

**Phase IB Archaeological Field Testing at
824-832 Metropolitan Avenue, Brooklyn, Kings County,
New York – Block 2916, Lots 14 and 16**



Prepared for
City of New York – Landmarks Preservation Commission
824 Metropolitan Avenue, LLC

Prepared by
Alyssa Loorya, Ph.D., RPA
Elissa Rutigliano

Edited by
Christopher Ricciardi, Ph.D. RPA

6 February 2022

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I. INTRODUCTION

Chrysalis Archaeological Consultants, Inc (Chrysalis) was retained by 824 Metropolitan Avenue Owner, LLC to undertake Phase IB Archaeological testing at 824-832 Metropolitan Avenue, Block 2916, Lots 14 and 16 (Maps 1 and 2), Brooklyn, Kings County, New York. The property owner/developer proposes to rezone Block 2916 Lots 8, 14, 16, and 17 to construct new residential housing on Lots 14 and 16.

This work was initiated based upon City of New York – Landmarks Preservation Commission’s (NYC LPC) recommendation to City of New York – Department of City Planning (NYC DPC) that review of archaeological sensitivity models and historic maps indicated the four lots (Lots 8, 14, 16, and 17) in the Client’s rezoning proposal have potential for the recovery of nineteenth century remains (NYC DPC 20 Sept 2019; NYC DPC 2 Oct 2019). An ensuing Phase IA report determined the proposed development site, Lots 14 and 16, did have a moderate to high sensitivity for the recovery of mid-to-late-nineteenth century archaeological materials and recommended Phase IB Archaeological Testing (Chrysalis 2020).

The project area, 824-832 Metropolitan Avenue, Block 2916 Lots 14 and 16 is within the Bushwick neighborhood of Brooklyn, New York. The two lots form a 7,800 sq. ft. (0.18 acre) rectangular area fronting Metropolitan Avenue to the north and Block 2916 Lots 4 (15 Bushwick Avenue), 69 and 70 (217 and 219 Devoe Street, respectively) to the south. Planned construction work includes impacts up to 10’ below ground surface for construction of an eight-story mixed-use residential and commercial building.

The purpose of the Phase IB Archaeological Testing was to determine whether the project area contained significant (i.e. National Register eligible) cultural resources associated with nineteenth century occupation of the site. An Archaeological Work Plan (AWP) was approved by NYC LPC. The archaeological work was conducted in accordance with NYC LPC Guidelines for Archaeological Work in New York City (2018). The cultural resources specialists who performed this work satisfy or exceed the qualifications specified in the NYC LPC Guidelines for Archaeological Work (2018).

A series of five mechanically excavated trenches exposed one feature and no significant archaeological resources.

PROJECT DESCRIPTION

The Client plans to develop Lots 14 and 16 with residential housing consistent with the standards of the Quality Housing Program as well as the Mandatory Inclusionary Housing Program zoning regulations. The inclusion of affordable units in the development is consistent with the expressed desires of the City's current mayoral administration to substantially increase the amount of affordable housing throughout the city.

