

Phase IB Archaeological Monitoring for Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project



Prepared for:

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

City of New York –Department of Housing Preservation and Development
New York, New York

Fulton Star, LLC
New York

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October 2019

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EXECUTIVE SUMMARY TEXT

Chrysalis Archaeological Consultants, Inc., (Chrysalis) was contracted by Fulton Star, LLC (FS) on behalf of the New York City – Department of Housing Preservation and Development (HPD), to provide all Cultural Resource Management (Archaeological) services for the Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project (Project). Phase IB archaeological monitoring for the project occurred in September 2019.

Phase IB monitoring was designed to fulfill cultural resource management requirements for the development of a 0.25-acre irregularly-shaped parcel of land located at 1019-1029 Fulton Street and 1826 Putnam Avenue in the Clinton Hill neighborhood of Brooklyn (Kings), New York. The purpose of the Project is to construct a 6-story, mixed-use building that will include low-income housing and commercial space as part of the NYC Department of City Planning's (DCP) Inclusionary Housing Program (IHP).

A total of 5 exploratory archaeological trenches were monitored to assess the condition of the backyard areas of the original nineteenth-century house-lots based on the Phase IB Archaeological Work Plan submitted by Historical Perspectives, Inc. to the City of New York – Landmarks Preservation Commission (NYC LPC) for review (approved by NYC LPC March 2019).

Phase IB trenching uncovered one archaeological feature (01) in the south wall of Trench 03, an intact segment of an east/west running brick-wall with associated cement footings of a later addition. The wall is likely the basement or foundation wall of the nineteenth century rowhouse that once existed in Lot 3. No features or historical deposits were encountered during monitoring of the remaining trenches.

No intact archaeological deposits or resources were encountered during Phase IB testing. No significant cultural resources were identified. No further archaeological mitigation is recommended for this Project.

Alyssa Loorya, Ph.D., R.P.A., President, served as Principal Investigator; Leah Mollin-Kling, M.A.A., R.P.A. served as Field Director and Roseanne Quinn served as Field Technician for this project. The report was edited by Christopher Ricciardi, Ph.D., R.P.A..

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I. INTRODUCTION

Fulton Star, LLC (FS) contracted with Chrysalis Archaeological Consultants, Inc., (Chrysalis) on behalf of the New York City – Department of Housing Preservation and Development (HPD), to provide all Cultural Resource Management (Archaeological) services for the Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project. This report is a summation of the Phase IB archaeological test trenching that occurred in September 2019 including results and recommendations.

The Area of Potential Effect (APE) is a 0.25-acre irregularly-shaped parcel of land located at 1019-1029 Fulton Street and 1826 Putnam Avenue in the Clinton Hill neighborhood of Brooklyn (Kings), New York (Map 01). The APE encompasses multiple adjacent lots (1-7, 16, 106) in Block 1991 and is bounded by Fulton Street to the South, Downing Street to the east, and Putnam Street to the North (Map 02). The APE ends in the middle of the block and Grand Avenue is the next street to the west. Currently, the APE is mostly vacant with relatively flat and open terrain. The only structure extant in the APE is on Lot 16, which contains a one-story building that fronts Putnam Avenue. Chrysalis followed the approved Archaeological Work Plan (AWP) submitted by Historical Perspectives, Inc. (HPI) (HPI March 2019)

The purpose of the Project development is to construct a 6-story, mixed-use building that will include low-income housing and commercial space as part of the NYC Department of City Planning's (DCP) Inclusionary Housing Program (IHP).

The Phase IB investigations summarized in this report were designed to determine the presence/absence of archaeological resources within the project area and to assess whether they, if found, would be adversely affected by project construction plans. The ultimate goal of the cultural resource management investigation was to determine whether significant (i.e. National Register eligible) resources were present in the APE and to provide mitigation recommendations if necessary. The Phase IB Archaeological Work Plan (AWP) (HPI 2019) was submitted to the City of New York – Landmarks Preservation Commission (NYC LPC) for review by Historical Perspectives, Inc., and was approved by NYC LPC) in March 2019.

Lots 1-7 and 16 in the APE were most recently the site of an automotive service and gas station that was demolished approximately 20 years ago (HPI 2016). Previously, the lots within the APE consisted of 2-3 story, mid-nineteenth century brick dwellings with cellars. The buildings were mixed-use, containing housing above and commercial space on the ground floor. HPI concluded in their Phase IA report that there was a significant potential for historic archaeological resources to be present within the APE (HPI 2016).

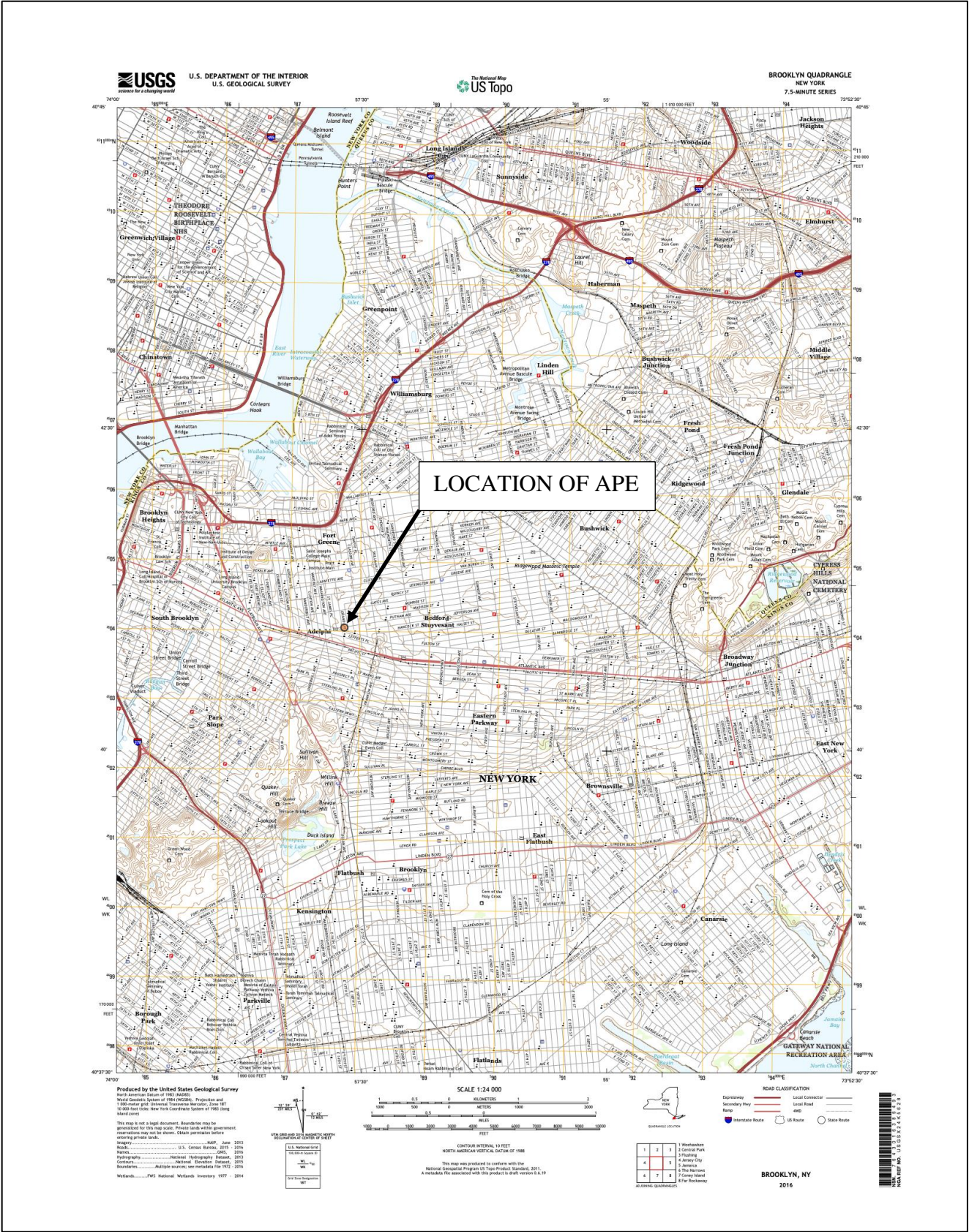
A total of 5 exploratory archaeological trenches were mechanically excavated via backhoe fitted with a flat blade bucket under archaeological direction to assess the condition of the backyard areas of the original nineteenth-century house-lots. Trenching uncovered one archaeological feature (Feature 01) in the south wall of Trench 03, Lot 3. This was an intact segment of east/west running brick-wall with associated cement footings of later addition. The wall is likely the basement or foundational wall of the nineteenth century rowhouse that once existed in Lot 3. The remaining

trenches yielded no significant archaeological materials.

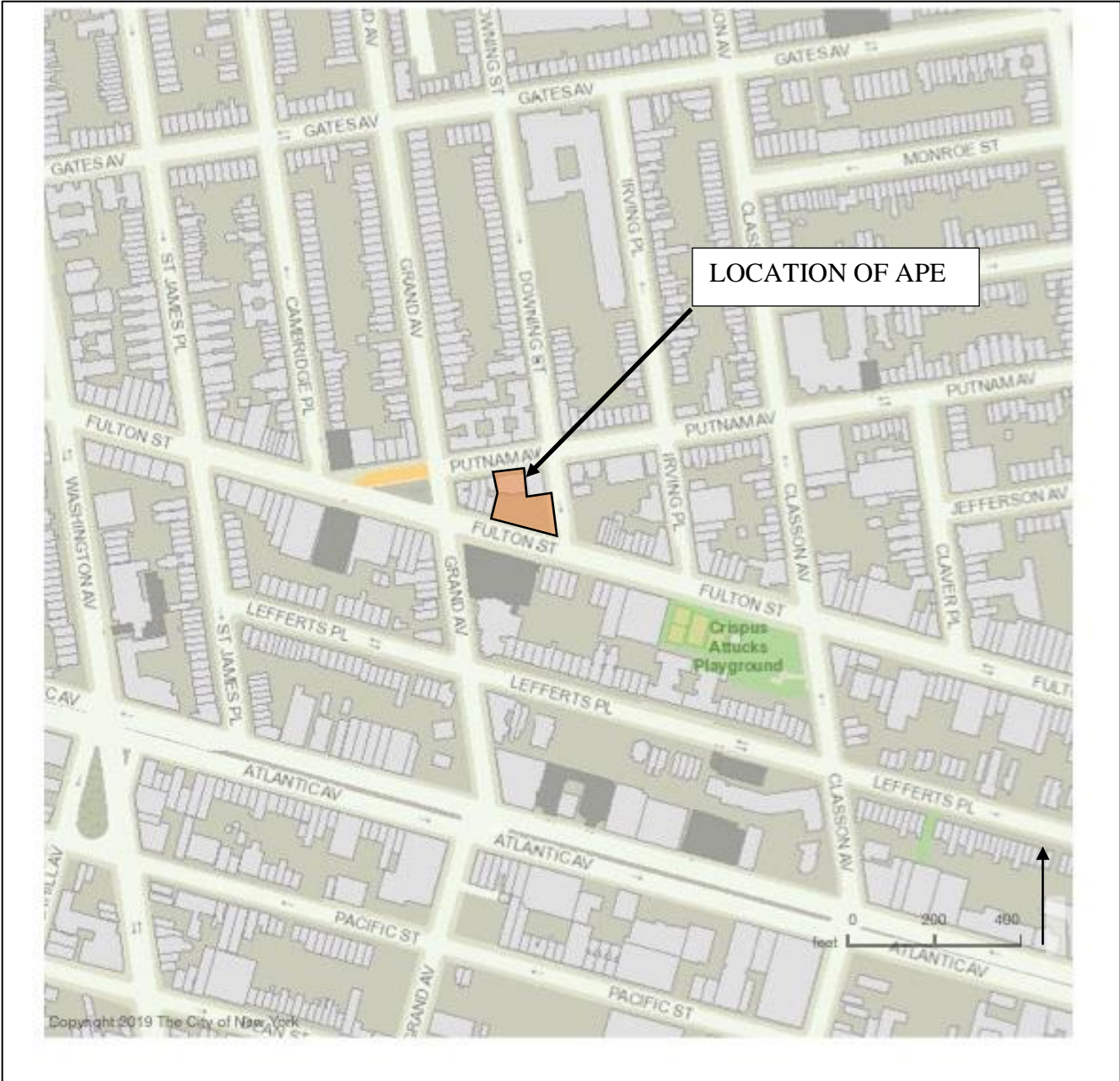
A proliferation of demolition debris in fill layers across the site indicated that the APE retains low archaeological integrity. Modern disturbances, perhaps resulting from the mid- to late-twentieth century demolition of the original structures, has significantly impacted the project area. No significant cultural resources in the form of discrete historic deposits or intact shaft features are anticipated. Chrysalis does not recommend further archaeological services or mitigation for the Project.

The Phase IB Archaeological Monitoring and Field Testing as part of the Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project was enacted in accordance with the National Historic Preservation Act of 1966, as amended, the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800.4), and the NY SHPO's Guidelines for Archaeological Projects, and it adheres to the revised 2018 Landmarks Preservation Commission's "Guidelines for Archaeological Work in New York City."

Alyssa Loorya, Ph.D., R.P.A., President, served as Principal Investigator; Leah Mollin-Kling, M.A.A., R.P.A. served as Field Director and Roseanne Quinn served as Field Technician for this project. The report was edited by Christopher Ricciardi, Ph.D., R.P.A..



Map 01: US Topo 7.5-minute Map for Brooklyn, NY (USGS 2016).



Map 02: Project Area Map (NYC GIS 2019).

II. SYNTHESIS OF PREVIOUS WORK

According to The New York State Office of Parks, Recreation and Historic Preservation Department's online Cultural Resource Information System (CRIS) and the Landmark Parks Commissions' archaeological report holdings, no archaeological field testing of the APE has been undertaken to date.

A Phase IA Documentary Study was undertaken by Historical Perspectives, Inc. for the project in 2016. Their report, *Phase IA Documentary Study 1019-1029 Fulton Street and 18-22 Putnam Avenue Block 1991, Lots 1-7, 16 and 106 Brooklyn, Kings County, New York* (HPI 2016), contains a detailed history of the APE and surrounding area and includes an assessment of other previous cultural resources studies in the project area.

HPI as part of the Phase IA report determined that the APE has significant potential to contain historic resources, necessitating archaeological investigation for the current project prior to construction.

III. CONTEXT AND RESEARCH DESIGN

The APE is comprised of a series of lots in Block 1991, bordered by Fulton Street to the south, Downing Street to the East, Putnam Avenue to the north, and Grand Avenue to the west in the Clinton Hill neighborhood of Brooklyn, Kings County, New York (Map 03). This block was once part of a large tract of farmland owned by the Ryerson's, an old Dutch colonial landholding family.

