# HISTORICAL PERSPECTIVES INC.



Phase IB Archaeological Investigation
Bluebelt Improvements Sweet Brook Watershed, BMP-SB-1
Annadale Wedge Pond
Staten Island, New York

New York City Department of Environmental Protection 07DEP063R

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# **Prepared For:**

New York City Department of Environmental Protection New York City Department of Design and Construction, and DiFazio Industries

# Prepared by:

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#### **EXECUTIVE SUMMARY**

The City of New York is proposing to improve drainage and environmental conditions around the Sweet Brook in the Annadale neighborhood of the Borough of Richmond, Staten Island. It is known as Capital Project SE818, as well as Storm Water Best Management Practices and Associated Facilities: Sweet Brook 1, (BMP-SB-1). The installation of BMP-SB-1 on the north side of Annadale Wedge Pond is slated for the immediate future. Historical Perspectives, Inc. (HPI) previously completed a documentary assessment of the Sweet Brook drainage (HPI 1999), and identified the area on the north side of Annadale Wedge Pond as having medium precontact (prehistoric) archaeological sensitivity. At the request of New York City Department of Environmental Protection (DEP), HPI was contracted to complete a field investigation of this sensitive portion of the Area of Potential Effect (APE), defined as the area slated for subsurface disturbance by the proposed project. The APE extends from the south end of the northern segment of Sheldon Avenue, and includes the south end of Heenan Avenue (Hazen and Sawyer 2013a, 2013b).

HPI's prior documentary study (1999) found that there were no known precontact sites in or near the BMP-SB-1 APE, but that the characteristics of the landform – proximity to a fresh water source, elevation, and drainage – may indicate it is potentially sensitive for Native American resources. This location is designated as Area A for management purposes. In compliance with environmental review requirements, a Phase IB archaeological investigation of Area A within the BMP-SB-1 installation site was conducted by HPI in July 2014 under the direction of HPI President Cece Saunders, RPA and William Sandy, RPA. Archaeologist Michael Thomas assisted with the field investigation.

A pedestrian surface reconnaissance was completed prior to the subsurface excavation of what was designated as Area 'A,' the archaeologically sensitive portion of the APE. Shovel Tests (STs) were then excavated at a 15m (50 ft) interval on a grid throughout Area A. Each of the hand excavated STs were approximately 40cm (16in) square and were typically terminated when culturally sterile subsoil was encountered. The investigation followed the LPC *Guidelines for Archaeological Work in New York City* (2002). Standards for excavations, screening, recording, labeling, mapping, and cataloging, as outlined by the New York Archaeological Council (NYAC) *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (NYAC 1994) as adopted by the New York State Historic Preservation Office (SHPO), and the 2005 SHPO *Archaeological Report Format Requirements* were also observed.

No archaeological or architectural features were identified during the pedestrian review. Subsurface testing entailed completing 13 hand-excavated STs throughout the sensitive area. Most STs were found to have intact stratigraphy, while those in the alignment of mapped Sheldon Avenue were found to contain fill. No Precontact artifacts were found and no potentially significant historic features or deposits were encountered. Therefore, no further archaeological investigations are recommended.

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#### I. INTRODUCTION

City of New York is proposing to improve drainage and environmental conditions around the Sweet Brook in the Annadale neighborhood of the southern part of the Borough of Richmond, Staten Island. It is known as Capital Project SE818, as well as Storm Water Best Management Practices and Associated Facilities: Sweet Brook 1, (BMP-SB-1). The installation of BMP-SB-1 on the north side of Annadale Wedge Pond is slated for the immediate future (Figure 1). Historical Perspectives, Inc. (HPI) previously completed a documentary assessment of the Sweet Brook drainage (HPI 1999), and identified the area on the north side of Annadale Wedge Pond as having medium precontact (prehistoric) archaeological sensitivity (Figure 2). At the request of New York City Department of Environmental Protection (DEP), HPI was contracted to complete a field investigation of this sensitive portion of the proposed project with the Area of Potential Effect (APE).

The APE is defined as "...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16). BMP-SB-1 is an approximately two acre detention complex, stretching from Rathbun Avenue in the southeast to the intersection of Belfield and Sheldon Avenues in the northeast, to the intersection of Heenan and Sinclair Avenues on the northwest. The Testing Area for BMP-SB-1 is limited to the undisturbed land that is on the north side of the project APE, near the intersection of Belfield and Sheldon Avenues (Hazen and Sawyer 2013a, 2013b; Figures 3 and 4).

