Report for Agency Review

Phase IA/IB Archaeological Assessment, Bridgeview Plaza, 4895 Arthur Kill Road (BBL 5076320023)

Staten Island 03, Richmond County, New York

Prepared for **Bridgeview Plaza LLC**
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Staten Island, New York 10312

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December 2014

Project Summary

LPC Project Review Number: CEQR #13DCP096R

Involved Local, State and Federal Agencies: NYC Department of City Planning, NYC Landmarks Preservation Commission, NYC Office of Environmental Remediation (OER)

Phase of Survey: Phase IA/IB archaeological assessment

Location Information

Location: Staten Island, Arthur Kill Road south of Outerbridge and north of Tottenville
Minor Civil Division: Staten Island 03 **County:** Richmond

Survey Area (Metric & English)

Length:
Width:
Depth (when appropriate): not applicable
Number of Acres Surveyed: <1 acre (< 0.4 hectares)
Number of Square Meters and Feet Excavated: 2.5 sq meters (26.9 sq feet)
Percentage of Site Excavated: not applicable

USGS 7.5 Minute Quadrangle Maps: Arthur Kill

Archaeological Survey Overview

Number & Interval of Shovel Tests: 9 (20 x 20 in; 50 x 50 cm), A-line shovel tests at 7.5 m (25 ft) intervals and B-area shovel tests. Two shovel tests were placed adjacent to a masonry feature, one is 7.5 m (25 ft) south of the feature, and one is 2.7 m (9 ft) west of the feature.
Number & Size of Units: not applicable
Width of Plowed Strips: not applicable
Survey Transect Interval: not applicable

Results of Archaeological Survey

Number & Name of Archaeological Sites identified: one (1) historic archaeological site with feature and artifact scatter
Number & Name of Historic Sites identified: none
Number & Name of Sites Recommended for Phase II/Avoidance: none

Report Author(s): Carol S. Weed, M.A. (RPA)

Date of Report: December 2014

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Introduction

VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB), New York, New York, completed Phase IA and IB archaeological investigations in support of the applications made by Bridgeview Plaza LLC (the Proponent) for their property at 4895 Arthur Kill Road (BBL 5076320023), Staten Island, New York (project site; Figures 1, 2, 3). The applications are being made for CEQR #13DCP096R, Conditional Negative Declaration issued August 1, 2014. New York City Landmarks Preservation Commission (LPC) determined that no architectural investigations were needed on the property. However, LPC, based on a review of archaeological sensitivity models and historic maps, noted that there was a "potential for the recovery of remains from 19th Century and Native American occupation(s) on the project site" (Santucci 2014).

For this reason, a Restrictive Declaration was imposed on the project site until the appropriate archaeological studies could be completed in response to the comments in LPC's July 23rd Environmental Review form (Sutphin 2014). VHB prepared a Work Plan which addressed LPC's recommendation that "an archaeological documentary study be performed on this site to clarify [LPC's] initial findings and provide the threshold for the next level of review, if such review is necessary (see *CEQR Technical Manual* 2014)" (Santucci 2014). In response to LPC's opinion, the Proponent entered into a Restrictive Declaration on July 31, 2014 concerning archaeological resources.

The Work Plan was prepared in accordance with the *CEQR Technical Manual* and the LPC Guidelines for Archaeological Work in New York City. Based on the Proponent's site plan (Figure 2), VHB assumed that 100 percent of the project site would be subject to ground disturbance. The project site will be reconfigured to accommodate two buildings and an associated parking area. The buildings will be located in the southeast quadrant of the lot and along the downslope west side of the lot.

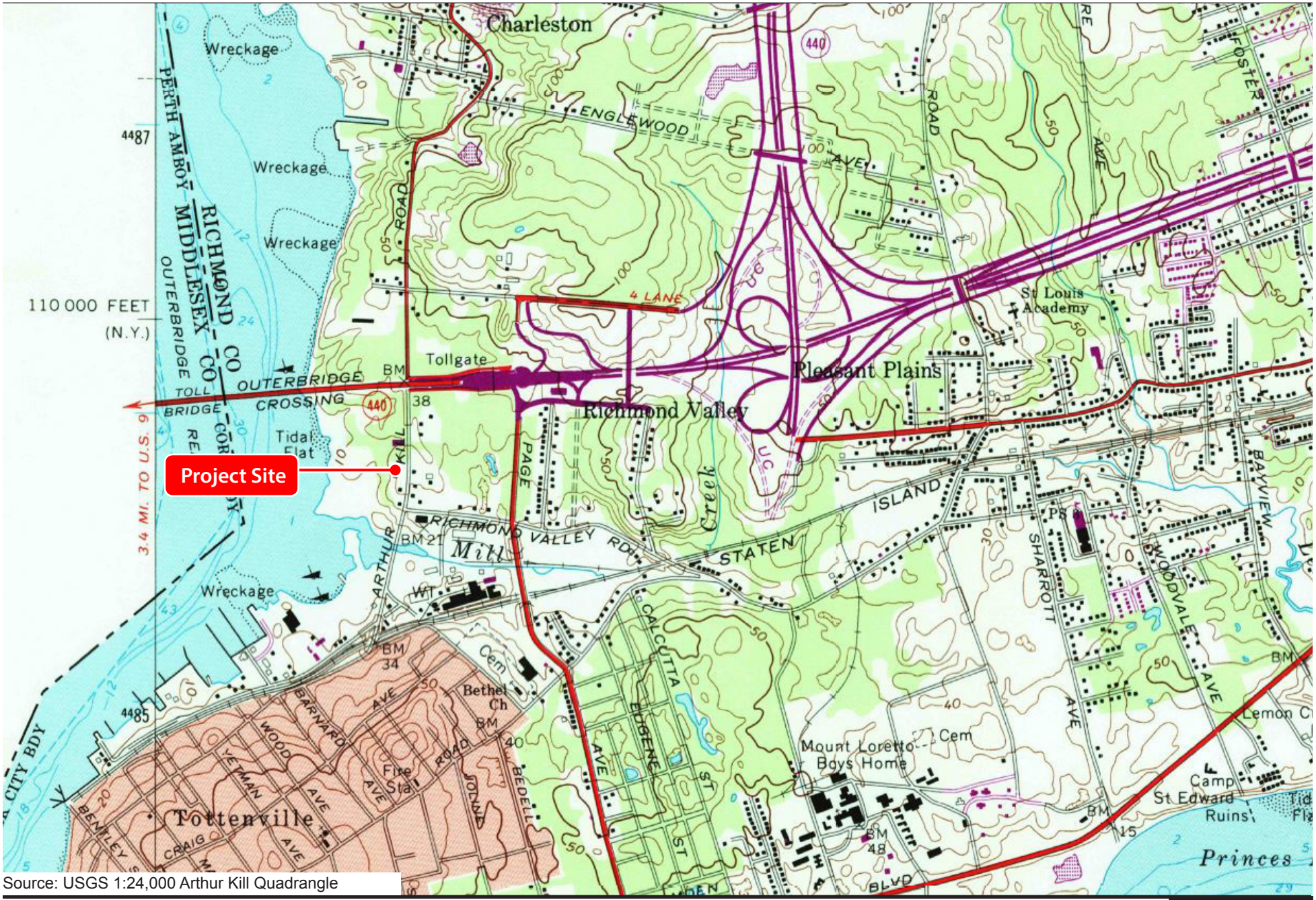
The cultural resources assessment and survey consisted of six tasks: background and literature review, work plan development and submission, on-site walkover, preparation of an End-of-Research (EOR) letter, systematic shovel testing, and Phase IA/IB report preparation. Site file research was conducted at LPC on September 23 2014, and at New York State Office of Parks, Recreation and Historic Preservation (OPRHP) on October 6, 2014. The work plan was submitted to LPC on October 16, 2014, and approved by LPC the same day. A walkover of the Project was conducted on October 17, 2014, by Carol S. Weed who is the named Principal Investigator and Mr. Mathew Sloane, VHB Planner. The EOR was submitted to LPC on October 28, 2014; LPC accepted the recommendation that shovel testing be conducted in two locations on the project site. The Phase IB shovel testing was begun on November 3 and finished on November 12, 2014. Ms. Weed was in the field for both sessions. VHB's crew members during Phase IB were Ray Marino, Dan Melo, and William Sklar.

