later uncovered by DPR during their work at the site (see Figure 14).

C. HISTORIC CONTEXT OF BLOCK 169, LOT 1

The site of Collect Pond Park was originally within the Collect Pond, a large body of fresh water (see Figure 4). The Collect Pond was an important source of drinking water and fish and other fresh water resources, including fish, to both Native Americans and the early European settlers of Manhattan. The pond, long assumed to be "bottomless" by many city residents, was approximately 40 to 60 feet deep and was fed by several underground springs (New York Times 1902).

The pond served as the city's main source of drinking water until it became too polluted. As a result, the pond was filled in gradually over the course of many years in the 1810s and early 1820s. At least 40 feet of fill were used to create the land that is now the Collect Pond Park. A description of Manhattan's geology that was published in 1843 described early soil investigations of the project site during which "iron rods were sunk forty feet through artificial earth, thirty feet through black mud, five to ten feet of blue clay, then [through] a bed of gravel resting on the [bed]rock" (Mather 1843: 138). The fill materials were obtained largely by cutting down the large hills that had once bordered Collect Pond (Mix and Mackeever 1874).

After it was initially filled, the project site was included within the block bounded by Leonard, Elm (now Lafayette), Franklin, and Collect (now Centre) Streets. This lot was owned by the City of New York and was known as the "Corporation Yard" or "Public Yard." The Public Yard originally measured 200 feet, 4 inches along Elm Street, 200 feet, 7 inches on Centre Street, 253 feet, 3 inches along Leonard Street, and 233 feet, 3 inches along Franklin Street (Board of Assistants 1835). As a result of street widening projects in the late 19th and early 20th centuries, the block is now smaller than it once was.

During the 1820s and early 1830s, the Corporation or Public Yard was an open work area where the city's early fire engines and ladder trucks were constructed and repaired (Kernan 1885). Several fire engine companies were stationed at the yard in the early 19th century, including Engine Company No. 1 in 1822 and No. 16 in 1825 (ibid). The *Minutes of the Common Council* (MCC) note that in 1829, Engine House No. 1, which was immobile and located over a large well of water in the Public Yard and was only used to fight fires in the immediate area (MCC 17: 594). The Public Yard was also used for activities associated with the repair of public buildings, for the construction of coffins for paupers, and for other similar activities (Haswell 1896).

Several early 19th century maps, such as William Hooker's 1824 and 1828 plans of Manhattan, depict at least four small structures on the block, located at the block's northwest corner and along its southern edge (see Figure 5). In 1834, the structures on the site were described as not "capable of standing along; the principle one is supported by props, and all the others, with one or two exceptions, are in a dilapidated state and all are of inconvenient structure for the work to which they are appropriates" (Board of Assistants 1835: 241). *The Fireman's Guide*, a map published in 1834, is one of few maps to identify the Public Yard as such and indicates that two structures (identified as Engine House No. 7 and the Supply House) were present along the southern side of the block (see Figure 6). A carpenter's shop was located in the yard on Franklin Street, approximately 120 feet east of what was then Elm Street (Board of Assistants 1835).

By the early 1830s, rising crime rates associated with a larger population left the City in dire need of a modern prison facility central to the court buildings to replace the Bridewell, the dilapidated prison and almshouse located near City Hall (Mix and Mackeever 1874). The Public Yard was chosen as an ideal location for the new prison in November 1834 (Board of Assistants 1835). The property had previously been suggested as a site for the new prison, but it was originally thought that the fill was not stable enough to support a structure of substantial size (ibid). However, the city formed a committee to investigate the issue and after excavating test trenches and driving iron-tipped wooden piles to test the depth of the bedrock, the ground was determined to be suitable for the construction of the new building, as long as the new foundation was constructed on similar piles driven into the bedrock (ibid). It was said of the prison's construction:

Every precaution has been used 'to render the foundation secure by the introduction of iron ties, inverted arches, and heavy timbering.' The ground was 'excavated several feet below the water level, large timbers were placed together, and range

timbers at right angles with these laid several feet wider than the respective walls.' (Stokes 1968 V: 1837).

The buildings that made up the prison were constructed on piles driven through 50 to 60 feet of fill and mud into the bedrock (New City Prison Commission 1874). The stone foundation rested on a series of logs that were described as being like a raft constructed on the subsoil and quicksand beneath the building (New York Times 1902). This construction method allegedly caused the building to rise and fall with the tide during severe storms (ibid).

The construction of the new prison, formally named the "Halls of Justice" began in 1836 and was completed in the summer of 1838 (Stokes 1968). The structure is first depicted on a version of the 1836 Colton map that was likely updated in the late 1830s. The building was constructed in part from stone removed during the demolition of the Bridewell and from new, light gray granite that was brought in from Maine (ibid). The building was modeled after an image of an Egyptian tomb published in *Stevens's Travels* published by John L. Stevens (Mix and Mackeever 1874). The imposing Egyptian-style architecture gave the building its popular nickname, "the Tombs."

The complex known as the Tombs combined prison cells with courtrooms and administrative offices (see Figure 7). The Police Court, Warden's office, and some prison cells were located in the portion of the building along Centre Street, where the main entrance to the facility was located. The wards for female and male prisoners lined Leonard and Franklin Streets, respectively, and additional cells and kitchen facilities were located along Elm Street (New City Prison Commission 1874). The prison buildings surrounded the perimeter of the block and the central courtyards were used as exercise yards. A free-standing structure in the southern yard was used to house incarcerated boys (ibid).

Although executions took place on the property as late as 1889, the Tombs was mostly used as a temporary detention facility for prisoners during their trials at the nearby court buildings and convicted prisoners were sent to larger institutions, such as Sing-Sing in Westchester County and a prison on Blackwell's Island in the East River (New York Times 1896a). Despite the short-term stays of its residents, it did not take long for the structure to take on a dreary reputation. As described by the New York Herald in 1846, within the block were:

...buried the remains, the disfigured and ghastly remains of departed virtue, amiability, and rectitude—blasted hopes, blighted prospects, and ruined characters...here entombed to fester and offend until the moral atmosphere of the entire vicinage is impregnated with their odious exhalations and the very soil seems to send forth in foul luxuriance the noxious shoots of crime and hardy guilt.