As the population of Brooklyn increased dramatically in the mid-nineteenth century, much of the interior of the Ryerson farm was segmented into smaller lots for sale and development. Between 1845-1856, the APE was sold off as one large lot in a series of transactions, culminating with Richard Ten Boeck (HPI 2016:3). In 1856, Ten Broeck's land was further divided into the lots that exist within the APE today and were sold to various developers.

Lot 16, the only one within the APE to front Putnam Street, was the first to be developed and structures were extant on the property in the early 1850's (HPI 2016:4). Development of the lots fronting Fulton Street lagged behind by a couple of years, though dwellings were extant by 1856 as evidenced by tax records, city directories, and contemporary maps. The houses on Fulton Street were constructed as row houses with basements and small rear yards. The structures in Lots 1-3 were three-story brick. In Lots 4-7 and 106, the structures were two-story wooden frame houses. Commercial space was available on the ground floor of the Fulton fronting properties, with residential space above.

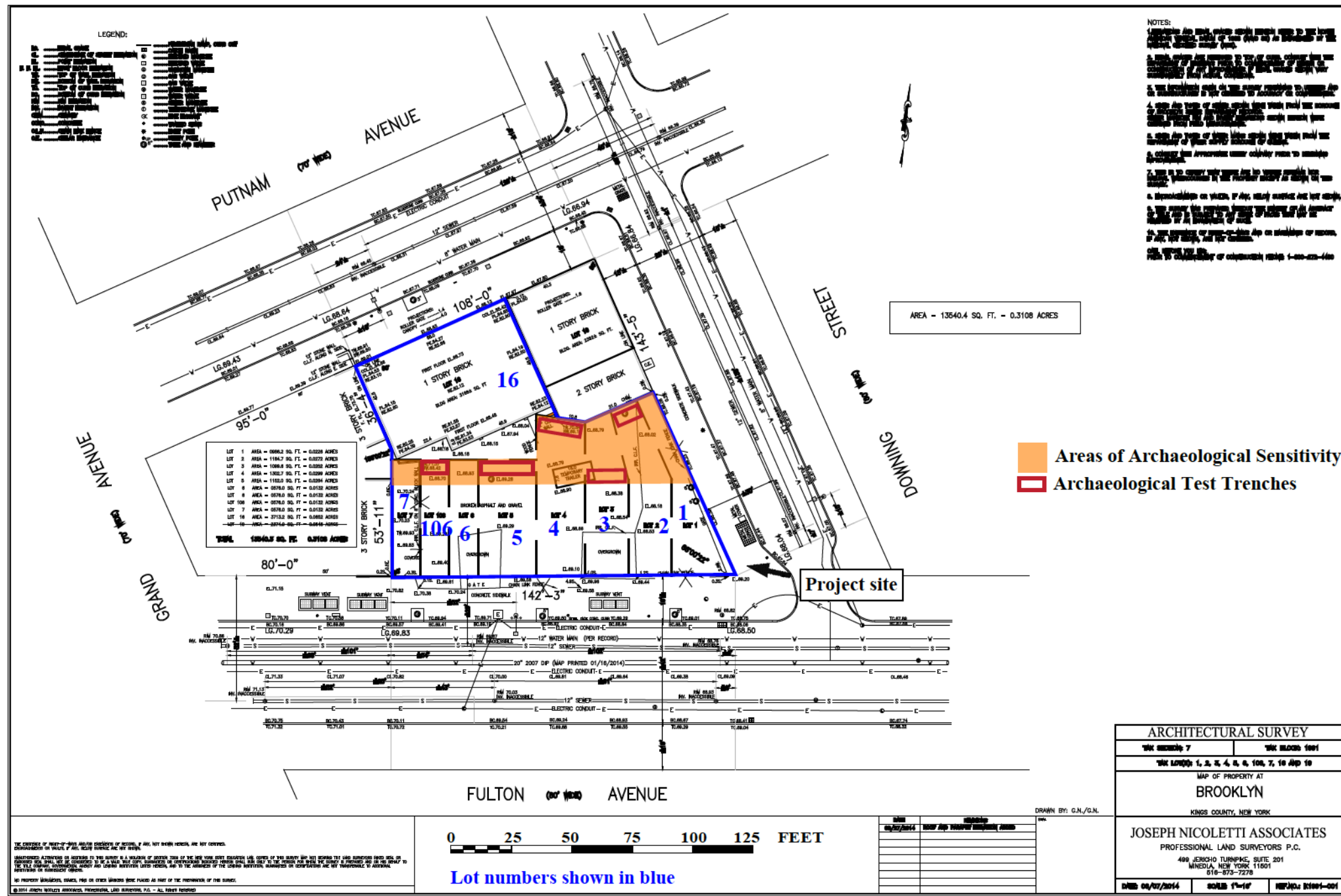
Municipal services for gas, sewage, and water were introduced to the neighborhood beginning in the 1860s. Piped water was introduced in the area in 1860 and sewers were connected between 1862-1871 (HPI 2016:4). Prior to these services, early residents in the APE would have had wells, cisterns, and privies in the backyard areas to service the households.

No buildings are currently extant in the APE save for Lot 16. The original mid-nineteenth century houses in Lot 16 were demolished and the current one-story structure was erected in the late 1930's (HPI 2016:5). Lot 1 was demolished in the 1940s; Lot 2 was demolished in 1975; Lot 4-7 and 106 were demolished in 1981; and Lot 3 was demolished in 1995 (HPI 2016:5). No subsequent construction has been identified in the project area.

The residential buildings in the APE were originally constructed prior to the introduction of municipal services. Although this period only extended for a short time, residents in the early years of the Fulton Street lots would have utilized out-buildings and water-retaining elements in the rear yards. As no subsequent development in the APE has been noted post-demolition of the original row houses in the mid- to late-twentieth century, there is a significant potential for historic shaft features and/or discrete archaeological deposits to remain intact in the project area.

The scope of work for the current Project includes the complete demolition and excavation of the lots within the APE in order to construct a 6-story, mixed-use building that will include low-income housing and commercial space as part of the NYC Department of City Planning's (DCP) Inclusionary Housing Program (IHP).

In order to assess the archaeological potential of the APE, five exploratory test trenches were mechanically excavated under archaeological direction and supervision in the backyard areas of Lots 2-5 and 106 (Map 03). This work was undertaken in advance of the start of construction.



PROPOSED NEW DEVELOPMENT

1019 FULTON ST

FULTON ST
BROOKLYN, NY

BLOCK 1991 LOT 12.3.4.5.6.106.7.16

ARCHITECT:
AUFANG ARCHITECTS LLC
74 LAFAYETTE AVE, SUITE 301
SUFFERN, NY
INFO@AUFANG.COM 845.368.0004

AUFANG ARCHITECTS

DEVELOPER:
[Redacted]

STRUCTURAL ENGINEER:
[Redacted]

MEP ENGINEER:
[Redacted]

11-11-15	ISSUED TO HPD, FOR REVIEW & COMMENT
DATE	SUBMISSIONS / REVISIONS
SHEET TITLE:	
SURVEY	
SEAL & SIGNATURE	
ISSUE DATE:	PROJECT NO:
03-25-15	#1513
DRAWN BY:	CHECKED BY:
S.Z.	T.L.
SCALE:	SHEET NO:
1/8"=1'-0"	2 OF 31
DRAWING NO:	
C-001.00	
NYC DOB NUMBER:	

Phase IA Archaeological Documentary Study
1019-1029 Fulton Street and 18-22 Putnam Avenue
Block 1991, Lots 1-7, 16 and 106
Brooklyn, Kings County, New York

Figure 12: Project site showing areas of archaeological sensitivity on modern survey map (Joseph Nicoletti Associates 2014).
Map 03: Proposed Excavation from AWP (HPI 2016).

IV. PROJECT METHODS

Phase IB fieldwork is designed to ascertain the presence/absence of archaeological resources within a site. The goal is to determine whether significant (i.e., National Register [NR] eligible) resources are extant within the APE and to ascertain whether they could be adversely affected by project construction work.

Phase IB archaeological investigations were deemed necessary for the current project as the Phase IA report concluded that the APE could be sensitive for historic resources (HPI 2016).

Phase IB monitoring of exploratory archaeological trenching occurred in Lots 2-5 and 106 following the approved AWP by HPI dated March 2019 (Map 03). Trenches were mechanically excavated using a backhoe fitted with a flat bladed bucket. Trenches varied in length and width based on the dimensions of the house-lots being tested. The depths of the trenches measured between 7.5' and 9' below ground surface, which roughly corresponds to planned construction depths.

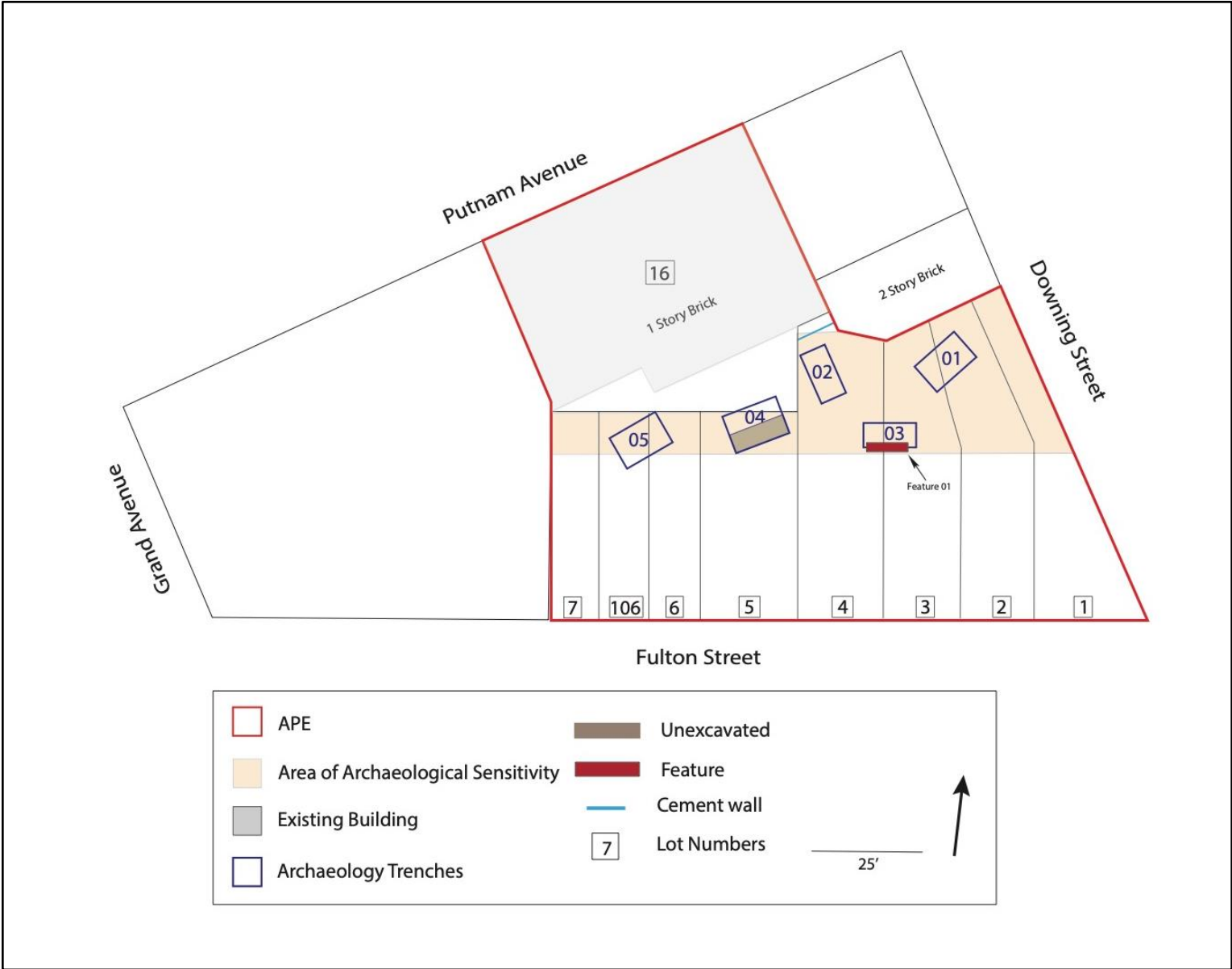
All soils were described using the Munsell color system and standard texture classifications. Soil profiles and archaeological features were described, photographed in digital format, and illustrated by measured drawings in Imperial or Engineers scale in plan and vertical perspective, as appropriate.

No intact stratigraphy or undisturbed historical deposits were found during Phase IB archaeological testing for the Project, resulting in no artifacts being retained for analysis.

V. FIELD RESULTS

A total of five Phase IB exploratory trenches (01-05) in lots 2-5, and 106 were archaeologically monitored (Map 04) (Table 01). The trenches were placed in what would have been the rear yards of the original nineteenth century row houses fronting Fulton St. The backyard areas were specifically identified by HPI in their Phase IA assessment as having the potential to yield historic shaft features, discrete archaeological deposits, and/or other associated rear-yard elements.

Feature 01, an intact segment of brick-wall and associated elements, was found in the south wall of Trench 03 in Lot 3. No significant archaeological resources were encountered in the four remaining trenches.



Map 04: Field Map.

Table 01: Trench and Lot Numbers with Locational Information.

TRENCH #	LOT#	DIMENSIONS	LONGITUDE/LATITUDE
01	2	12' x 8'	40°40'57.1"N, 73°57'39.0"W
02	4	12' x 6'	40°40'57.1"N, 73°57'39.4"W
03	3	12' x 5.67'	40°40'56.9"N, 73°57'39.3"W
04	5	13' x 9'	40°40'57.1"N, 73°57'40.0"W
05	106	12' x 8'	40°40'57.0"N, 73°57'39.8"W

Trench 01

Trench 01 was located along the northern boundary of Lot 2 near the northwest corner of the APE as it abuts a vacant two-story brick building fronting Downing Street (Map 04) (Image 01). The trench was opened 5.5' south of the brick building in order to avoid damage to the structure or its integrity.



Image 01: Location of Trench 01 (looking east).

The trench ran generally east/west and measured 12' by 8' and was excavated to a depth of 9' below ground surface (bgs)¹. No features or significant archaeological resources were encountered during the excavation of Trench 01.

Intact stratigraphy was found during the excavation of Trench 01 underlying a thick layer of fill (Table 02) (Image 02). The fill was characterized by significant inclusions of demolition materials, indicating that Lot 2 has been disturbed. As a result, intact archaeological resources are not expected to remain in Lot 2.