Truncated soil profiles with disturbed upper soil horizons were found in five shovel tests on the so-called A-line (see Figure 3). The A-line was off-set 30 feet (ft; 9.1 meters [m]) west from the Athur Kill Road curb line and the shovel tests were spaced at 25-foot (7.6 m) intervals from one another. Glass and plastic were recovered from the disturbed strata; no in situ artifacts or features were found in this area.

Other shovel tests were excavated downslope on a terrace cut in proximity to a masonry feature which was identified during the walkover. The masonry element was designed Feature 1 and Shovel Test B1 was adjacent to it (see Figure 3). Clean fill sands containing historic artifacts were recovered from the three shovel tests that were excavated adjacent to and in the vicinity of Featrue 1. No additional features were identified during shovel testing. The artifact

assemblage includes flat and bottle glass, metal artifacts, and stucco. No kitchenwares, personal objects, or building nails were found in the shovel tests.

Based on the shovel testing results, no additional archaeological investigations are recommended for the Project.

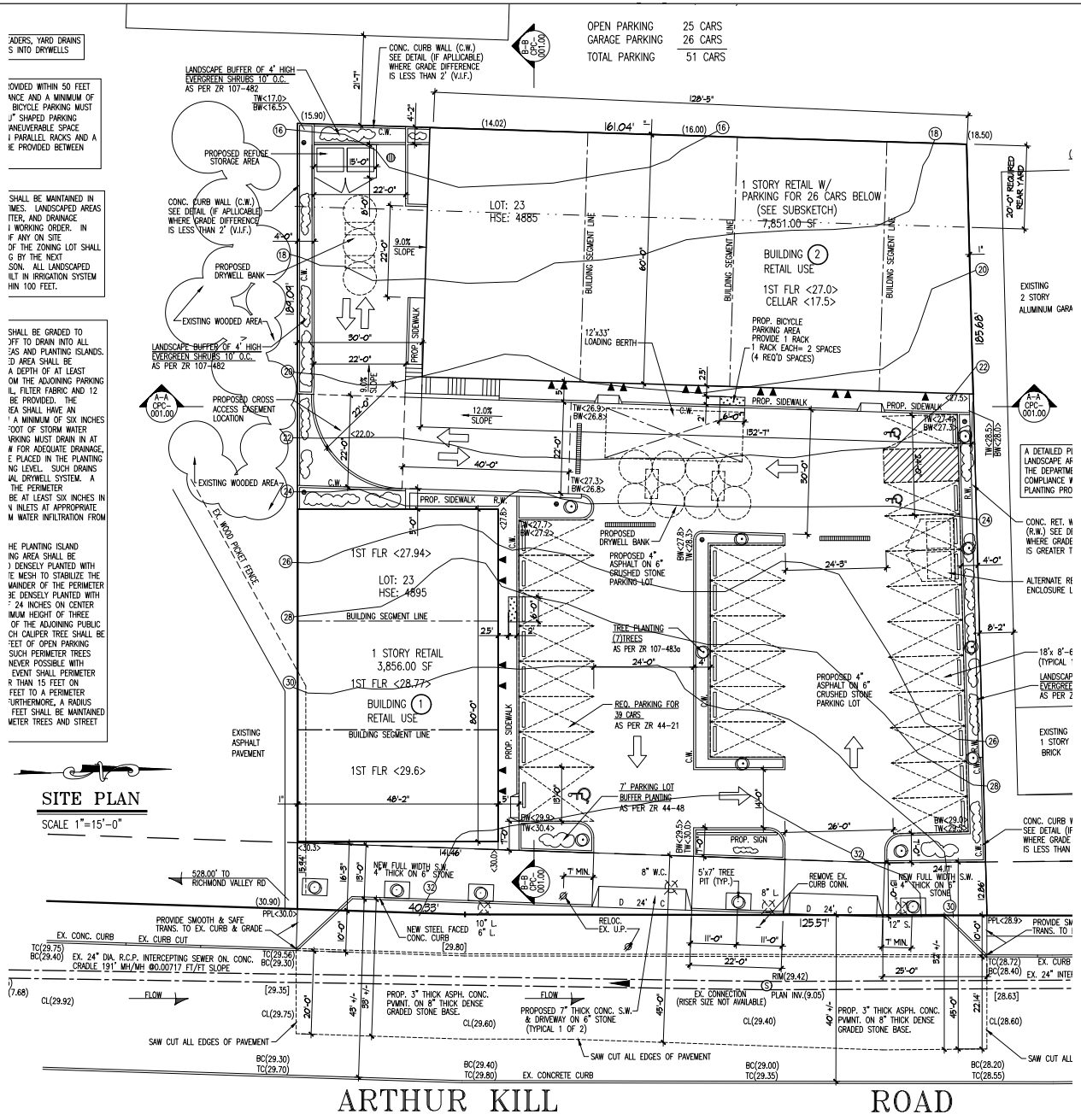


Source: USGS 1:24,000 Arthur Kill Quadrangle

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

Project Location

Figure
1



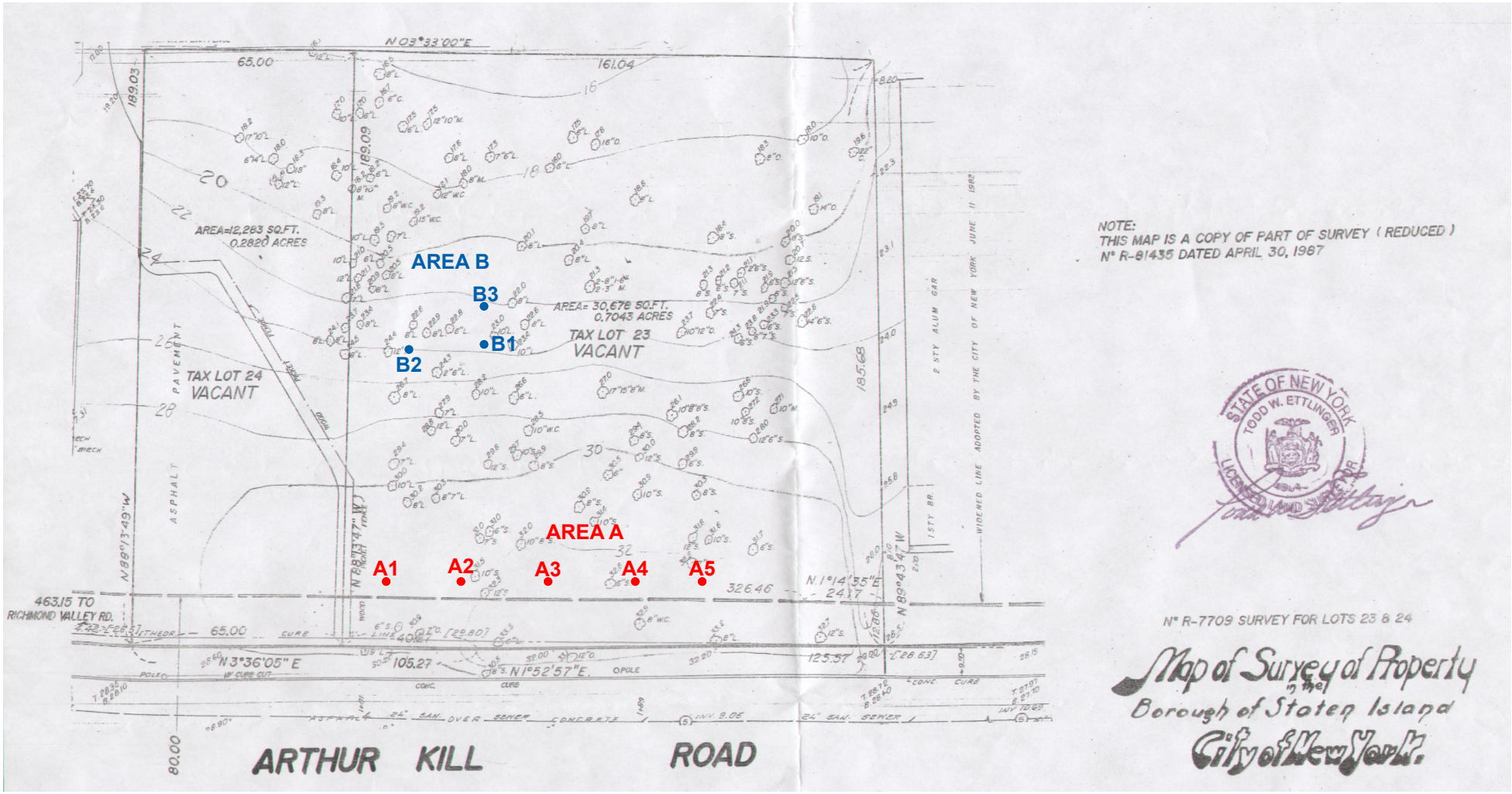
SITE PLAN

SCALE 1"=15'-0"