HPI's prior documentary study (1999) found that there were no known precontact sites in or near the BMP-SB-1 APE, but that the characteristics of the landform – proximity to a fresh water source, elevation, and drainage – may indicate it is potentially sensitive for Native American resources (Figure 2). This location is designated as Area A for management purposes, as identified on the attached clearing and construction sequence plan (Figure 4). In compliance with environmental review requirements, a Phase IB archaeological investigation of Area A within the BMP-SB-1 installation site was conducted by HPI in July 2014 under the direction of HPI President Cece Saunders, RPA and William Sandy, RPA. Archaeologist Michael Thomas assisted with the field investigation.

The following technical report of the BMP-SB-1 archaeological excavation is in accordance with Section 6.21 of the New York City Landmarks Preservation Commission (LPC) *Guidelines for Archaeological Work in New York City* (2002). The goal of this initial level of Archaeological Testing is to determine the presence/absence of archaeological resources by completing shovel tests in the APE. The shovel testing was conducted prior to proposed impacts and according to a protocol approved by LPC (Sutphin 7/24/14).

#### II. FIELD RESEARCH METHODS

### A. TESTING METHODOLOGY

A pedestrian surface reconnaissance was completed prior to the subsurface excavation of what was designated as Area 'A,' the archaeologically sensitive portion of the APE. Shovel Tests (STs) were then excavated at a 15m (50 ft) interval on a grid throughout Area A. Each of the hand excavated STs were approximately 40cm (16in) square and were typically terminated when culturally sterile subsoil was encountered. The investigation followed the LPC *Guidelines for Archaeological Work in New York City* (2002). Standards for excavations, screening, recording, labeling, mapping, and cataloging, as outlined by the New York Archaeological Council (NYAC) *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (NYAC 1994) as adopted by the New York State Historic Preservation Office (SHPO), and the 2005 SHPO *Archaeological Report Format Requirements* were also observed. Field notes recorded all pertinent data including artifact provenience and the context in which they were found. Soil textures were determined with a flow diagram, and colors were recorded as per a standardized *Munsell Soil Color Chart*. Soil was sifted through ¼-inch mesh screen. Stratigraphic profiles of all STs were recorded and are included in this technical report as Appendix A. All STs were promptly refilled following excavation. A photographic record was completed for the field investigation.

#### B. SURFACE SURVEY

The pedestrian survey found no historic foundations or features in Area A, and minimal signs of prior disturbance were noted. Vegetation consisted of deciduous trees, predominantly oaks and maples that appeared to be less than 50 years old. Groundcover was dominated by poison ivy and catbrier. Jewelweed and Japanese knotweed were also

observed in some locations. Ornamental groundcover was present near the end of pavement at Sheldon Avenue (Photos 1, 3, and 4).

Although small and medium sized pieces of concrete were exposed on the surface in several locations, compared to other nearby wooded areas in the Sweet Brook Drainage Area, Area A has relatively little surface trash and debris. Several small sections of the APE were noted as disturbed; fill piles and linear berms were observed, as were small borrow pits. The remnants of a chain-link fence were also present near the top of a slope, along the south end of Area A.

The 1999 documentary study identified an aerial photograph from the 1930s that depicted a portion of Sheldon Avenue Road under construction by the Works Progress Administration (WPA) within the APE. This work included partial construction, but not paving, of the "paper" (unregulated street) portion of Sheldon Avenue as mapped on Figures 3 and 4 (New York City Map 1954). The narrow strip of land within the outlined location of the paper street appeared artificially flat and it was concluded that this location was the unpaved segment of Sheldon Avenue, presumably graded in the 1930s by the WPA.

During the surface survey, an intermittent stream running from west to east at the end of paved Sheldon Avenue was also noted.

#### C. FIELD TESTING RESULTS

Hand excavated STs were completed in a 15 meter (50 ft) grid pattern throughout Area A. A total of 13 STs were excavated (Figure 5). STs ranged in total depth from 16cm (6ins) to 74cm (29ins), with most in the 40cm (16ins) to 60cm (23ins) range. Appendix A provides a full summary of the ST profiles.

Eight STs had intact, natural profiles (ST3, 4, 5, 8, 9, 12, and 13). ST4 had a natural stratigraphic soil profile (Photos 1 and 2). ST4 represents a typical test unit with an undisturbed profile.