The site's history as a large freshwater pond resulted in many problems for the new prison. The 40 feet of fill could not stop the underground springs that had once fed the Collect Pond, and "dampness pervade[d] the entire structure" and it was "not an uncommon thing for the cells to be overflowed with water" (Mix and Mackeever 1874: 51). Almost immediately after its construction, the building began to settle in the muddy fill, resulting in cracks in the walls and sinking foundation stones (ibid).

Several decades after the construction of the Tombs, the surge in the City's population combined with the deterioration of the structure associated with its construction on instable fill led City officials to call for a new prison to replace the overcrowded Tombs. In 1873, the city began to make plans to replace the Tombs with another prison structure. However it was soon realized that any structure built on the site would have the same foundation problems due to the unreliable fill deposits (New City Prison Commission 1874). It was instead decided to repair and expand the existing prison on the same site (ibid). Architects Calvert Vaux (one of the designers of Central Park) and R.G. Hatfield were hired to inspect the Tombs and to make suggestions regarding the building's rehabilitation. The

two architects suggested the construction of new buildings in the central portions of the block, the improvement of drainage infrastructures across the site, the remodeling of the court building along Centre Street to accommodate more prisoners, and an overall raising of the grade in the area before the construction of any new buildings (ibid). In September 1873, the City allocated \$250,000 for the enlargement of the Tombs so as to render it "ample for the purposes for which it was constructed for many years to come" (New York Times 1873: 8). In 1885, new prison structures were built in the yard to alleviate the congestion in the cells (New York Times 1897a). The new rectangular prison structures are depicted on the 1894 Sanborn map, which also identified the structures as being of "superior construction" (see Figure 8).

In the 1890s, as part of the City's efforts to improve the flow of traffic and improve infrastructure, Elm Street was widened to the east, becoming modern Lafayette Street. As a result, a portion of the wall surrounding the Tombs and a portion of its western yard removed. However, remnants of the former building may still be found beneath the streetbed (New York Times 1893). As the City continued its attempts to relieve overcrowding in Lower Manhattan—both of the jail and of the city itself—the replacement of the Tombs became more and more important. In 1895, the New York Times referred to the overcrowded prison as a "blot on the civilization of New York City" and noted that the building had settled into the fill in such a manner that its "heavy walls [were] cracked from the roof to the foundation."

The redevelopment of the portions of the block fronting on Centre and Elm Streets with new brick structures with steel frames was proposed in 1896 (New York Times 1896b). These improvements were designed to greatly expand the number of cells within the building to accommodate the growing number of prisoners that were passing through the doors of the Tombs during the late-19th century. The prison continued to operate on the property during its redevelopment, and prior to the demolition of the original buildings, temporary structures made of corrugated iron were erected within the yards to provide space for the prison's warden and other administrators and new iron fences were built to secure prisoners during construction (New York Times 1896a).

The old police court structure fronting on Centre Street was the first to be demolished and replaced with a new prison (New York Times 1897b). After its completion, the prisoners were transferred to the new building, and the prison facilities on the west side of the block were demolished and replaced, coincident with the widening of Elm Street. The light gray granite used to construct the original buildings had turned black by the time demolition began in 1897 (New York Times 1897a). The granite and other building materials that made up the original buildings were given to the contractor hired to construct the new buildings (New York Times 1897b).

The new building was constructed on a deeper foundation and at a higher grade than the old Tombs in an attempt to avoid the structural instability of the original structure (Fiske 1898). The foundation of the new structure along Centre Street was in place by 1898 (Carpentry and Building 1898). The new building (see Figure 9), designed by architects Withers and Dixon, featured semi-circular ends and was supported by "one row of longitudinal columns in the center...imbedded in the walls" (ibid: 131). The eastern half of the site was allegedly constructed with relative ease after the foundation was built on a series of new wooden piles (New York Times 1902). However, quicksand was found on the western half of the property and despite attempts to pump the area, the water table could not be lowered (ibid). A map of the second Tombs on file at the Department of Buildings depicts a 3-foot granite wall surrounding the perimeter of the entire block. Along Centre Street, this wall was approximately 4.5 feet east of the main building, which had walls that were approximately 4 feet thick.

Despite the extensive efforts made to ensure that the foundation would not sink, by 1916 the wooden piles supporting the newly constructed prison—also referred to as "the Tombs"—had begun to sink unevenly, and as a result "foul odors seeped through the floor crevices and gaping cracks appeared in the walls of the court rooms" (Clark 1948: 25). The slowly deteriorating building continued to be used through the late 1930s, when it was abandoned. It stood until 1948, when it was finally demolished and the site converted into a parking lot (ibid). Collect Pond Park was constructed on the site in 1960. Around this time, Leonard Street was widened to the north and as a result, the southern end of the former Tombs property is now located in the streetbed.

D. GEOREFERENCING OF HISTORIC MAPS

In an attempt to confirm the identity of the wall segments, four historic maps—the 1853 Perris, 1885 Robinson-Pidgeon, 1891 Bromley, and 1923 Sanborn maps (see Figures 11 through 13)—were georeferenced and overlaid with the modern street and lot lines. The walls' locations relative to the western curb line of Centre Street were established using fiberglass tapes in the field and the walls' approximate location was added to the historic maps. Because of the difficulties in mapping the curvature of Walls B and C in the northeast corner, a series of four points representing the exterior and interior sides of each of these two walls was mapped relative to known, previously surveyed features (i.e. catch basins) on the site. The maps from 1853, 1885, and 1891 were georeferenced with varying degrees of precision, likely the result of inaccuracies in the original maps. However, the 1923 Sanborn appears to be very accurate.