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

Project Site with Proposed Layout

Figure
2



- Area A
- Area B

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

Project Site with Shovel Test Locations

Figure
3

2

Project Contexts, Research Design, and Sensitivity Assessment

Environmental Context

Project Setting

The project site is located on the west side of Arthur Kill Road between Mill Creek, to the south, and the Outerbridge Crossing, to the north. In this vicinity, the project site is the only undeveloped parcel (Photographs 1 through 5) though it did contain an earlier building (Photograph 6). The parcel parcel measures about 189 feet (58 m) east-west. North-south, the parcel is about 126 ft (38 m) wide on the east side and about 161 ft (49 m) wide on the west side. The project site slopes downward east to west from a high elevation of about 35 feet above mean sea level (AMSL) on the east side to an elevation of about 16 feet AMSL on the west side.

Most of the project site is overgrown with brambles and briars underlying deciduous trees of various heights and diameters. The south and west borders of the parcel, however, are grassed. These grassy margins are used as service areas for a veterinary clinic that bounds the project site on the south and west. The proponent purchased the project site from the owners of the clinic. The project site is bounded on the east side by the two-lane Arthur Kill Road. A beer distributorship is located on the fully developed lot to the north.

Geology and Soils

Soren (1988) noted the underlying bedrock structure of Staten Island is complex and includes four bedrock units: Manhattan Schist, Staten Island Serpentine of Merrill, Newark Supergroup undivided, and Palisade Diabase. The overlying unconsolidated deposits are either the Upper Cretaceous Raritan Formation or the Upper Pleistrocene Wisconsinan glacial drift. In the project vicinity, the Raritan Formation lies atop Manhanttan Schist. The Raritan Formation is characterized by both clay and sand members containing varying amounts of gravels, pebbles, and cobbles. Some of these rocks are the result of the Harbor Hill terminal moraine which cut over and in to the member sands and clays.

The Project soils, based on the shovel tests, appear to have been disturbed. The shovel test profiles were truncated on the A-line. The shovel tests excavated in the B-area contained fill soils and were not representative of the native solum.

According to USDA (2014), most of the project site lies within the Urban land – Greenbelt complex, 3 – 8 percent slopes, low impervious surface (UGBl) soil tyupe. A thin strip of Urban land, till substratum, 0 to 3 percent slopes (UtA) soil is present immediately adjacent to Arthur Kill Road. The New York City Soil Survey Staff (2005) classifies the soils in the area as #280: Wethersfield-Foresthills-pavement & buildings complex, 0-8 percent slopes. This complex is characterized by “a mixture of red till soils and anthropogenic soils” (NYCSSS 2005:17). The Wethersfield series characteristics are summarized below (Table 1).

Table 1. Wethersfield Series Soils (NYCSSS 2005:38)						
Name	Soil Horizon Depth (inches)	Color	Texture, Inclusions	Slope %	Drainage	Landform
Wethersfield series	A: 0-3 in Bw1: 3-13 in Bw2: 13-27 in Cd: 27-65 in	A = 7.5YR 3/2 dk brn Bw1 = 5YR 4/4 rd brn Bw2 = 5YR 3/3 dk rd brn Cd = 2.5YR 4/4 rd brn	A: loam, friable, 10% gravel Bw1: loam, friable, 10% gravel Bw2: loam, friable, 10% gravel and 5% cobbles Cd: 2.5YR 4/4 gravelly loam, 15% gravel and 5% cobbles	0 – 25 % (in project area 0-8%)	Well drained	Plains and hills

Key: Shade: dk = dark;
Color: brn = brown; rd = red, reddish

Hydrology

The 1947 Arthur Kill 7.5-minute quadrangle (Figure 4) shows no permanent streams within ¼-mile of the project. Mill Creek, a tidally influenced stream, is located less than a mile south of the project and three unnamed headwater streams are present within ½-mile to the north and east.

Flora and Fauna

Today's biotic communities are significantly modified from those used by the Native Americans and the pre-industrial colonists. Skinner (1909), Parker (1920 [1922]), and Schaper (1989, 2000) reported well-developed shoreline and wetland middens that contained floral and faunal remains. Though the species involved were often not enumerated, deer, fish, oyster and clam, and small mammal remains in addition to some bird have been reported from lower Hudson River valley and New York Bay Native American kitchen and processing middens. Use of these species continued well into the historic era as well.

Perhaps the most under-documented of the exploited species are fish and eel. Schaper (2000:13, Table 1) proposes that the use of fish and eel was more widespread and intensive in the area than would be presumed based on the recovered species remains alone. He bases his argument on the presence of fishing equipment such as fishhooks, harpoons, netsinkers, and plummets (Schaper 2000:14, Table 2). The species recovered from middens include black sea bass, striped bass, blue fish, bullhead catfish, dog fish, drum fish, white perch, and sturgeon.

Cultural Context and Research Design

The results of background and literature review in conjunction with data from field inspections form the bases for conclusions concerning archaeological sensitivity. This section briefly summarizes the results of the background research as it pertains to the Native American and Historic occupations in the general area. The inclusion of the

Native American references consider the data supporting OPRHP's Archaeological Sensitivity assignment for the area, an assignment that is duplicated by Boesch (1994). No Native American artifacts were recovered during the Phase IB shovel testing.

Background and Literature Review Methods

The Phase IA research was directed by a research design that was developed based on the results of prior archaeological investigations along the west side of Staten Island. In support of the Work Plan and the Phase IA research design development, VHB conducted site file reviews of the on-line LPC report file; on September 23, 2014, in-office at LPC for a review of archaeological sensitivity areas developed by Eugene Boesch (1994); and, on October 6, 2014, site file research at the New York State Office of Parks, Recreation, and Historic Places (NY OPRHP). Other data sources are listed below.

The site file reviews revealed that no previous archaeological investigations had been conducted on the project site or immediately adjacent to it. However, archaeological reconnaissance done in the early decades of the 1900s found evidence of Native American occupations along the shore and inland to the east side of Arthur Kill Road.

The background and literature review included a site file check and an on-line literature review of published sources for the general region. These included review of USDA soil and hydrological information (USDA 2014). Other sources included two articles in *The Bulletin: Journal of the New York State Archaeological Association* (Schaper 1989 and 2000); information culled from earlier cultural resources management reports (Boesch 1994; Ebasco Environmental 1991; LBG 1987, 2001; Pickman 1988, 1989; Tomaso 2006); and summary volumes concerning surveys in the general Staten Island, New York Bay, and lower Hudson River Valley (Brennan 1974, Parker 1920 [1922], Skinner 1909).

Data sources other than LPC and OPRHP consulted in the development of the are listed below on Table 2. The specific data sought from each source is listed under the heading Data. The research domains are outlined in the Research Design that follows.

