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**Phase IB Archaeological Survey  
City Island Water Supply and  
Drainage Improvement Project  
City Island & Pelham Bay Park  
Borough of Bronx, New York**

LPC File #: 29619\_FSO\_ALS\_07032014

***Prepared For:***

**NYC DDC**

**30-30 Thomson Ave.  
Long Island City, NY 11101**

**&**

**Northeast Remsco Construction**

**1433 Hwy 34 South, B1  
Farmingdale, NJ 07727**

***For Submittal To:***

**City of New York – Landmarks Preservation Commission**

**1 Centre Street, 9N  
New York, NY 10007**

**&**

**The New York State Historic Preservation Office**

**P.O. Box 189  
Waterford, NY 12188-0189**

***Prepared by:***

**Michael Audin, RPA**

**Archaeology & Historic Resource Services, LLC**

**605 Twin Arch Road  
Rock Tavern, NY 12575**



***November 2019***

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## ABSTRACT

Archaeology and Historic Resource Services, LLC (AHRS) was retained by Northeast Remsco Construction to conduct a Phase IB Archaeological Survey for the City Island Water Supply and Drainage Improvements Project in City Island and Pelham Bay Park in the Borough of Bronx, New York City, New York. The proposed ground disturbing work consists of the creation of a staging area by stripping approximately 6 to 8 inches of top soil and trenching for directional drilling for the new parallel 20-inch water mains.

All work was conducted in accordance with the *Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation 1983; as amended, Section 106 of the National Historic Preservation Act*; LPC's *Guidelines for Archaeological Work in New York City* (2018), the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (1994) and the New York State Historic Preservation Office *Phase I Archaeological Report Format Guidelines* (2005). All work was conducted by AHRS personnel who meet or exceed the National Park Service's Professional Qualifications Standards criteria outlined in 36 CFR 66.3(b) (2) and 36 CFR 61.

The City Island Water Supply and Drainage Improvement Project is large project. However, based on previous archaeological research and surveys the current Phase IB Archaeological survey area for this portion of the project is smaller. The area of potential effect (archaeological-APE) encompasses an approximately 250 feet east to west by 75 feet north to south area consisting of approximately 0.45-acres in size for the staging area and the excavation of trenches on the Pelham Bay Park side of the City Island Bridge for the directional drilling.

AHRS excavated a total of 4 auger probes to determine the presence of fill and if present then use a machine to remove the fill to conduct shovel test pits (STPs). The fill layer was determined to not exist or be shallow enough to excavate STPs without soil removal by machine. A total of 8 shovel tests were excavated for the Phase IB testing within the proposed trenches approximately 45 feet apart. The STPs were excavated to determine if buried prehistoric and/or historic period archaeological remains or artifact concentrations existed within the archaeological-APE.

All shovel tests were negative for prehistoric resources. Three shovel tests contained modern and historic artifacts in the upper most natural stratum. Artifacts consisted of light green bottle fragments, clear vessel glass fragments, and whiteware fragments. A total of twelve artifacts were retained for analysis, however, little information was gained from these artifacts. All the artifacts are datable to the mid- to late-twentieth-century. None of the artifacts are significant in date, type or quantity and can be associated with activities anticipated for any similar property in the area.

Based on the absence of prehistoric and historic artifact concentrations or features encountered during the Phase 1B subsurface testing, AHRS concludes that there are no archaeological features or deposits in the archaeological-APE. Therefore, AHRS recommends no further archaeological testing within the archaeological-APE.

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## 1.0 INTRODUCTION

Archaeology and Historic Resource Services, LLC (AHRs) was retained by Northeast Remsco Construction to conduct a Phase IB Archaeological Survey for the City Island Water Supply and Drainage Improvements Project in City Island and Pelham Bay Park in the Borough of Bronx, New York City, New York. The proposed ground disturbing work consists of the creation of a staging area by stripping approximately 6 to 8 inches of top soil and trenching for directional drilling for the new parallel 20-inch water mains. A site location map and aerial photograph are included as Figures 1 and 2 respectively.

All work was conducted in accordance with the *Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation 1983; as amended, Section 106 of the National Historic Preservation Act*; LPC's Guidelines for Archaeological Work in New York City (2018), the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (1994) and the New York State Historic Preservation Office *Phase I Archaeological Report Format Guidelines* (2005). All work will be conducted by AHRs personnel who meet or exceed the National Park Service's Professional Qualifications Standards criteria outlined in 36 CFR 66.3(b) (2) and 36 CFR 61.

### 1.1 Site and Project Description

While the City Island Water Supply and Drainage Improvement Project is much larger, the project site for this Phase IB Archaeological survey encompasses approximately 250 feet east to west and 75 feet north to south consisting of approximately 0.45-acres in size in the staging area and areas of the excavation trenches on the Pelham Bay Park side of the City Island Bridge.

According to the Negative Declaration (February 6, 2015), the proposed project consists of the following work;

- The installation of two new water supply mains under Eastchester Bay using Horizontal Directional Drilling to replace the current City Island water supply mains. The new mains would connect to existing mains on both the City Island and Pelham Bay Park sides. The proposed ground disturbing work consists of the creation of a staging area on the Pelham Bay Park side, the creation of a small land area in the water on the City Island side and then trenching for directional drilling on both side for the water lines for the new parallel 20-inch water mains. The existing mains would be abandoned upon completion of the new mains.
- Construction of a new outfall at Kilroe Street, which would extend approximately 40 feet from the center line of City Island Avenue, just beyond the existing shoreline and discharge into Eastchester Bay;
- Installation of approximately 90 linear feet of stormwater collection sewers along City Island Avenue that would drain to the proposed Kilroe Street outfall;
- Installation of approximately 2,395 linear feet of new 20" to 6" water main along City Island Ave between the City Island triangle and Kilroe Street and west of the city island

- bridge on the Pelham bay side; and,
- Wetland restoration at the Kilroe Street site totaling approximately 4,260 square feet.

Phase 1B testing was recommended for the staging area and excavation of the trenches on the Pelham Bay Park side of the City Island Bridge.

## **1.2 Area of Potential Effect**


The Area of Potential Effect (APE) is defined in 36 CFR 800.16(d) as: “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

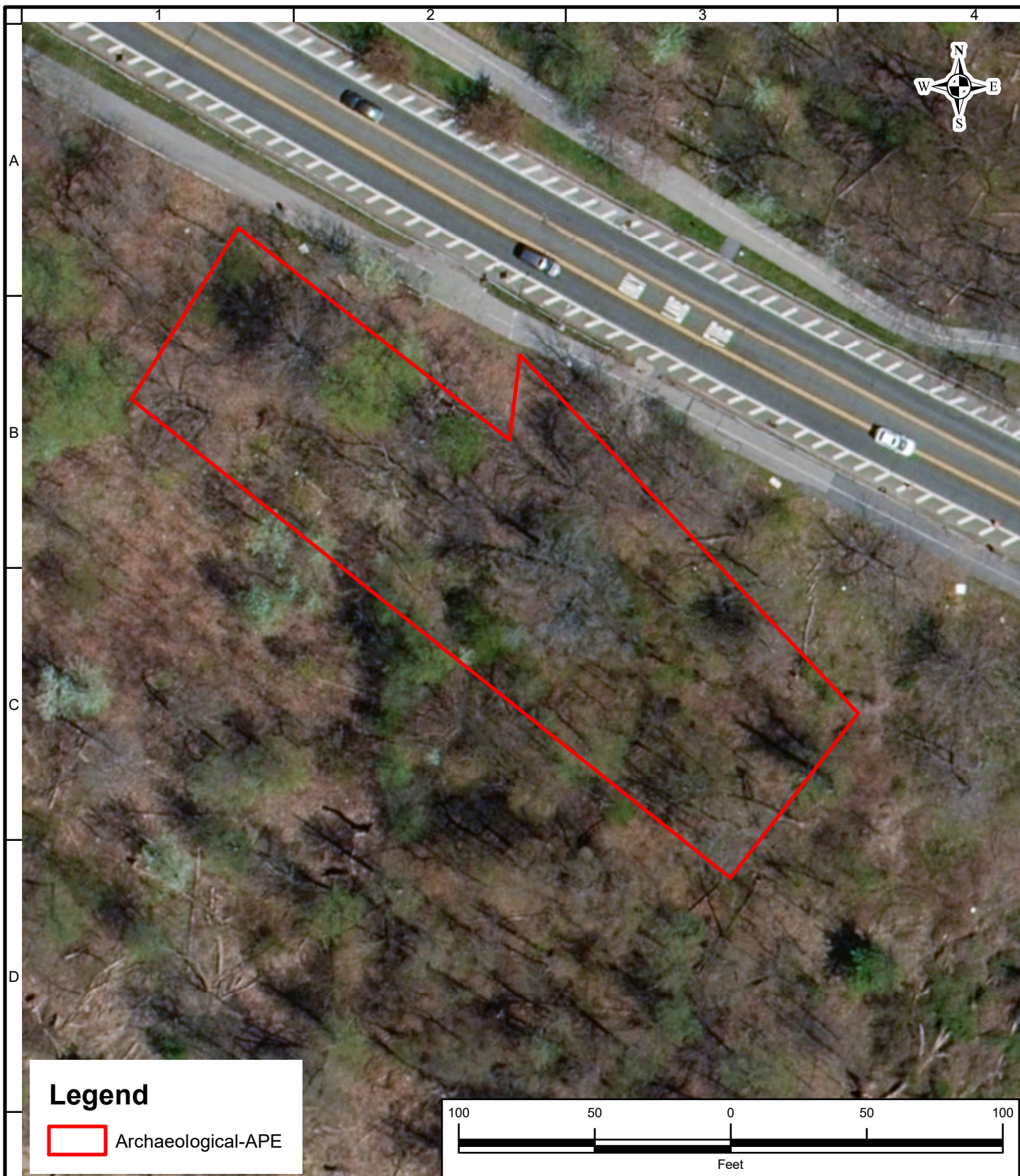
The APE includes locations that may be potentially impacted by the construction or that may experience effects once construction is completed. Included in the APE are all locations where the project may result in ground disturbance, areas that the elements of the project may be visible and where the activity may result in changes to traffic patterns, land use and public access, etc. Project effects on historic resources can include both physical effects and contextual effects. Physical effects could include physical destruction, demolition, damage or alteration of a historic resource. Contextual effects can include isolation of a property from its surrounding environment; the introduction of visual or audible elements that are out of character with the property or that alter its setting and context; or, elimination of publicly accessible views to the resource.