#### **ST4 N0E60**

Depth	Soil type	Color	Artifacts Inte	erpretations
0-19cm	Loam	Dark grayish brown	ceramics, coal,	
			glass	A
19-58cm	Sandy Clay Loam	Dark yellowish brown	NCM	В
58 -74cm	Loam	Light yellowish brown	NCM	C/sterile subsoil

NCM = No cultural material

Four STs had profiles consisting entirely of fill (ST1, 6, 7, and 10) and ST2 had a truncated profile with fill atop a C-horizon (see Appendix A). The four tests with profiles entirely of fill were all located within the "paper street" continuation of Sheldon Avenue that was apparently graded by the WPA in the 1930s (Figure 5). Each had compact, gravelly basal contexts. ST 6 represents a typical test unit in this location.

#### ST6 S15E45

~ - + ~									
Depth	Soil type	Color	Artifacts	<b>Interpretations</b>					
0-23cm	Sandy Loam	Dark brown	plastic*, mod	d.					
	•		bottle glass*	Fill					
23-42cm	Loamy Sand	Brown	fabric*	Fill					
42-49cm	Gravelly Loam	Brown	NCM	Fill					
	·								
NCM = N	lo cultural material	*=discarded							

With the exception of a fragment of glazed redware, all the ceramics noted were small fragments /spalls of whiteware (Appendix B). Hardware, including the end of an automotive type battery clamp and a possible fence part, was found in ST5 at the south end of Area A, near the chain-link fence remnants.

No significant artifacts or features were recovered during testing.

#### III. CONCLUSIONS AND RECOMMENDATIONS

This infield survey was designed to determine the presence or absence of archaeological resources within the archaeologically sensitive portions of the APE of BMP-SB-1. The pedestrian reconnaissance did not observe any structure ruins or features within Area A.

A total of 13 STs were excavated at a 15m (50 ft) grid interval. No Precontact (Native American) artifacts were found. Much of the historic era finds consisted of modern trash, including bottle glass. A few tiny fragments/spalls of whiteware, one redware fragment, and some modern bottle glass were identified in a few of the excavated STs.

Historic aerial photographs show that an unregulated gravel road was built through the area by the WPA in the 1930s. Testing here found that this "road" was narrower than the paper street shown on the project plans. Such unregulated street segments are ubiquitous throughout Staten Island (New York City Map 1954). Therefore, the gravel extension of Sheldon Avenue is not considered potentially significant.

No Precontact artifacts were found in the BMP-SB-1 and no potentially significant historic era materials were found. Therefore, no further archaeological investigations of this project are recommended.

#### **BIBLIOGRAPHY**

#### Hazen and Sawyer

- 2013a Storm Water and Sanitary Drainage Plan: Sweet Brook Drainage Area, BMP-SB-1 Annadale Wedge, Landscaping Plan Zones/Shrubs. Sheet 10. February.
- 2013b Storm Water and Sanitary Drainage Plan: Sweet Brook Drainage Area, BMP-SB-1 Annadale Wedge, Clearing/Erosion and Sediment Control Plan/Suggested Construction Sequence. Sheet 3. February.

#### Historical Perspectives Inc. (HPI)

1999 NYC DEP Phase 1A Cultural Resources Sensitivity Evaluation of the Wolfe's Pond and Sweet Brook Watersheds in South Richmond, Staten Island, NY, CEQR 97DEP26. Prepared by Historical Perspectives, Inc., for the New York City Department of Environmental Protection.

#### New York Archaeological Council (NYAC)

1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections. New York Archaeological Council.

#### New York City Landmarks Preservation Commission (LPC)

2002 Guidelines for Archaeological Work in New York City.

#### New York City Map

1954 *Aerial Photograph.* http://maps.nyc.gov/doitt/nycitymap/?z=8&p=931822,137277&c=GIS1951&s=l: STATEN+ISLAND,6266,1,PLUTO. Site accessed July 28, 2014.

New York State Office of Parks, Recreation, and Historic Preservation, State Historic Preservation Office (SHPO)