Table 02: Stratigraphic Profile North Wall –Trench 01.

STRAT	NAVD 88 DEPTH (BGS)	MUNSELL	SOIL TYPE	COMMENTS
Fill 1	68.02' – 63.52' (0' –4.5' bgs)	7.5YR 3/2 dark brown	Fine to medium sandy silt	With brick and ceramic utility pipe fragments, demolition debris, and Styrofoam and other modern trash.
Truncated Subsoil A	63.52' – 60.27' (4.5' – 7.75' bgs)	7.5YR 4/4 brown	Medium sand	
Subsoil B	60.27' – 59.02' (7.75' – 9.0' bgs)	10YR 4/3 brown	Coarse sand	With pebbles and cobbles.

¹ Below surface measurements are generally utilized in the discussion. NAVD 88 measurements are provided in the Stratigraphic Profile trenches and in the discussion of archaeological features.



Image 02: Stratigraphic profile, north wall – Trench 01.

Trench 02

Trench 02 was placed along the northern boundary of Lot 4 near its intersection with the backwall of the building in Lot 16 fronting Putnam Avenue and the two-story brick building fronting Downing Street (Map 04) (Image 03). The trench measured 12' by 6' and was oriented roughly north/south instead of east/west to avoid impacting the structural integrity of the surrounding buildings (Image 04).

Similar to Trench 01, Trench 02 featured a fill layer with demolition materials over sterile subsoil (Table 03) (Image 05). The fill in this trench was shallower than in Trench 01 and only one subsoil layer was encountered. No significant cultural resources were encountered during the excavation of Trench 02.



Image 03: Location of Trench 02, pre-excitation (looking north).



Image 04: Excavation in progress, Trench 02 (looking east).

Table 03: Stratigraphic Profile West Wall –Trench 02.

STRAT	NAVD 88 DEPTH (BGS)	MUNSELL	SOIL TYPE	COMMENTS
Fill 2	69.10' – 66.60' (0' –2.5' bgs)	10YR 4/3 brown	Medium to coarse sand	With gravel, brick fragments, plastic liter soda bottles, black garbage bags, blanket remnants, and other modern trash.
Truncated Subsoil A	66.60'– 60.10' (2.5' – 9.0' bgs)	7.5YR 4/6 strong brown with 7.5YR 4/3 brown	Medium to coarse sand	With pebbles and cobbles.



Image 05: Stratigraphic profile, west wall – Trench 02.

Trench 03

The placement of Trench 03 differed slightly from the method utilized in the other four exploratory trenches in the APE. Instead of being placed along the northern edge of what would have been the rear yard area of Lot 3, Trench 03 was placed along its southern boundary (Map 04). This location corresponds roughly to the middle of the project area and does not abut any existing structures (Image 06).



Image 06: Interior of APE and location of Trench 03, pre-excitation (looking east).

The planned dimensions for Trench 03 in the AWP was 16.25' by 12', although due to the discovery of Feature 01, only 12' by 5.67' of the trench was ultimately excavated. Upon discovery of Feature 01, horizontal excavation of Trench 03 ceased (Image 07).



Image 07: Dimensions of Trench 03 (looking west).

Feature 01, an intact segment of brick wall, was encountered in the southern wall of Trench 03 (Image 08). Prior to discovery of the feature, a mix of historic and modern materials were uncovered in the backdirt pile and observed in situ in the northern wall of the trench. No discrete or intact historic deposits were encountered, however. The demolition fill surrounding Feature 01 was a mix of nineteenth- and twentieth-century materials, indicating a high level of modern disturbance to the area surrounding the brick wall.



Image 08: Discovery of Feature 01 in Trench 03 (looking west).

The stratigraphy of the northern wall of the trench consisted of slightly different fill and demolition layers than in any other exploratory trench (Table 04) (Image 09). Sterile subsoil was encountered underneath the demolition layer in the western third of the trench only. The bottom of the demolition layer was not observable in the remainder of the trench.

Table 04: Stratigraphic Profile North Wall –Trench 03.

STRAT	NAVD 88 DEPTH (BGS)	MUNSELL	SOIL TYPE	COMMENTS
Developing Ao	68.79' – 68.59' (0' –0.2' bgs)	N/A	N/A	
Fill	68.59'– 67.79' (0.2' – 1.0' bgs)	10YR 3/4 dark yellowish brown	Silty fine to medium sand	With brick fragments and modern debris.
Demolition Layer	67.79'– 64.79' (1' – 4.0' bgs)	7.5YR 3/2 dark brown with bands of 10YR 6/3 pale brown coarse sand and mottled with 7.5YR 4/4 brown	Fine sandy silt	With modern and historic materials.
Truncated Subsoil A	65.59'– 64.79' (3.0' – 4.0' bgs)	7.5YR 4/4 brown	Fine sand	Only in western third of trench wall.



Image 09: Stratigraphic profile, east wall -- Trench 03.

Feature 01

Feature 01 is a linear, east-west running brick wall that was encountered in the south wall of Trench 03 in Lot 3 at a depth of 67.83' NAVD 88 (1.1' bgs) during archaeological trenching (Images 10 and 11) (Figure 01). There are eight visible courses in the wall and the bricks are connected via a very friable, pale yellow mortar. Large, semi-angular foundational stones provide the western terminus of the brick wall. A long and thin north/south oriented cement footing or other foundational element provided the feature's eastern terminus. The Feature was excavated to a depth of 65.83' NAVD 88 (3.1' bgs). Horizontally, the Feature measures 9.34' from the eastern edge of the cement foundation element to the western edge of the foundation stones. The interior dimension of the feature, which corresponds to the actual brick portion, measures 7' in length.



Image 10: Feature 01 in Trench 03.



Image 11: Feature 01 in plan view.

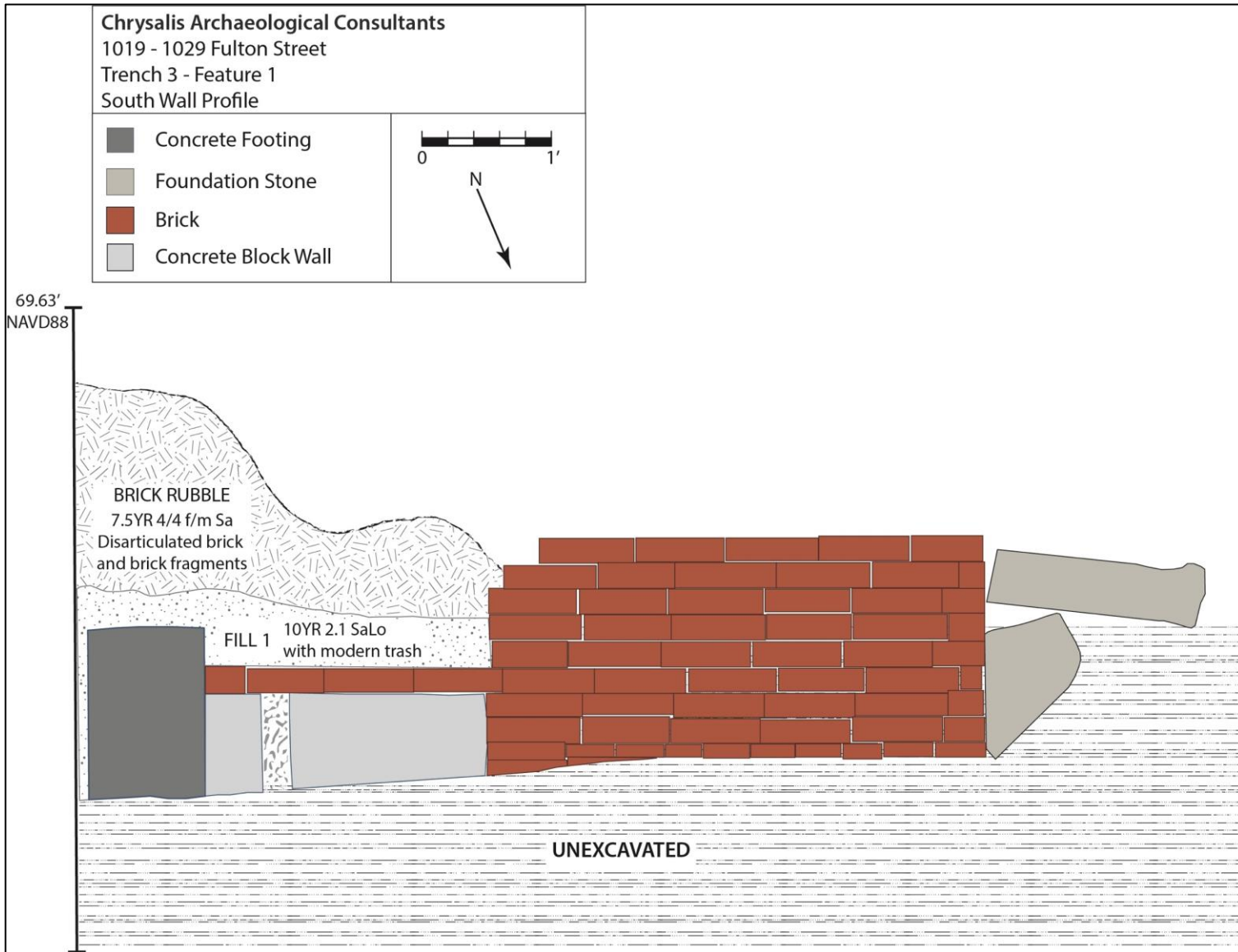


Figure 01: Feature 01 plan view.

While no surficial evidence of the wall is extant, below ground the wall is intact in its western half (Image 12) and partially disarticulated in its eastern half (Image 13), probably the result of later additions (Figure 02). A concrete foundational element was found at the eastern edge of the brick wall and extending southwards at a depth of 67.14' NAVD 88 (Image 14). The concrete element abuts the brick wall, but does not otherwise interact with it, indicating that the element is of a later construction. The top of the concrete element appears to have been damaged due to above surface demolition in much the same way as the adjoining brick wall.



Image 12: Intact western half of Feature 01 (looking south),



Image 13: Disarticulated eastern half of Feature 01 (looking south).



Image 14: Close up of the concrete footing in Feature 01 (Looking southwest).

A second, south-running concrete foundational element to the west of the first was removed during the course of trench excavation. The brick wall between the two elements is visibly damaged and the bricks are no longer articulated. Underneath the brick rubble, two large and rectangular concrete blocks are extant at the bottom of the visible portion of Feature 01. These blocks were probably installed at the same time as the concrete elements and caused the destruction of this segment of the above brick wall.

No intact or discrete historical deposits are extant in Trench 03 or along the length of Feature 01, although stratigraphical evidence lends credence to a more modern date for the construction of the concrete and cement elements. According to records, the house in Lot 3 was the last in the APE to be demolished in 1995 (HPI 2016:5). A fill layer containing Styrofoam and other modern debris was found in profile underneath the brick rubble layer and above the cement blocks, indicating a modern date for the wall's demolition and installation of additional elements (Figure 02) (Image 15). Further, the dark fill surrounding the extant cement footing in the interior of the trench contains mostly modern trash, while the fill associated with the intact portion of the brick wall contained a mix of modern and historic materials.



Image 15: Close-up of Feature 01 in profile.

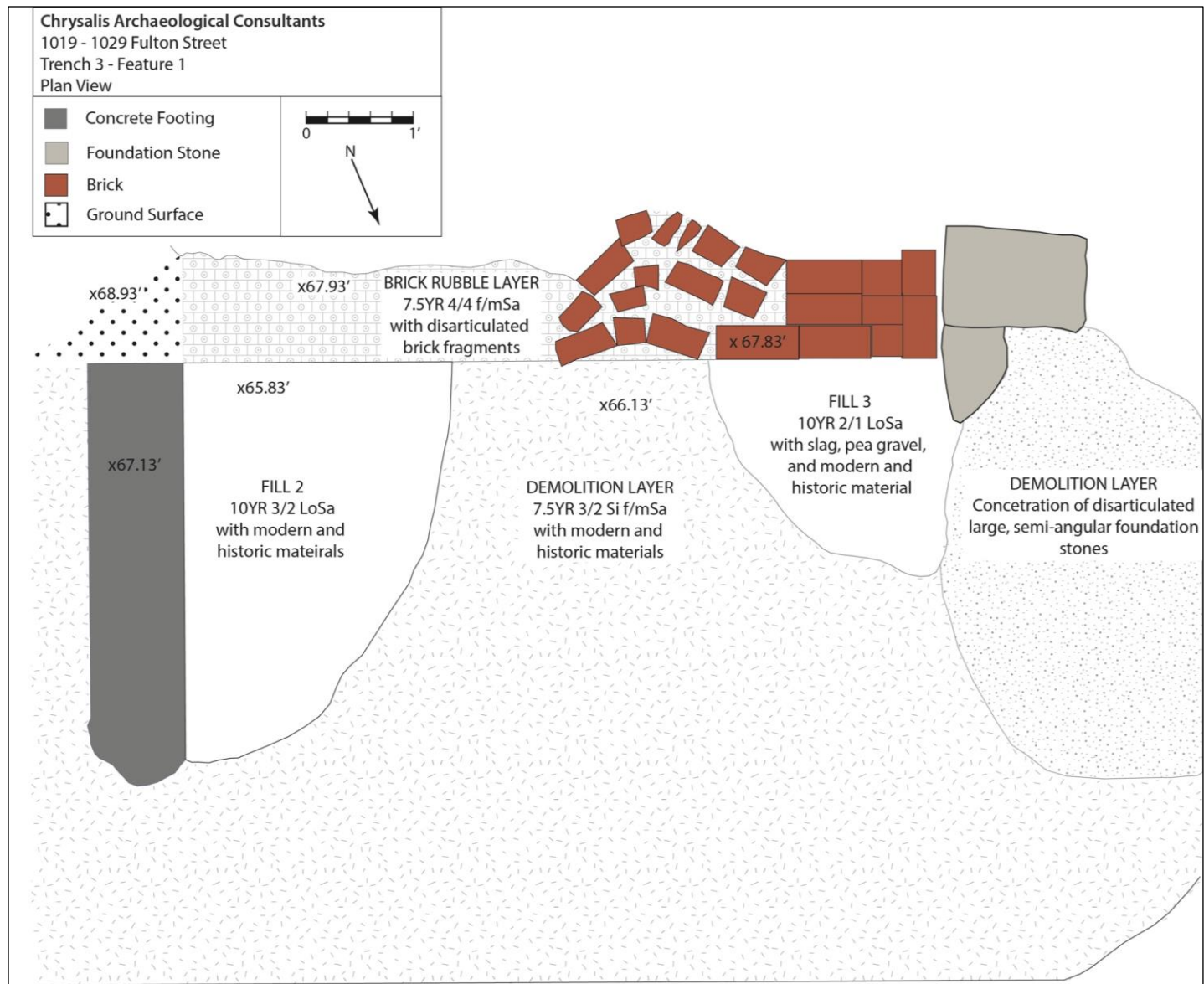


Figure 02: Feature 01 profile (south wall of Trench 03).