Based on observations made in the field, Walls B and C are undoubtedly the remnants of the foundation and perimeter wall of the second Tombs building constructed in 1902. The curvature of Wall B is identical to that of the second prison constructed on the site, and the column base observed in Wall C matches columns seen in the perimeter wall in historic photographs. Finally, the measurements of both walls and the distance between then correspond to measurements indicated on a circa 1948 map of the prison on file with the Department of Buildings.

Wall A appears to be aligned with Walls B and C. The modern street and lot lines appear to align well with the georeferenced version of the 1853 Perris map. Walls A, B, and C as overlaid on the 1853 map do not appear to be consistent with those of the original Halls of Justice. Neither the 1885 Robinson-Pidgeon nor the 1891 Bromley maps could be aligned with the modern street and lot lines with much accuracy, although the angle of Wall A appears to be at the same angle as the original Halls of Justice as depicted on both maps. However, when the approximate line of Wall A was overlaid on the more accurate 1923 Sanborn map, it closely matched that of the second prison, although it was situated approximately 5 feet to the east of the building as depicted on that map. However, the mapped points representing the portion of the prison's foundation wall in the northeast corner is also approximately 5 feet to the east of the building, suggesting that the building's location on the map may be slightly incorrect. Despite the 5-foot margin of error, it appears that Walls A, B, and C all match the configuration and approximate position of the City Prison structure as depicted on the 1923 Sanborn map.

Although observations suggest that Walls B and C are made of granite and Wall A is made of schist, all three are covered in concrete, making it difficult to determine the materials from which they are constructed. It is possible that both foundation wall sections (Walls A and B) are built from a combination of different types of rock while the perimeter wall (Wall C) may be of similar construction or may be composed of different materials. A closer examination of the walls beneath the concrete surface would be necessary to confirm if the same materials were used to construct the two foundation wall segments.

E. CONCLUSIONS

The unanticipated discoveries on the Collect Pond Park project site have been identified as the remnants of the foundation and perimeter walls of the City Prison that was constructed on the site in 1902. Given the structural problems associated with the second prison and the disturbance to the project site that has occurred (i.e. the construction of a refrigeration vault in the center of the site to the west of where the walls were encountered), it is unclear how much of the foundation remains intact. Portions of Walls B and C appear to have been missing to the east of the segments that were uncovered, although it is likely that additional sections of the wall may be present at greater depths. It appears that when the second prison complex was demolished in 1948, the foundation walls were left in place at approximately 1 to 2 feet below grade. It is unclear if the concrete was added at this time, although the square concrete blocks observed on the wall in the southeast corner could have been added at this time to add structural support to the fill placed on top of the foundation and possibly to cover existing voids in the foundation.

F. PROPOSED IMPACTS AND MITIGATION STRATEGIES

Some disturbance to Walls A, B, and C is necessary for the completion of the proposed project. This disturbance is expected to be localized and will involve minimal disturbance of portions of the foundation walls for the installation of pipelines and sidewalks. The project plans have been modified to minimize the damage to the existing foundation wall. Impacts to the walls will be necessary to accommodate the planting of new trees and the installation of new drainage infrastructure as well as modifications to increase the structural stability of the site, which is currently compromised by the walls' presence.

IMPACTS ASSOCIATED WITH NEW DRAINAGE INFRASTRUCTURE

DPR has modified the project plans to avoid most impacts to the wall associated with the installation of new drainage infrastructure within the project site (see Figure 14). The new infrastructure will now cross Walls A, B, and C in three locations and at each location, the new pipelines will be installed at or near 90-degree angles to the walls to minimize the impact to the foundation walls.

The first new drainage line is proposed near the southern end of Wall A (see Location 4 in Figure 14). This new pipeline will require the removal of a section of the wall that is 3 feet in length and 1 foot in depth. The second proposed new drainage line would require the removal of a portion of Walls B and C (see Locations 11A and 11C on Figure 14) to connect a catch basin currently installed to the north of Wall C with another located the south of Wall B. This will require the removal of an approximately 3-foot wide section of both Walls B and C to a depth of approximately 3.5 feet below grade. The tops of the foundations in this area are at approximately 1.5 feet below grade, therefore the walls' uppermost 2 feet will be removed and the remaining portion of the wall will be left intact.

The third proposed drainage line will involve the in-kind replacement of an existing broken sewer line to the north of Wall A. The bottom of the existing line is 9 feet below the sidewalk grade (see Location 8 on Figure 14). It is therefore presumed that the wall in this area was previously damaged during the installation of the existing sewer line and therefore its replacement is not expected to require any impacts to Wall A. The new line will be installed in such a manner that it will only require 6 inches of bedding material to be placed on top of the foundation wall (see Figure 15).

It is recommended that the portions of the foundation walls that are to be disturbed be documented by an archaeologist through photographs, drawings, measurements, and field notes. The archaeologist will monitor the necessary removal of portions of the foundation walls and make observations about the materials used to construct the wall beneath the concrete layer covering the walls. Where possible, the soils on either side of the walls will not be excavated so as to preserve the buried portions of the walls and any timber infrastructure that may be present underneath. After this minimal work has been completed, the undisturbed portions of the wall will be reburied with clean fill. All archaeological documentation will be provided to LPC and SHPO. As the subsurface conditions of the in-kind sewer replacement near the northern end of Wall A are currently unknown, the replacement of this pipe will be archaeologically monitored and if any additional disturbance to the foundation wall becomes necessary, it will be documented as described above.