Table 2. Other Data Sources

Research Domain	Source Location(s)	Data
Shoreline and Terrace Modifications	New York Public Library	In library, Sanborn Insurance Maps, by decade, beginning 1880s
	NOAA, Office of Coast Survey Historical Map Collection[1]	On-line, following maps or series a) Raritan Bay and Southern Part of Arthur Kill (1925-1970s) b) New York Entrance (1867)[2]
	ESRI, USGS Historical Topographic Map Explorer[3]	a) Passaic (1900, 1905) b) Arthur Kill (1947-1988)
Native American and Historic Period Site Types	Previous Archaeological Investigations (± 1.5 miles)	a) LPC Report #s 665, 674, 787, 800; b) OPRHP CRIS #s 4180, 6174, 6284, 8540 c) NYSM #s 770, 771, 4604, 4606, 4620, 8493 d) Parker 1920 [1922]

[1] http://historicalcharts.noaa.gov/historicals/preview/image/3N286-25
[2] http://historicalcharts.noaa.gov/historicals/preview/image/AR07-00-1867
[3] http://historicalmaps.arcgis.com/usgs/index.html

Previous Archaeological Investigations and Reported Archaeological Sites Within 1-Mile

In 1987, the Cultural Resource Group of Louis Berger & Associates, Inc. (LBG), conducted a Phase IA investigation of the Chateau du Bois development site located on Block 7580, Lots 1, 12, and 18, in Tottenville. Their project site is about 1,080 feet (329 m) southeast of the Bridgeview Plaza project location and it is on the terraces to the north side of Mill Creek. Although LBG found evidence of surficial disturbance during their walkover they recommended Phase IB shovel testing for specific locations. Archaeologists from CRCG (Tomaso 2006) subsequently conducted Phase IB investigations of Lots 1 and 3. None of the shovel tests yielded significant artifacts and no archaeological sites were defined.

In 1989, Alan Pickman conducted a "Stage II" archaeological investigation of the proposed location of a municipal animal shelter on Block 7527, Lots 17, 19, 21, 23, and 25 on the east side of Arthur Kill Road off Veterans Road approximately 1,870 ft (570 m) from the project site. Pickman (1988) had completed an earlier Phase IA study and had concluded that there was a low potential for historic archaeological sites but a moderate one for Native American ones. The 1989 study reported on the results of four shovel tests. The shovel tests were excavated to depths from 23 to 31 inches (58 to 79 cm). Micellaneous historic debris including a corroded nail, coal, whiteware, glass, and a fire brick fragment were recovered. No Native American artifacts were found and Pickman (1989) recommended no further work.

Ebasco Environmental (1991) also conducted a Phase IA assessment nearby the current project area. The so-called Harborview Project area was located about 800 feet (244 m) southwest of the Bridgeview Plaza project site on the north side of the Mill Creek estuary. The Ebasco Phase IA researchers found that the Harborview Project site was made-land and they recommended no further archaeological investigations.

Louis Berger Group, Inc. (LBG) completed Phase IB archaeological investigations in 2001 for New York City Transit at the location of the then proposed Department of Buses Storage and Maintenance facility about 2,800 ft (853 m) north of Outerbridge Crossing. LBG (2001:19) conducted systematic, 50-foot interval shovel testing across the project area and eventually excavated 191 shovel tests. Forty-three shovel tests yielded artifacts mostly consisting of small fragments of historic ceramics, bottle glass and bivalve shell. It was the conclusion of the investigators that there had been significant surface disruption and that several areas of the project site had been stripped. A possible remnant of a homestead stable was identified but was recommended not eligible to the National Register of Historic Places.

What is of note is that all of these project areas were within Areas of Archaeological Sensitivity as defined by both OPRHP and Boesch (1994). There are two principal reasons for the sensitivity assignments: 1) sites noted by early investigators such as Skinner and Parker; and 2) setting characteristics. Table 3 provides the salient information available about the previously reported sites within one mile of the project. As noted by Boesch, all of the site locations were on dry ground but with short distances to potable water sources.

TABLE 3. Native American Sites within 1 Mile of the Project Site

OPRHP USN #	DIAGNOSTIC ARTIFACTS	TIME PERIODS	COMMENTS
08501.002627	Stone mortars	Not specified	NYSM Site #s 4604 and 4620
Not applicable	Shell and lithics	Woodland	NYSM Site #770, Canada Hill (Boesch # 17)
Not applicable	Not specified, Parker noted "traces"	Woodland	NYSM Site # 771, Kreischerville also Indian Fields. May be related to

TABLE 3. Native American Sites within 1 Mile of the Project Site			
OPRHP USN #	**DIAGNOSTIC ARTIFACTS**	**TIME PERIODS**	**COMMENTS**
			NYSM #4620 as well.
Not applicable	Not specified	Not specified	NYSM Site #4606, also ACP-Rich-16 and Boesch #16.
Not applicable	Not specified	Prehistoric	SIIAS Archaeological Site STD-O, also Boesch #116

Yet, none of the investigators recovered evidence of Native American utilization of the particular locations examined. In most cases, the investigators dismissed the lack of Native American artifacts or features because of prior disturbance. Other stated reasons included documented episodes of cut and fill and erosion.

Research Design

Based on the data gathered, two research domains were defined. These were Shoreline and Terrace Modifications and Native American and Historic Period Site Types.

Shoreline and Terrace Modifications

Today, the project site lies between the 20-foot and 30-foot contours east of the Arthur Kill and north of Mill Creek in southwestern Staten Island. The project site is located approximately 820 ft (250 m) east of the current Arthur Kill shore line which, as marked on the USGS of the same name, is a tidal flat. The closest natural potable water source is Mill Creek, located about 1,000 ft (305 m) south of the project site. However, both Mill Creek and the Arthur Kill are brackish though for what distance upstream in Mill Creek is unknown.

The configuration of the mouth of Mill Creek has changed in the last 120 years and the change may be the result of a combination of rising sea levels, the Arthur Kill dredging regime, and changes in the hydrology of the Raritan River to the southeast. At present, Mill Creek flows into a relatively broad embayment which begins east of Arthur Kill Road about 490 ft (150 m). However, as late as 1947, the narrow stream channel continued west of Arthur Kill Road before it opened gently into a much smaller mouth.

Both the 1947 USGS and the 1925 NOAA chart for *Raritan Bay and the Southern Part of Arthur Kill* clearly show the Mill Creek channel as bounded on both side by wetlands. Presumably these were tidal marshes. These tidal marshes were likely brackish eastward at least to the first stream confluence. That confluence is shown on the 1947 USGS Arthur Kill quadrangle sheet as about 980 ft (300 m) east of Arthur Kill Road.

The issue of potable water sources may have been partially addressed by the presence of short channel headwater streams and at least one pond. Two such streams are located north of the subject parcel and one pond is west at the edge of the 20-foot contour as shown on the 1925 NOAA chart (Figure 5). Even if these water features were only seasonally active, they would have afforded closer access for inhabitants of the 20-foot contour terrace than would have been afforded by Mill Creek to the south.

The lateral east-west extent of the Arthur Kill tidal flat and the associated Mill Creek tidal marsh would have influenced both Native American and subsequent Historic period settlement decisions. Parker (1920 [1922]) notes that "there are sites all along the shore to Kreischerville, with early relics. All the sandy fields along the shore yield relics but here and there shell pits and heaps proclaim more specialized occupation." Those sandy fields lined the 20-foot contour terrace above the tidal flats and marshes.

The degree to which evidence of these Native American habitation, special use, and camp sites and Historic farmstead and special use brick and clay sites remain at the project site must also consider the effects of historically recent events. At some point between 1925 and 1937, a spur line to the Staten Island Rapid Transit railroad cut north-south across the middle of Block 3A which was the precursor to the present Block 7632 (Figures

5 and 6). The spur line corridor as depicted on the 1937 Sanborn map varied between approximately 135 and 150 ft (41 and 46 m) wide.

The corridor effectively separated Lot 3A into two unequal parts, leaving some buildings on the east side, in new Block 7632, and apparently eradicating others that were within the newly defined right-of-way. No map reviewed shows buildings on the western side of Block 3A. It is currently unknown how the right-of-way was prepared and where cut/fill dirt was deposited during rail line construction. Such actions, however, could have significantly affected any Native American or Historic occupations traces present on original Block 3A.