### Archaeological

The archaeological APE encompasses any locations where project activities have the potential to disturb soils through activities such as excavation or grading. The archaeological-APE was defined where ground disturbing activities are proposed including any associated disturbances (Figure 2). The archaeological-APE for this Phase 1B measures approximately 250 feet east to west by 75 feet north to south consisting of approximately 0.45-acres in size



 <p>ARCHAEOLOGY &amp; HISTORIC RESOURCE SERVICES</p> <p>605 Twin Arch Road Rock Tavern, New York 12575 T: 845-725-7694 www.ahrservices.com</p>	<p>Project</p> <p><b>CITY ISLAND WATER SUPPLY &amp; DRAINAGE</b></p> <p>CITY ISLAND &amp; PELHAM BAY PARK BOROUGH OF BRONX BRONX COUNTY NEW YORK</p>	<p>Drawing Title</p> <p><b>SITE LOCATION MAP</b></p>	<p>Project No.</p>	<p>Figure</p> <p><b>1</b></p>
			<p>Date 11/29/2019</p> <p>Scale See Above</p> <p>Drawn By MDA</p>	



Map References: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNE S/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS user community



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Project

**CITY ISLAND WATER  
SUPPLY & DRAINAGE**  
CITY ISLAND &  
PELHAM BAY PARK  
BOROUGH OF BRONX  
BRONX COUNTY NEW YORK

Drawing Title

**2018 AERIAL  
PHOTOGRAPH**

Project No.

Date  
8/14/2019  
Scale  
See Above  
Drawn By  
MDA

Figure

2

## **2.0 BACKGROUND RESEARCH**

This chapter briefly describes the previous investigations completed for the proposed project site.

### **2.1 Previous Studies**

In 2002, a Phase IA Archaeological Assessment (Greenhouse Consultants) was completed for the City Island Water Supply and Drainage Improvements project recommended Phase IB archaeological testing to determine any potential impacts to prehistoric archaeological resources. The assessment was submitted to the New York City Landmarks Preservation Commission (LPC). In 2003, John Milner and Associates conducted Archaeological Monitoring for the City Island Water Supply and Drainage Improvements project. However, the area of archaeological monitoring was to the west of the current project area and does not provide information on the current project site.

In 2005, a Phase IA Archaeological Survey (Joan Geismar) was completed for the City Island Bridge Replacement Project. This report identified Site number 105, occupation sites (no description) identified by Parker 1922 as being in the bridge replacement projects APE and that archaeological monitoring was conducted by Greenhouse Consultants in March and November 2002 (no report found) and by John Milner and Associates in December 2002 (report 2003) discussed above. The Phase IA concluded that “the western limit of the APE, located on Rodman's Neck in the park, has the greatest archaeological potential” and that “deeper excavation west of the former shore of Eastchester Bay may uncover traces of prehistoric shell middens (shell heaps) beneath the fill.” The report recommended archaeological monitoring for “any deep test pits called for in the area of concern” and an “archaeologist be on site to monitor selected areas of the trench excavation.”

In 2014, comments were received from LPC for City Island Water Supply and Drainage Improvements project in a letter dated July 3 agreeing with AKRF's recommendation that the project proceed to archaeological field testing. The reasoning stated was that a new archaeological documentary study was unlikely to add to the 2005 Phase 1A Archaeological Assessment prepared by Joan H. Geismar, Ph.D., LLC, as part of the City Island Bridge Replacement Project.

In 2014, the State of New York – Department of Transportation (NYS DOT), retained Chrysalis Archaeological Consultants (Chrysalis) to undertake Phase IB Archaeological Monitoring during excavations for the overall Replacement of City Island Road Bridge Over Eastchester Bay, Bronx, New York. Monitoring was conducted intermittently throughout 2014, 2015 and 2016 for the project. In 2017 a report named *Replacement of City Island Road Bridge Over Eastchester Bay, Bronx, New York* (Chrysalis Archaeological Consultants, Inc.) concluded that based upon the information gathered during archaeological monitoring for the City Island Bridge work, “little evidence of prehistoric cultural activity remains in the project area except for the southern beach at low tide.” The report recommended no further archaeological assessment for the majority of the project area. However, auguring revealed that areas along the water on the Pelham Bay Park

side, furthest from City Island road and infrastructure impacts, have the potential to yield archaeological deposits.

Based on the above Phase IA and IB reports the high archaeological potential area was identified on the Pelham Bay Park side of the City Island Bridge and is the southern beach area at low tide. No work is proposed in this area. The proposed ground disturbing work consists of the creation of a staging area by stripping approximately 6 to 8 inches of top soil and trenching for directional drilling for the new parallel 20-inch water mains. The staging area and trenching are not part of the area identified as the high potential archaeological area identified in the previous reports. The archaeological monitoring and testing close to this area indicated that a fill layer of up to three feet was present. This area is approximately 0.45-acres in size. However, this area was also not archaeologically tested or monitored during the previous investigations and archaeological testing was recommended.

### **3.0 PHASE 1B ARCHAEOLOGICAL SURVEY**

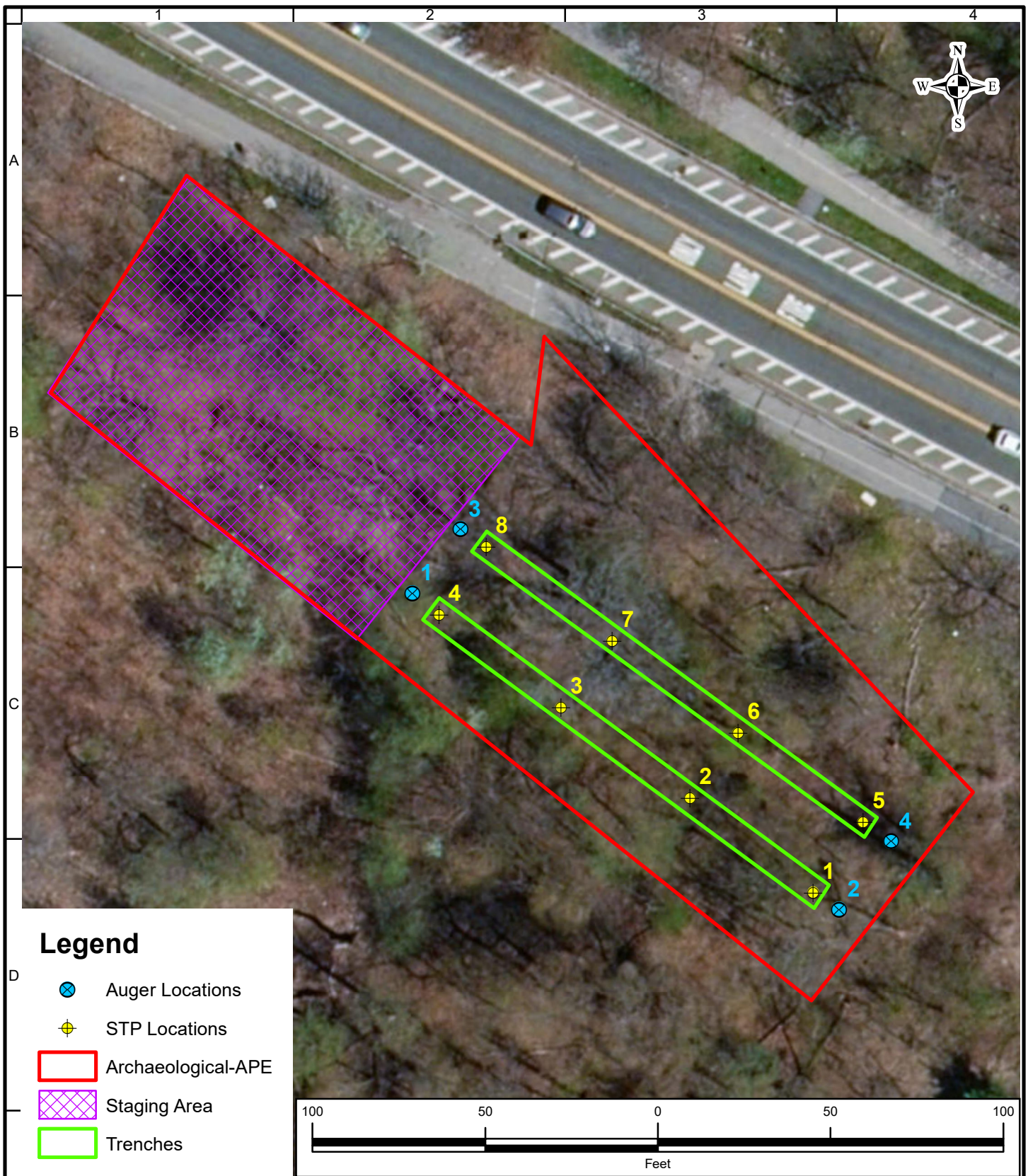
This chapter discusses the methodology and results of the Phase IB survey of the archaeological-APE.

#### **3.1 Phase IB Methodology**

Phase IB testing was conducted at 15-meter intervals in the staging/trenching area. Approximately 8-10 shovel test pits (STPs) were required to test this area. Prior to the excavation of STPs hand augers were conducted in the area to determine the extent of fill within the archaeological sensitive area. The augers documented 1-foot or less of modern fill therefore, STPs were excavated by hand without any machine removal of fill. STPs were excavated by hand following the procedure below:

- Hand excavation will proceed in 10 cm (3.9 inches) increments within the natural stratum until approximately 20 cm into the sterile soil. The 10 cm increment will allow for a better control of artifact distribution within the stratum.
- STPs exhibiting artifact concentrations or significant artifacts will have two additional radial STPs excavated at 1-meter and 3-meter intervals in the cardinal directions to better determine the artifact concentration extent.
- All soil matrix will be screened through ¼ inch hardware mesh. All STPs will be recorded on a standard STP form and sketches of profiles will be provided. All sketches will use the metric system. Sample profiles will be photographed using a digital camera.
- A field journal will be kept to record all field activities.
- Any and all artifacts found will be recorded on standard forms. All prehistoric artifacts and all diagnostic historic artifacts will be bagged and bags will be labeled accordingly. A small sample of non-diagnostic historic artifacts will also be retained for analysis. Any artifacts recorded but not retained for analysis will be returned to the testing hole and reburied. A field bag log will be kept on site.
- All STPs will be backfilled upon completion of hand excavations and returned as close to original condition as possible. The Contractor will be responsible for repaving.