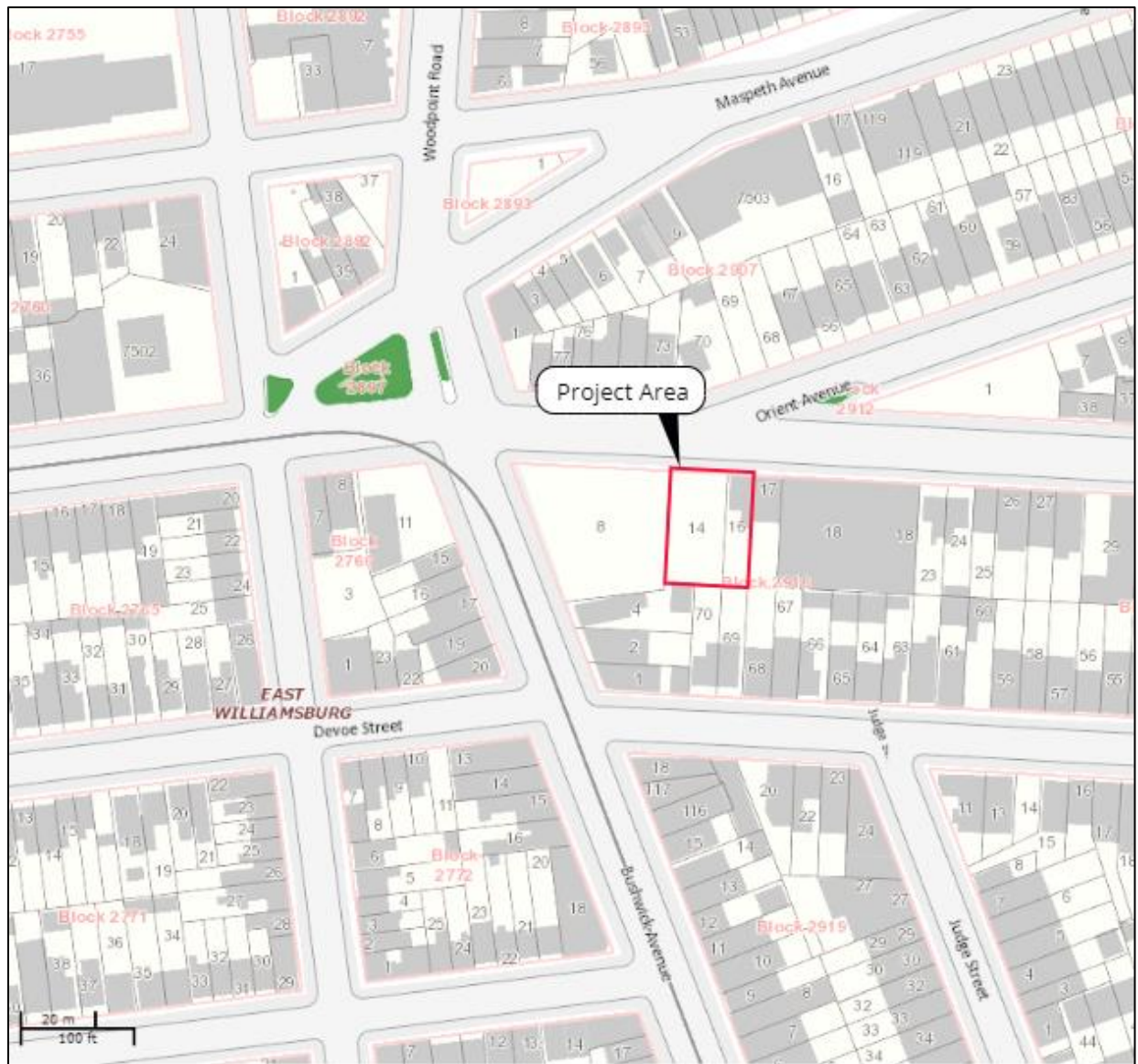
The Client proposes to develop an eight-story, mixed-used residential and commercial building. The residential component would include approximately 50 dwelling units, with a portion developed as affordable units. The commercial component would occupy the ground floor of the proposed building. The building would reach a maximum height of 85 feet. The building would feature a 35-foot rear yard setback after the first floor, with a permitted rear yard obstruction on the first floor for building mechanical systems. It is anticipated that the overall depth of excavation for the site will be no greater than 10 feet (Map 3) (824 Metropolitan Avenue LLC 2019).