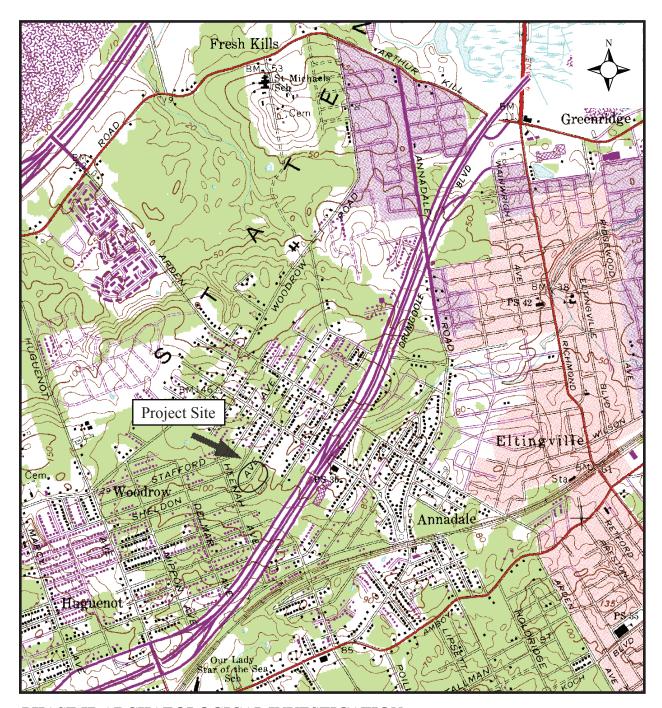
2005 Phase I Archaeological Report Format Requirements.

#### Sutphin, Amanda

2014 Archaeology Review, Department of Environmental Protection/07DEP063R, Mid-Island Bluebelt Drainage Plan. New York City Landmarks Preservation Commission, 7/24/14.

#### U.S.G.S.

1981 *Arthur Kill, N.Y. Quadrangle*. United States Geological Survey, 7.5 Minute Series. United States Geological Survey, Washington, D.C.



PHASE IB ARCHAEOLOGICAL INVESTIGATION BLUEBELT IMPROVEMENTS SWEET BROOK WATERSHED BMP-SB-1, ANNADALE WEDGE POND STATEN ISLAND, NEW YORK



Figure 1: Project site on *Arthur Kill, N.Y.* 7.5 Minute Topographic Quadrangle (U.S.G.S. 1981)