If an archaeological feature was identified it would have been documented using standard feature forms and mapped using the necessary provenance information. Additional small-scale excavation may have been required to further investigate the find and better determine the extent and nature of the find.



Map References: Esri, DigitGlobe, GeoEye, Earthstar Geographics, CNE S/Airbus DS, USDA, USGS, AeroGRID, IGN, and GIS User Community



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Project

## CITY ISLAND WATER SUPPLY & DRAINAGE

CITY ISLAND &  
PELHAM BAY PARK  
BOROUGH OF BRONX

BRONX COUNTY

NEW YORK

Drawing Title

## PHASE IB TESTING LOCATIONS

Project No.

Date  
11/29/2019

Scale  
See Above

Drawn By  
MDA

Figure

3

## **3.2 Phase IB Testing Results**

The Phase IB archaeological testing was conducted on October 28<sup>th</sup> 2019. A crew of two archaeologists performed the auger probes, STP excavations and recorded the results. The trees and scrub vegetation had been removed from the archaeological-APE. A staging pad consisting of gravel over a geotextile fabric was constructed on the western end of the archaeological-APE. This disturbance limited where auger probes and STPs could be placed. (Photographs 1 and 2)

### **3.2.1 Soils**

A total of 4 auger tests were excavated just to the east and west of the two trenches to determine the extent of and depth of fill within the Archaeological-APE. On average, the top 20-50 cm (8-20-inches) of each auger probe consisted of A-horizon soils. Since the auger probe did not document a fill layer, the STPs were excavated by hand without any machine removal of fill. Each auger probe was recorded and dug to approximately 90 cm (3 feet) in depth.

The auger probes exhibited little or no fill layer. Auger probes #1 (Figure 4) and #2 revealed a similar soil profile with an A-horizon of very dark gray (10YR 3/1) silt loam overlying a brown (10YR 5/3) clayey sand. This was followed by a yellowish brown (10YR 5/4) coarse sand. Below this was a bluish gray (GLE2 6/10B) sand mottled with a red (2.5YR 5/6) sand. Auger probe #4 was similar to auger probes #1 and #2, except that the yellowish brown (10YR 5/4) coarse sand level was not present. Auger probe #3 was aborted at the bottom of the brown (10YR 5/3) clayey sand due to a rock impasse.

The staging area was not archaeologically tested because of the ground. A total of eight STPs were excavated within the two trenches approximately 45 feet apart. Three STPs (STPs 4, 7, and 8) exhibited disturbance. STP 4 and STP 7 exhibited no observable natural soil strata and were terminated at a depth of 36 cm (14-inches) and 38 cm (15-inches), respectively. STP 8 exhibited a 30 cm (12-inch) disturbed level over an A-horizon of very dark gray (10YR 3/1) silt loam. A lower stratum of thin brown (10YR 5/3) sand was below the A-horizon. STP 8 was terminated at a depth of 63 cm (25-inch). These three STPs were terminated because of rock impasses.

The other five STPs (1, 2, 3, 5, and 6) exhibited little or no fill present in the A-horizon. The A-horizon was very dark gray (10YR 3/1) silt loam and ranged in thickness between 30-40 cm (12-16-inches). A stratum of brown (10YR 5/3) sand was below the A-horizon. These STPs were excavated to depths ranging 43-58 cm (17-23-inches). STP 6 was photographed and exhibits a typical soil profile for this area (Photograph 3)



**Photograph 1** – View of the eastern portion of the archaeological-APE, looking east from the western end of the archaeological-APE.



**Photograph 2** – View of the western portion of the archaeological-APE, looking west from slightly west of the center of the archaeological-APE.

# AUGER PROBE #1

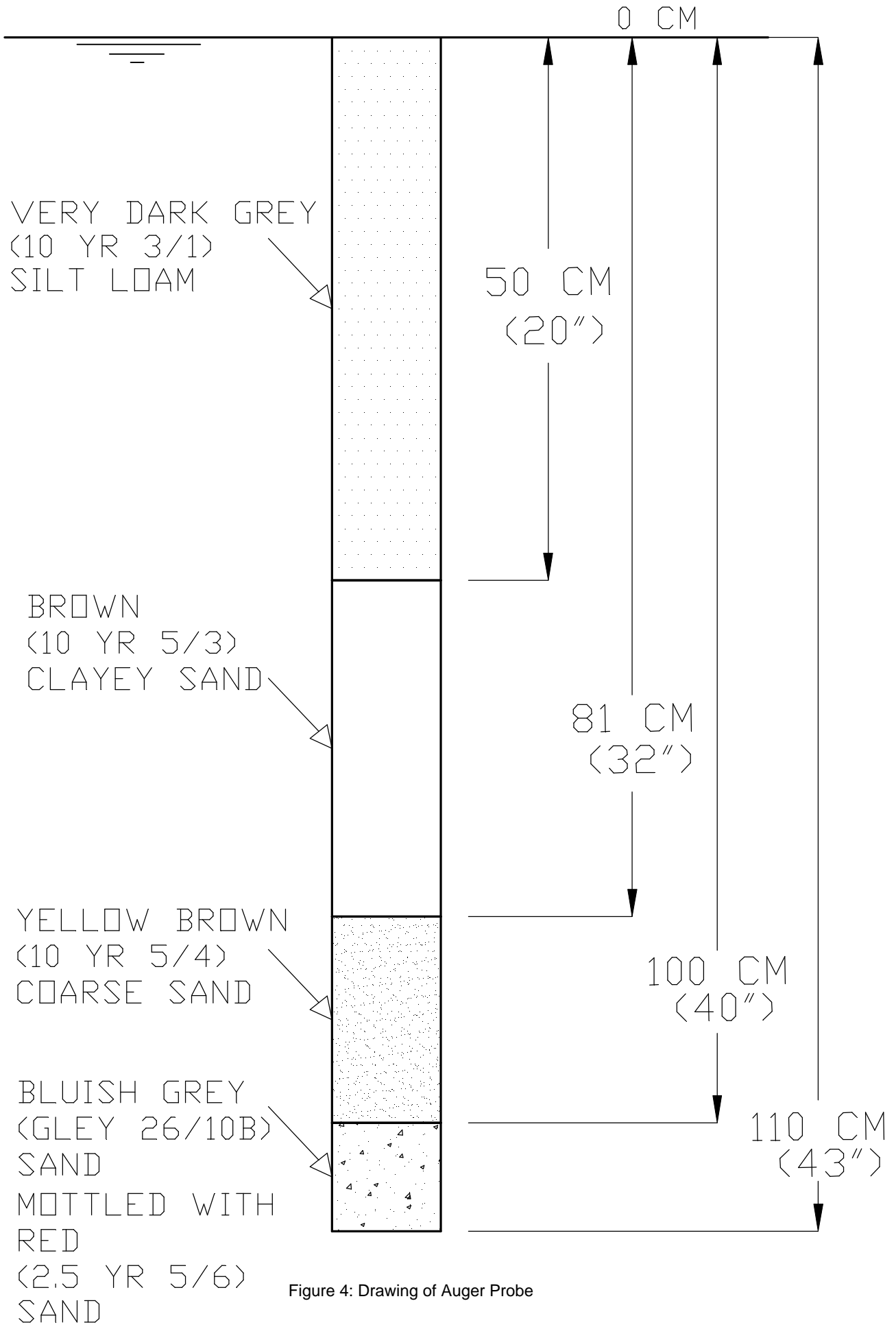


Figure 4: Drawing of Auger Probe



**Photograph 3** - Overhead view of STP 6, an example of the standard soil profile.

### **3.2.2 Artifacts**

A total of 12 artifacts were recovered during the phase IB survey. Artifacts were retained from the A-horizon of STPs 1, 2, and 6. In total, 8 light green bottle glass fragments, 2 clear vessel glass fragments, and 2 whiteware fragments were retained. All the artifacts are datable to the mid- to late-twentieth-century. None of these artifacts are significant in date, type or quantity and can be associated with activities anticipated for any similar property in the area. All of these artifacts were discarded in the lab.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

The City Island Water Supply and Drainage Improvement Project is large project. However, based on previous archaeological research and surveys the current Phase IB Archaeological survey area for this portion of the project is smaller. The area of potential effect (archaeological-APE) encompasses an approximately 250 feet east to west by 75 feet north to south area consisting of approximately 0.45-acres in size for the staging area and the excavation of trenches on the Pelham Bay Park side of the City Island Bridge for the directional drilling.

AHRS excavated a total of 4 auger probes to determine the presence of fill and if present then use a machine to remove the fill to conduct shovel test pits (STPs). The fill layer was determined to not exist or be shallow enough to excavate STPs without soil removal by machine. A total of 8 shovel tests were excavated for the Phase IB testing within the proposed trenches approximately 45 feet apart. The STPs were excavated to determine if buried prehistoric and/or historic period archaeological remains or artifact concentrations existed within the archaeological-APE.

All shovel tests were negative for prehistoric resources. Three shovel tests contained modern and historic artifacts in the upper most natural stratum. Artifacts consisted of light green bottle fragments, clear vessel glass fragments, and whiteware fragments. A total of twelve artifacts were retained for analysis, however, little information was gained from these artifacts. All the artifacts are datable to the mid- to late-twentieth-century. None of the artifacts are significant in date, type or quantity and can be associated with activities anticipated for any similar property in the area.

Based on the absence of prehistoric and historic artifact concentrations or features encountered during the Phase 1B subsurface testing, AHRS concludes that there are no archaeological features or deposits in the archaeological-APE. Therefore, AHRS recommends no further archaeological testing within the archaeological-APE.

## 5.0 BIBLIOGRAPHY

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2005 *Phase IA Archaeological Assessment, Replacement of City Island Road Bridge over Eastchester Bay, Bronx, New York*. Prepared for Gandhi Engineering, Inc. for submittal to New York City Department of Transportation, Division of Bridges.

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1909 *Geology of the City of New York With Numerous Illustrations and Maps. Third Edition, Enlarged*. American Museum of Natural History. Henry Holt and Company. New York.

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2002 *Archaeological & Historical Sensitivity Evaluation, Proposed City Island Water Mains, Pelham Bay Park, Bronx, New York*. Prepared for Jacobs Environmental, Inc.

John Milner Associates

2003 *Archeological Monitoring Report, City Island Water Main Project, Pelham Bay Park, Bronx County, New York*. Prepared for The New York City Department of Design and Construction Long Island City, New York.