Based on the orientation of the wall relative to the dimensions of Lot 3 and the existing row houses to the west of the project area, it appears as though Feature 01 is a remnant of the foundation of the house and/or basement that once stood on the lot. Exploratory scrapping via backhoe to the south of the eastern edge of Feature 01 yielded a concentration of brick rubble in line with the brick wall, although no articulated section was found (Image 16). It appears as though Feature 01 is the only remaining portion of the brick foundation.



Image 16: Rubble layer south of Feature 01.

Trench 04

Trench 04 was placed in the rear yard of Lot 5 and 7.8' south of the southern wall of the one-story building in Lot 16 and west of Trench 02 (Map 04) (Image 17). An extremely compact layer of gravel fill was encountered directly underneath the topsoil across the entirety of the trench, which appears to correspond to the gravel-topped driveway element that exists at the site's gated entrance (Image 18). The gravel fill layer was slightly less compact to the north and, as the backhoe's flat-headed bucket attachment had trouble breaking through the layer, only half of the trench (4.5' in width) could be excavated. The excavated dimensions of the trench were 4.5' by 13' (Image 19).



Image 17: Location of Trench 03, excavation in progress (looking north).



Image 18: Compact gravel layer impacting the excavation of Trench 04 (looking southeast).



Image 19: Trench 04, post-excavation (looking west).

Several layers of fill and fill mixed with redeposited subsoil were found in the stratigraphic profile of Trench 04 (Table 05) (Image 20). Subsoil layers not extant in other trenches in the APE were also encountered beneath the fill layers, suggesting that the level of disturbance in this area of the APE is greater. No significant archaeological resources were encountered during the excavation of Trench 04.

Table 05: Stratigraphic Profile North Wall –Trench 04.

STRAT	NAVD 88 DEPTH (BGS)	MUNSELL	SOIL TYPE	COMMENTS
Developing Ao	69.28' – 68.83' (0' – 0.45' bgs)	N/A/	N/A	
Fill 3	68.83' – 68.08' (0.45' – 1.2' bgs)	10YR 3/3 dark brown	Fine to medium sand, trace silt	Extremely compact, with gravel.
Redeposited Subsoil	68.08' – 66.88' (1.2' – 2.4' bgs)	7.5YR 4/3 brown	Fine sand	With modern trash.
Fill 4	66.88' – 65.68' (2.4 – 3.6' bgs)	10YR 4/2 dark grayish brown	Medium to coarse sand	With brick fragments, black plastic sheeting, disarticulated flat stones, and metal sheeting at bottom of layer.
Truncated Subsoil C	65.68' – 62.28' (3.6 – 7.0' bgs)	10YR 4/3 brown	Coarse sand	With pebbles and cobbles.
Subsoil D	62.28' – 61.78' (7.0 – 7.5' bgs)	10YR 6/3 pale brown	Very fine sand	



Image 20: Stratigraphic profile, north wall – Trench 04.

Trench 05

Trench 05 was excavated in what would have been the rear yard of Lot 106 (Map 04) (Image 21). The east/west oriented trench was placed 4' south of the southern wall of the building in Lot 16 and measured 12' by 8' (Image 22).



Image 21: Location of Trench 05, pre-excavation (looking north).



Image 22: Trench 05, excavation in progress (looking south).

Trench 05 featured the thickest and most robust demolition and fill layer in the APE (Table 06) (Image 23). The demolition layer extended to 61.70' NAVD 88 (7' bgs) and included whole rubber car tires, carpet, iron pipe fragments, and large sections of ceramic water and/or sewer pipes in addition to the modern and historic materials found across the fill/demo layers in other trenches in the APE (Image 24). No intact or significant archaeological resources were encountered during the excavation of Trench 05.

Table 06: Stratigraphic Profile South Wall –Trench 05.

STRAT	NAVD 88 DEPTH (BGS)	MUNSELL	SOIL TYPE	COMMENTS
Developing Ao	68.70' – 68.60' (0' – 0.1' bgs)	N/A/	N/A	
Fill 5	68.60' – 65.70' (0.1' – 3.0' bgs)	10YR 3/3 dark brown mottled with 10YR 4/4 dark yellowish brown	Fine sandy silt	With modern trash.
Demolition Layer	65.70' – 61.70' (3.0' – 7.0' bgs)	10YR 3/3 dark brown	Fine to medium sand, trace silt	With black plastic sheeting; disarticulated, large and semi-angular foundational stones; brick fragments; ceramic utility pipe fragments; Styrofoam; car tires; plastic clothes hangers and other modern trash.
Truncated Subsoil	61.70' – 60.70' (7.0 – 8.0' bgs)	7.5YR 4/4 brown	Medium sand	



Image 23: Stratigraphic profile, south wall – Trench 05.



Image 24: Concentration of demolition materials in Trench 05.

VI. LABORATORY RESULTS

No intact stratigraphy or undisturbed historical deposits were found during Phase IB archaeological testing for the Project, resulting in no artifacts being retained for analysis. However, during the archaeological assessment of Feature 01, a near-complete embossed beer bottle was noted in the Demolition Layer associated with part of the feature and yields soft dates for the historical components of this fill layer (Figure 02).

The demolition layer surrounding part of Feature 01 and present in much of the interior of Trench 03 included a mixture of historic and modern materials, indicating that no undisturbed archaeological deposits are extant in Trench 03. However, the observed glass bottles are diagnostic and provide evidence that historic deposits and/or shaft features did exist in this area prior to demolition and other modern disturbances.

The first bottle observed was an almost fully intact aqua beer bottle, missing its neck. The bottle was made using a mouth-blown cup-bottom mold that roughly dates to the 1880s-1910s (sha.org). Proprietary information is embossed on the body, reading "S. Liebmann's Sons Brewing Co." around a company logo with "Registered" marking the bottom of the graphic. S. Liebmann's Sons Brewing Company, based in Bushwick, produced these specific bottles starting in 1884 (Schlegel 1918:238).

Additional near complete bottles were also observed in the demolition layer, though with limited diagnostic information. An ovular aqua-colored, machine made medicinal bottle with flattened bands along the narrow sides of the bottle was discovered near the Liebmann's beer bottle. No embossing is evident on this bottle, which impedes refined dating. Instead, the date for the bottle is determined to be generally early-twentieth century based on its style of manufacture. Additional materials were noted, but not saved.

In no other trench in the APE were complete or near-complete historic bottles observed. The presence of two near-complete bottles in the Demolition Layer in Trench 03 and associated with Feature 01 indicates that an historic shaft feature or deposit was once extant in this location. However, a high degree of modern disturbances is obvious in the area, exemplified by the high level of modern trash mixed in with historic materials in the Demolition layer.

VII. CONCLUSIONS

A total of five exploratory trenches (01-05) in five lots (02-05, 106) were excavated via backhoe and archaeologically directed, monitored and assessed as part of Phase IB activities for the Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project. One historic feature (Feature 01) was encountered in Trench 03. No other significant archaeological resources were observed during monitoring.

Feature 01 was a linear, east-west running brick wall measuring 9.34' in length encountered in the south wall of Trench 03 in Lot 3 at a depth of 67.69' NAVD 88. There are eight visible courses in the wall, although it is disarticulated in the western half. Large, semi-angular foundational stones provide the western terminus of the brick wall and a long and thin north/south oriented cement footing provides the eastern terminus. The Feature was excavated to a depth of 65.83' NAVD 88.

No intact or discrete historical deposits are extant in Trench 03 or along the length of Feature 01, although glass bottles recovered from the Demolition Layer suggest late-nineteenth/early-twentieth century deposition. Stratigraphical evidence indicates that the Feature was disturbed during the construction of the modern concrete footings. Feature 01 appears to be the only remaining section of the foundation of the house that once stood on Lot 3.

A proliferation of demolition debris in fill layers across the site indicates that the APE's archaeological integrity is low. Modern disturbances, perhaps resulting from the mid- to late-twentieth century demolitions of the original structures, has significantly impacted the project area. Though a remnant of the foundation of the house in Lot 3 was observed, the stratigraphy surrounding the feature was highly disturbed and it is thus not considered significant. While additional foundational elements may remain in the project area, no significant cultural resources in the form of discrete historic deposits or intact shaft features are anticipated.

VIII. RECOMMENDATIONS

Chrysalis does not recommend further phases of archaeological investigation or mitigation for the Housing Preservation and Development of 1019-1029 Fulton Street and 18-22 Putnam Avenue, Block 1991, Lots 1-7, 16, and 106, Brooklyn (Kings), New York (DOB: 321385880) Project and project work should proceed as planned.

IX. REFERENCES

City of New York – Landmarks Preservation Commission

- 2019 1019-1029 Fulton St and 18-22 Putnam Ave Housing Preservation and Dev. / 16HPD062K Approval Letter. Letter on file with the City of New York – Landmarks Preservation Commission (NYC LPC), New York, New York.

Historical Perspectives, Inc.

- 2016 Phase IA Archaeological Documentary Study LPC/CEQR # 15BSA043K 1019-1029 Fulton Street and 18-22 Putnam Avenue Block 1991, Lots 1-7, 16 and 106 Brooklyn, Kings County, New York. Report on file with the City of New York – Landmarks Preservation Commission (NYC LPC), New York, New York.
- 2019 Revised Archaeological Work Plan for the Housing Preservation and Development/DOB #321385880 1019-1029 Fulton Street and 18-22 Putnam Avenue Block 1991, Lots 1-7, 16 and 106 Brooklyn, NY. Report on file with the City of New York – Landmarks Preservation Commission (NYC LPC), New York, New York.

Schlegel

- 1918 German-American Families in the United States: Genealogical and Biographical Illustrated, New York Edition, Vol III. The American Historical Society: New York.

U.S. Geological Survey (USGS)

- 2016 US Topo 7.5-minute map for Brooklyn, NY 2016: USGS - National Geospatial Technical Operations Center (NGTOC).

APPENDIX A:
Complete Subconsultant Reports

Work Plan

Historical Perspectives, Inc.

2019 Revised Archaeological Work Plan for the Housing Preservation and Development/DOB #321385880 1019-1029 Fulton Street and 18-22 Putnam Avenue Block 1991, Lots 1-7, 16 and 106 Brooklyn, NY. Report on file with the City of New York – Landmarks Preservation Commission. New York, New York.

HISTORICAL **PERSPECTIVES**



3/6/19

Housing Preservation and Development / DOB # 321385880
1019-1029 Fulton Street and 18-22 Putnam Avenue
Block 1991, Lots 1-7, 16 and 106
Brooklyn, NY

Revised Archaeological Testing Work Plan

Introduction

A proposed Housing Preservation and Development project at 1019-1029 Fulton Street in Brooklyn (Block 1991) has required certain application filings with the City of New York.¹ The Landmarks Preservation Commission's (LPC) review findings in response to this application concluded that there is potential for the recovery of nineteenth century domestic archaeological resources on Lots 1-7, 16 and 106 (1019, 1019A, 1021, 1023, 1025, 1027, 1029 Fulton Street and 1826 Putnam Avenue). Further, the LPC recommended that an archaeological documentary study be performed for the parcel to clarify these initial findings and provide the threshold for the next level of study, if necessary (10/8/15).

An Archaeological Documentary Study was completed for the site and the report was submitted to LPC (Historical Perspectives 2016). The research report, often referred to as a Phase IA, recommended a program of archaeological field testing within limited and specific archaeologically sensitive areas of the project site at the rear of the Fulton Street lots. The areas of sensitivity are defined on the following Phase IA Figure 12. [Lot 16 fronting Putnam Avenue will not be directly impacted by the proposed action since only air rights are entailed and, therefore, will not require archaeological testing.]

LPC's review concurred that archaeological testing should be completed as a next step (2/17/16). Further, LPC requested a protocol for the testing prior to fieldwork, often referred to as Phase IB. A Phase IB field testing protocol, or work plan must connect the results of the earlier Phase IA documentary study with the realistic expectations of an urban archaeological exploration.

¹ The New York City Department of Housing Preservation and Development ("HPD") is seeking an Urban Development Action Area Project ("UDAAP") designation and project approval and the disposition of Block 1991, Lots 2 and 3, located at 1027 & 1029 Fulton Street, within the Clinton Hill neighborhood of Brooklyn's Community District 2.

Currently, the proposed 1019-1029 Fulton Street development is moving forward. The developer, Fulton Star, LLC², has filed a Department of Building job application (# 321385880). The following Work Plan, based on the LPC 2018 *Guidelines for Archaeological Work in New York City*, defines the Phase IB tasks necessary to comply with the LPC expectations prior to the initiation of construction.

According to the Fulton Star, LLC, there is no anticipated project review by the New York State Office of Historic Preservations (SHPO). At this time, the start date for construction and/or archaeological fieldwork is mid May of 2019.

Field Director

As required by LPC in the 2018 *Guidelines*, field investigations will be under the direction of an archaeologist that is a certified member of the Register of Professional Archaeologists and meets the qualifications of the National Park Service (43 CFR Subtitle A [10-1-05 Edition], Section 7.8). At this time, the Principal Investigator and/or Field Director have not been contracted but LPC will be notified with an amended Work Plan by the selected professionals prior to the initiation of testing.

The Field Director will be responsible for several critical steps as the testing is initiated:

- establish a site datum prior to testing;³
- establish an understanding between the machine contractors and the archaeology team on the responsibilities of both parties in terms of archaeological excavation and documentation requirements, ensuring worker safety, and clarifying the organizational structure in the field; and,
- notify LPC when testing is scheduled to begin and accommodate LPC staff if a site visit is requested.

Support Personnel and Lab Analyses

Specialized assistants and/or lab analysis may be required for the Fulton Street project site. At this time, the specific types of analyses and/or assistance are not engaged. The PI/Field Director will supply LPC with the names of specialized procedures and/or labs for the Fulton Street project, if such analyses are required. The following types of specialized services are generally applicable.

Soil Flotation
Carbon-14 and/or Accelerator Mass Spectrometry
Floral Analysis
Faunal Analysis
Lithic Identification/Sourcing

² Applicant name and contract information: Daniel Kimya, Fulton Star, LLC, 111 N Central Avenue, Suite 425, Hartsdale, NY 10530, (914) 472-0180.