0 1000 2000 3000 4000 5000 FEET

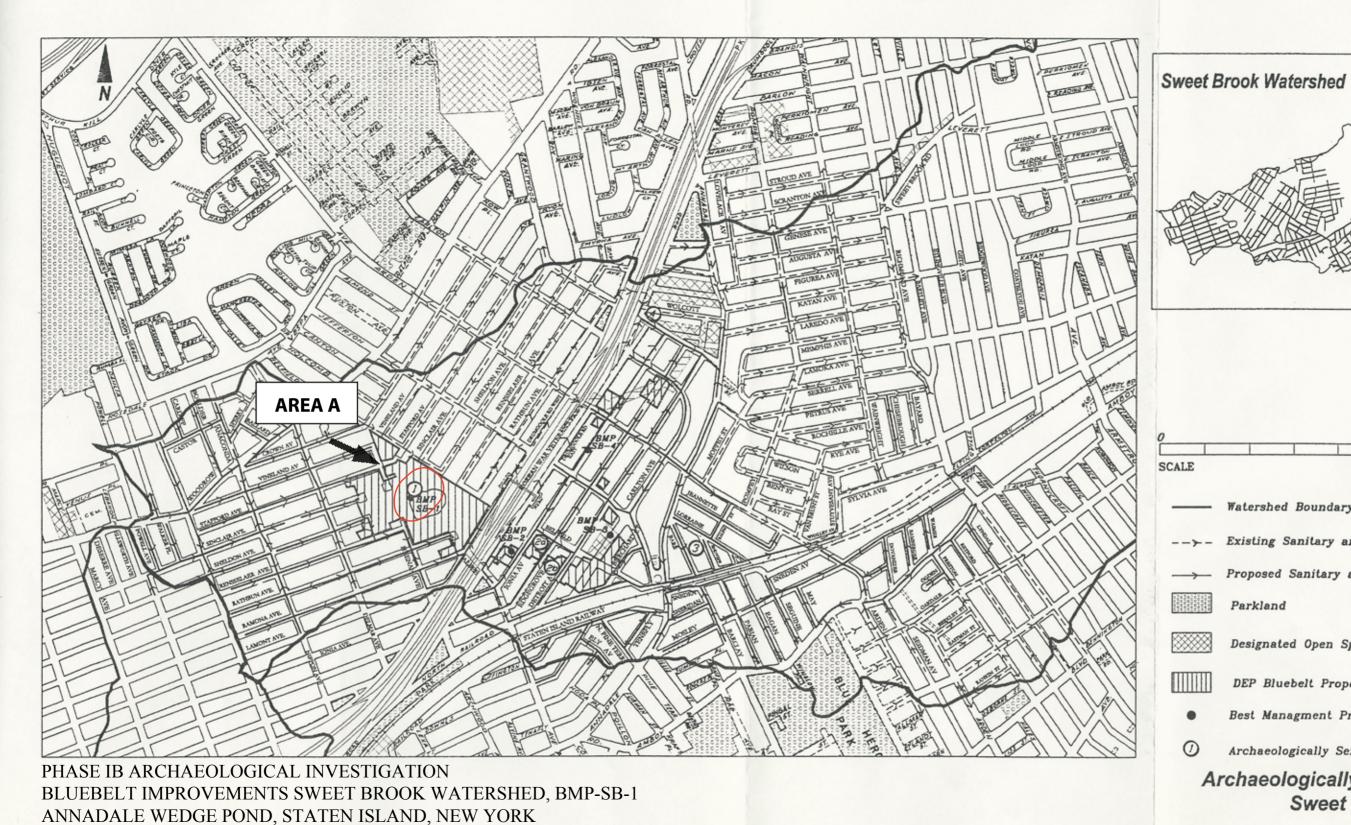


Figure 2: Archaeological Sensitive Areas, Sweet Brook Watershed (HPI 1999: Figure 5A).

Archaeologically Sensitive Area Archaeologically Sensitive Areas: Sweet Brook Watershed