Loorya, Alyssa, Lisa Geiger, and Eileen Kao

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New York City Soil Survey Staff

2005 *New York City Reconnaissance Soil Survey*. United States Department of Agriculture, Natural Resources Conservation Service, Staten Island, NY. New York City Soil and Water Conservation District, [www.nycswcd.net](http://www.nycswcd.net).

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2018 *New York State Historic Preservation Office, Phase I Archaeological Report Format Requirements*.

Ritchie, William A.

1980 *The Archaeology of New York State Revised Addition*. Harbor Hills Books, Harrison, NY

United States Geological Survey (USGS)

Flushing Quadrangle, New York. 7.5 Minute Series.

**APPENDIX A**  
**QUALIFICATIONS OF PREPARERS**

**MICHAEL AUDIN, RPA**  
**Archaeologist / Cultural Resource Specialist**

**Field Crew Management**  
**Phase I, II and III Excavation**  
**Human Remains/Burial Excavation**  
**Site Preparation and Survey**  
**Historic Research**  
**Lithic Identification**  
**Laboratory Analysis**  
**Photographer/Field Illustration**  
**Report Writing and Editing**  
**Historic American Building Surveys**

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**EDUCATION**

Hunter College: M.A. Anthropology  
William Paterson University: B.A. Anthropology  
Archaeological Field School: Lenape Meadows, Somerset  
County Parks Commission, New Jersey

**YEARS EXPERIENCE: 16**

**SUMMARY QUALIFICATIONS**

Mr. Audin is a Registered Professional Archaeologist (RPA) who meets the Secretary of the Interiors Professional standards as an archaeologist and has been reviewed by several State Historic Preservation Offices as a Principal Investigator. Mr. Audin has over 16 years of professional experience in cultural resource management. Skills include extensive problem solving, management, analytical, evaluating, and creative resolutions. Management experience includes extensive customer relations, employee development, training, scheduling and mentoring staff.

Work experience includes coordination and implementation of archaeological/cultural resource assessments include NEPA Documentation, Environmental Assessments, Environmental Impact Statements, Section 106 Assessments, Phase I, II and III prehistoric and historic Archaeological Assessments, and Historic American Building Survey (HABS) photography and documentation. Created and implemented Archaeological Monitoring Plans, Scopes of Work, Research and Field Testing Plans, Programmatic Agreements, Memorandums of Agreement (MOA) and Memorandums of Understanding (MOU).

**RELEVANT EXPERIENCE**

**Sailfish Warehouse Project, Phase IB & II Archaeological Survey, Montgomery, NY**

Principal Investigator for prehistoric/historic site investigation for NY SEQR Review. Directed research, assessed prehistoric/historic archaeological potential, conducted supplemental field testing for previously untested areas (1,000 shovel test pits and 16 shovel test units), artifact analysis, writing and preparation of reports, editing and produced reports for submission. Identified the multiple area of potential prehistoric occupation.

**New Jersey Executive State House (NJESH) Renovation Project, Phase IA & Archaeological Monitoring, Trenton, NJ**

Principal Investigator for Phase IA Archaeological Assessment for the NJESH, a part of the State House Historic District, listed on the State and National Register of Historic Places. Coordinated and edited Phase IA Archaeological Survey. Developed the archaeological monitoring plan for monitoring during the excavation of geotechnical test pits and utilities trenching. The research and monitoring was conducted in advance of planned renovations and restorations to the NJESH building. Identified multiple historic archaeological sites.

**45 Broad Street, Phase IA Archaeological Survey & Archaeological Monitoring, New York, NY**

Principal Investigator for Phase IA Archaeological Assessment and archaeological monitoring for potential

**MICHAEL AUDIN, RPA**  
**Archaeologist / Cultural Resource Specialist**

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17<sup>th</sup>-century features in advance of a proposed development site in Lower Manhattan. Coordinated and edited Phase IA Archaeological Survey and lead consultation for archaeology with the New York City Landmarks Preservation Commission to ensure project compliance. Developed archaeological monitoring plan and oversaw archaeological monitoring.

**Gordon Road Phase IA & IB Archaeological Surveys, Robbinsville Township, NJ**

Principal Investigator for Phase IA Archaeological Assessment and Phase IB field testing for archaeological resources in advance of warehouse development, including analysis of archaeological sensitivity, subsurface testing in areas of prehistoric sensitivity, post-excavation laboratory artifact processing and identification, and report writing and editing.

**155 3rd Avenue Gowanus Canal Bulkhead and Cribbing Documentation, Brooklyn, NY**

Principal Investigator for archaeological monitoring for test excavations conducted for the purpose of identifying the type of cribbing and bulkhead structure along the Gowanus Canal.

**Gowanus Canal Remediation Project and Archaeological Monitoring, Brooklyn, NY**

Principal Investigator for archaeological monitoring for debris removal and dredging in Turning Basin 4 of the National Register eligible nineteenth-century Gowanus Canal. Canal is currently a Superfund site and the remediation is coordinated by the US Environmental Protection Agency.

**Southwest Park Block-12 Development, Phase IB & Archaeological Monitoring, Hoboken, NJ**

Principal Investigator for Phase IB testing, archaeological monitoring in advance of stormwater retention park development in Hoboken, NJ. Recorded footings associated with an elevated railroad, nineteenth-century building foundations, and a Belgian Block cobblestone driveway. Wrote and implemented Memorandum of Agreement for project. Identified the North Hudson County Elevated Railway Footings historic archaeological site 28-Hd-54.

**Green Brook Trail, Phase IB Archaeological Survey, Plainfield, New Jersey**

Principal Investigator for New Jersey Historic Preservation Act and Freshwater Wetland Permit compliance. Conducted Phase IB archaeological survey in areas of prehistoric and historic archaeological sensitivity for the first section of a multi-use recreational trail. Completed field testing, artifact analysis, and report writing and editing.

**Nissim Avenue Phase I & II Archaeological Survey, Bordentown, NJ**

Principal Investigator for Phase I and Phase II survey of contributing prehistoric archaeological resources to the Abbot Farm Prehistoric Archaeological District in advance of residential development, including analysis of archaeological sensitivity, subsurface testing in areas of prehistoric sensitivity, and post-excavation laboratory artifact identification and cataloging. Project area is located within the Abbott Farm National Historic Landmark boundary. Identified the Nissiam Ave. prehistoric archaeological site 28-Bu-919.

**Lincoln Industrial Park Phase IB Archaeological Survey, Piscataway, NJ**

Principal Investigator for Phase IB survey on former Union Carbide/Dow Chemical property with team of HAZWOPER-qualified archaeologists to complete the testing. Testing consisted of over 1,000 shovel tests in areas of prehistoric sensitivity. Oversaw all aspects of fieldwork, artifact analysis, and report completion.

**Riverside Buildings 4 & 5 Phase IB Archaeological Survey & Archaeological Monitoring, New York City**

Principal Investigator for crew of eight (one supervisor and seven field technicians) responsible for archaeological monitoring, Phase IB shovel testing in areas of prehistoric sensitivity to determine absence or presence of prehistoric materials, and post-excavation laboratory work for a multimillion dollar development in Midtown Manhattan. Drafted memoranda and final reports for compliance with the New York City Landmark Preservation Commission's restrictive declaration.

**MICHAEL AUDIN, RPA**  
**Archaeologist / Cultural Resource Specialist**

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**Former Front Street Gas Works Site PSE&G Remediation Project, Archaeological Monitoring, City of Newark, NJ**

Principal Investigator for historic site investigation for NJDEP Contaminated Site Remediation Project. Directed research, conducted field monitoring during excavation, writing and preparation of report, edited and produced report for submission. Discovered historic dock feature. Identified the Heddens Dock historic archaeological site 28-Ex-142.

**FedEx Distribution Center Project, Phase I Archaeological Survey, Hamilton, NJ**

Principal Investigator for prehistoric/historic site investigation for NJDEP Freshwater Wetlands Permit. Directed research, assessed prehistoric/historic archaeological potential, conducted field testing, artifact analysis, writing and preparation of report, editing and produced report for submission.

**FedEx Distribution Center Project, Phase I Archaeological Survey, Montgomery, NY**

Principal Investigator for prehistoric/historic site investigation for NY SEQR Review. Directed research, assessed prehistoric/historic archaeological potential, conducted field testing, artifact analysis, writing and preparation of report, editing and produced report for submission. Identified the Neelytown Road Historic Farmstead historic archaeological site USN Number 07112.000317.

**Deerpark Substation Phase IB Survey, Orange County, New York**

Principal Investigator for prehistoric supplemental Phase IB. Oversaw field testing, artifact analysis, conducted writing and preparation of report, editing and produced report for submission.

**Pavilion at Locust Manor, Phase I Archaeological Survey, Jamaica, Queens, NY**

Principal Investigator for prehistoric/historic site investigation for city housing development. Directed research, assessed prehistoric/historic archaeological potential, conducted field testing, writing and preparation of report, edited and produced report for submission.

**Interstate Blvd. Development Project, Phase I Archaeological Survey, South Brunswick, NJ**

Principal Investigator for prehistoric/historic site investigation for NJDEP Freshwater Wetlands Permit for warehouse development. Designed and directed research, assessed prehistoric/historic archaeological potential, conducted field testing (300 shovel test pits), artifact analysis, writing and preparation of report, edited and produced report for submission. Identified the Interstate Blvd./J. Dehart Farmstead historic archaeological site 28-Mi-266.

**Princeton Pike Roadway Project, Phase I & II Archaeological Surveys, Lawrence, NJ**

Principal Investigator for prehistoric/historic site investigation for NJDEP Freshwater Wetlands Permit. Directed research, assessed prehistoric/historic archaeological potential, conducted field testing, artifact analysis, writing and preparation of report, edited and produced report for submission.

**Prasville Mills Restroom Project, Archaeological Monitoring, New Jersey**

Principal Investigator for State and National Register listed Prallsville District archaeological investigation for NJ State Park improvements. Directed research, assessed prehistoric/historic archaeological potential, conducted field monitoring, artifact analysis, writing and preparation of report, edited and produced report for submission.

**St. Marks AME Church Cemetery Project, Queens, New York**

Principal Investigator for former African American cemetery on residential development site. Designed archaeological monitoring plan and scope of work, conducted archaeological monitoring and human remains excavation for mid-19th- to mid-20th-century cemetery in Queens.