PROJECT INFORMATION

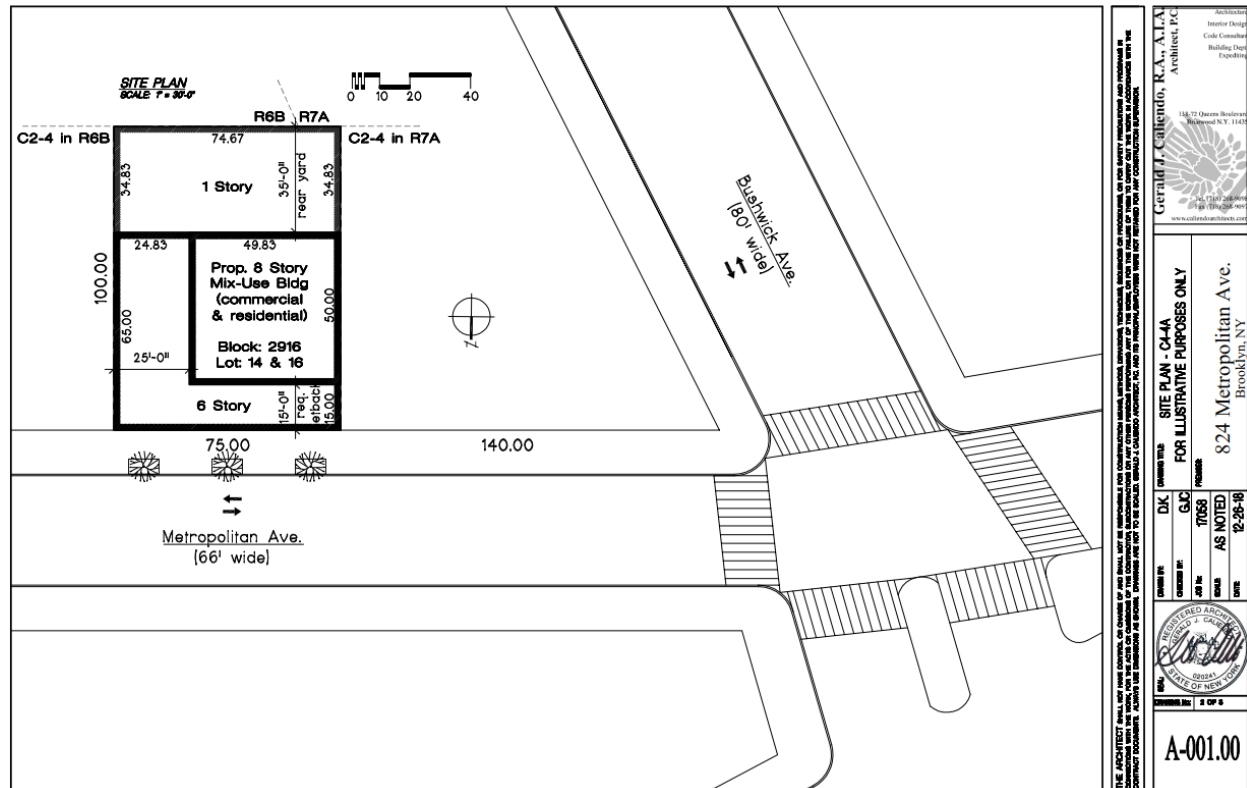
Project Name	824-832 Metropolitan Avenue Project, Brooklyn, Kings County, New York, Block 2916, Lots 14 and 16
Street Address	824-832 Metropolitan Avenue
Borough/Block/Lot	Brooklyn 2916/14-16
LPC PUID (If Yet Assigned)	N/A
Applicant Name	824 Metropolitan Avenue Owner
Lead Agency (Contact Person)	NYC Department of City Planning
Principal Investigator	Alyssa Loorya, Ph.D., R.P.A.
Field Director	Alyssa Loorya, Ph.D., R.P.A.



Map 1: USGS 7.5'' Topographic Quadrangle for Brooklyn, NY (USGS 2019).



Map 2: Detail of Project area on NYC property grid (OASISnyc 2020).



Map 3: Plan view of proposed project development (824 Metropolitan Avenue Owner 2019).

II. CONTEXT AND RESEARCH DESIGN

The project area is located in Kings County (Brooklyn) New York, which is geographically located on western Long Island. Long Island is comprised of two spines of glacial moraine, with a large, sandy outwash plain beyond. The northern moraine, which directly abuts the North Shore of Long Island at points, is known as the Harbor Hill moraine. The southern moraine, known as the Ronkonkoma moraine, forms the "backbone" of Long Island. The land to the south of this moraine is the outwash plain of the last glacier (Schubert 1968; Campanella 2019). The project area is located north of the Harbor Hill moraine in the Atlantic Coastal Plain physiographic province.

The project area is located within the bounds of the original 1660 settlement of Bushwick (Boswijck). It was from this original settlement that the village of Bushwick grew and expanded. The land forming the project area itself was situated on arable upland that had been historically utilized as farmland. It is immediately west of former marshland that once surrounded the Mispat Kil (Newtown Creek) and south of salt meadow that surrounded Noorman's Kil (Bushwick Creek) (see Phase IA Documentary Study and Archaeological Assessment, Chrysalis 2020).