Shoreline and Terrace Modifications Research Questions: The research questions for Shoreline and Terrace Modification are aimed at developing a use history of the project site in order to address the likelihood of finding intact, significant archaeological remains. To this end, the following questions will be addressed

(1) What historic events have affected the plan and profile of the project site?

(2) Did the events impact the entirety of the project site or were they restricted to particular sections (adjacent to the railroad right-of-way for example)?

Native American and Historic Period Site Types

Parker's 1920/1922 site descriptions for Staten Island provide an overview of the Native American site types that were noted at Contact and in the early years of the Colonial period. These included villages, camps, and special use areas. The basis for discriminating between these Native American sites types is not particularly strong. Subsequent researchers, including Boesch, Berger, and CRCG have noted that some of the shoreline sites appear to have had functionally discrete areas which may actually represent episodes of re-use over several hundred years of particularly desirable locations.

In the subsequent Historic period, the historic maps show a settlement pattern that closely adheres to road and railroad lines. Arthur Kill Road between Outerbridge and Richmond Valley Road initially appears to host small farmsteads on either side of the road which gradually give way to denser commercial development. It would be the farmstead period or specialized commercial/industrial sites like brick manufacturers that would be of particularly interest archaeologically.

Site Type Research Questions: The focus of the second research domain, is on developing a site typology for the project site and its immediate area. On a gross level, the answers to the questions will provide bases for determining the possible importance of a particular site type in the use history of the project site. To this end, the following questions will be addressed

(1) What are the site types documented? What are the defining criteria for the types?

(2) Do the site types have functionally discrete activity areas? Do these activity areas (and, by association, the defining feature types) change through time? What heralds the change (demolition, re-use, abandonment, economic change)?

(3) What is the likelihood that the site type is retained on the project site and that an archaeological signature can be identified?

Archaeological Sensitivity

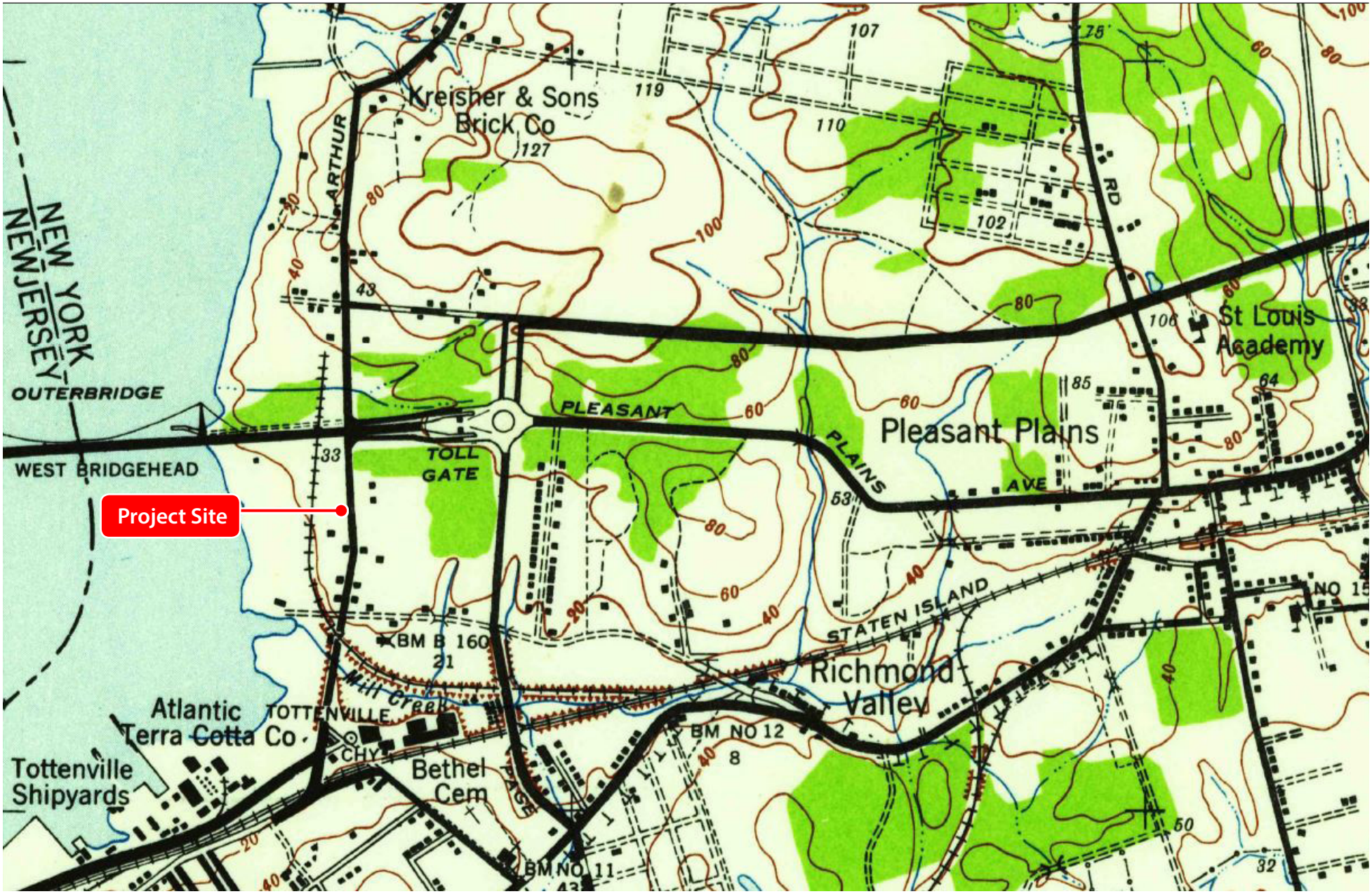
The Phase IA research was directed at addressing questions related to prior use of the project site. The 1925 NOAA chart for *Raritan Bay and the Southern Part of Arthur Kill* shows a group of three buildings in the project location (Figure 5). The earlier 1917 Sanborn map illustrates Block 3A, the precursor to Block 7632, as having four

buildings (Figure 7). One, the southernmost, was a dwelling while the northern three appear to be sheds of various configurations. At some point between 1925 and 1937, a spur line to the Staten Island Rapid Transit Railroad cut north-south across the middle of Block 3A (see Figure 6). This event seems to have precipitated block and lot subdivision.

The dwelling and the two smaller sheds were removed between 1925 and 1937 and only the larger shed still remained in 1937. As plotted on the 1937 Sanborn, the large shed lies just south of what is now the project lot. According to subsequent Sanborn Insurance maps (EDR 2014), the project site remained empty to present-day.

Between 1962 (Figure 8) and 1977 (Figure 9) the large shed was removed and a new building was erected on the south side of Block 7632. This building may be the present-day veterinary clinic. After 2007, the veterinary clinic constructed a second building which is located downslope from the first in what was the Staten Island Rapid Transit spur line right-of-way to the west of the project site lot line. The proponent bought Block 7632, lot 23 from the veterinary clinic owners in 2012. Based on the these maps alone it is likely that the three smaller buildings on the lot functioned in support of farm operations. If true, it is possible that evidence of Native American presence was compromised by the farm operations. Further, routine maintenance along the west side of Arthur Kill Road also could have affected any Native American artifactual or feature remains. For these reasons, it is hypothesized that the project site retains medium to low sensitivity for Native American archaeological remains.

In contrast, the map evidence suggests that there were outbuildings present on or immediately adjacent to the project site during a period of occupation related to residential and farm use. Sometime after 1925, however, the parcel function may have changed though one building remained at least until 1937. It is possible that during the period 1925-1937, the remaining building was used in support of the newly adjacent railroad spur. After 1937, however, the project parcel is vacant (Sanborn Insurance 1937, 1950, 1962, 1977, 1981, 1987, 1996).