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**Archaeologist / Cultural Resource Specialist**

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**Gloucester Premium Outlets, Phase I Cultural Resource Survey, Gloucester Township, NJ**

Principal Investigator for prehistoric/historic site investigation for NJDEP Freshwater Wetlands Permit for 65 acre property. Directed research, assessed prehistoric/historic archaeological potential, conducted field testing, directed artifact analysis, writing and preparation of report, edited and produced report for submission.

**The Basilica of St. Patrick's Old Cathedral Mausoleum Project, Archaeological Monitoring, New York**

Principal Investigator for and archeological monitor for human remains during excavation for new mausoleum in southern part of a historic cemetery in New York City. Designed Monitoring plan, conducted monitoring for human remains during backhoe excavation, supervision of two archaeological assistants, determined method of avoidance or removal of human remains encountered and eventual reburial of disinterred remains, report writing and preparation

**Washington Crossing Historic Park, Phase IB Archaeological Survey, Washington Crossing, Pennsylvania**

Principal Investigator for prehistoric/historic site investigation for PHMC historic site drainage improvements. Directed research, subsurface field testing, artifact analysis, writing and preparation of report, edited and produced report for submission.

**Hallets Court Senior Housing Project, Phase I Archaeological Investigation, Queens, NY**

Principal Investigator for prehistoric/historic site investigation for city housing development. Directed research, subsurface field testing, writing and preparation of report, edited and produced report for submission.

**Johnson Veterans Hospital Parking Garage Project, Phase IA & Phase IB Cultural Resource Investigation, Clarksburg, WV**

Principal Investigator for prehistoric/historic site investigation for Section 106 Compliance and NEPA checklist. Conducted research, assessed prehistoric/historic archaeological potential, field testing of APE for prehistoric/historic archaeological sites, conducted site visit, writing and preparation of reports, edited and produced report for submission.

**Gowanus Canal Historic Bulkhead Documentation, Brooklyn, NY**

Principal Investigator for documentation of a historic bulkhead at four sites on the Gowanus Canal. Conducted field testing, photographic documentation, measured drawing, writing and preparation of report for submission.

**Amtrak, High Speed Rail Improvements Project, Trenton to New Brunswick, NJ**

Principal Investigator produced an prehistoric and historic archaeological sensitivity assessment and monitoring for Section 106 review of rail improvements for 23 mile section of the Northeast Corridor. Conducted research, site visits, writing and preparation of report.

**Verizon Wireless Cell Tower Upgrades, Various Sites in NJ**

Researcher/site reviewer for Section 106 reviews to upgrade cell tower antennas. Conducted research, site reconnaissance, writing and preparation of report.

**NJ Transit, Phase IA Archaeological Survey, Train Station Upgrades, Elizabeth & Perth Amboy, NJ**

Principal Investigator for Phase IA Investigation. Evaluation of handicap and other facility upgrades for NJ TRANSIT train station. Conducted research, site reconnaissance, writing and preparation of report, edited and produced letter report for submission NJ SHPO.

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**Archaeologist / Cultural Resource Specialist**

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**St. Marks AME Church Cemetery Project, Queens, New York**

Field director for unanticipated discovery of human remains during construction activities in former African American cemetery. Conducted archaeological monitoring and human remains excavation for mid-19th- to mid-20th-century cemetery in Queens.

**The Basilica of St. Patrick's Old Cathedral Cemetery Stabilization Project, Archaeological Monitoring, NY**

Principal Investigator for and archeological monitor for Landmarks Preservation Commission permit for brick wall stabilization around the north part of a historic cemetery in New York City. Conducted research, monitoring for human remains during backhoe excavation for new concrete supports, supervision of two archaeological assistants, determined method of avoidance or removal of human remains encountered and eventual reburial of disinterred remains, report writing and preparation.

**Standard Chlorine Chemical Company, Archaeological Monitoring, Kearny, New Jersey**

Principal Investigator for archaeological monitoring during construction of a 7,000 foot slurry wall as part of the Interim Action Work Plan for NJDEP and USEPA Superfund site. Conducted monitoring during backhoe trenching and screened samples for prehistoric lithic materials, writing and preparation of report, edited and produced report for submission. Identified the SCCC prehistoric archaeological site (28-Hd-44).

**Renaissance Plaza Project, Phase I Archaeological Survey, Egg Harbor City, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJ Pinelands Commission. Conducted research, conducted subsurface field testing for historic features, writing and preparation of report, edited and produced report for submission.

**Alpha Water Works Upgrades Project, Phase II Archaeological Survey, Alpha, New Jersey**

Principal Investigator for prehistoric/historic site investigation of prehistoric/historic archaeological site 28-Wa-673 for NJDEP Environmental Infrastructure Trust funding program. Conducted research, excavation of shovel test pits and units, laboratory analysis of artifacts, writing, preparation, editing and producing report for submission. The site was not recommended as eligible for National Register.

**State University of New York, Ulster Campus, Phase I Archaeological Survey, Marbletown, New York**

Principal Investigator for prehistoric/historic site investigation for NYS SEQR reviewed project. Conducted research, assessed prehistoric/historic archaeological potential, field testing, writing and preparation of report, edited and produced report for submission.

**NJ Transit, Unanticipated Discovery Investigation, Market Street Garage, Paterson, NJ**

Principal Investigator for unanticipated historic structure uncovered during excavation for a drainage pipe. Field work consisted of the excavation and documentation of a historic industrial feature partially exposed during excavation work. Recommended preservation in place with appropriate fill materials and submitted a technical memo to NJDEP SHPO.

**EZ Automotive Services, Phase IA & IB Archaeological Surveys, Robbinsville, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJDEP. Conducted research, assessed prehistoric/historic archaeological potential, conducted field testing, writing and preparation of reports, edited and produced report for submission.

**The Basilica of St. Patrick's Old Cathedral Cemetery Stabilization Project, Archaeological Monitoring, NY**

Principal Investigator for and archeological monitor for Landmarks Preservation Commission permit for brick wall stabilization around the south part of a historic cemetery in New York City. Conducted limited research, monitoring for human remains during backhoe excavation for new concrete supports, supervision of one

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archaeological assistant, determined method of avoidance or removal of human remains encountered and eventual reburial, report writing and preparation.

**Former Koppers Superfund Site, MOA, Newport, Delaware**

Co-Author of Memorandum of Agreement between all interested parties for the property.

**Pennsauken Country Club Water Reuse Project, Phase I Archaeological Survey, Pennsauken, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJDEP Environmental Infrastructure Trust funding program. Conducted research, preparation of site, excavation of shovel test pits, laboratory analysis of artifacts, writing, preparation, editing and producing report for submission.

**NYS Route 440 Pole Relocation Project, Phase I Archaeological Survey, Staten Island, New York**

Principal Investigator for prehistoric/historic site investigation for Department of Transportation NEPA documentation and Section 106 reviewed project. Conducted research, assessed prehistoric/historic archaeological potential, conducted field testing, writing and preparation of report, edited and produced report for submission.

**World Trade Center, Phase III, Potential Human Remains Recovery, Staten Island, New York**

Field crew for recovery of potential human remains for the New York City Office of the Chief Medical Examiner. Conducted materials screening for human remains and artifacts relating to the 2001 attacks on the World Trade Center.

**SCCC, Phase IB Cultural Resource Investigation, Kearny, New Jersey**

Principal Investigator for historic investigations for NJDEP and USEPA Superfund site. Conducted additional research to prove the Jersey City Water Works was located outside of the project area and conducted backhoe trenching for historic drainage features related to the Hackensack Meadowlands, writing and preparation of report, edited and produced report for submission.

**Lanning Square Elementary School, Level III HABS, Camden, New Jersey**

Complier/Photographer for EO215 compliance for NJ Schools Development Authority. Conducted level III Historic American Building Survey (HABS) including photographic documentation of the Broadway Episcopal Methodist Church Parsonage to mitigate the proposed demolition of this building. The HABS was requested by the NJ HPO to satisfy the EO215 review.

**Access to Regional Core (ARC), 3-D Laser Scanning, New York, New York**

Field crew for documentation of historic and non-historic buildings for Section 106. Conducted 3-D laser scanning of all buildings in the project area. Collected field data of varying resolutions for buildings in project area, historic buildings were recorded at higher resolution.

**Jersey City Walkway and DMAVA Park, Phase IA Archaeological Survey, Jersey City, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJDEP and Section 106. Conducted research, assessed prehistoric/historic archaeological potential, monitored geotechnical sub surface investigation for archaeological remains, writing and preparation of report, edited and produced report for submission. Identified historic dock, cribbing and road features.

**Route 33 Interchange Improvements, Phase I Archaeological Survey, Palmer Township, Pennsylvania**

Principal Investigator for prehistoric/historic site investigation for Pennsylvania Department of Transportation and Section 106 reviewed project. Conducted research, site excavation of shovel test pits, laboratory analysis of artifacts, writing and preparation of report, and editing report for submission.

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**USDA, Health-Based Plant Genomics Facility, Phase IB Archaeological Survey, Cornell University, Ithaca, New York**

Co-Principal Investigator for prehistoric/historic site investigation as part of a Section 106 Assessment for the addition to the Plant Genomics Laboratory Building site. Conducted research, excavation of shovel test pits, laboratory analysis of artifacts, writing and preparation of report, edited and produced report for submission.

**SCCC, Phase IA Cultural Resource Investigation, Kearny, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJDEP and USEPA Superfund site. Conducted research, assessed prehistoric/historic archaeological potential, writing and preparation of report, edited and produced report for submission.

**GAC Adsorption Plant, Phase I Archaeological Survey, Pennsauken, New Jersey**

Principal Investigator for prehistoric/historic site investigation for NJDEP Environmental Infrastructure Trust funding program. Conducted research, preparation of site, excavation of shovel test pits, laboratory analysis of artifacts, writing and preparation of report, edited and produced report for submission.

**Penn Regional Business Center III, Phase I Archaeological, Smithfield, Pennsylvania**

Principal Investigator for prehistoric/historic site investigation for Pennsylvania Funding Grant Application. Conducted research, preparation of site, excavation of shovel test pits, laboratory analysis of artifacts, writing and preparation of report, edited and produced report for submission.

**Montauk Theater, Level III HABS and Architectural Salvage Plan, Passaic, New Jersey**

Principal Investigator for EO215 compliance for NJ Schools Development Authority. Conducted level III Historic American Building Survey (HABS) including photographic documentation and an architectural Salvage Plan of the Montauk Theater to mitigate the proposed demolition of this building. The HABS and Salvage Plan were requested by the NJ HPO to satisfy the EO215 review.