³ The datum will adhere to the specifications outlined in NYC Local Law No. 96 of 2013, Section 28-104.7.6 (NAVD88 and NAD83).

Touchstone Homes, LLC, the general contractor for the proposed construction, will be responsible for providing the backhoe and operator but the direction for excavation will be under the control of the Field Director. The Field Director and all of the archaeological team will adhere to the active Touchstone Homes, LLC’s Health and Safety Plan for the entire construction site.

Environmental and Historical Context

The project site consists of eight lots fronting Fulton Street (from east to west, known as Lots 1, 2, 3, 4, 5, 6, 106, and 7) and one large lot (Lot 16) fronting Putnam Avenue. The Fulton Street lots all are vacant and enclosed by chain link fencing. Lots 1 and 2, at the corner of Fulton and Downing Streets, are fenced individually. Lot 16 is the only one of the project lots containing buildings. This lot supports a one-story brick building, constructed in ca. 1938, now containing the Greene Hill Food Co-op, and the Parliament Democratic Club. The building covers the majority of the lot, with only a small strip of undeveloped land along the interior of the lot that is open to the Fulton Street lots behind it.

The project site and vicinity are within a relatively level portion of Brooklyn with minimal change in elevation. There was and is no natural water source within one mile of the project site.

According to the soil survey for New York City, the project site falls within soil mapping unit 2, known as “Pavement & buildings, till substratum, 0 to 5 percent slopes” and described as: “Nearly level to gently sloping, highly urbanized areas with more than 80 percent of the surface covered by impervious pavement and buildings, over glacial till; generally located in urban centers” (USDA 2005:11).

The archaeological site file inventories from the New York State Museum (NYSM) and the NYSOPRHP indicate that three historic period archaeological sites have been recorded within a one-mile radius of the project site, as shown in the table, below.

NYSOPRHP Site Number	Site Name/Description	Location	Site Type/Time Period
04701.013923	Atlantic Terminal Historic Site	Atlantic Avenue between Cumberland and Carlton Streets	Historic
04701.013594	Negro Burial Ground	Dean Street between Nostrand and New York Avenues	Historic
04701.017142	Shaft 21B	909-911 Kent Ave.	Historic

The in-depth nineteenth-century occupation history for the project site revealed that the first buildings were constructed on Lot 16 within the project site (fronting Putnam Avenue) by 1850 and a series of buildings were later constructed in the lots fronting Fulton Street beginning circa 1856. The two initial buildings on Putnam Avenue were 2 ½-story dwellings that stood until the late 1930s when they were demolished and the current one-story commercial building was erected. On Fulton Street, the initial structures were three 3-story brick buildings on Lots 1-3, and seven 2-story frame buildings on Lots 4, 5, 6, 106, and 7. The Fulton Street buildings were constructed as row houses, although each house had a small rear yard. All of the Fulton Street buildings had commercial space on the ground floor and residences on the upper floor(s). A

newspaper account of the property in 1872 confirms that the frame buildings had basements, and it is likely that the brick buildings did as well.

From ca. 1856-1873, prior to the time that addresses were assigned to the project site buildings, some occupants could be traced through city directory and census records, although it was not possible to determine on which lots the varied occupants lived within the project site. Some of the occupants included property owner George W. Davis, who had a patent medicine business; and renters John Bradley, an expressman; William Christian, a harness maker; and William Swift, a physician. Each of these men headed households including additional family members. Other renters undoubtedly lived and worked in the project site houses during this period as well, although the lack of addresses precluded identifying them through archival records.

Research identified that municipal water lines were installed under Fulton Street and Putnam Avenue in 1860, after which time residents would have been able to hook up to these services. Sewers were installed under the streets about ten years later; assessments for sewer work were made in 1871. A newspaper advertisement from 1872 indicated that most of the project site buildings had been hooked up to both water and sewer lines by that year. During the period before municipal water and sewers were available to residents on the project site, they would have had to rely on obtaining water from wells or cisterns, one or more of which may have been located on the project site, as well as privies, which undoubtedly would have been used on the property. These types of shaft features would have been located in the rear yard areas of the project site lots. Other than the demolition of the buildings on the project site, primarily during the second half of the twentieth century, there does not appear to be additional disturbance that would have destroyed these potential resources. As a result, the rear yards within these historic lots are considered archaeologically sensitive for these resources.

Research Design

The objective of the 1019-1029 Fulton Street Phase IB field testing is to (1) ascertain the presence/absence, type, extent and potential significance of historical archaeological deposits and possible buried backyard features beginning in the ca. 1840s and extending through the nineteenth century occupation of the project site; and (2) determine the potential significance of recovered resources.

Archaeological resources such as domestic artifacts and refuse associated with the 1850s and 1860s residents may have been deposited in the domestic shaft features—such as wells, cisterns, and privies—that would have been located in the rear yards of the lots. Comparative data has shown that these types of archaeological resources frequently are found in urban contexts, particularly in Brooklyn. Privies were located furthest from the houses, often along the rear lot lines, while wells and cisterns frequently (but not always) were located closer to the rear walls of street-fronting buildings or outbuildings. Privies and cisterns would be excavated up to 10-15 feet below grade, while wells would need to be excavated as deep as the water table, which varied according to location.

According to the CEQR guidelines for cultural resources, the determination of potential significance of a project site is directly related to whether the identified resource type “is likely to contribute to current knowledge of the history of the period in question” (Section 321.2 Determine

Significance of Past Uses that May Remain). The determination of significance is largely dependent on the research issues identified in the initial documentary study.

Investigations of residential shaft features could assist in the following research areas.

- Consumption patterns are strongly influenced by socioeconomic status, occupation, household composition and ethnicity. What a person buys and/or uses on a routine basis is behavior that reflects the multiple components of that individual's life. For example, archaeological evidence from the project site may provide information on how socioeconomic status has influenced consumer choice behavior.
- For comparative purposes, any archaeological resources of the historic 1019-1029 Fulton Street households can be examined in light of the archaeological findings at Brooklyn sites such as the Hoyt-Schermerhorn Site, the Kent Avenue Site, the 61 Bond Street site, the Metrotech Site, the Atlantic Terminal Urban Renewal Site, and the Atlantic Yards Site, among others.
- Identifying and examining buried features associated with the mid nineteenth century occupation of the APE may reflect the daily activities of the residents and provide insight into cultural behavior at the time just before Brooklyn's rapid growth.

If undisturbed deposits of cultural material do still exist, they may have the potential to provide meaningful information regarding the lives of the people who lived there. When recovered from their original context and in association with a specific historical occupation, historical deposits can provide a wealth of information about consumption patterns, consumer choice, gender relations, ethnicity, economic status, and other important issues. The archaeological sensitivity locations corresponding to the former rear yards of the Fulton Street lots and identified in the documentary study are shown on the attached Figure 12.

Project Methods: Field Testing

In order to address the research issues, the field investigation will examine a portion of the sensitive area as originally delineated on Figure 12. As noted above, this Work Plan proposes selected trench locations to sample those portions of the historic lots most likely to contain archaeological resources. The approximate trench sizes and locations slated for archaeological backhoe testing have been determined by the documented historical development of each lot (e.g., proposed trenches at the rear of the lots are in locations where privies are most often found). Due to OSHA regulations and city construction restrictions, as well as sampling strategies, the entire area of sensitivity will not be excavated. Prior to beginning the below-ground investigation, the active archaeological field site will be secured, as per LPC regulations.

Archaeological field testing will entail directing the backhoe to remove the existing ground surface from the defined test trenches of the former rear yards of Lots 2-5 and 106. The proposed five trenches will be approximately 12 feet wide and the length of each will conform to the individual historic lot size. Based on the total size of the archaeologically sensitive area, as illustrated on Figure 12 from the Phase IA, the test trench configuration in the selected lots comprises the following approximately percentages of the total Area of Potential Effect (APE).

<u>Lot #</u>	<u>Approx. % of historic lot w/in APE</u>	<u>Approx. % Test Trench w/in APE</u>
1	25%	0%
2	45%	15%
3	35%	10%
4	50%	15%
5	22%	10%
6	22%	0%
106	22%	10%
7	22%	0%

Archaeological professionals will monitor the removal of the disturbed overburden within the marked-out trenches in order to ensure that only extraneous materials are removed by the backhoe. As the disturbed overburden is removed, each of the proposed test trenches will be examined in turn.⁴

Excavation, by a flat-edged, 36-inch bucket of a backhoe, will proceed by incrementally scraping thin levels of soil within each trench. As delineated on Figure 12, Lots 1, 6, and 7 will not be sampled due to size, location, abutting structures, redundancy, post 1900 activities, and access difficulties.

If historical features are exposed by the backhoe, shovel shaving and/or hand excavation testing methods will be employed as appropriate within the individual test trenches. Any features discovered will be sufficiently sampled so as to indicate if further testing is necessary. Features could include retaining walls, trash deposits, foundations of unrecorded outbuildings, and possible shafts (wells, privies, cisterns).

If an intact discrete shaft feature is identified during the excavation, a full evaluation of such a feature(s) will be completed within the IB process. The interior/exterior of one side of any recovered shaft feature will be exposed by a combination of heavy machinery, shovel shaving, and broom in order to examine the stratified soil layers within the feature. This method is designed to allow for the potential recovery of information, such as date of construction, the date the feature was discontinued or filled, and a sample of the variety of materials within the feature. Field photographs, with a scale and menu board, will be taken of each feature.

Professional standards for excavation, screening, recording of features and stratigraphy, labeling, mapping, and cataloging will be applied as per the LPC 2018 *Guidelines*.

Lab Analysis

As per LPC requirements, this work plan includes potential laboratory work, e.g., the cleaning, stabilization, labeling, cataloging, analysis, and packaging of archaeological materials in order to retain the research value of collections, and to prepare them, as appropriate, for safe and accessible long-term curation (LPC 2018:59).

⁴ As per the 2018 *Guidelines*, the Field Director will consult directly with LPC if the proposed trench sizes/locations require substantial alteration.

It is anticipated that initial on-site processing of recovered artifacts will be handled by field technicians under the direction of the Field Director. Based on the number of features/artifacts recovered from other residential excavations in Brooklyn, the proposed testing may encounter a variety of resources, including shaft features that may hold large quantities of artifacts. Archaeologists will require sufficient time to clean, stabilize, and inventory all cultural material removed from the field. If additional lab analysis time is required due to the extent of the artifact collection, the PI will notify LPC as soon as possible of the need for additional report preparation time.

Recovered artifacts will be collected from each feature and placed in heavy-duty 4-mil plastic re-closeable zipper bags and will be labeled with recovery location, feature number, level, depth, date, contents, and field technician initials. To the extent feasible, artifact types will not be mingled in order to prevent damage. Artifacts will be temporarily returned to the Field Director's off-site laboratory for cleaning and cataloging.

Samples will be photographed, and an artifact catalog will be created, reporting the nature, depth, and location of each recovered artifact. A full catalog of the recovered collection will be included in the final report. Artifact sampling in the field, and subsequently in the lab will follow the precepts of the LPC 2018 *Guidelines* (Section C.8): "...if objects are not useful for research and meet at least one of the following criteria they will not be kept: lack of provenience, lack of physical integrity, or overtly redundant." Field records, and subsequent lab catalogues will note, however, the presence of artifacts that are not collected.

It may be that the field testing will not reveal any potentially significant historical features, deposits, or intact soil strata. If that is the case, no further archaeological consideration would be warranted, and a report to that effect would be prepared for LPC. Alternatively, if intact deposits are encountered, mitigation for identified and recovered archaeological resources would be designed in consultation with LPC.

It is anticipated that the research conducted for the Archaeological Documentary Study (directories, atlases, tax assessments, censuses, etc.) will be sufficient to address any site-specific issues raised by the archaeological field testing of *in situ* shaft features. However, additional primary documentation may be necessary in order to associate recovered deposits with inhabitants and their residential activities and to date and interpret the findings.

Final Report

At the conclusion of the field testing, the archaeological Field Director will submit an End of Fieldwork Memo to LPC. This Memo will summarize the procedures and findings and include the initial catalogue and at least one profile. It is entirely possible that the archaeological field testing will indicate that the site lacks sufficient integrity to produce significant archaeological resources, and the Memo will indicate this result. The excavation may recover one or two historical features or deposits and the Phase IB fieldwork will adequately test the limited resources, and the Memo will indicate this result.

However, if substantial and significant intact resources are found during testing, the Memo will notify LPC archaeological staff, which may require further consultations/testing/mitigation.

The submission of the final technical field report will follow the end of the field testing by up to 90 days to allow for artifact processing (LPC 2018 *Guidelines*). The report documenting the findings will be prepared according to CEQR guidelines, LPC stipulations, and the standards of the New York Archaeological Council (including profiles, photographs, and an artifact catalogue).

The Principal Investigator (PI) will be responsible for producing the hard copy of the draft and final Phase IB report for submission to LPC, as well as a digital copy. LPC generally requires two hard-bound copies of the final report for distribution to specific repositories.

Project Management

Consideration must be given to the depth of the archaeological trench excavations and OSHA regulations. The Field Director will adhere to all applicable OSHA regulations but will work to avoid sheeting/shoring of the open trenches if at all possible by canting or terracing the trench sides. As noted in the Introduction, the Field Director will adhere to the Touchstone Homes, LLC's Health and Safety Plan. To date, there is no indication that the site contains below-ground contamination. The archaeological personnel will not be required to wear Class C or D protective gear.

During ongoing field and lab analysis of the Fulton Street site, the Field Director will maintain any recovered artifacts as a collection unit. After completion of the project, any collection and "associated records" will become the property of the landowner. If LPC requests a public, research repository for the collection, the PI will assist Fulton Star, LLC with consultations on final deposition. Any and all repository arrangements will be made with LPC approval.

Project Timeline and Resource Estimate

Currently, there is no scheduled start time for the Fulton Street archaeological testing; there is no commitment for a specific archaeological team to lead the fieldwork, nor is there an understanding of who will contract for the backhoe equipment. The following projected estimated of hours for the Fulton Street excavation is not related to a specific consulting firm or contract; it is merely a rough estimate on the level of anticipated effort based on similar projects.

If more than one feature is recovered and/or an abundance of artifacts are collected from one shaft feature, the following allocated hours for lab analysis must be increased by an additional 16 to 24 hours to adequately handle the cleaning, cataloguing, dating, analysis, and photography.