IMPACTS ASSOCIATED WITH NEW TREES

The southern portion of the site, formerly a parking lot, will be incorporated into Collect Pond Park. New trees and landscaping are integral to this portion of the site's transformation and will establish a planting perimeter with shade trees to provide relief from the summer heat. As seen on the attached sketch provided by DPR, Wall A will be impacted in two locations in association with the planting of two trees (see Location 6 on Figure 14). In this area, DPR proposes to remove the concrete caps that currently sit on top of Wall A. No impacts to the remaining portion of the foundation wall beneath the concrete caps are proposed in this area. The concrete caps, which appear to have been added to the wall in the mid-20th century, likely after the demolition of the City Prison, and are not considered to possess archaeological significance. However, the removal of these caps will be monitored by an archaeologist so that any voids in the foundation wall beneath the caps may be examined.

A third proposed tree location would be to the west of Wall A's southern end (see Location 1 on Figure 14). This area has not yet been excavated and it is unknown if the foundation wall continues through this area. If the wall is present in this area and is found to be at the same depth as Wall A (approximately 4 feet below ground surface) and/or covered with similar concrete caps, the caps would be removed but the foundation wall would not be impacted. However, if the wall is found to be at a higher elevation than Wall A, a portion of it may have to be removed to lower the wall's elevation to 4 feet below grade to provide clearance for the proposed new tree. A 10-foot portion of the wall would be removed to a depth of 4 feet below grade for this purpose; the remaining portion of the wall will be left intact at depths greater than 4 feet. The section of the wall to be removed will be documented by an archaeologist, who will then monitor the wall's removal and make note of any observations made as detailed above.

STABILIZATION OF THE GROUND SURFACE

The existing foundations—the instability of which was the reason for the demolition of the City Prison—are within 1.5 to 4 feet of the ground surface. The presence of the foundations is believed to have contributed to the drainage system and pavement failures that characterized Collect Pond Park before the current project was initiated. Furthermore, conditions on the site seem to show that the drainage system failures have exacerbated both subsidence and pavement failure problems. In certain portions of the site where the walls are within 3 feet of the finished grade, DPR proposes removing the uppermost 1 to 3 feet of the foundation walls in the vicinity of Walls B and C (see Locations 9 and 10B on Figure 14). The walls will then be covered with geotextile fabrics to add structural stability and to prevent the settlement and failure of the new pavement that will be added in that portion of the new park. The remainder of the foundation walls would be left intact at depths greater than 3 feet.

The removal of any sections of the walls for this purpose will be monitored and documented by an archaeologist as described above.

POSSIBLE FUTURE IMPACTS

The entire project is scheduled to be completed on August 28, 2012. If additional sections of the foundations are encountered during remaining construction, the process outlined above will be followed to ensure their proper documentation and study by archaeologists. All work will be documented and provided to SHPO and LPC.

G. REFERENCES

Board of Assistants of the City of New York

Documents of the Board of Assistants of the City of New York. Volume I. New York:

Published by the Board.

Bromley, G.W. and Company

1879 Atlas of the City of New York, Complete in One Volume. New York: George W. Bromley and

E. Robinson.

1891 Atlas of the City of New York, Manhattan Island, From Actual Surveys and Official Plans.

Philadelphia: G.W. Bromley & Co.

Carpentry and Building

"New York's New Prison." In, Carpentry and Building 20: 131.

Clark, Alfred

"Site of Tombs Awaits New Tenant As in Doubtful Days 160 Years Ago." New York Times.

July 22, 1948: page 25. New York, NY.

Colton, J.H.

1836 Topographical Map of the City and County of New York and the Adjacent Country. New

York: J.H. Colton and Co.

The Common Council of the City of New York

1905 Minutes of the Common Council of the City of New York 1674-1776. In Eight Volumes. New

York: Dodd, Mead and Company published under the authority of the City of New York.

1917 Minutes of the Common Council of the City of New York 1784-1831. In Nineteen Volumes.

New York: The City of New York.

Dripps, Matthew

1852 Map of the City of New York Extending Northward to Fiftieth St Surveyed and Drawn by John

F. Harrison. New York: M. Dripps.

1867 Plan of New York City from the Battery to Spuyten Duyvil Creek. New York: Matthew Dripps.

Fiske, Amos K.

1898 "The Prison and the Pond." New York Times. October 16, 1898: page IMS6. New York, NY.

Haswell, Charles H.

1896 Reminiscences of New York by an Octogenarian. New York: Harper & Brothers.

Hooker, William

1824 Hooker's new pocket plan of the city of New York / compiled & surveyed by William Hooker,

A.C.S.A., hydrographer & engraver. New York: William Hooker.

1828 Hooker's new pocket plan of the city of New York / compiled & surveyed by William Hooker,

A.C.S.A., hydrographer & engraver. New York: William Hooker.

Kernan, Frank J.

1885

Reminiscences of the Old Fire Laddies and Volunteer Fire Departments of New York and Brooklyn. New York: McCrane.

Mather, William W.

1843

Geology of New York: Part I Comprising the Geology of the First Geological District. Albany: Carroll & Cook.

McCabe, James D.

1882

New York By Gaslight. Philadelphia: Hubbard Brothers.

Mix, James B. and Samuel A. Mackeever, editors

1874 The New York Tombs: Its

The New York Tombs: Its Secrets and Mysteries. San Francisco: A. Roman & Co.

New City Prison Commission

1874

Summary of the Proceedings of the New City Prison Commission of the City of New York. New York: Published by the Commission.

New York Herald

1846 "City Intelligence."

"City Intelligence." New York Herald. November 4, 1846: page 2. New York, NY.

New York Times

"The New City Prison." New York Times. September 17, 1873: page 8. New York, NY.

"A Great Project Passed." New York Times. January 7, 1893: page 8. New York, NY.

"Tombs an Unfit Prison." New York Times. June 29, 1895: page 6. New York, NY.

"Doom of the Old Tombs." New York Times. July 4, 1896: page 9. New York, NY.

"Plans to Change the Tombs." New York Times. June 5, 1896: page 12. New York, NY.