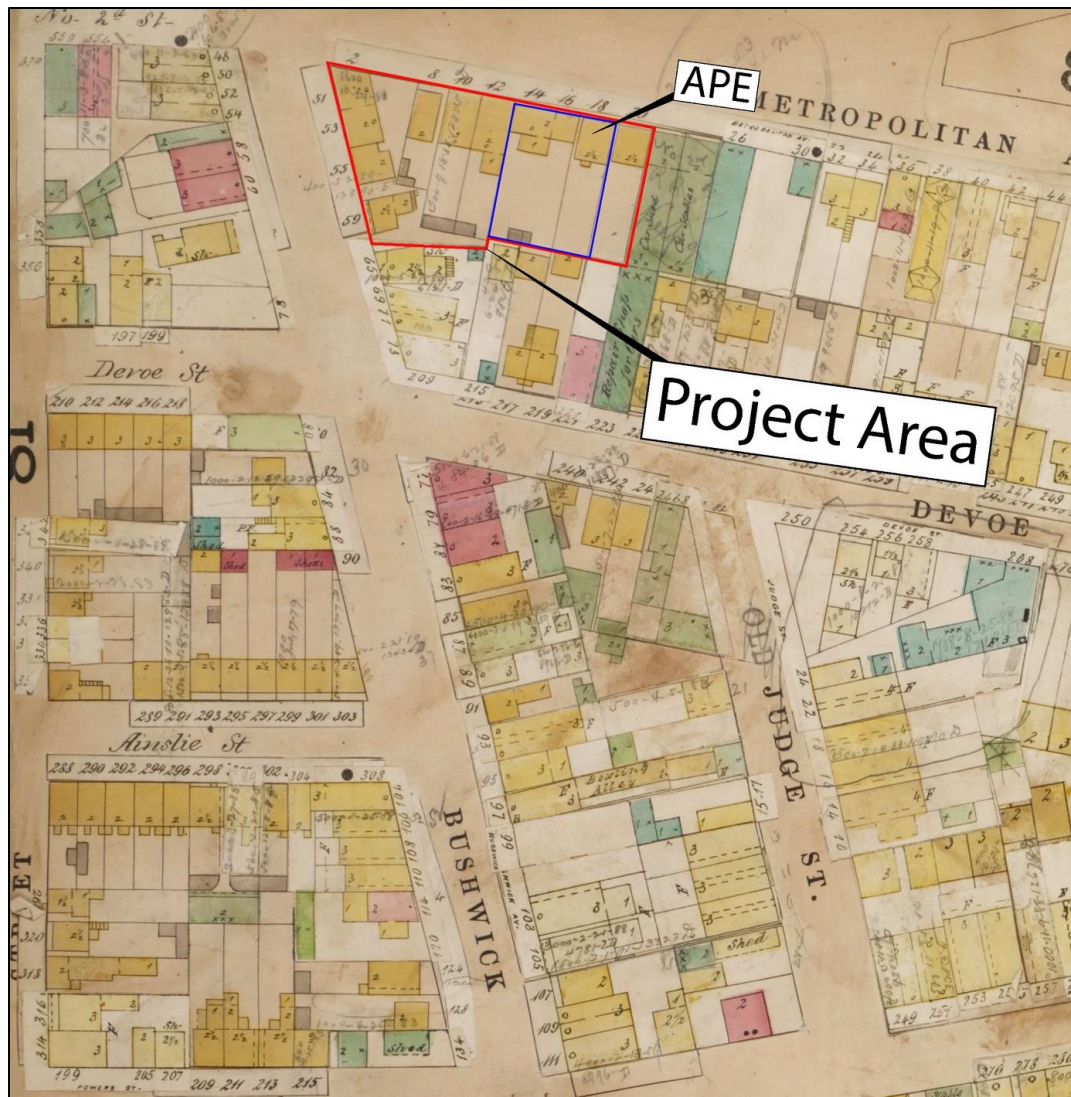
PREHISTORIC SENSITIVITY

The project area lies near the crossroads of two Native American trails. These trails would become Metropolitan Avenue and Bushwick Avenue. Both are outside the APE. There is no direct indication or evidence of Native American occupation of the Project area. The APE was determined to have a low to moderate sensitivity for prehistoric resources based on suggested prehistoric usage, significant historic land modification and lack of prehistoric materials recovered in previous archaeological works surveyed within a 0.5 mile radius of the Project Area.