**Former Koppers Superfund Site, Additional Phase IB, Newport, Delaware**

Crew chief and OSHA Site Safety Officer for prehistoric/historic site investigation for EPA compliance for superfund site during three month phase IB auger testing conducted by 13 archaeologists. Teamed with John Milner and Associates. Work included over 1,700 phase IB augers in a tidal marsh. Additional work included field tech training, and safety oversight. Identified multiple prehistoric and historic sites on site.

**Dredge Stockpile Site, Phase I Archaeological Survey, Harmony, New Jersey**

Field director, research coordinator, lab director and photographer for prehistoric/historic site investigation for Section 106 review of stockpile site for dredge materials from FEMA. Field duties include preparation of site, excavation of 32 shovel test pits and site survey. Post field work included laboratory analysis of artifacts, writing of sections of report and prepared, edited and produced report for submission.

**Lowes, Phase I Archaeological Survey, Mansfield, Pennsylvania**

Field director, research coordinator, lab director and photographer for prehistoric site investigation for review for big box retail store. Field duties include site preparation, excavation 60 shovel test pits of site and survey. Post field work included laboratory analysis of artifacts, writing of sections of report and prepared, edited and produced report for submission.

**Former Jacobs Aircraft Engine Factory, HABS, Lower Pottsgrove, Pennsylvania**

Principal Investigator/photographer for NPDES permit compliance. Conducted low level Historic American Building Survey (HABS) including photographic documenting of the former Jacobs Aircraft Engine Factory

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and Administrative Building to mitigate the proposed demolition of these buildings. The photographic documentation was requested by PHMC to satisfy the NPDES permit review.

**Queensboro Plaza, Phase I Archaeological Survey, Long Island City, New York**

Field director, research coordinator, lab director and photographer for historic site investigation for cultural resources section 106 for a NEPA assessment and LPC review for bike path in the Queensboro Plaza. Includes an archaeological assessment, field testing and architectural evaluation of the current property. Field work included site preparation, the excavation of a two meter by two meter test pit and site survey. Post field work included laboratory analysis of artifacts, writing of sections of report and prepared, edited and produced report for submission. Identified historic trolley rail alignment during field work.

**Lowes, Phase IB Supplemental Archaeological Survey, Montgomery, New York**

Field director, research coordinator, lab director and photographer for prehistoric/historic site investigation for SEQRA review for retail store. Field work included the preparation of site, excavation of 60 shovel test pits and site survey. Post field work included laboratory analysis of artifacts, writing of sections of report, prepared, edited and produced report for submission.

**Green Brook Trail, Application for Project Authorization/Preliminary Assessment, Plainfield, Green Brook, and North Plainfield, New Jersey**

Principal Investigator for New Jersey Historic Preservation Act and Freshwater Wetland Permit compliance. Completed and submitted an Application for Project Authorization for Green Brook Park and Washington Park Historic District for a multi-use recreational trail. Additionally, completed a preliminary archaeological assessment for the proposed seven-mile trail, including research, analysis, and report writing.

**Public School #3, Archaeological Monitoring, West New York, New Jersey**

Archaeological Monitor/researcher for NJ Executive Order 215 Compliance for 1 day of archaeological monitoring for human remains and research on school site that found headstone during excavation. Post field activities included report writing for submission to state.

**Former Koppers Superfund Site, Phase IB and II Archaeological Survey, Newport, Delaware**

Crew chief and OSHA Site Safety Officer for EPA compliance for superfund site during six month phase IB and II field excavations conducted by 20 archaeologists, teamed with John Milner and Associates. Work included setting of testing grid and field testing of over 3000 phase IB auguring and STP units and over 180 phase II units. Additional work included lab work, field tech training, and safety oversight. Identified numerous prehistoric archaeological site.

**Bronx River Park, Phase IA Archaeological Survey, Bronx, New York**

Research coordinator, researcher and report production for New York City Parks Department for New York City Landmarks Preservation Commission Compliance. Assessed park land for prehistoric and historic archaeological potential.

**USDA, Health-Based Plant Genomics Facility, Cornell University, Ithaca, NY.**

Research coordinator, researcher and report production for archaeological resources Section 106 Assessment as part of a NEPA Screening on the Plant Genomics Laboratory Building site.

**Weeksville Village, Phase IB Archaeological Monitoring, Brooklyn, New York**

Archaeological Monitor for SEQRA review for village cultural center. Performed field duties, with Joan Geismar. Work included monitoring of back hoe trenching for foundations, yard features and artifact deposits associated with the Huntely Houses.

**Edgewater Colony, Phase II Archaeological Survey, Edgewater, New Jersey**

Field director and lab director for or EIT storm water improvements loan consisting of the preparation of a Phase II prehistoric/historic site investigation. Included the direction of two field technicians excavating a total of 8 standard test units, photographer and the coordination of lab work. Other post-field responsibilities include writing sections, preparation and production of the final report for submittal to New Jersey DEP Municipal Finance and Technical Services.

**Portion of the Northeast Business Park, Phase IA Archaeological Survey, Washington Township, New Jersey**

Research coordinator, researcher, and report production for New Jersey Wetlands Permit. Assessed site for prehistoric and historic archaeological sensitivity.

**Creighton Farm Bridge Crossing, Phase I Archaeological Survey, Willistown, Pennsylvania**

Field director, research coordinator, lab director, photographer and report preparation for Army Corps of Engineers Permit. Post field work included laboratory analysis of artifacts, assisting with the writing, prepared, edited and produced report.

**Camp Laughing Water, Phase I Archaeological Survey, New Hanover and Upper Fredrick, Pennsylvania**

Field director, research coordinator, lab director, photographer and report preparation for Army Corps of Engineers Permit. Post field work included laboratory analysis of artifacts, assisting with the writing, prepared, edited and produced report.

**Camp Hidden Falls, Phase I Archaeological Survey, Delaware and Lehman Townships, Pennsylvania**

Field director, research coordinator, lab director, photographer and report preparation for Army Corps of Engineers Permit. Post field work included laboratory analysis of artifacts, assisting with the writing, prepared, edited and produced report.

**Select Sires, Phase I Archaeological Survey, Eaton, Pennsylvania**

Field director, research coordinator, lab director, photographer and report preparation for Pennsylvania section 105 Permit. Post field work included laboratory analysis of artifacts, assisting with the writing, prepared, edited and produced report.

**Tournament World, Phase IB Archaeological Survey, Montgomery, New York**

Field director, research coordinator, lab director, and photographer for SEQRA review. Field assessment for prehistoric and historic archaeological sites. Post-field work included laboratory analysis of artifacts, assisting with the writing, prepared, edited and produced report. Identified prehistoric archaeological site.

**Former Old First Presbyterian Church Cemetery, Phase III Data Recovery, Newark, New Jersey**

Project Manager/Field Director

Responsibilities included:

- Over sight of all field activities for 2.2 acre cemetery excavation
- Preparation and implementation of a comprehensive field plan for the locating human remains and associated artifacts
- Hiring and managing a field staff of 35
- Directing and coordinating sub contractor with field staff of 30
- Directing and coordinating 4 backhoes on site to move overburden and back fill site
- Over sight of cataloging all burials and artifacts
- Laboratory analysis of artifacts
- Writing, coordinating and editing of final report

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**Circulations Improvement Project, Phase IA and IB Archaeological Survey, Newark, New Jersey**

Field director, research coordinator, photographer and lab director for NJ Executive Order 215 Compliance. Phase I background investigation and Phase IB field testing. Work included coordinating conducting research, conducting photographic pedestrian survey site, and conducting field testing. Post field work included laboratory analysis of artifacts and preparation of the final reports. Report preparation included writing sections of the report, preparation and production of final report for submittal.

**Edgewater Colony, Phase IB Archaeological Survey, Edgewater, New Jersey**

Field director, research coordinator, and photographer for Environmental Infrastructure Trust Financing Program (EIT). Preparation of a Phase IB prehistoric/historic site investigation. Included the direction of three field technicians digging a total of 139 standard test pits, project coordination with the principal investigator, photographer and the coordination of lab work. Other post-field responsibilities include assisting with the writing, preparation and production of the final report.

**Former Central Railroad Terminal, Archaeological Monitoring, Newark, New Jersey**

Crew Chief/Project Coordinator Application for project authorization compliance of 6 week archaeological monitoring during demolition of former railroad terminal for SHPO resolution on application for project authorization. Monitor for human remains associated with the Old First Presbyterian Church cemetery, identifying, excavating, cataloging and turn over to mortician for reburial. Post field work included lab analysis of artifacts.

**Regional Biocontainment Laboratory – Newark Center, University of Medicine and Dentistry of New Jersey, Newark, New Jersey** – Researcher and report writer for cultural resources section of Environmental Assessment in accordance with the requirements of NEPA for the construction of a new Regional Biocontainment Laboratory under a grant from the National Institutes of Health.

**Newark Downtown Core Redevelopment and Circulations Improvement Plan, Newark, New Jersey**

Responsibilities included:

- Preparing a multi-phased strategy for investigating, testing and mitigating the project area
- Conducting preliminary research regarding various aspects of the project area, including possible intact remains within the former First Presbyterian Church cemetery
- Supervising research
- Conducting field photo reconnaissance and preliminary visual assessment of all properties potentially eligible for listing on the State and National Register of Historic Places that may be impacted by the proposed project
- Contributing to the Application for Project Authorization regarding the proposed demolition of five historic structures located within the Four Corners Historic District

**NJSCC School Development Program, New Jersey**

Crew Chief, researcher, photographer and report writing and production for NJ Executive Order 215 Compliance and NJSCC Guidelines. Participated in the development and redevelopment of 20 new and existing school sites located throughout New Jersey. Responsibilities included:

- Conducting and overseeing background research at the New Jersey Historic Preservation Office, the New Jersey State Museum and local archives
- Conducting field photo reconnaissance and preliminary visual assessment of all properties potentially eligible for listing on the State and National Register of Historic Places that may be impacted by the proposed project

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- Preparation and assistance in writing of the Cultural and Historical Resource Assessment section of Environmental Assessment and Environmental Impact Statement Reports and Phase IA background investigations
- Overseeing report production and preparing maps and figures
- Producing for internal departments/clients memos, letters and other documentation outlining potential issues and possible recommendations.