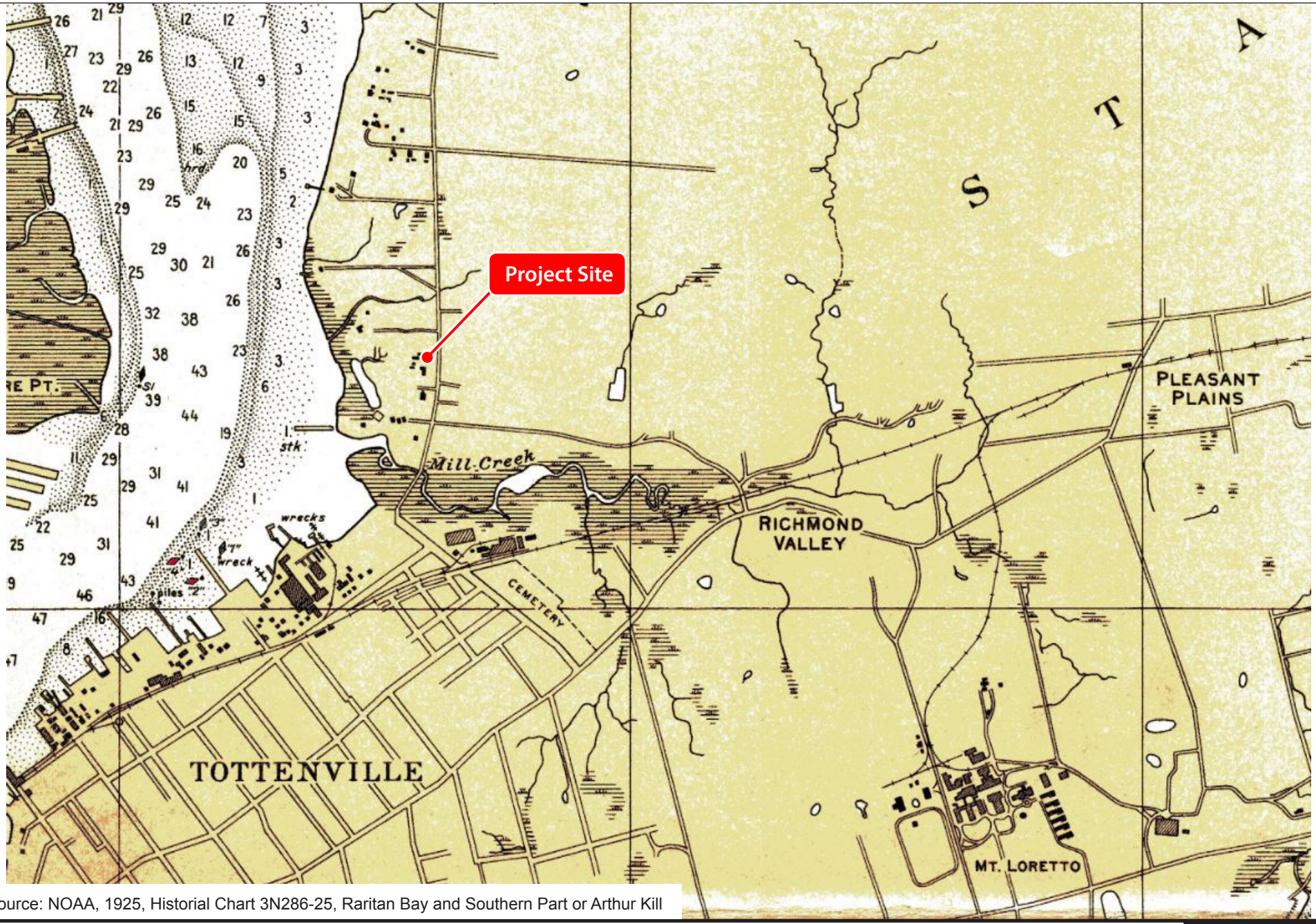


Source: ESRI, Historial USGS Topographic Quadrangles

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1947 Arthur Kill 1:24000 Quadrangle with Project Location

Figure
4



Source: NOAA, 1925, Historial Chart 3N286-25, Raritan Bay and Southern Part or Arthur Kill

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1925 NOAA with Project Location

Figure
5

Site Name: 4895 Arthur Kill Road
Address: 4895 Arthur Kill Road
City, ST, ZIP: Staten Island NY 10309
Client: EPDSCO
EDR Inquiry: 3881299.4
Order Date: 3/14/2014 3:41:59 PM
Certification # 7313-4A5C-BBF6
Copyright: 1917