Existing Sanitary and Storm Sewer Lines

Proposed Sanitary and Storm Sewer Lines

Watershed Boundary

Designated Open Space

DEP Bluebelt Property

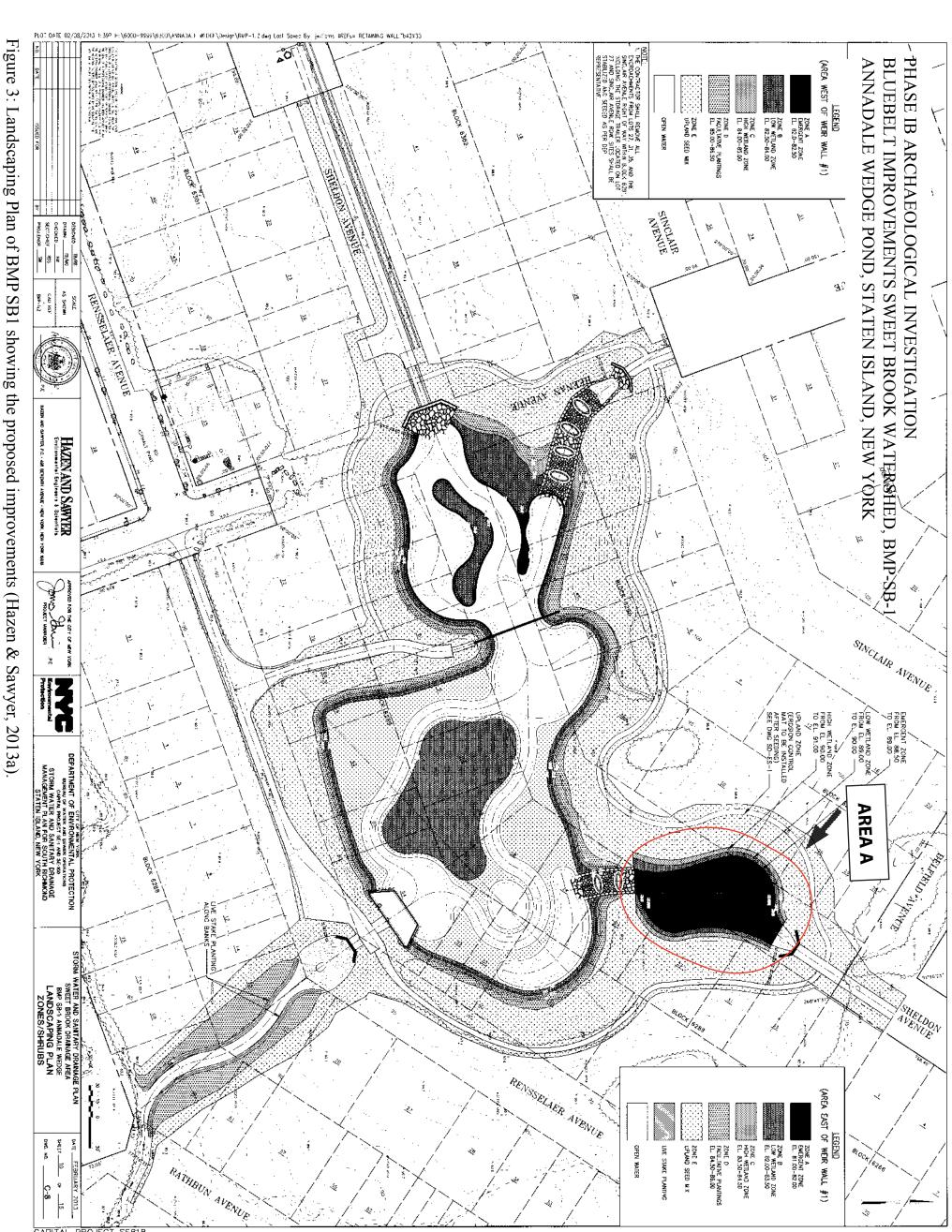
Best Managment Practice Sites

Parkland

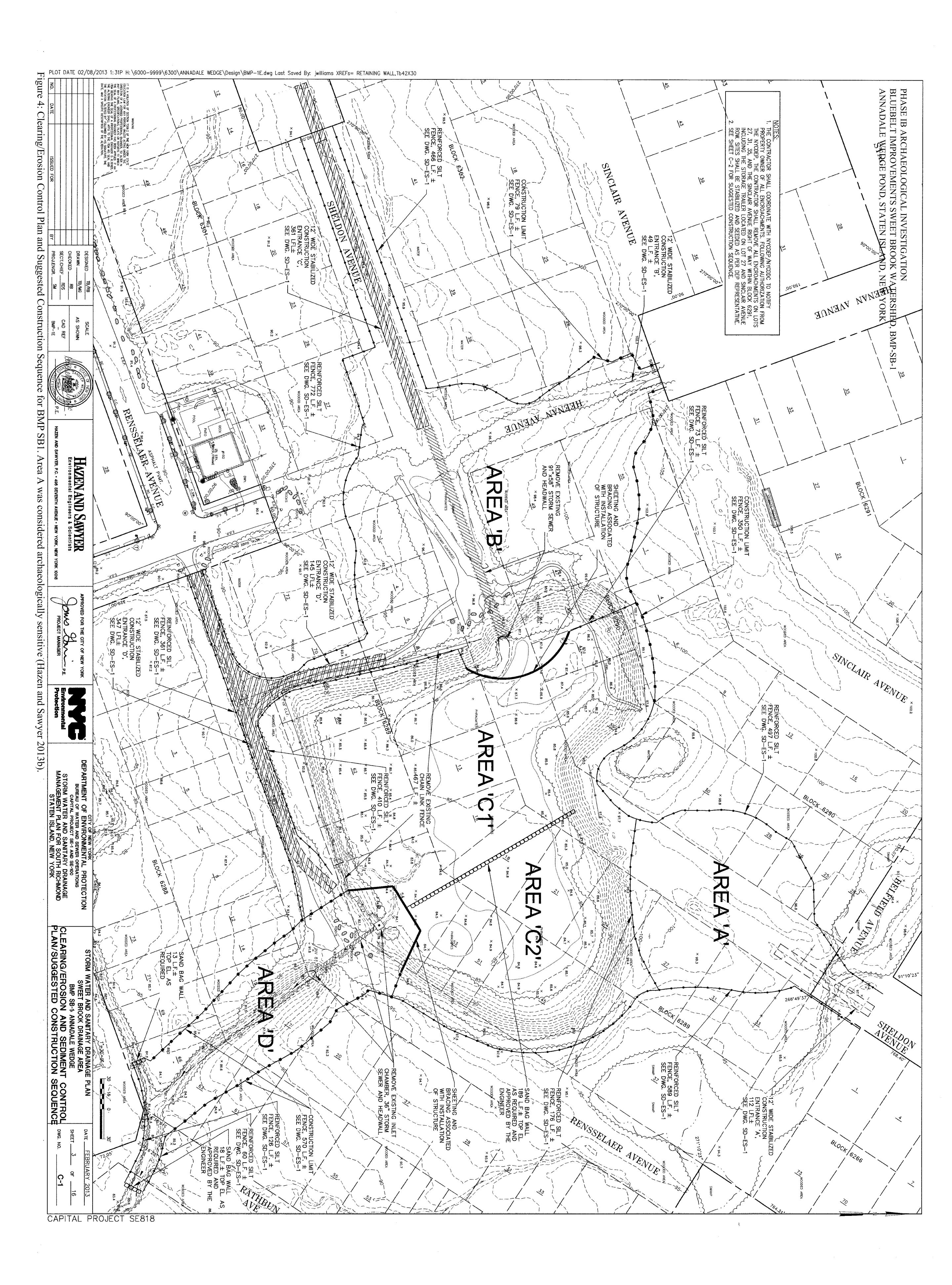
Sewered

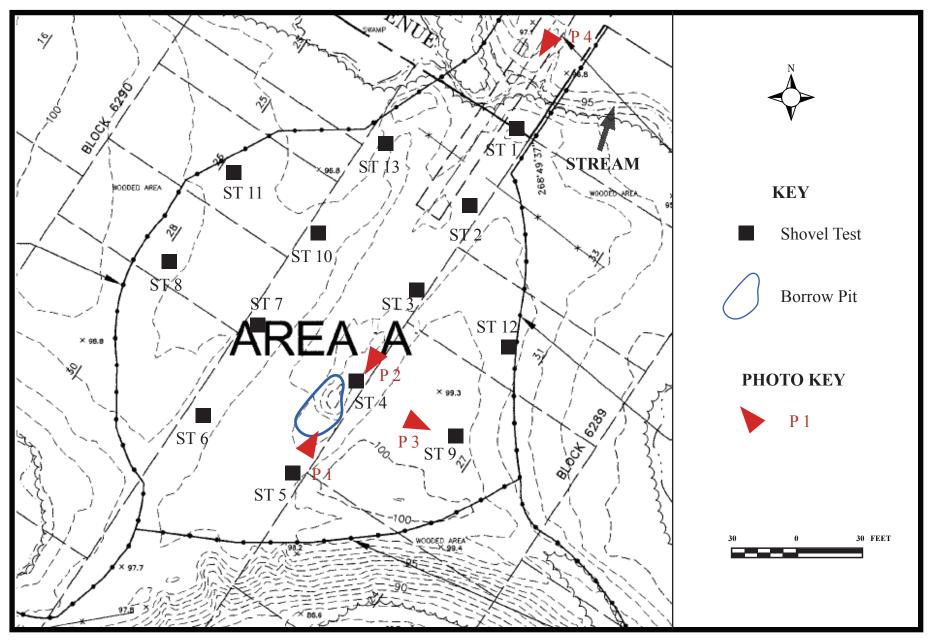
**Approved** 

1500 Feet



CAPITAL PROJECT SE818





PHASE IB ARCHAEOLOGICAL INVESTIGATION
BLUEBELT IMPROVEMENTS SWEET BROOK WATERSHED, BMP-SB-1
ANNADALE WEDGE POND, STATEN ISLAND, NEW YORK



Figure 5. Plan of archaeological investigations at BMP-SB-1 (based on Hazen and Sawyer 2013b).



Photograph 1. View looking north at Shovel Test 4 in the center of Area A at BMP-SB-1.



Photograph 2. Shovel Test 4 south wall profile.



Photograph 3. View looking east toward Shovel Test 9 in the east end of Area A in BMP-SB-1.



Photograph 4. View looking south from Sheldon Avenue at the north end of Area A in BMP-SB-1.