**Block 1991, Lots 2, 3, 4, 5, 106
Brooklyn**

-Hours by Task-	<i>Principal Investigator</i>	<i>Report Editor</i>	<i>Field Director</i>	<i>Office Technician</i>	<i>Field and Lab Technicians</i>
	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>
Coordinate Heavy Machinery, Site Orientation and Mark Out	2	0	8	0	8
Monitoring Overburden Removal; IB Field Testing /Lab Analysis/Data Entry/Graphics	0	4	48	0	88
Report Preparation [draft/final]	4	16	32	8	0
Production	0	4	4	4	0
Coordination/Agency Meetings	4	2	4	0	0

Anticipated Direct Expenses:

- Backhoe/Operator (36" bucket)
- Specialized Analyses (if required)
- Travel for Field Technicians
- Report Production

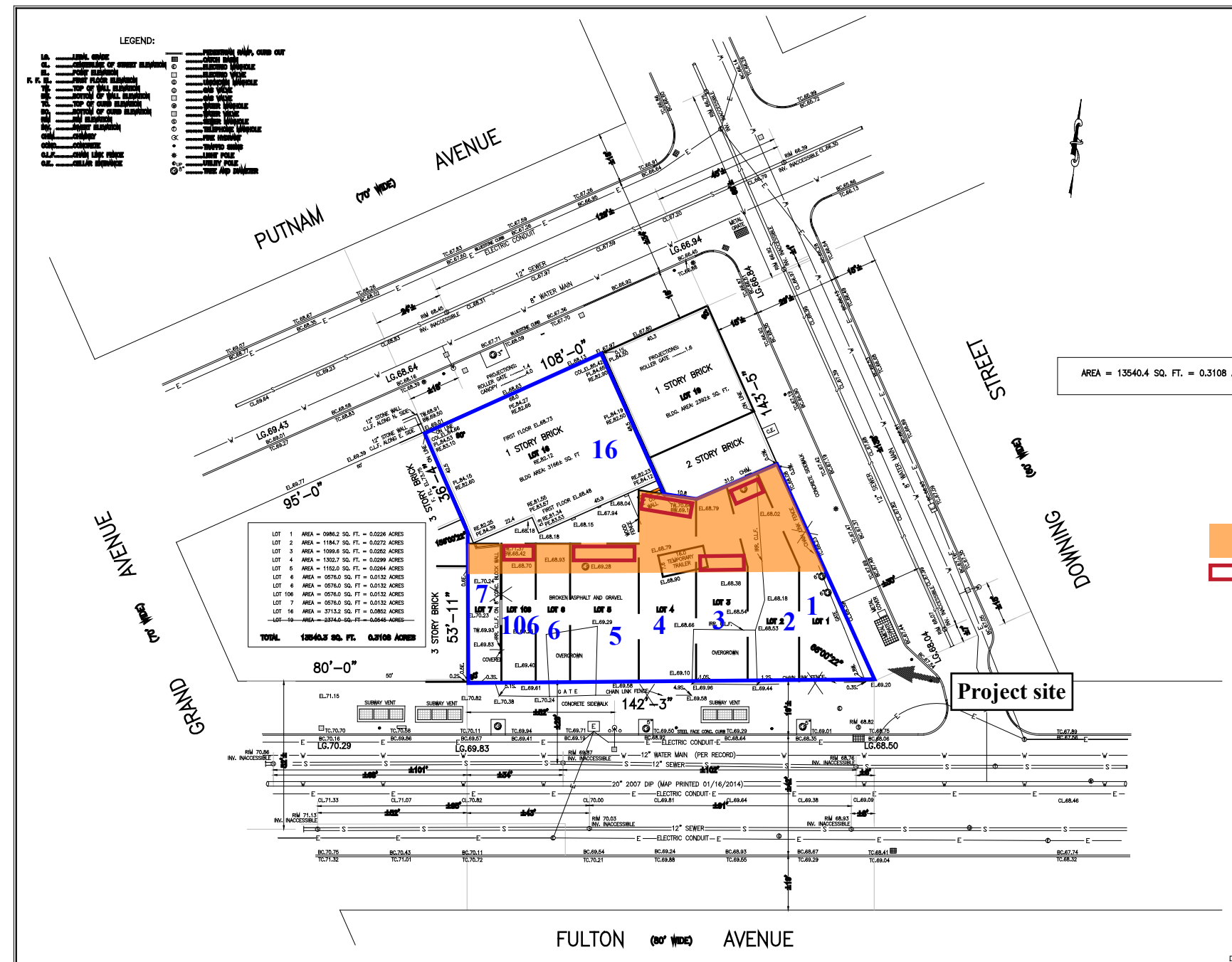
Project Communication

Once the Work Plan is amended to include the contracted archaeological team members, the amended Work Plan must be submitted to LPC for approved. When the Fulton Street archaeological testing is scheduled, the PI/Field Director will consult with LPC on the Project Timeline and notify all concerned parties of the scheduled testing. As noted in the Work Plan, the PI/Field Director will notify LPC if there is a substantial change in any of the testing trench sizes and positions and for the rationale for such a change.

If, during the course of the field project, any additional state or city agency becomes involved in the permitting, funding, or review for the Fulton Street project, the PI will immediately notify LPC.

Unanticipated Discovery Plan

A standard Unanticipated Discovery Plan (UDP) is appended. Although unanticipated, if human remains are encountered during the testing phase, consultation with the LPC and other city agencies will be initiated, as appropriate, according to the UDP. The UDP stipulates compliance with NYC Department of Health regulations/permits entailed in the removal, transfer, and re-burial of human remains.



- NOTES:
1. THIS SURVEY AND ALL DATA THEREON SHALL BE REFERRED TO AS THE SURVEY.
 2. THIS SURVEY IS BASED ON THE SURVEY DATA OF THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
 3. THE SURVEYOR'S OBLIGATION IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
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 5. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
 6. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
 7. THIS IS TO CERTIFY THAT THIS SURVEY WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS ACT.
 8. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
 9. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.
 10. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEY DATA AND DOES NOT EXTEND TO THE ACCURACY OF ANY DATA OBTAINED FROM ANY SOURCE OTHER THAN THE SURVEYOR'S OWN FIELD NOTES AND PLANS.

AREA = 13540.4 SQ. FT. = 0.3108 ACRES

Areas of Archaeological Sensitivity
 Archaeological Test Trenches

LOT 1	AREA = 0986.2 SQ. FT. = 0.0228 ACRES
LOT 2	AREA = 1184.7 SQ. FT. = 0.0272 ACRES
LOT 3	AREA = 1098.9 SQ. FT. = 0.0252 ACRES
LOT 4	AREA = 1302.7 SQ. FT. = 0.0299 ACRES
LOT 5	AREA = 1152.0 SQ. FT. = 0.0264 ACRES
LOT 6	AREA = 0576.0 SQ. FT. = 0.0132 ACRES
LOT 7	AREA = 0576.0 SQ. FT. = 0.0132 ACRES
LOT 10	AREA = 0576.0 SQ. FT. = 0.0132 ACRES
LOT 11	AREA = 0576.0 SQ. FT. = 0.0132 ACRES
LOT 16	AREA = 3713.2 SQ. FT. = 0.0852 ACRES
TOTAL	13540.4 SQ. FT. = 0.3108 ACRES

ARCHITECTURAL SURVEY	
TAX MAP: 7	TAX BLOCK: 1001
TAX LOTS: 1, 2, 3, 4, 5, 6, 10, 7, 10 AND 10	
MAP OF PROPERTY AT BROOKLYN KINGS COUNTY, NEW YORK	
JOSEPH NICOLETTI ASSOCIATES PROFESSIONAL LAND SURVEYORS P.C. 499 JERICO TURNPIKE, SUITE 201 MINEOLA, NEW YORK 11501 516-875-7278	
DATE: 06/07/2014	SCALE: 1"=16'
REF: K1001-001	

PROPOSED NEW DEVELOPMENT
1019 FULTON ST
 FULTON ST
 BROOKLYN, NY
 BLOCK: 1991 LOT: 1,2,3,4,5,6,10,7,16
 ARCHITECT:
 AUFGANG ARCHITECTS LLC
 74 LAFAYETTE AVE. SUITE 301
 SUFFERN, NY
 INFO@AUFGANG.COM 845.368.0004

AUFGANG ARCHITECTS
 DEVELOPER:
 STRUCTURAL ENGINEER:
 MEP ENGINEER:

11-11-15	ISSUED TO HPD, FOR REVIEW & COMMENT
DATE	SUBMISSIONS / REVISIONS
SHEET TITLE:	

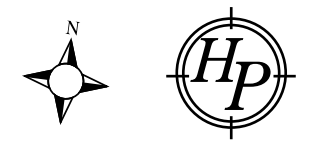
SURVEY

SEAL & SIGNATURE
 THE DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF AUFGANG ARCHITECTS LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. THE DRAWING SHALL NOT BE USED FOR ANY OTHER PROJECT OR SITE WITHOUT THE WRITTEN CONSENT OF AUFGANG ARCHITECTS LLC. AUFGANG ARCHITECTS LLC IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

ISSUE DATE:	PROJECT NO:
03-25-15	#1513
DRAWN BY:	CHECKED BY:
S.Z.	T.L.
SCALE:	SHEET NO:
1/8"=1'-0"	2 OF 31
DRAWING NO:	
C-001.00	
NYC DOB NUMBER:	

Phase IA Archaeological Documentary Study
1019-1029 Fulton Street and 18-22 Putnam Avenue
Block 1991, Lots 1-7, 16 and 106
Brooklyn, Kings County, New York

Figure 12: Project site showing areas of archaeological sensitivity on modern survey map (Joseph Nicoletti Associates 2014).



ARCHAEOLOGY

Project number: HOUSING PRESERVATION AND DEV. / 16HPD062K
Project: 1019-1029 Fulton St and 18-22 Putnan Ave
Date received: 3/7/2019

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

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.

Comments: The LPC is in receipt of the, "Archaeological Testing Work Plan," prepared by HPI and dated March 6, 2019.

The LPC notes that the plan is not consistent with the LPC's 2018 Guidelines for Archaeological Work in New York City, and yet is dated after the adoption of the Guidelines. The LPC notes that the document was revised as requested, and therefore concurs with the plan provided that the archaeologists consult with LPC about what "sufficiently sampled" means if something is found. Please alert LPC when the work begins.



3/15/2019

SIGNATURE
Amanda Sutphin, Director of Archaeology

DATE

File Name: 30861_FSO_ALS_03152019.doc

APPENDIX B:
Project Personnel

Alyssa Loorya, Ph.D., R.P.A. | President, Principal Investigator



Ms. Loorya is founder and president of Chrysalis Archaeological Consultants. For more than twenty years she has worked in cultural resource management and public education devoted to preserving cultural resources and communicating their value to local communities. She has completed over sixty technical and academic reports and has delivered dozens of presentations concerning preservation compliance, New York City historical development, and educational curricula. Her extensive experience lends itself to her roles in developing and executing research and excavation plans, project management, regulatory compliance and report production.

PROJECTS BY STATE

New York:

Brooklyn:

63/65 Columbia Street – Phase IA (2004)
102 Franklin Avenue Project – Phase IA (2006)
147 Hicks Street – Phase IB (1998)
265 Front Street – Phase I (2016)
1019-1029 Fulton Street – Phase IB/Monitoring (2019)
1662 Bergen Street – Phase IA (2019)
Bond Street and Pacific Street – Phase IA (2018)
Brooklyn Navy Yard (Steiner Studio) – Phase IB (2017-2018)
Coney Island Utility Upgrade – Phase IB/Monitoring (2017-2018)
Downtown Brooklyn Reconstruction – Phase IB/Monitoring (2012)
Elias Hubbard House – Phase IB (2001)
Gravesend Cemetery – Phase IB (2001)
Greenpoint Project – Phase IA (2013)
Gowanus Canal Study – Phase IA (2012)
Hendrick I. Lott House – Phase IB/Monitoring (2004, 2013)
Floyd Bennett Field – Phase IB/Monitoring (2014)
Marine Park – Phase IB/Monitoring (1997, 2003)
Myrtle Avenue - Ingersol Senior Housing—Phase I/II (2016-2020)
Pieter Claesen Wyckoff House – Phase IB/Monitoring (2004)
Shell Road – Phase IA (2019)
Sponge Park, Gowanus Canal – Phase IB/Monitoring (2017)

AREAS OF EXPERTISE

National Historic Preservation Act
Section 106 Compliance

Material Collections Analysis

Archaeological Survey and Excavation

Public Outreach

EDUCATION

Ph.D., Anthropology and Archaeology:
2018, CUNY Graduate School

M.A., Anthropology and Archaeology:
1998, Hunter College

CERTIFICATIONS

Register of Professional Archaeologists

10-Hour OSHA Construction Safety

30-Hour OSHA Construction Safety

40-Hour OSHA HAZWOPER

SWAC - Secure Worker Access
Consortium

PROFESSIONAL EXPERIENCE

1995-2001: Brooklyn College
Archaeological Research Center

2001-Present: Chrysalis Archaeological
Consultants, President and Principal
Investigator

2006-2010: URS Corporation, Principal
Investigator

2007-2010: Gray & Pape, Supervisory
Consultant

CONTACT INFORMATION

aloorya@chrysalisarchaeology.com

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4110 Quentin Road
Brooklyn, NY 11234-4322
Phone: 718.645.3962

Brooklyn Laboratory
3604 Quentin Road
Brooklyn, NY 11234
www.chrysalisarchaeology.com

Rhode Island Regional Office
One Richmond Square – Suite 121F
Providence, RI 02906-5139
Phone: 401.499.4354

Manhattan:

50 Bowery – Phase I (2014-2015)
156 Rivington Street – Phase IA (2012)
204 Avenue A – Phase I (2019-2020)
235 Lafayette Street – Phase IA (2013)
246 Front Street – Phase I (2012)
311 Broadway – Phase IA (2005)
79 Christopher Street Burial Vault Project – Phase II (2008)
Chambers Street – Phase IB (2005)
City Hall Reconstruction Project – Phase IB and II (2010-2015)
Columbus Park – Phase I (2007)
Consolidated Edison Project – Phase IA (2006)
Dyckman Farmhouse Project – Phase IB/Monitoring (2007)
Ellis Island – Phase IB/Monitoring (2001)
Fortune Society Project – Phase IA (2007)
Fulton Street Reconstruction – Phase I and II (2009-2018)
High Bridge Park – Phase IB/Monitoring (2014-2015)
John Street - Phase IB/Monitoring (2011)
Liberty Island – Phase IB/Monitoring (2001)
Major Deegan Express Bridge – Phase IA (2016)
Peck Slip – Phase I and II (2011-2018)
Randall's Island – Phase IB/Monitoring (2018)
Roger Morris Park – Phase IB/Monitoring (2005)
South, South Street – Phase IB/Monitoring (2017-2018)
Stone Street – Phase IB/Monitoring (1998)
Wall Street Water Main Project – Phase I (2007-2008)
Washington Square Park – Phase IB/Monitoring (2015-2020)
Warren Street/John Street – Phase IB/Monitoring (2017)
West Village Housing – Phase IA (2007)
Worth Street—Phase I/Monitoring (2018 to 2020)