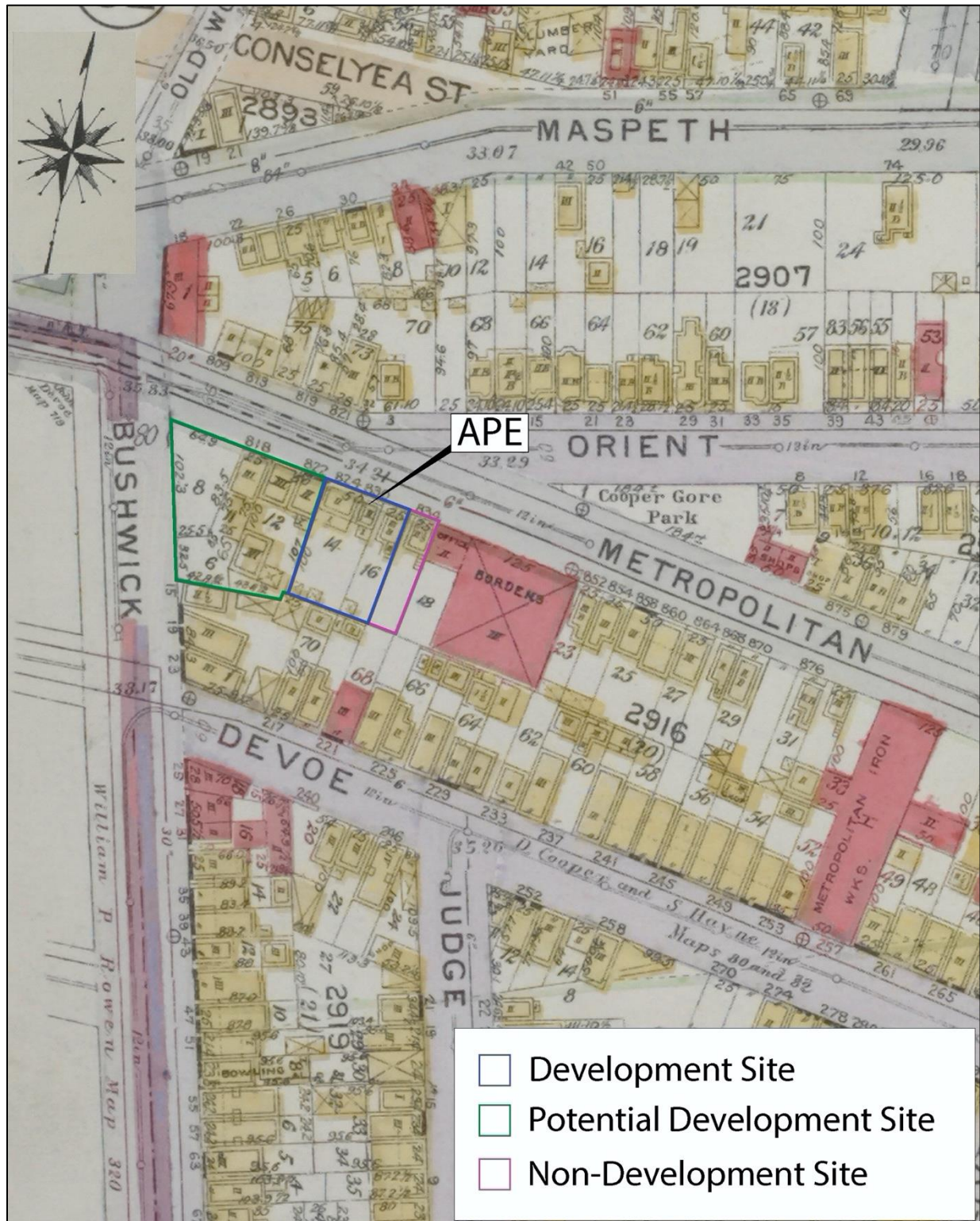
HISTORIC SENSITIVITY

Development in the mid-nineteenth century altered the natural landscape as the street grid was imposed and streets and housing were developed in this part of Brooklyn. The Project Area was developed according to the street grid with structures fronting Metropolitan Avenue and Bushwick Avenue by 1849. Utilities, including water service, were installed to the project area by 1868, based upon fire hydrants depicted in the sidewalk at Metropolitan Area. At this time, two structures fronted Metropolitan Avenue within Lots 14 and 16, with an open rear yard covering approximately two-thirds of the lots and a small outbuilding recorded at the southern boundary of Lot 14 (Map 4). Metropolitan Rail lines were installed at Metropolitan Avenue north of the project area by 1880. In 1916, the structure fronting Metropolitan Avenue in Lot 14 is depicted as divided into two units with two apparent rear extensions to the south. Lot 16's structure fronting Metropolitan Avenue also featured an apparent rear extension not depicted in 1868 (Map 5). Lot 14 had two apparent outbuildings at the southwestern lot boundary, and Lot 16 had one outbuilding at the southwestern lot boundary. The Lot 14 structure fronting Metropolitan Avenue and the outbuildings in both lots appear to have been demolished by 1954, according to historic aerials (USDA 1954). Lot 16 is currently a fully paved asphalt lot surrounded by a chain link fence, used for truck parking and mobile container storage (Image 1). Lot 14 is currently developed as a three-story residential structure with landscaped rear yard (Image 2).

The presence of nineteenth century structures fronting Metropolitan Avenue and the three documented rear outbuildings, possibly privies or cisterns installed before water services were installed to Lots 14 and 16, led to a determination of moderate to high potential for the recovery of historic resources within the project area.



Map 4: Detail from 1868 insurance map (from Chrysalis 2020). The Phase IA covered a larger area. The current Project Area corresponds to the APE marked here (Higginson 1868).



Map 5: Detail from 1916 atlas (from Chrysalis 2020). The Phase IA project area covered a larger area. The current Project Area corresponds to the APE marked here (Belcher Hyde & Co. 1916).



Image 1: Lot 14 – depicting the asphalted surface.



Image 2: Lot 16 – depicting landscaped pond, fire pit and bluestone walkway.

III. PROJECT METHODS

ARCHAEOLOGICAL TESTING