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ST # & Coordinates	Level	Horizon	Depth in cm	Soil Color	Soil Description	Cultural Material	Comments/ Reason for Termination	
						macadam*,		
1 N45E60	1	Fill	0-36	10YR4/3	Gr Lo	concrete*		
1 N45E60	2	Fill	36-49	5YR4/4	Gr Lo	macadam*		
2 N30E60	1	Fill	0-10	7.5YR3/2	Lo	concrete*		
				10YR4/3 mixed w/				
2 N30E60	2	Fill	10-24	10YR5/8	Lo w/ Sa Lo	concrete*		
2 N30E60	3	С	24-42	5YR4/4	CI Lo	NCM	Sterile Subsoil	
3 N15E60	1	Α	0-22	10YR4/3	Lo	NCM		
3 N15E60	2	В	22-42	10YR5/4	Gr Lo	NCM		
3 N15E60	3	С	42-59	5YR5/4	Gr Lo	NCM	Sterile Subsoil	
						ceramics, glass,		
4 N0E60	1	Α	0-19	10YR4/2	Lo	coal*		
4 N0E60	2	В	19-58	10YR4/4	Lo	NCM		
4 N0E60	3	С	58-74	10YR6/4	Lo	NCM	Sterile Subsoil	
5 S15E60	1	Α	0-12	7.5YR3/2	Sa Lo	metal, glass		
				5YR4/4				
				mixed w/				
5 S15E60	2	В	12-43	7.5YR4/3	Gr Lo w/ Sa L	NCM	Very Compact	
				> /5 0 /0		plastic*, mod.		
6 S15E45		Fill	0-23	7.5YR3/2	Sa Lo	Bottle glass*		
6 S15E45		Fill	23-42	7.5YR4/2	Lo Sa	fabric*		
6 S15E45		Fill		5YR4/4	Gr Lo	NCM	Very Compact	
7 N0E45		Fill	0-5	10YR3/2	Lo	NCM		
7 N0E45		Fill	5-16	5YR4/3	Lo Gr	NCM	Compact, poss. Road	
8 N0E30	1	Ao	0-6	10YR2/2	Lo	NCM		
8 N0E30	2	Α	6-18	10YR3/2	Lo	ceramic		
8 N0E30	3	В	18-40	10YR5/3	Lo Sa	NCM		
8 N0E30	4	С	40-55	10YR5/6	Sa Lo	NCM	Sterile Subsoil	
9 N0E75	1	Α	0-11	10YR4/2	Lo	NCM		
9 N0E75	2	В	11-33	10YR4/4	Lo	NCM		
9 N0E75	3	С	33-60	10YR6/4	Lo	NCM	Sterile Subsoil	
10 N15E45	1	Fill	0-14	7.5YR3/2	Sa Lo	NCM		
							Very Compact,	
10 N15E45	2	Fill	14-26	5R4/4	Gr Lo	Macadam*	possible road	
11 N15E30	1	Ao	0-8	10YR2/2	Lo	NCM	Sterile Subsoil	
11 N15E30	2	Α	8-21	10YR4/3	Lo	ceramics		
11 N15E30	3	В	21-41	10YR5/4	Lo	NCM		
				10YR6/4				
				mottled				
11 N15E30		С	41-56	10YR5/6	Lo	NCM	Sterile Subsoil	
12 N15E75	1	Ao	0-10	10YR3/2	Lo	NCM		

ST # & Coordinates	Level	Horizon	Depth in cm	Soil Color	Soil Description	Cultural Material	Comments/ Reason for Termination
12 N15E75	2	Α	10-27	10YR4/3	Lo	coal*, ceramics	
12 N15E75	3	В	27-51	7.5YR5/4	Gr Lo	NCM	Sterile Subsoil
13 N30E45	1	Α	0-9	7.5YR3/2	Lo	glass, ceramic	
13 N30E45	2	В	9-32	10YR4/4	Lo	NCM	
13 N30E45	3	С	32-51	10YR6/4	Gr Lo	NCM	Sterile Subsoil

## **Key Symbols**

ST# &	Level	No.	Functional Group	Class	Material	Туре	Object	Part	Description
			·						
4 N0E60	1A	2	food related	glass	clear	container	unidentified	fragment	very small
4 N0E60	1A	2	food related	ceramic	earthenware	whiteware	unidentified	fragment	very small
4 N0E60	1A	2	food related	ceramic	earthenware	whiteware	unidentified	fragment	blue underglaze decoration
5 S15E60	1Fill	4	food related	glass	blue-green	container	bottle	fragment	melted
5 S15E60	1Fill	1	architectural	metal	iron alloy	hardware	fence part?	complete	2 3/4" OD, w/ 1" connection
5 S15E60	1Fill	1	mechanical	metal	iron alloy	hardware	battery cable end	complete	w/ adjustment screw
5 S15E60	1 Fill	1	food related	glass	blue	container	bottle	fragment	
3 N0E30	2A	1	food related	ceramic	earthenware	whiteware	unidentified	fragment	
11 N15E30	2A	1	unaffiliated	organic	charcoal	charcoal	charcoal	fragment	discarded
11 N15E30	2A	1	unaffiliated	organic	coal	anthracite	coal	fragment	discarded
11 N15E30	2A	1	food related	glass	clear	container	unidentified	fragment	
11 N15E30	2A	1	food related	ceramic	earthenware	redware	unidentified	fragment	brown exterior glaze
11 N15E30	2A	2	food related	ceramic	earthenware	whiteware	unidentified	fragment	
11 N15E30	2A	2	food related	ceramic	earthenware	whiteware	unidentified	fragment	blue underglaze decoration
12 N15E75	2A	1	unaffiliated	organic	coal	anthracite	coal	fragment	discarded
12 N15E75	2A	3	food related	ceramic	earthenware	whiteware	unidentified	fragment	blue underglaze decoration
12 N15E75	2A	1	food related	ceramic	earthenware	whiteware	unidentified	fragment	
13 N30E45	1A	1	food related	glass	green	container	unidentified	fragment	
13 N30E45	1A	1	food related	ceramic	earthenware	whiteware	unidentified	fragment	green underglaze decoration