"The Tombs Prison Doomed." New York Times. March 7, 1897: page 18. New York, NY.

"Dismantling the Tombs." New York Times. May 21, 1897: page 12. New York, NY.

Perris, William

1853

Maps of the City of New York Surveyed Under Directions of Insurance Companies of Said

City. New York: Perris and Browne.

1857 Maps of the City of New York: Third Edition. New York: Perris and Browne.

Robinson, E. and R.H. Pidgeon

1885

Atlas of the City of New York, 1883-1888. New York: E. Robinson

Sanborn Map Company

Insurance Maps of the City of New York. New York: Sanborn-Perris Map Co.
 Insurance Maps of the City of New York. New York: Sanborn-Perris Map Co.
 Insurance Maps of the City of New York. New York: Sanborn Map Co.
 Insurance Maps of the City of New York. New York: Sanborn Map Co.
 Insurance Maps of the City of New York. New York: Sanborn Map Co.
 Insurance Maps of the City of New York. New York: Sanborn Map Co.

Stokes, I.N. Phelps.

1968 (reprint) The Iconography of Manhattan Island, 1498-1909 Volumes I-VI. New York: Robert Dodd.

Viele, Egbert L.

1865

Sanitary & Topographical Map of the City and Island of New York. New York: Ferd. Mayer & Co.



Figure 1A: Wall A, the foundation wall in the southeast corner of the site, looking south towards Leonard Street.



Figure 1B: Wall A, looking north.



Figure 2A: A concrete block with iron rebar on top of Wall A.



Figure 2B: The gap between a concrete block and the stone wall, showing the possible void beneath the blocks and the concrete covering the stone.

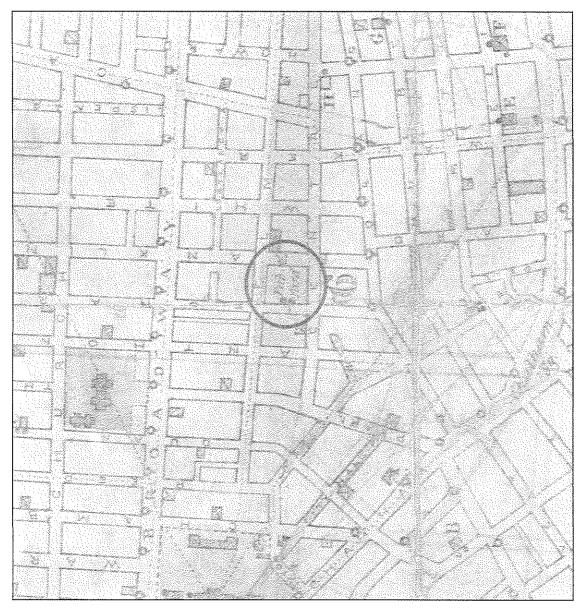


Figure 6: The Firemen's Guide, 1834.

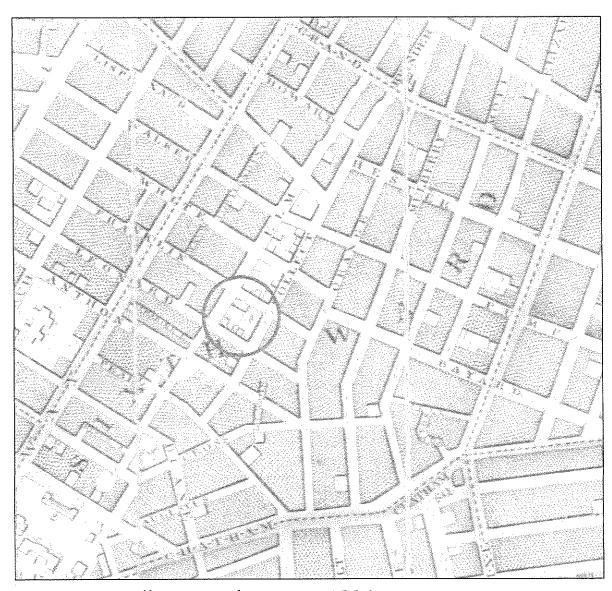


Figure 5: William Hooker map, 1824.

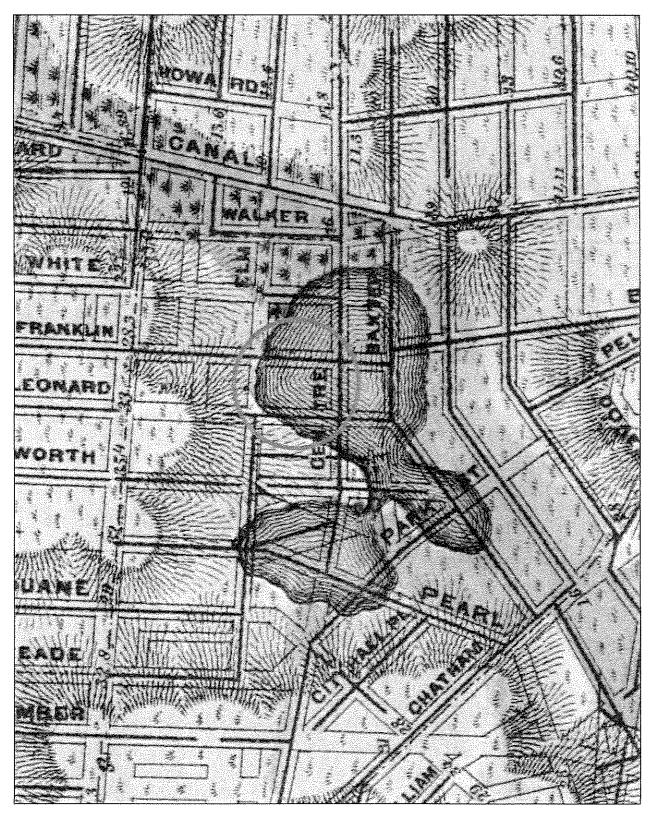


Figure 4: 1865 Viele map.