Queens:

C.C. Moore Homestead Park – Phase IB /Monitoring (2019)
John Bowne House – Phase IB/Monitoring (2016)
John Bowne House – Phase II – Phase IB/II/Monitoring (Cistern) (2014)
John Bowne House – Phase IB (Foundation Work) (2019-2020)
Elmhurst Cemetery – Phase IA (1997)
Fort Totten – Phase IB (2019)
Kosciuszko Bridge Replacement – Phase IB (2016-2017)
Little Bay Park – Phase I (2013-2014)
Martin's Field Phase I Project - Phase IB/Monitoring (2006)
Martin's Field Phase II Project - Phase IB/Monitoring (2006)
Newtown Playground – Phase IB/Monitoring (2018-2019)
Queens County Farm Museum – Phase IB/Monitoring (2004)
Rockaway Beach Boulevard – Phase IB/Monitoring (2018)
Riis Park Boathouse – Phase IB/Monitoring (2019-2020)
Rufus King Park – Phase IB/Monitoring (Tree Planting) (2006)
Rufus King Park – Phase IB/Monitoring (Utility Upgrade) (2007)
Saint George's Church – Phase IB/Monitoring (2010)
South Jamaica Urban Renewal Project – Phase I – Phase IB (2007)
South Jamaica Urban Renewal Project – Phase II – Phase IB (2008)
Wayanda Park – Phase IB/Monitoring (2003)

The Bronx:

174th Street (Dutch Broadway) Bridge Replacement – Phase IA (2019-2020)
Bartow-Pell Mansion – Phase IB/Monitoring (Barn) (2008, 2012)
Bartow-Pell Mansion – Phase IB/Monitoring (Barn) (1993)
Bartow-Pell Mansion – Phase IB/Monitoring (Cemetery) (2004)
Bronx River Greenway – Phase IB/Monitoring (2015-2016)
City Island Bridge Replacement – Phase IB/Monitoring (2014-2016)
Fort Independence – Consultation (2012)
Hart Island – Phases I and II (2017 to 2020)
Hunts Point – Phase IA (2019)
Major Deegan Expressway – Phase IA (2016-2017)
Monsignor Del Valle Square – Phase IA (2016)
Pelham Bay Park – Phase IB/Monitoring and II (2015)
Saint Peter's Church – Phase I (2019-2020)
Van Cortlandt Park Dog Run – Phase I (2016)

Staten Island:

210 Board Street - Phase I (2009)
Block 7792, Page Avenue – Phase I (2005)
Alice Austen House – Phase IB (2018)
Conference House Pavilion, - Phase IB (2018-2020)
Farm Colony of NYC – Phase IB (2014)
Fort Wadsworth – Phase IB/Monitoring (Utility Line) (2014)
Fort Wadsworth – Phase IB/Monitoring (Security Perimeter) (2016)
Midland Beach Boulevard – Phase IB/Monitoring (2018)
Ocean Breeze Park – Phase IA (2008)

Nassau County:

545 Arlington Road, Cedarhurst – Phase IB/Monitoring (2014)
Long Beach/Island Park – Phase IA (2019)
Long Island Rail Road Expansion – Phase IA (2018)
OEHL Residential Facility, Cedarhurst – Phase IB (2014)
U.S. Merchant Marine Academy – Phase IB/Monitoring (2010)

Suffolk County:

221 Main Street, Sag Harbor – Phase I (2016)
404 Littleworth Lane, Sea Cliff – Phase IB/Monitoring (2016)
Artesian Way, Nissequogue – Phase II (2016-2017)
Carl's River, Town of Babylon – Phase IA (2017)
Fire Island National Seashore – Phase IB/Monitoring (2014)
Forge River Sewer Line Project – Phase IB/Monitoring (2017-2018)
Hubbard County Park – Phase I (2016)
MacArthur Airport – Phase IA (2018-2020)
Old House, Cutchogue – Phase IB (2018)
The Edwards Homestead; Sayville – Phase IB (2001)

Ulster County:

NYC DEP Water Tunnel – Catskill and Delaware (2013)
Interconnection Replacement – Phase IB/Monitoring (2012)
The Village of Ellenville – Phase IB (2014)

Westchester County:

Charles Point Park, Peekskill – Phase IB (2016)
Consolidated Edison Project – Phase IA (2006)
Memorial Field, Mt. Vernon, NY – Phase I (2010)
Tappan Zee Bridge Replacement – Phase I/Monitoring (2014-2016)
Timothy Knapp House; Rye – Phase IB (1997)

Rockland County:

Village Hall, Village of Grand View on Hudson, NY—Documentation Package/Phase IA (2015-2015)

St. Lawrence County:

Alcoa Powerhouse—Phase IA (2016)

New Jersey:

Atlantic Coastal Mitigation Bank Site, Block 270, Lots 12-13, City of Pleasantville—Phase IA (2014)
Elizabeth River Mitigation Site, Union Township, Union County – Phase IA (2010)
Cranbury Wetland Mitigation Site – Phase I (2009)
Deep Run Preserve, Block 8003, Lot 7 and 11, Old Bridge Township – Phase IA (2014)
Hunterdon County Bridge Replacement – Phase IA (2006)
Jamesburg County Park, Block 18, Lots 5, 6, 6.05, and 7, Helmetta Borough – Phase IA (2014)
Lenape Farms, Atlantic County – Phase I (2015)
Mullica River Mitigation, (Pinelands) Evesham Township, Burlington County – Phase IA (2013)
New Bridge Landing Park – Documentation Plan (2019-2020)
Oldmans Creek Mitigation Site, Pilesgrove Township, Salem County – Phase I (2014, 2015)
Oradell Reservoir Site, Bergen County – Phase I (2012)
Overpeck Creek Park; Englewood – Phase IA (2009)
Pin Oak Forest Conservation Area, Block 1020.01, Lot 1.03, Woodbridge Township – Phase IA (2014)
Pleasant Grove, Jackson Township – Phase I (2012)
Southard Avenue, Howell Township – Phase I (2012)
Spotswood Road; Township of Monroe – Phase I (2012)
Thompson Park Extension, Block 20, Lot 28.06 and 28.08, Monroe Township – Phase I (2015)
Trestle Replacement, Gloucester County – Phase IA (2009)

Vermont:

Richmond, VT – Phase IB (2013)
Weathersfield, VT – Phase IB (2013)

New Hampshire:

Fitzwilliam, NH – Phase IB (2015)

Connecticut:

Audubon Society of Greenwich, CT – Phase IB (2001)
West Haven, CT – Phase IB (2015)

Pennsylvania:

Sharswood-Blumberg, Philadelphia Housing Authority – Phase IA (2018)

EMPLOYMENT – EDUCATION-PRESERVATION-CONSULTATION:

BROOKLYN COLLEGE AND DEPARTMENT OF EDUCATION, STAR HIGH SCHOOL

Archaeological-Education Consultant, July 2004 to 2005
Teaching special content classes and grant writing.

CITY UNIVERSITY OF NEW YORK'S – RESEARCH FOUNDATION/GOTHAM CENTER

Educational Consultant - Archaeology and Historic Preservation - City Hall Academy September 2003 – June 2004 and November 2004 to 2005

DIG MAGAZINE

Archaeological-Education Consultant and Contributor, 2000 to 2005

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.

Program Development, January 2005 to present
Developed the Interpretive-Educational-Curriculum Plan for the Hendrick I. Lott House.

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE

Curriculum Developer and Archaeological Educator, September 1997 to December 1998
PS 134, New York, NY, Scarsdale Elementary School, Scarsdale, NY, Congregation Emmanuel of Harrison, NY, Temple Israel of New Rochelle, NY

NEW JERSEY INSTITUTE OF TECHNOLOGY

Educational Consultant, March 2001 to December 2004, February 2007 and May 2008 to 2009
Developing special content curriculum for NYC Department of Education to meet national and state standards using primary resource historic preservation material. Teacher development and classroom teaching.

PIETER CLAESEN WYCKOFF HOUSE MUSEUM

Archaeological-Educator – Curriculum Development Consultant, 2003 to 2008
Responsibilities include the creation and implementation of Teacher Workshops throughout the school year.

GREATER RIDGEWOOD HISTORICAL SOCIETY

Program Development, January 2016 to present
Developed and implemented an Archaeological Education Curriculum for the Vander-Ende Onder Donk House. Created web and print based media presentations, including several museum displays.

SOUTH STREET SEAPORT MUSEUM

Archaeological Educator, September 1999 to June 2001

PROFESSIONAL SERVICES:

1999 to 2006 Board of Trustees – The Hendrick I. Lott House Preservation Association
2003 to 2007 Member – Historic House Trust Educators Alliance
2002 to 2007 Advisory Board – Pieter Claesen Wyckoff House Museum
2002 to 2007 Advisory Board - Brooklyn Heritage Inc.
2005 to 2007 Board of Trustees - Salt Marsh Alliance
2010 to 2016 Advisory Board – Historic Districts Council of New York City
2012 to 2013 Vice President – Professional Archaeologists of New York City
2013 to 2014 President – Professional Archaeologists of New York City
2016 to present Advisory Board – Pieter Claesen Wyckoff House Museum
2016 to present Board of Trustees – Historic District Council of New York City
2015 to present Vice President - The Hendrick I. Lott House Preservation Association

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

The Council for Northeast Historical Archaeology (CNEHA)
Historic District Council (HDC)
New York Archaeological Council (NYAC)
The Professional Archaeologists of New York City (PANYC)
The Register of Professional Archaeologists (ROPA)
The Society for Historical Archaeology (SHA)

PUBLICATIONS:

Over 100 publications in CRM and popular magazines published. For full listing see:
www.chrysalisarchaeology.com

Conference Papers/Lectures/Teacher Workshops:

Over 100 Conference Papers presented since 1997. For full listing see: www.chrysalisarchaeology.com

REFERENCES (ARCHAEOLOGICAL):

Project: City Hall and Park, New York, NY
Prime: Beyer Blinder Belle Architects
POC: Richard Southwick, (212) 777-7800, RSouthwick@BBBARCH.com
Year Completed: 2013
Approx. Cost: \$725,000
Services: Archaeological – Phase IB, II and III Monitoring and Excavation

Project: Peck Slip Reconstruction Project, New York, NY
Prime: Tectonic Engineering
POC: Peter Roloff, (718) 391-9200, PRoloff@tectonicengineering.com
Year Completed: 2015
Approx. Cost: \$650,000
Services: Archaeological – Phase IA, IB and II Monitoring and Excavation

Project: Fulton Street Reconstruction Project, New York, NY
Prime: HAKS Engineering
POC: Hashem Kotby, (212) 747-1997, hkotby@haks.net
Year Completed: 2015
Approx. Cost: \$625,000
Services: Archaeological – Phase IA, IB and II Monitoring and Excavation

Project: Gowanus Canal Historic District Survey, Brooklyn, NY
Prime: Gregory Dietrich Preservation
POC: Gregory Dietrich, (917) 828-7926, ggdietch@msn.com
Year Completed: 2011
Approx. Cost: \$20,000
Service: Archaeological – Phase IA – including National Register building survey

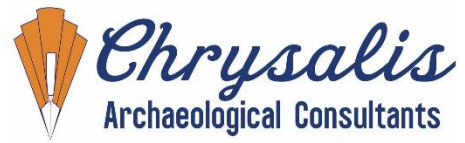
REFERENCES (EDUCATIONAL):

Linda Monte, President
Greater Ridgewood Historical Society/Vander-Ende Onder Donk House
1820 Flushing Avenue
Ridgewood, Queens, New York 11385
Phone: (718) 456-1776
Email: lindabmonte@yahoo.com

Mary Delano and Kate Ottavino
Center for Architecture and Building Science Research
New Jersey Institute of Technology
323 Dr. Martin Luther King Boulevard
Campbell Hall, Room 335
Newark, New Jersey 07102
Phone: (973) 596-3097
E-mail: mdelano@njit.edu

Leah Mollin-Kling, M.A.A, R.P.A. |

Field Director



Ms. Mollin-Kling has over ten years of experience working in all phases of archaeological excavation. Her specializations include both prehistoric and historic contexts in the Middle Atlantic and New England regions. Her professional focus centers on historic urban infrastructure and consumer culture. She has extensive knowledge of field methodologies for prehistoric and historic sites.

SELECTED PROJECT EXPERIENCE BY STATE

New York

[CC Moore Homestead Park – Phase Ib \(2019\)](#)

Queens, NY

Monitored construction trenching in historic park for NYC Parks. Excavated several uncovered features and archaeological deposits.

[Alice Austen House – Phase Ib \(2019\)](#)

Staten Island, NY

Field Director for Phase Ib field testing of the yard surrounding the NYC Landmarked Alice Austen House as Part of Sandy Recovery efforts.

[Brooklyn Navy Yard Annex – Phase II Monitoring \(2019\)](#)

Brooklyn, NY

Monitored excavation of trenches in a continuation of Phase Ib work in the vicinity of historic structures and cemetery in the Brooklyn Naval Yard Annex.

[Conference House – Phase Ib \(2018-2019\)](#)

Staten Island, NY

Field Director for Phase Ib monitoring and field testing of a portion of NR-listed Conference House Park.

[Newtown Playground – Phase Ib \(2018\)](#)

Bronx, NY

Field Director for Phase Ib field testing to identify whether human skeletal elements are extant at Newtown Playground, a former historic cemetery.

[Artesian Way Lot 1 – Phase Ib \(2018\)](#)

Nissequoque, NY

Field Director for Phase Ib field testing of a lot within the Daphne Beth Shih Estate in Long Island. Identified ample evidence of pre-contact Native resources and features.

[Randall's Island Shoreline Restoration – Monitoring \(2018\)](#)

AREAS OF EXPERTISE

Archaeological Survey and Excavation

Public Outreach and Education

Historic Materials Identification

EDUCATION

M.A.A., Applied Anthropology: 2009, University of Maryland, College Park

B.A., Archaeology: 2005, Boston University

CERTIFICATIONS

OSHA 10 Hour

HAZMAT 40 Hour

LIRR Safety

Fireguard

PROFESSIONAL EXPERIENCE

2017 – Present: Chrysalis Archaeological Consultants

2016-2017: Geoarcheology Research Associates

2014-2016: Public Archaeology Laboratory

2009-2011: John Milner Associates

2006-2007: Public Archaeology Laboratory

New York Headquarters

4110 Quentin Road
Brooklyn, NY 11234-4322
Phone: 718.645.3962

Brooklyn Laboratory

3604 Quentin Road
Brooklyn, NY 11234
www.chrysalisarchaeology.com

Rhode Island Regional Office

One Richmond Square – Suite 121F
Providence, RI 02906-5139
Phone: 401.499.4354

Queens, NY

Monitored reconstruction efforts of section of shoreline on Randall's Island.