**Pen Del Development, Phase IB and II, Pemberton, New Jersey**

Field/Laboratory Technician of a Phase I & II prehistoric site investigation/excavation. Field responsibilities also included photographer and mapping excavation locations using GPS equipment. Laboratory Technician responsibilities included; cleaning, cataloging and photographing all artifacts. Other post-field responsibilities included assisting with the preparation and production of the final cultural resource report for submittal to New Jersey HPO.

**Field School, Lenape Meadows, Phase II, Basking Ridge, New Jersey**

Field and Laboratory Technician for phase II prehistoric excavation. Field work included daily preparation of site, field excavations, documentation of artifact finds, field crew management and the closing up the site for the winter. Laboratory work included cleaning, identifying, cataloging and photographic documentation of all artifacts.

**Lithics Identification Project, William Paterson University, New Jersey**

Volunteer. Conducted laboratory analysis, identification and cataloging, of over 5,000 stone fragments from the Wallkill River basin in Northern New Jersey, submitted to Dr. Janet Pollak. Research included identifying and cataloging human produced stone flakes and tools vs. naturally altered stone.

**SELECTED PUBLICATIONS**

*Phase IA Cultural Resource Survey, Standard Chlorine Chemical Company Site, Interim Response Action Workplan, Town of Kearny, Hudson County, New Jersey.* Michael Audin, RPA, Principal Investigator, 2009. MS on file at NJSHPO, Trenton, NJ.

*Phase I Cultural Resource Investigation GAC Adsorption Plant, Pennsauken, Camden County, New Jersey.* Michael Audin, RPA, Principal Investigator, 2009. MS on file at NJSHPO, Trenton, NJ.

*Historic American Building Survey for the Montauk Theater, Passaic, Passaic County, New Jersey.* Michael Audin, RPA, Principal Investigator, 2009. Submitted to the NJ HPO, Trenton, NJ.

*Phase I Archaeological Investigation Montgomery Towne Square, Montgomery, Orange County, New York.* Ludomir Lozny Principal Investigator, Michael Audin, and Sarah Hlubik, 2007. MS on file at OPRHP, Pebbles Island, NY.

*Phase II Archaeological Investigation of the Edgewater Colony, Edgewater, Bergen County, New Jersey.* Ludomir Lozny PI, Michael Audin, and Sarah Hlubik, 2007. MS on file at NJSHPO, Trenton, NJ.

*Phase I Archaeological Investigation Eaton, Wyoming County, Pennsylvania.* Ludomir Lozny PI, Michael Audin, and Erol Kavountzis, 2006. Ms on file at PHMC, Harrisburg, Pa.

*Phase III Cemetery Excavation, Old First Presbyterian Church, Newark Downtown Core Redevelopment, Newark, Essex County, New Jersey.* Michael Audin, Erol Kavountzis, and Sarah Hlubik, 2005. Manuscript on file at NJSHPO, Trenton NJ.

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**AWARDS**

NJ Historic Preservation Award, Innovative Techniques in Archaeology, May 2013

**PRESENTATIONS**

2011 "New Jersey's Iron Coffins" presented at the Archaeological Society of New Jersey Meeting.

2009 "The Montauk Theater: Last of the Seven Passaic Theaters" presented to a William Paterson University, Class on Material Culture.

2007 "Excavations at the Old First Presbyterian Cemetery in Newark, NJ" presented to William Paterson University's Anthropology Club.

**SUMMARY OF PROFESSIONAL ACTIVITIES**

Mr. Audin has conducted field work in New Jersey, New York, Pennsylvania, Connecticut, Delaware and West Virginia. He is the author or co-author of over 150 archaeological/cultural resource reports in New Jersey, New York, Pennsylvania and West Virginia. In addition, have contributed to over 4 Environmental Impact Statements and 31 Environmental Assessments.

**PROFESSIONAL DEVELOPMENT**

Historic Preservation Research Course, Drew University, February 2005

OSHA 40 Hour Certified HAZWOPER Training (December, 2005) and refreshers

OSHA Site Supervisor Certified (June, 2007) and refreshers

OSHA 10-Hour Construction Certified for New York City, 2012

NJSHPO Cultural Resources Best Practices Workshop, October 2006

Preservation Planning in the Highlands, Drew University, March 2007

Section 106 Essentials Class with ACHP, July 2007

Pennsylvania Department of Transportation, Cultural Resource Handbook Class, April 2010

Federal Communications Training, Washington D.C. June 2011

Cultural Resource Essentials Series, Pennsylvania Historical & Museum Commission, July 2013

**PROFESSIONAL AFFILIATIONS**

Archaeological Society of New Jersey

Council for Northeast Historical Archaeology

National Trust for Historic Preservation

New York State Archaeological Association (Lifetime Member)

Register of Professional Archaeologists

Society of American Archaeology

Society for Historical Archaeology

Society for Industrial Archaeology

The Society for Pennsylvania Archaeology

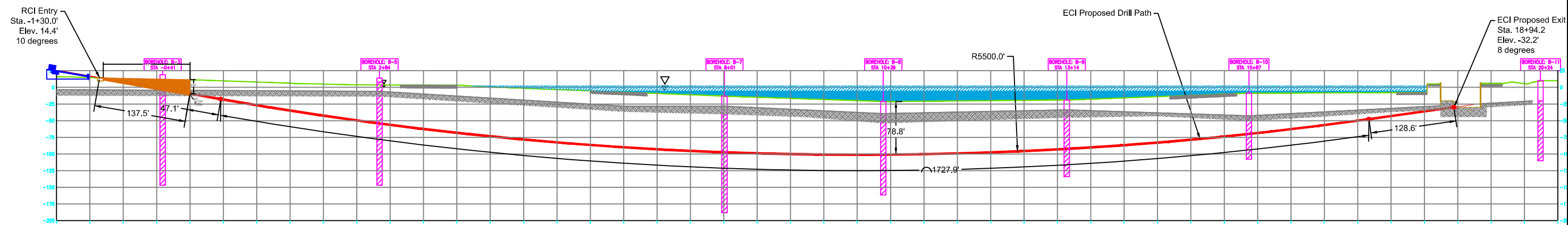
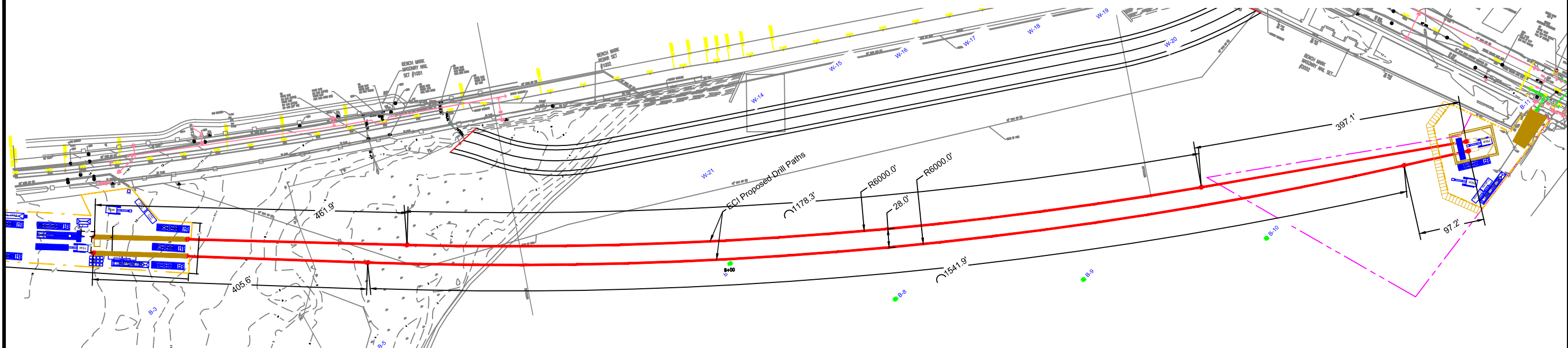
**APPENDIX B**

**PLAN OF THE PROJECT SITE**

# City of New York


## Department of Design & Construction - Division of Infrastructure

### HED564 New 20" Sulfate-Aqueous Water Mains to City Island

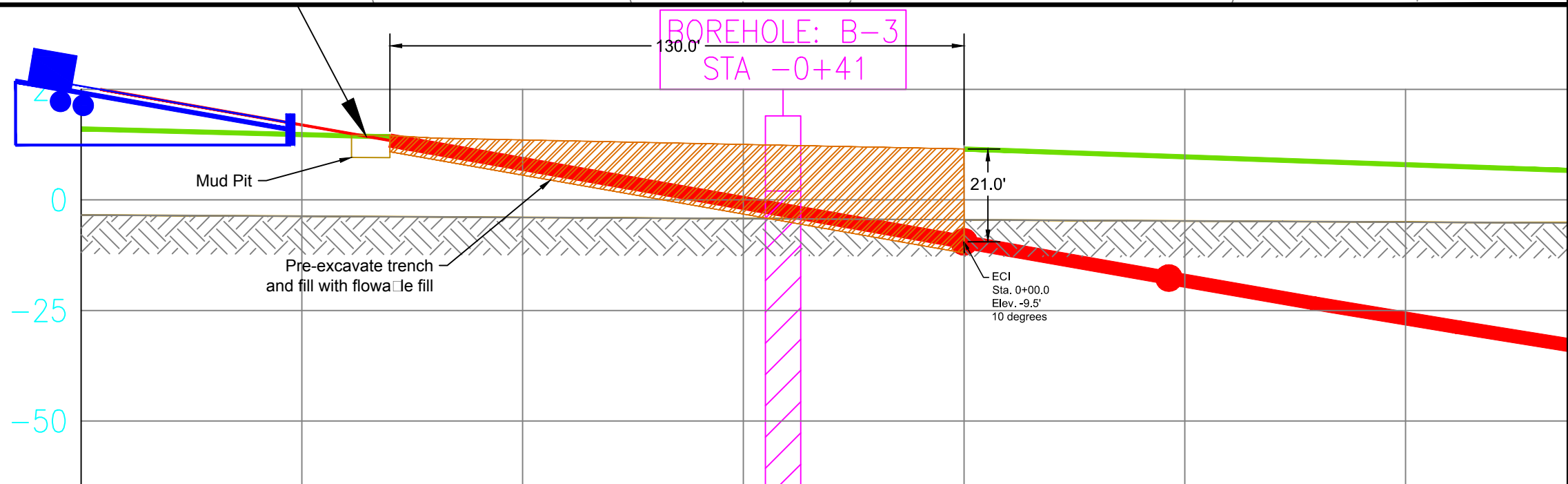
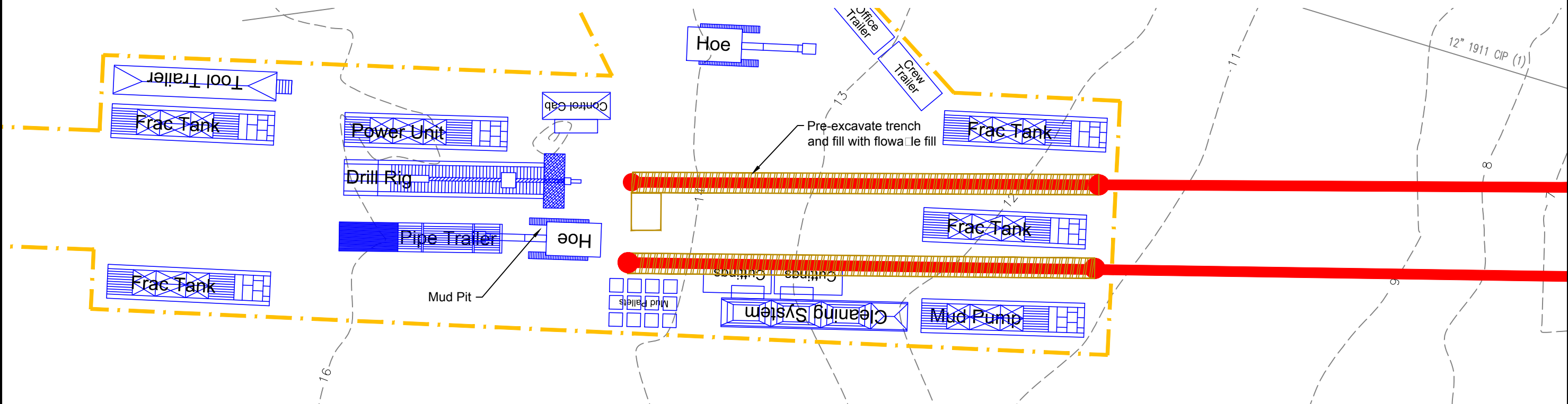