Figure 3A: Looking north at Wall B (foreground) and Wall C (background).



Figure 3B: A close-up of the column base incorporated into Wall C. This matches the location of columns in the wall surrounding the prison in early 20th century photographs.

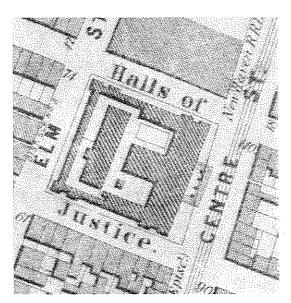


Figure 7A: The "Halls of Justice" as depicted on the 1852 Dripps map.

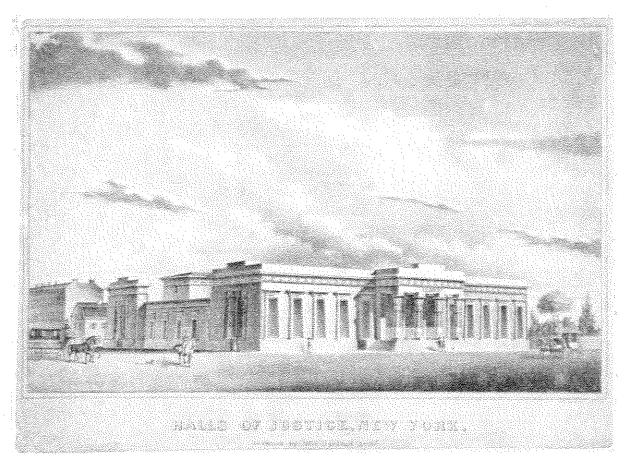


Figure 7B: A circa 1839 lithograph of the original Tombs.

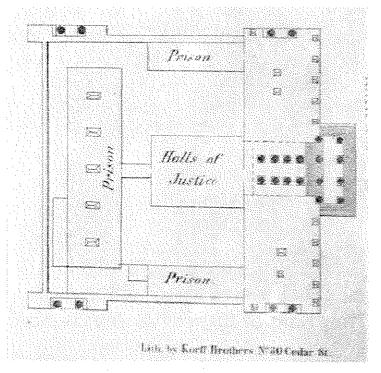


Figure 8A: The original layout of the Tombs as depicted on the 1853 Perris map.

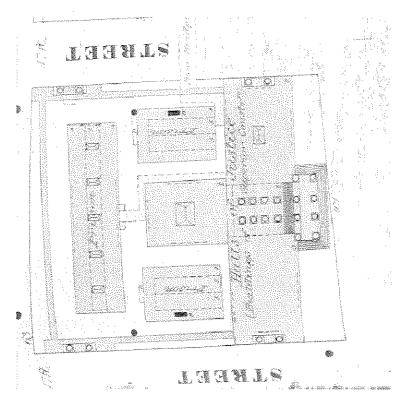


Figure 8B: The 1894 Sanborn map depicting the construction of new prisons in the center yards.

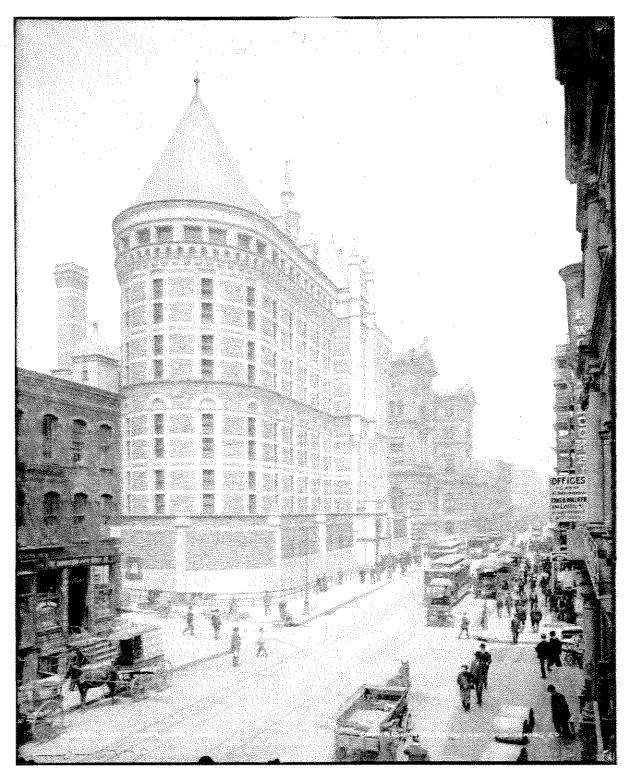


Figure 9: The second City Prison (built 1902) in 1905.