Methodology for archaeological testing was laid out in the approved Archaeological work plan (Chrysalis 2021). Archaeological testing prior to construction was recommended to assess the presence or absence of resources. Testing consisted of mechanical removal of existing pavement and the excavation of five test trenches measuring approximately 5' wide, oriented east-west and excavated to an approximate depth of 6' below ground surface (bgs). Trenches were spaced approximate 10' apart. Test trench excavation was performed via incremental passes of the backhoe bucket that did not exceed 10" in depth. The curb at the Metropolitan Avenue property entrance was used as a site datum (+37.44 NAVD88, WGS84). Measurements in this report as presented as bgs (NAVD88).

Soil stratigraphy was recorded and identified according to standard textural classifications and Munsell colors to assess fill episodes. Any archaeological features were cleaned via hand excavation, mapped, and documented before testing a portion of the interior fill. Per NYC LPC Guidelines, disassembly of one quarter would proceed from top to bottom along with stratigraphic excavation of any feature fill.

IV. FIELD RESULTS

Trenching began at the southern end of the property lots. It was situated to encounter the non-extant historical structure of Lot 16. The 1868 insurance map and 1916 atlas show the historical structure line to lay just slightly north of the extant Lot 14 structure's south boundary. As per NYC LPC's Guidelines, this trench was located proximate to the original historical façade, not the rear extension depicted in 1916, to test for the presence of historical cisterns adjacent to the building (NYC LPC 2018:C6 51). The northernmost final trench extended east directly adjacent to the Lot 14 extant structure south boundary, west of its extant rear extension, to test both lots for possible cisterns.

Five east-west oriented trenches were mechanically excavated, spaced approximately 9' feet apart (Map 6). Trenches 1 through 3 were excavated across the southern half of Lots 14 and 16 and measured 72' east-west (Images 3 and 4). Trenches 4 and 5 were excavated in the central portion of property and measured 60' and 55' east-west respectively (Image 5). Each trench measured approximately 4' -5' wide and was excavated to a maximum depth of 6' bgs (+31.44).

Throughout the project area soils and stratigraphy were consistent. An approximate 2.5' thick dark layer with occasional modern debris (Image 6) was followed by a lighter brown loamy sand that was devoid of cultural materials but did contain occasional large stones (Table 1). Soils were well compacted.