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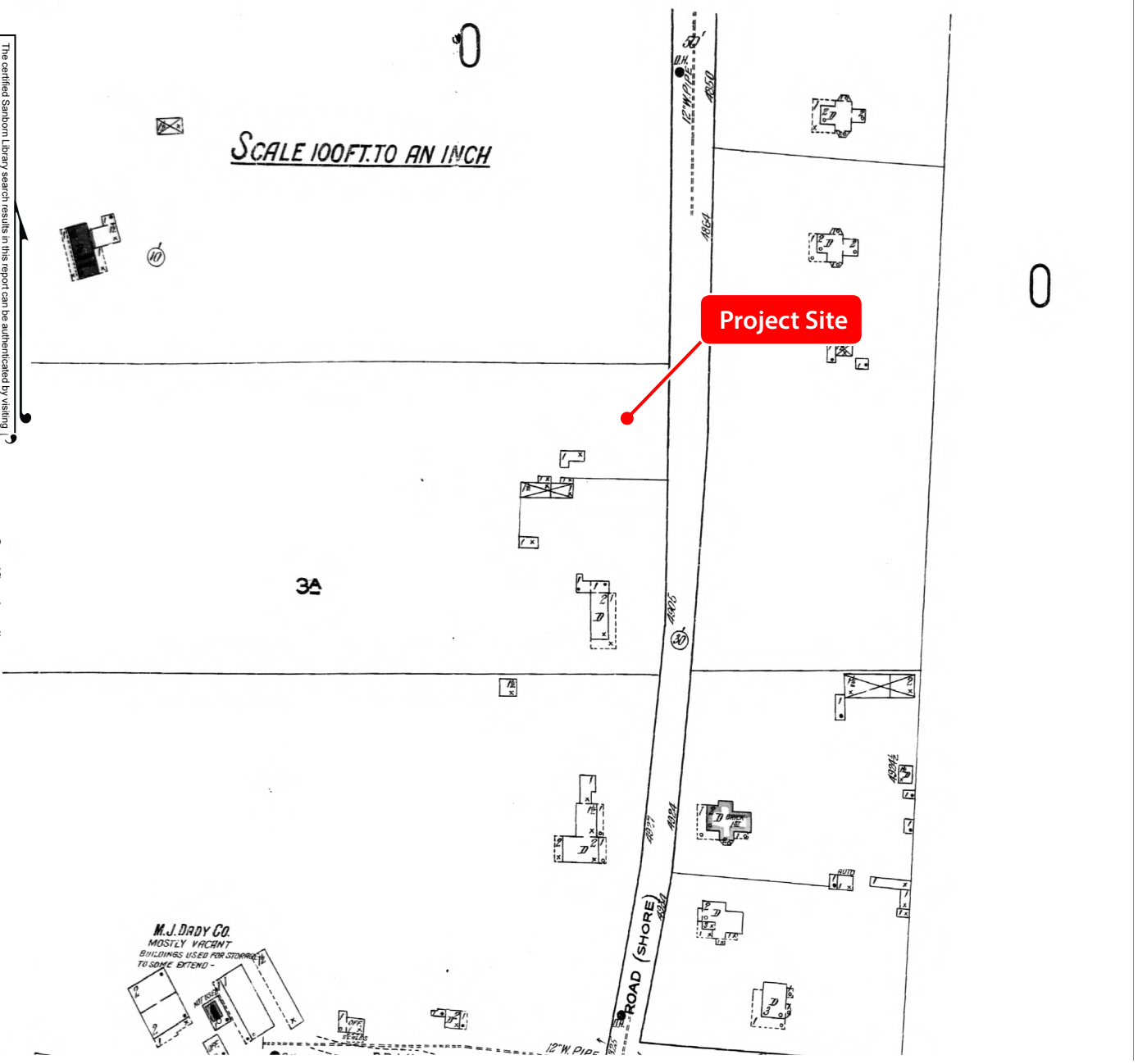
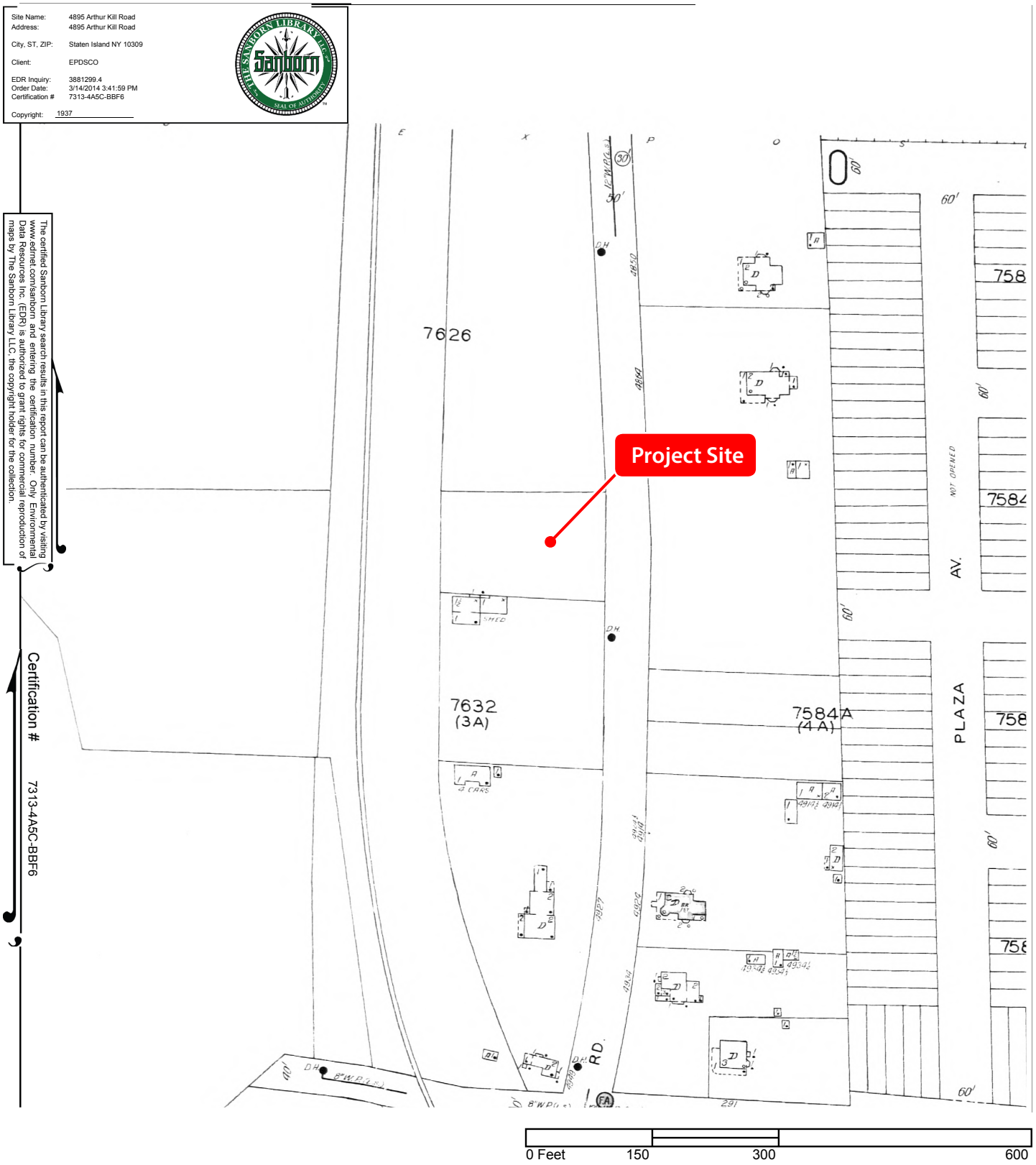


Source: EDR 2014 Certified Sanborn Map Report

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1917 Sanborn

Figure
6



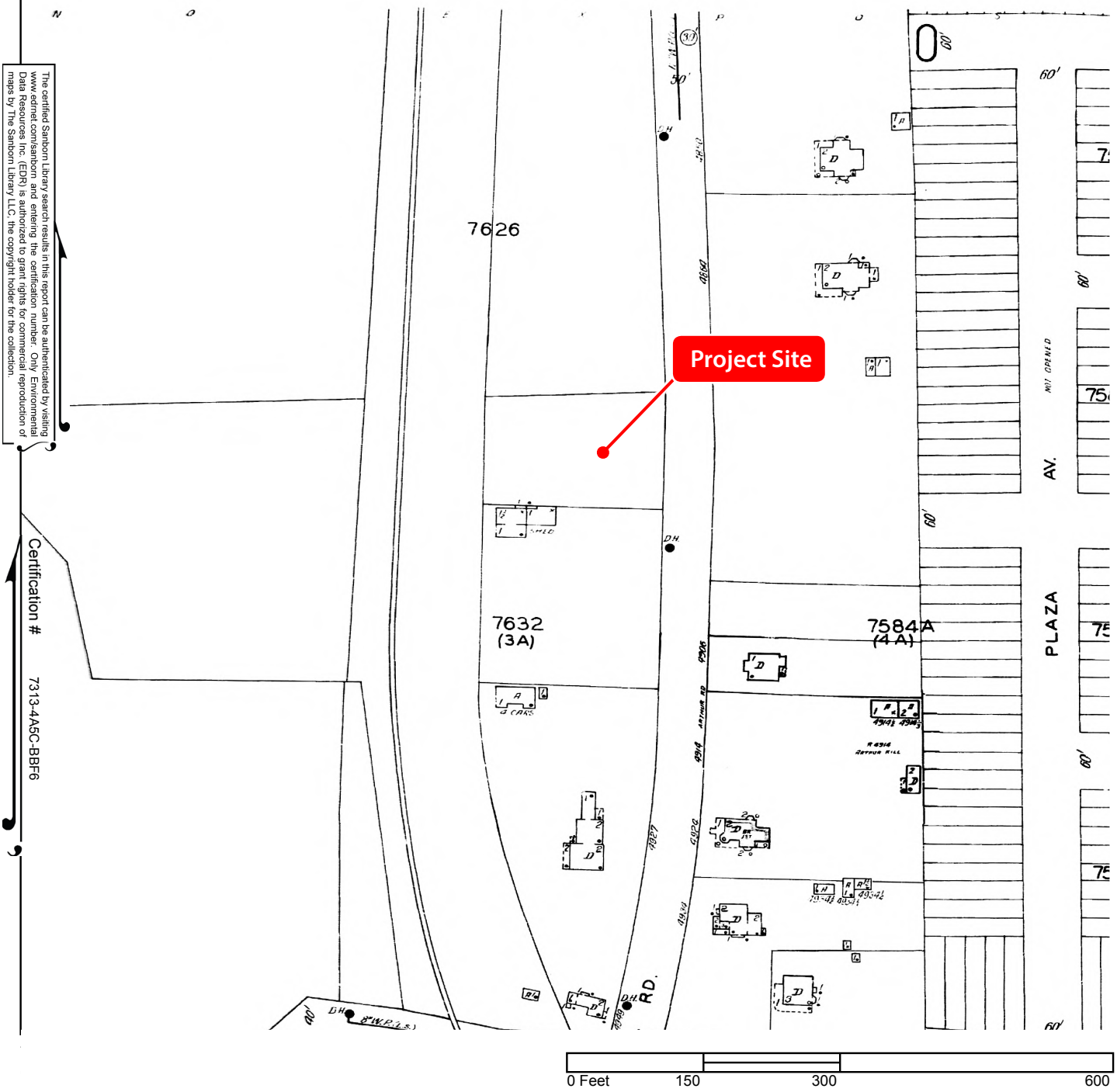
Source: EDR 2014 Certified Sanborn Map Report