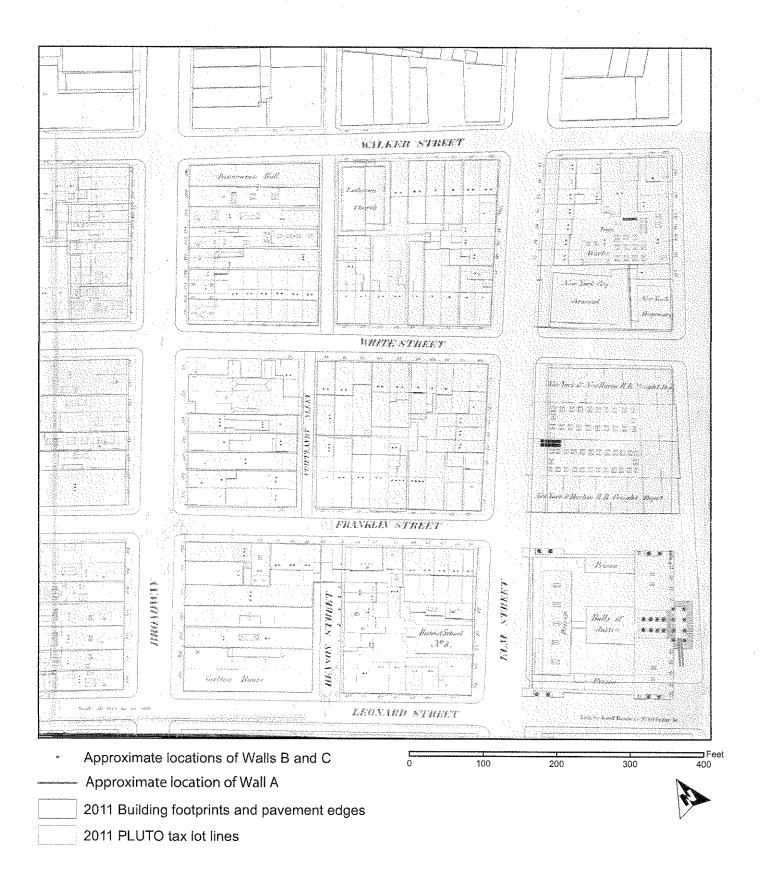


Figure 10: Georeferenced 1853 Perris Map

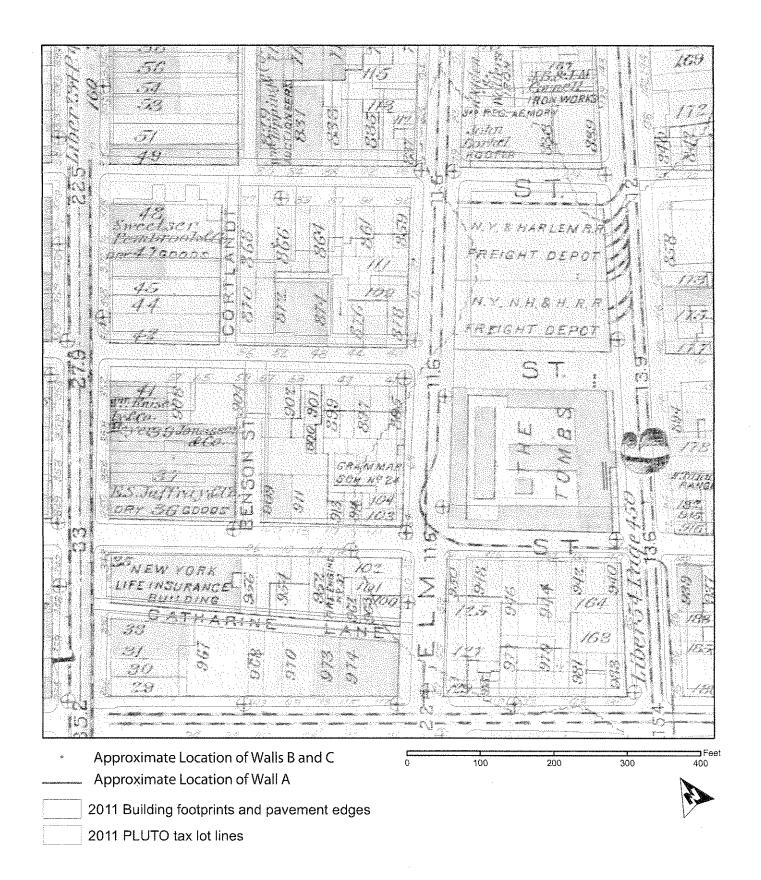


Figure 11: Georeferenced 1885 Robinson Map

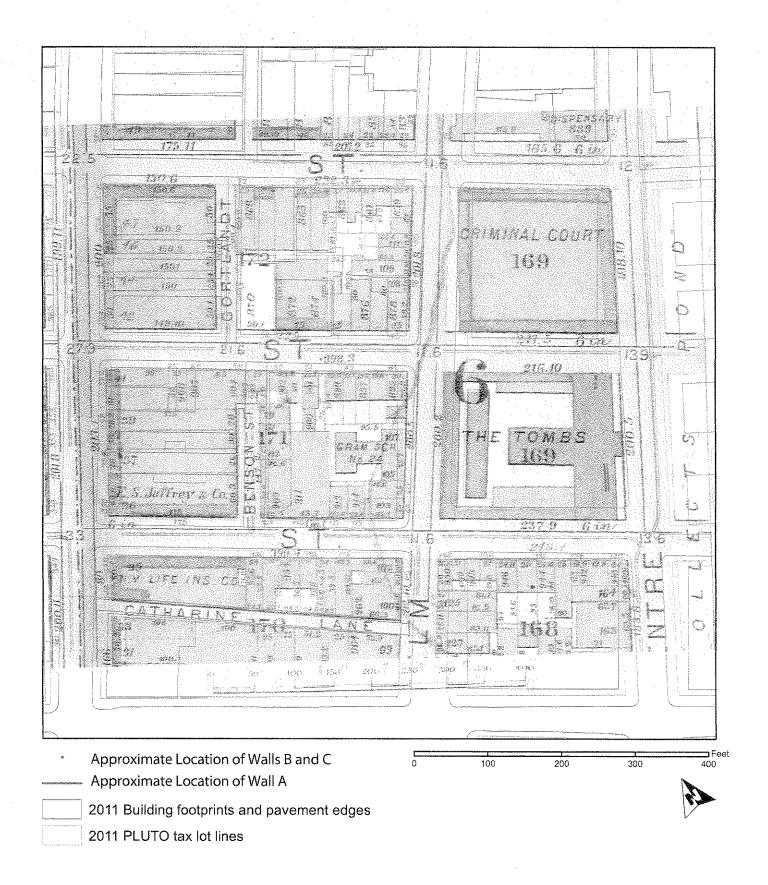


Figure 12: Georeferenced 1891 Bromley Map

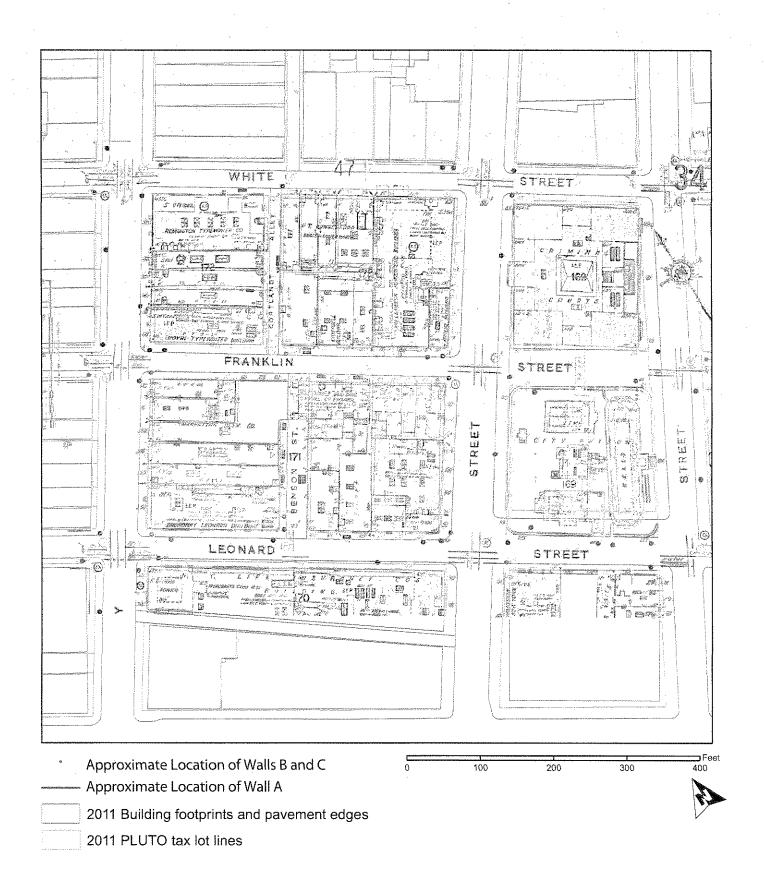
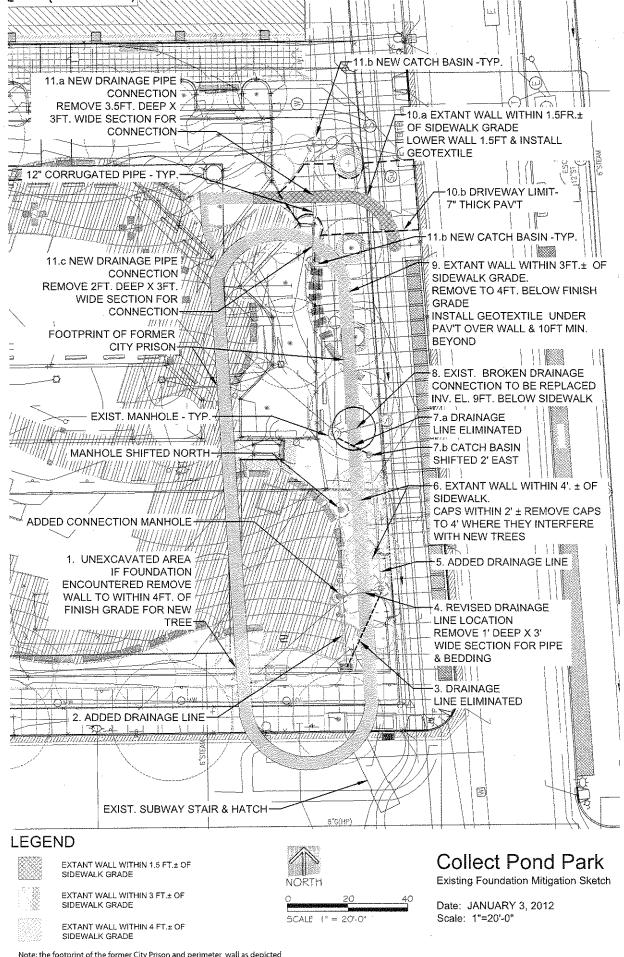
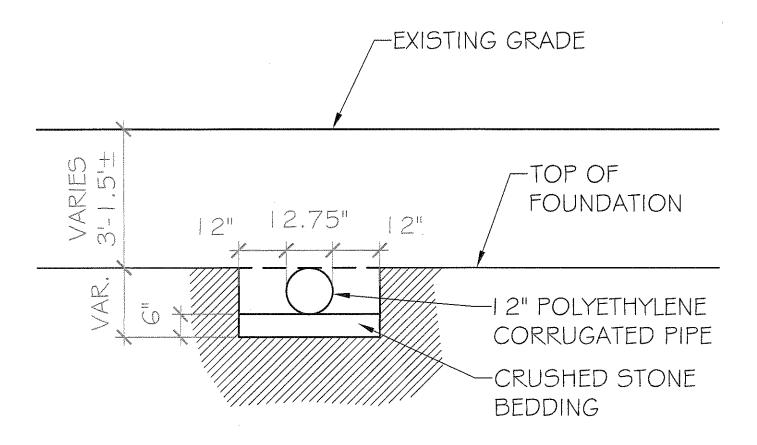


Figure 13: Georeferenced 1923 Sanborn Map



Note: the footprint of the former City Prison and perimeter wall as depicted on this map are based on the foundations seen on the 1923 Sanborn map. The locations of the extant walls as depicted in relation to this historic footprint have been approximated.

Figure 14: New York City Department of Parks and Recreation Map of Existing Conditions and Proposed Actions



Collect Pond Park

PIPE TRENCH THROUGH FOUNDATION WALL

Date: November 21, 2011

Scale: N.T.S.

Figure 15: Profile view of proposed impacts to the existing foundation walls prepared by the New York City Department of Parks and Recreation

	And the second second	