No evidence of the former rear lot structures was observed suggesting that they may have been slab on grade construction that was removed. There was no evidence or indication of rear lot features such as privies or wells. No artifact material was encountered in any of the five trenches.

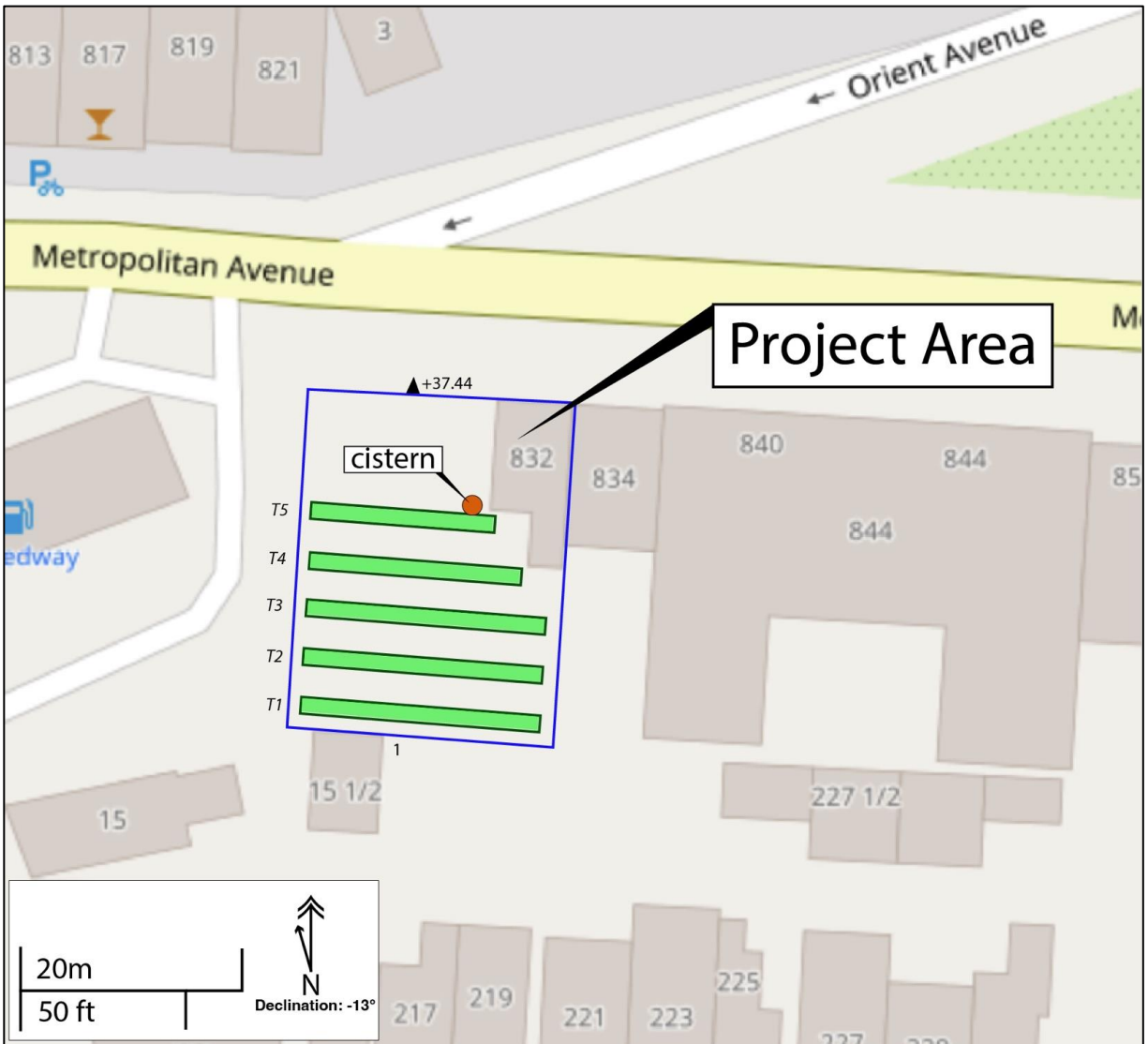
Discarded subsurface utilities, presumably electrical lines, were encountered running north-south in Trenches 3 and 4.