Notes:  
 1. This drawing is for discussion purposes only, not for construction.  
 2. The map used for this drawing was provided by NYC-DDC.

HED564-Sub-001.1 rev1


		1306 N. FM 3083 Road Conroe, Texas 77303 PH: (936) 441-9080 FAX: (936) 441-9082	
DATE:	8-1-19	JOB No.:	E17-504
CLIENT:	NYC DDC	DRAWN BY:	GJH
LOCATION:	Eastchester Bay Bronx, New York	PROFILE DIRECTION:	W to E
		DRAWING No.:	7/8/19

City of New York  
Department of Design & Construction - Division of Infrastructure  
HED564 New 20" Su-Aqueous Water Mains to City Island



Notes:  
1. This drawing is for conceptual purposes only.  
2. The base map used for this drawing was provided by NYC-DDC.

Drill Entry

		1306 N. FM 3083 Road Conroe, Texas 77303 PH: (936) 441-9080 FAX: (936) 441-9082	
DATE: 8-1-19	JOB No.: E17-504	DRAWN BY: GJH	
CLIENT: NYC DDC		PROFILE DIRECTION: W to E	
LOCATION: Eastchester Bay Bronx, New York		DRAWING No.: 7/24/19	

## **APPENDIX C**

### **STP SOIL PROFILE LOGS**

Soil Profile Log							
STP #	DEPTH (cm)	STRATUM	MUNSELL	MUNSELL COLOR	SOIL TYPE	ARTIFACTS	COMMENTS
1	0-30 cm 0 - 12"	I	10YR 3/1	very dark grey	silt loam	1 ceramic	130 feet East of Auger #1
1	30-47 cm 12 - 18"	II	10YR 5/3	brown	sand	NCM	
2	0-40 cm 0 - 16"	I	10YR 3/1	very dark grey	silt loam	8 vessel glass	100 feet East of Auger #1
2	40-50 cm 16 - 20"	II	10YR 5/3	brown	sand	NCM	
3	0-35 cm 0 - 14"	I	10YR 3/1	very dark grey	silt loam	NCM	50 feet East of Auger #1
3	35-46 cm 14 - 18"	II	10YR 5/3	brown	sand	NCM	
4	0-36 cm 0 - 14"	I	mottled	mottled	mottled	NCM	Adjacent to Auger #1 Mottled/disturbed, rock impass
5	0-40 cm 0 - 16"	I	10YR 3/1	very dark grey	silt loam	NCM	130 feet East of Auger #4
5	40-58 cm 16 - 23"	II	10YR 5/3	brown	sand	NCM	
6	0-33 cm 0 - 13"	I	10YR 3/1	very dark grey	silt loam	whiteware	100 feet East of Auger #4, photographed

6	33-43 cm 13 - 17"	II	10YR 5/3	brown	sand	NCM	
7	0-38 cm 0 - 15"	I	mottled	mottled	mottled	NCM	50 feet East of Auger #4, Mottled/disturbed, rock impass
8	0-30 cm 0 - 12"	I	mottled	mottled	mottled	NCM	
8	30-56 cm 12 - 22"	II	10YR 3/1	very dark grey	silt loam	NCM	
8	56-63 cm 22 - 25"	III	10YR 5/3	brown	sand	NCM	
Auger 1	0-50 cm 0 - 20"	I	10YR 3/1	very dark gray	silt loam	NCM	West end of South Trench
Auger 1	50-81 cm 20 - 32"	II	10YR 5/3	brown	clayey sand	NCM	West end of South Trench
Auger 1	81-100 cm 32 - 39"	III	10YR 5/4	yellowish brown	course sand	NCM	West end of South Trench
Auger 1	100-110 cm 39 - 43"	IV	GLEY 2 6/10B mw/2.5YR 5/6	bluish gray mw/ red	sandy	NCM	West end of South Trench
Auger 2	0-35 cm 0 - 14"	I	10YR 3/1	very dark gray	silt loam	NCM	East end of South Trench
Auger 2	35-63 cm 14 - 25"	II	10YR 5/3	brown	clayey sand	NCM	East end of South Trench
Auger 2	63-84 cm 25 - 33"	III	10YR 5/4	yellowish brown	course sand	NCM	East end of South Trench
Auger 2	84-89 cm 33 - 35"	IV	GLEY 2 6/10B mw/2.5YR 5/6	bluish gray mw/ red	sandy	NCM	East end of South Trench

Auger 3	0-20 cm 0 - 8"	I	10YR 3/1	very dark gray	silt loam	NCM	East end of North Trench
Auger 3	20-96 cm 8 - 38"	II	10YR 5/3	brown	clayey sand	NCM	East end of North Trench/ Rock Impass
Auger 4	0-46 cm 0 - 18"	I	10YR 3/1	very dark gray	silt loam	NCM	West end of North Tench
Auger 4	46-96 cm 20 - 32"	II	10YR 5/3	brown	clayey sand to fine sand	NCM	West end of North Tench
Auger 4	96 cm + 38" +	III	10YR 5/4	yellowish brown	sand	NCM	West end of North Tench

**APPENDIX D**

**ARTIFACT LOG**



Project: City Island Water Main

Phase: 1B

City: Bronx, New York City

State: New York

Test pit number	Site Level	Artifact Description	Artifact additional traits	Quantity retained for analysis	Quantity unwashed not analyzed in lab	Quantity Discarded in the field	Comments	Approximate date for diagnostic artifacts
1	1	Historic Ceramic	plain whiteware	1				1820+
2	1	Glass	green vessel	8			soda/beverage	late 20th
2	1	Glass	clear vessel	2				
6	1	Historic Ceramic	Whiteware	1				1820+

**APPENDIX E**

**COMMUNICATION WITH LPC**

## ARCHAEOLOGY

**Project number:** 11DEP024X (DEPT. ENVIRONMENTAL PROTECTION)  
**Project:** CITY ISLAND WATER SUPPLY AND DRAINAGE IMPROVEMENTS  
**Address:** PELHAM BAY PARK **BBL:** 2056500001  
**Date Received:** 8/15/2019

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**This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.**

☐ **No archaeological significance**

☐ **Designated New York City Landmark or Within Designated Historic District**

☐ **Listed on National Register of Historic Places**

☐ **Appears to be eligible for National Register Listing and/or New York City Landmark Designation**

☒ **May be archaeologically significant; requesting additional materials**

**Comments:** The LPC is in receipt of the, "Phase IB Archaeological Testing Plan, City Island Water Supply and Drainage Improvement Project, City Island & Pelham Bay Park, Bronx, New York," prepared by AHRS and dated August 2019.

Please confirm which project this work relates to. In addition, the LPC notes that the report states that 3' of fill was documented in areas close to the project area- and yet- the protocol recommends shovel tests once 6-8" of soil is removed. The LPC recommends that augers be completed first to determine the extent of fill within the sensitive area. The work plan should be amended to include this first step and can then note what subsequent steps will be taken dependent upon those results. For example, if the augers document 2' of recent fill, mechanical means will be used to remove the modern fill and then STPs will occur.

Cc: NYSHPO



8/21/2019

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SIGNATURE  
Amanda Sutphin, Director of Archaeology

DATE

**File Name:** 29619\_FSO\_ALS\_08192019.docx



## **ARCHAEOLOGY**

**Project number:** 11DEP024X (DEPT. ENVIRONMENTAL PROTECTION)  
**Project:** CITY ISLAND WATER SUPPLY AND DRAINAGE IMPROVEMENTS  
**Address:** PELHAM BAY PARK **BBL:** 2056500001  
**Date Received:** 8/22/2019

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**This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.**

☐ **No archaeological significance**

☐ **Designated New York City Landmark or Within Designated Historic District**

☐ **Listed on National Register of Historic Places**

☐ **Appears to be eligible for National Register Listing and/or New York City Landmark Designation**

☒ **May be archaeologically significant; requesting additional materials**

**Comments:** The LPC is in receipt of the revised, "Phase IB Archaeological Testing Plan, City Island Water Supply and Drainage Improvement Project, City Island & Pelham Bay Park, Bronx, New York," prepared by AHRs and dated August 2019. We note that the requested changes have been made and now concur with the work plan. Please alert the Commission when work begins.

Cc: NYSHPO



8/23/2019

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SIGNATURE  
Amanda Sutphin, Director of Archaeology

DATE

**File Name:** 29619\_FSO\_ALS\_08232019.docx