[Hart Island – Pre-Phase \(2018-2019\)](#)**Bronx, NY**

Ongoing collection of nineteenth-century human remains on Island in areas of extreme erosion due to Hurricane Sandy in lead-up to large-scale project in 2019.

[Fort Wadsworth Building 433 Demo – Monitoring \(2018\)](#)**Staten Island, NY**

Monitored the demolition of a residential building on the Fort Wadsworth Coast Guard base.

[Bond & Pacific Street Historic Well – Phase IA \(2018\)](#)**Brooklyn, NY**

Provided Phase IA research and report for an unanticipated historic stone-lined well discovered during construction work.

[Washington Square Park – Monitoring \(2017-2018\)](#)**New York, NY**

Monitoring construction of water utility pipes around Washington Square Park in Manhattan for human remains and archaeological resources.

[Forge River Watershed Project – Phase Ib \(2017\)](#)**Brookhaven, NY**

Principal Investigator for Phase Ib excavations in various locations in Brookhaven, Long Island, NY for Hurricane Sandy recovery efforts.

[Myrtle Avenue – Monitoring/Phase II \(2017\)](#)**Brooklyn, NY**

Monitored construction activities and performed Phase II field testing of remains of mid-nineteenth century row houses in Fort Greene, Brooklyn, NY.

[Brooklyn Navy Yard Annex – Phase Ib \(2017\)](#)**Brooklyn, NY**

Monitored mechanical excavation of test pits in the vicinity of historic structures and cemetery in the Brooklyn Naval Yard Annex.

[Access Northeast Pipeline – Stony Point T&R - Phase Ia-Ib \(2016\)](#)**Stony Point, NY**

Field lead for Phase Ib survey of pipeline corridor in various locations in New York and Connecticut. Created and submitted daily logs, designed field survey methods, used handheld GPS devices, took and kept track of pictures, drew field maps and maintained all paperwork. Also engaged in field walkover to assess site sensitivity prior to fieldwork.

[Atlantic Bridge Pipeline – Phase Ib \(2014-2015\)](#)**Peekskill, NY**

Conducted Phase Ib excavation of historic and pre-contact materials along pipeline corridor in various locations around

PROFESSIONAL ORGANIZATIONS

Register of Professional Archaeologists (RPA)

Society for Historic Archaeology (SHA)

New York State Archaeological Association (NYSAA)

Professional Archaeologists of New York City (PANYC)

CONTACT INFORMATION

lmollinkling@
chrysalisarchaeology.com

Peekskill, NY.

[Governors Island– Phase Ib – II \(2014\)](#)

New York, NY

Conducted Phase Ib – II excavations underneath existing parking lot to locate the remains of a 19th century Confederate prisoner cemetery and the footprint of out-buildings associated with Castle William for the National Park Service and the Governors Island Preservation and Education Corporation.

[Whitehall Barracks – Phase Ib – II \(2011\)](#)

Whitehall, NY

Excavated 19th century War of 1812 American barracks on remote island. Also uncovered evidence of pre-contact Native presence.

[Martin Van Buren National Historic Site– Phase Ib \(2007\)](#)

Kinderhook, NY

Excavated in various locations within the Martin Van Buren post-presidential residence and National Historic Site.

Connecticut

[Access Northeast Pipeline – Phase Ib \(2015-2016\)](#)

Danubury/Watertown, CT

Field lead for Phase Ib excavation of pipeline corridor in various places in Connecticut. Located evidence of pre- and post-contact Native resources as well as historic-era materials.

[AIM Pipeline – Phase III \(2015\)](#)

Norwich, CT

Lead field crew in Phase III excavation of a multi-component, pre-contact Native site. Analysis included protein residue and phytolith/starch residue analysis on lithic tools.

[AIM Pipeline – Phase II \(2014-2015\)](#)

Norwich, CT and Various Locations

Field technician for Phase II excavation of pipeline corridor in Norwich, CT and various places in Connecticut. Evaluated historic and pre-contact archaeological resources discovered during phase I testing.

New Jersey

[Access Northeast - Mahwah Station M&R – Phase II \(2016\)](#)

Mahwah, NJ

Designed and lead field staff in Phase II testing of a multi-component site in a remote pipeline substation in order to assess the nature and extent of preliminarily identified pre-contact and historic native materials.

Massachusetts

[Saint Joseph's Church Cemetery – Phase III \(2006\)](#)

Roxbury, MA

Assisted in the excavation of a 19th-century primarily Irish immigrant cemetery. Over 1000 individual skeletons were recovered over a period of 6 months.

[Pine Hills and Clam Pudding – Phase I-III \(2006\)](#)

Plymouth, MA

Excavated 19th century farmhouse and 18th century tavern adjacent to the old Boston Road.

Rhode Island

[Acushnet LNG Facility – SPECTRA Pipeline -- Phase II \(2016\)](#)

Acushnet, RI

Field lead on Phase II survey of multi-component site.

[Salt Pond – Phase III \(2006\)](#)

Acushnet, RI

Conducted Phase III excavations of an undisturbed, pre-contact Native American coastal village complex.

Pennsylvania

[Valley Forge – Phase III \(2006\)](#)

Valley Forge, PA

Conducted Phase III excavations in an area adjacent to George Washington's Headquarters.

PROFESSIONAL REPORTS AND PAPERS

REPORTS

Written

Phase II Archaeological Monitoring of the Brooklyn Navy Yard – Naval Annex Project (Naval Hospital Area) Brooklyn, (Kings County), New York (13PR00424), March 2019

Phase IB Archaeological Field Testing of the Sandy-Related Repairs and Installation of Lighting Project at the Alice Austen Park & House, Staten Island (Richmond County), New York (R117-115MA) (15PR02013), March 2019

Phase IA Archaeological Sensitivity Assessment for Construction of Simple, Complex, and Landmark Pedestrian Ramps Project– New York City Design and Construction (HWP15KCL), Boerum Hill, (Kings County), New York, July 2018

Phase IB Archaeological Monitoring Report as part of the Demolition of Building 443, Coast Guard Sector, New York, Staten Island, Richmond County, New York (Project Number: 8771461) (NY SHPO Number: 17PR05603), July 2018

Phase IA Archaeological Sensitivity Assessment Update for the Metropolitan Transportation Authority Long Island Railroad Expansion Project (16SR00995), from Floral Park to Hicksville (Nassau County), New York, April 2018

Phase IA Documentary Information and Archaeological Assessment for the Proposed Sharswood/Blumberg Revitalization Area, Philadelphia, PA, March 2018

Phase II Archaeological Monitoring Plan, Unanticipated Discoveries Plan and Human Remains Protocol for the Brooklyn Navy Yard – Naval Annex (Naval Hospital Area) Project, February 2018

Phase II – Archaeological Analysis Plan for Proposed Development at 275 Myrtle Avenue (Ingersoll Senior Residences), Fort Greene, Brooklyn (Kings County), New York, NY SHPO No.: 16PR04528 – Ingersoll Senior Residences and CEQRA No.: 17CHA002K, February and May 2018

Phase IB Field Test Report, Forge River Watershed Sewer Project, Town of Brookhaven (Suffolk County), New York, NY SHPO No.: 15PR01821, January 2018

Test Pit Monitoring Report, Former Naval Yard Annex, Brooklyn Navy Yard, Brooklyn (Kings County), New York, NY SHPO No.: 13PR00424; NYC LPC No.: Empire State Development Corp/15ESD001K, July 2017

Edited

Fulton Street Phase II Reconstruction Project (HWMVVTC8B) & Peck Slip Redevelopment Project (HWM1159 [HWMWTCA7D]) Phase II Archaeological Investigations, Volume III, August 2017

CONFERENCE PAPERS AND PRESENTATIONS

New York State Archaeological Association (NYSAA), April 2018: “Smoking Pipes from the Fort Greene Section of Brooklyn in the Late-Nineteenth Century”.

Society for Historical Archaeology (SHA), January 2009: “Contextualizing Capitalism: Ceramics and the Processes of Urbanization in Early 19th Century Maryland”.

Roseanne Quinn, B.A. | Archaeologist



Ms. Quinn has over 14 years of experience working in all phases of archaeological excavation. Her specializations include both prehistoric and historic contexts in the Northeast, West and Mexico. Her professional focus centers on historic urban infrastructure and consumer culture. She has extensive knowledge of field methodologies for prehistoric and historic sites.

SELECTED PROJECT EXPERIENCE BY STATE

New York

[Fort Totten – Phase IB \(2019 to present\)](#)

Queens, NY

Field monitoring within the historic Army Base. Uncovered 19th century remains dating to the Fort's military period.

[Inwood – Phase IB \(2018\)](#)

New York, NY

Preconstruction testing for precontact, colonial and/or historic period deposits. Report preparations and writing contributions.

[Lower Hudson Valley – Phase 1B \(2018\)](#)

Westchester County

Prehistoric and historic archaeological testing within the National Historic Landmark (NHL) boundary. Conducted shovel test excavations, mapping, artifact analysis, report preparations and writing contributions.

[Sailfish – Phase IB and Phase 11 \(2018 to 2019\)](#)

Montgomery, New York

Conducted shovel testing and subsequent excavation units in areas that tested positive for historic and prehistoric cultural material and archaeological features.

AREAS OF EXPERTISE

Archaeological Survey and Excavation

Public Outreach and Education

Prehistoric and Historic Materials Identification

EDUCATION

B.A., Archaeology: 2006
Hunter College, CUNY

CERTIFICATIONS

10-Hour OSHA Construction Safety Training (2019)

PROFESSIONAL EXPERIENCE

2019 - Present: Chrysalis Archaeological Consultants

2018 – 2019: Archaeology and Historic Resource Services, LLC (AHRs)

2018: Burns & Mc Donnell

2017 – 2018: AKRF Environmental Planning and Engineering Consultants

2016 – 2017: Landmark Archaeology, Inc

Staten Island – Phase IB (2017 to 2018)

Staten Island, NY

Historic and prehistoric archaeological investigations. Conducted field testing, artifact analysis and field logs.

Essex County – Phase IB (2016)

Ticonderoga, NY

Historic and prehistoric archaeological investigations.

Orange County – Phase III (2017)

Goshen, NY

Conducted Phase III archaeological investigations of a Late Archaic site including excavations, mapping, feature identification and soil profiles.

Governors Island Redevelopment Project (2012 to 2016)

Governors Island, NY

Monitored construction activities in areas of historical interest on Governors Island. Identification, photographic and map documentation of historic structures and cultural material. Conducted shovel test pits, hand excavation, screening and artifact recovery. Laboratory work included artifact analysis, report preparation and writing contributions.

World Trade Center PHR Phase III (2010 and 2013)

Staten Island, New York

Sifting Operations; Conducted screening operations directed towards the recovery of human remains and personal effects.

North American Archaeology/ AMNH (2012)

New York, NY

Laboratory: Processing artifacts (ceramic and lithic analysis, cataloging, database management). Excavations on St. Catherines Island, Georgia: mapping, probe surveys, screening artifacts, surface collections, field notes. Native American prehistoric/historic and European historical artifact recovery and analysis

2012- 2016: Linda Stone,
RPA

2013: Emal Archaeological
Project

2012: SWCA Environmental
Consultants

2012: North American
Archaeology/American
Museum of Natural History

2011: Central Yucatecan
Archaeological Cave Project

2010 and 2013: NYC Dept of
Health and Mental Hygiene,
Office of the Chief Medical
Examiner

2005: Hawaii Scientific
Drilling Project

2005: University of Hawaii @
Hilo/ Archeology Internship

**CONTACT
INFORMATION**

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New Jersey

[Courses Landing Road Phase IB \(2019\)](#)

Carneys Point Township, NJ

Historic and prehistoric archaeological investigations.
Conducted field testing, artifact analysis and field logs.

[Cranbury - South River Road Phase IB \(2019\)](#)

Monroe Township, NJ

Historic and prehistoric archaeological investigations.
Conducted field testing, artifact analysis and field logs.

Pennsylvania

[Transmission Pipeline Phase I \(2018\)](#)

York, PA

Conducted pedestrian surveys and shovel testing in York County.

South Dakota

[Wind Farm Survey Phase I \(2018\)](#)

Hand County, SD

Conducted pedestrian surveys and shovel testing with tribal monitors investigating and mapping areas of prehistoric and historic sensitivity.

Wyoming

[AECOM Greencore Pipeline Phase I \(2012\)](#)

Campbell County, Wyoming

Monitored construction activities, conducted open trench inspections and conducted inventory of cultural materials. Trimble XT GPS, photographic documentation, and site testing excavations. Identification of cultural resources and features. Resources encountered include archaic to late prehistoric and expansion era histories.

[Riley Ridge Pipeline, Segment I Class III \(2012\)](#)

Sweetwater County, Wyoming

Conducted intensive surveys, site recording, and site testing excavations. Evaluation of eligibility of prehistoric and historic sites. Resources encountered include archaic to late prehistoric and expansion era historic.

Hawaii

[Hawaii Scientific Drilling Project \(HSPD\) Phase II \(2005\)](#)

Hilo, Hawaii

Assembled recovered core into trays aligning fracture faces, recorded composition and type of rock from Mauna Kea volcano core and determined what each stratigraphic section represents. Conducted rock slicing and shrink wrapping in preparation for core archival.

[University of Hawaii \(2005\)](#)

Hilo, Hawaii

Recovery and analysis of lithic artifacts from the eastern portion of the Pohakuloa Military Training Area on the island of Hawaii, calibration of Electron Dispersive X-Ray Fluorescence Spectrometer (EDXRF) to obtain trace element concentrations for volcanic glass flakes, geochemical characterization of basaltic and volcanic glass artifacts to determine particular volcanic source compared with data from Mauna Kea adze quarry on the island of Hawaii. Conducted studies on the extent of adze trade and exchange patterns on the island of Hawaii

Mexico

[Emal Archaeology Project \(2013\)](#)

Yucatan, Mexico

Archaeological Survey: mapping, surface collections, soil testing, artifact processing and analysis on a Mayan coastal site.

Central Yucatecan Archaeological Cave Project (2011)

Yucatan, Mexico

Excavations in 8 caves investigating ritual in regards to sociopolitical and religious power among the ancient Maya

Laboratory: Processing artifacts (identification, cleaning, sorting, data entry).