One feature was exposed, a late nineteenth century cistern was located at the eastern end of Trench 5 (Map 6). The intact southern wall of the cistern was exposed during machine excavation (Image 7). Hand excavation exposed the diameter and depth of the cistern.

The disturbed top of the domed cistern was exposed at 18" bgs (+35.94). Prior to this project, this area had been covered with asphalt, preparation for this likely impacted the top of the cistern. The cistern had a 6' diameter and its eastern edge of the cistern was located 5.2' from the eastern wall of Trench 5 (Images 8 and 9).

A portion of the southern side of the cistern was deconstructed manually to determine construction information and facilitate interior testing. The cistern was constructed with plain unmarked wire cut bricks. A small portion of the interior was sectioned and excavated. No stratigraphy was evidenced, and it was determined that the cistern contained clean fill soil and devoid of any cultural material.

Following documentation, the remainder of the cistern was mechanically removed. The base of the cistern was encountered at 6.4' bgs (+31.04).



Map 6: Archaeological site map.



Image 3: Trench 1, facing east.



Image 4: Trench 2, facing west.



Image 5: Trench 4, facing west.



Image 6: Example of typical stratigraphy showing a pocket of modern debris in the upper layer. Trench 1, south wall.



Image 7: Initial exposure of cistern in Trench 5, north wall.



Image 8: Excavation and exposure of the cistern encountered in Trench 5.



Image 9: Exposed diameter and south wall of cistern in Trench 5.

Table 1: Trench excavation data.

TRENCH	STRAT	BGS (NAVD 88) DEPTH	MUNSELL	SOIL TYPE	COMMENTS
1	I.	0' – 2.8' bgs (+37.44 - +34.64)	7.5 YR 4/2	Med. -Fine LoSa	Cement inclusions, asphalt underlayment in western end of the trench.
	II.	2.8' – 6' bgs (+34.64 - +31.44)	7.5 YR 4/4	Med. -Fine LoSa	Large stone inclusions. No cultural material.
2	I.	0' – 2.5' bgs (+37.44 - +34.94)	7.5 YR 4/2	Med. -Fine LoSa Med. -Fine SiSa	Several cement and flagstone inclusions at the eastern end of the trench – associated with garden and pond.
	II.	2.5' – 6' bgs (+34.94 - +31.44)	7.5 YR 4/4	Med. -Fine LoSa	Large stone inclusions. No cultural material.
3	I.	0' – 2.5' bgs (+37.44 - +34.94)	7.5 YR 4/2	Med. -Fine LoSa	Several heavy cement and flagstone inclusions at the eastern end of the trench – associated with backyard garden
	II.	2.5' – 6' bgs (+34.94 - +31.44)	7.5 YR 4/4	Med. -Fine LoSa	Large stone inclusions. No cultural material.
4	I.	0' – 2.8' bgs (+37.44 - +34.64)	7.5 YR 4/2	Med. -Fine LoSa	Large cement inclusions associated with property fence and backyard paving.
	II.	2.8' – 6' bgs (+34.64 - +31.44)	7.5 YR 4/4	Med. -Fine LoSa	Large stone inclusions. No cultural material.

5	I.	0' – 3' bgs (+37.44 - +34.44)	7.5 YR 4/2	Med. -Fine LoSa	Large cement inclusions associated with property fence and backyard paving.
	II.	3' – 6' bgs (+34.44 - +31.44)	7.5 YR 4/4	Med. -Fine LoSa	Large stone inclusions. No cultural material.

V. CONCLUSIONS & RECOMMENDATIONS

The project area exhibited a significant degree of consistency regarding stratigraphy. Throughout the site only 2 stratigraphic layers were observed extending to 6' bgs (+31.44). There was no evidence of former structures at the southern end of the property or elsewhere throughout the site. This suggests that the rear structures, whatever their purpose were on grade construction.

Except for the one cistern encountered there was no evidence of privies or other cisterns identified. The one cistern that was identified may have been rebuilt as the bricks were exceptionally regular and appear to date to a period after the initial construction of the building that was once extant on Lot 14. No artifacts were found within the cistern and the soils within were clean fill soil. This feature is determined to not be national register eligible. The top of the cistern has been impacted from the preparation for the modern asphalt pavement of the lot.

Based on the results of the archaeological testing it is recommended that no further archaeological work be undertaken for this site.

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