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1937 Sanborn

Figure
7

Site Name: 4895 Arthur Kill Road
Address: 4895 Arthur Kill Road
City, ST, ZIP: Staten Island NY 10309
Client: EPDSCO
EDR Inquiry: 3881299.4
Order Date: 3/14/2014 3:41:59 PM
Certification # 7313-4A5C-BBF6
Copyright: 1962



Certification # 7313-4A5C-BBF6

Source: EDR 2014 Certified Sanborn Map Report

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1962 Sanborn

Figure
8

Site Name: 4895 Arthur Kill Road
Address: 4895 Arthur Kill Road
City, ST, ZIP: Staten Island NY 10309
Client: EPDSCO
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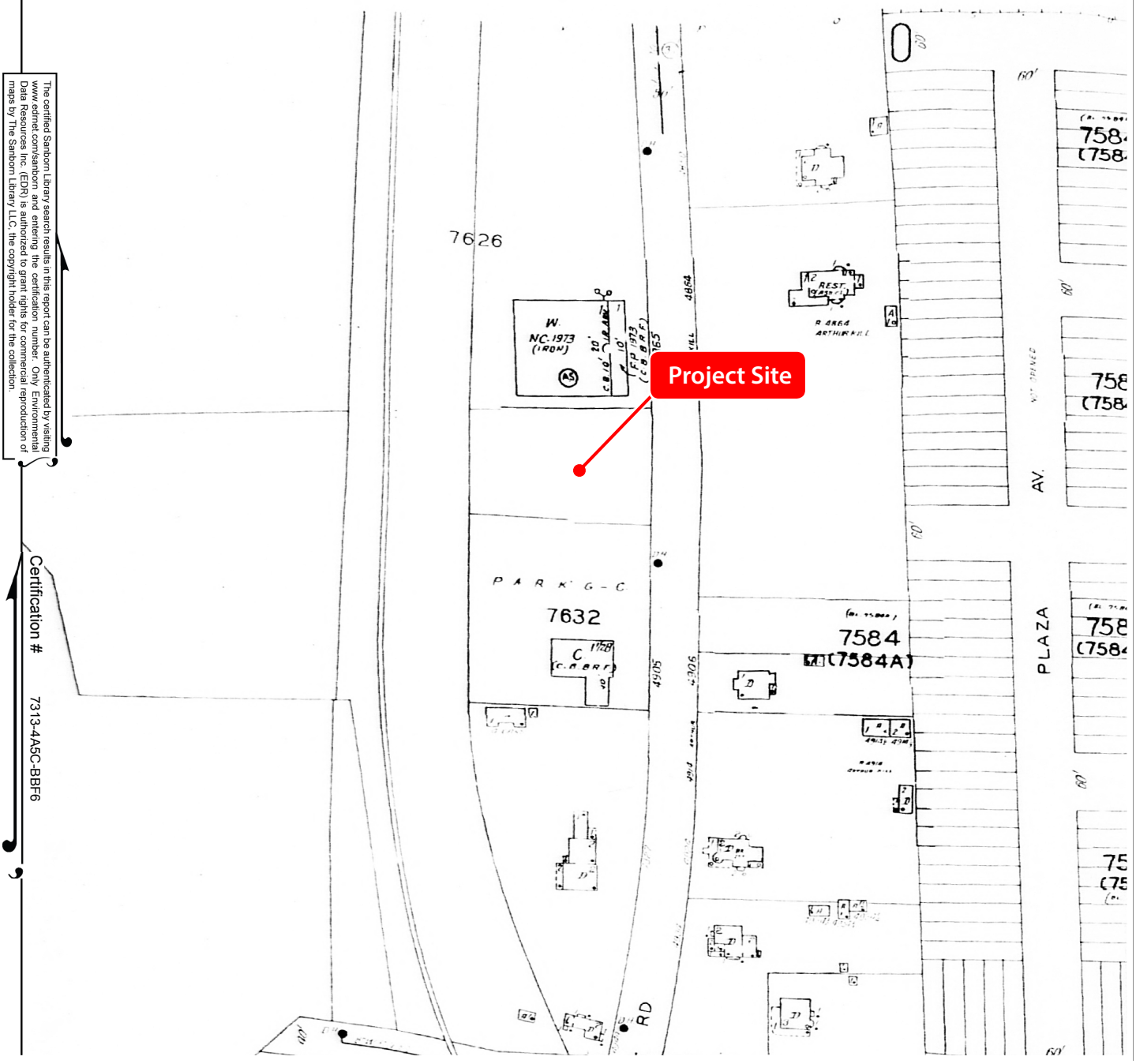

Source: EDR 2014 Certified Sanborn Map Report

Proposed Bridgeview Plaza
4895 Arthur Kill Road
Staten Island, New York

1977 Sanborn

Figure
9

Photograph 1

Looking W/NW at wooded project site and adjacent veterinary clinic parking lot. The roof of the boarding facility shows in picture left.

Photograph 2

Looking N from the project site toward the bottle distribution building on the adjacent lot.

Photograph 3

Looking E uphill from old railroad right-of-way toward the project site (left) and the veterinary clinic upper parking lot (right).

Photograph 4

Looking north on the east side of the project site showing the grass and adjacent brush clearing.

Photograph 5

Looking east in the south-west quadrant of the project site at the grassy area and adjacent brush clearing.

Photograph 6

Arrow points to the masonry footer or foundation corner (Feature 1).

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Field and Laboratory Methods and Results

The Phase I archaeological survey consisted of a walkover of the project site and shovel testing in two locations. The methods and results are summarized below.

Field and Laboratory Methods

Carol S. Weed and Mathew Sloane completed a judgemental walkover of the subject parcel on October 17, 2014. During that visit, the entire parcel was criss-crossed by the two surveyors. On November 3, 2014, Ms. Weed and three crew members returned to the project site and excavated seven shovel tests (Shovel Tests A1 through A5, B1, and B2); on November 12, Ms. Weed and one crew member returned and excavated Shovel Test B3. Shovel Tests A1 through A5, B2, and B3 were 20-inch (50-centimeter) square tests. Shovel Test B1 included two 20-inch square tests laid out against the south- and west-faces of Feature 1.

Shovel Tests A1 through A5 were set 30 ft from the curb line along Arthur Kill Road and were spaced 25 ft apart. Feature 1 was found about 84 feet north of an existing picket fence line. At this location, the existing slope terrace has been artificially cut eastward to create a bank cut similar to that resulting from a bank barn. Feature 1, a masonry feature, was the only structural element observed on the terrace cut. The shovel tests were placed adjacent to the feature on its south and west sides and off-set south and west from the feature to explore the terrace cut stratigraphy. Shovel Test B2 was set 25 ft south of Feature 1 on the terrace cut and Shovel Test B3 was 8 feet west of Feature 1. Shovel Test B3 was located at the west side of the terrace cut.

The matrix from the shovel tests was screened through ¼-inch hardware mesh. All excavation was controlled vertically by stratum. Shovel testing was terminated at various levels dependent on soil conditions and artifact recovery. The shovel tests were backfilled after documentation. In instances where artifacts were not retained after examination they were returned to the excavation before backfilling.

Artifacts recovered from shovel tests in the feature area were returned to the laboratory for processing. The glass artifacts were lightly covered with silty sand or sand and required minimal washing to dislodge the adhering dirt. The metal and stucco artifacts were air dried and then brushed with a clean paint brush to remove dirt.

Field and Laboratory Results

The surveyors observed the following conditions during their walkover and those conditions were visually captured on Photographs 1-5. The south side of the project parcel is delimited by a picket fence. On the south side, there is no fence but a slight rise in elevation which appears to coincide with the east edge of the original railroad spur ROW. The south and west sides of the project site have been cleared of native vegetation to create grassy areas for the veterinary clinic clients (Photographs 1, 3, 4, and 5). The resultant vegetation piles form berms composed of vegetation, dirt, and fallen trees. The berms lie between the grassy areas and the remainder of the project site to the north and east.

On the east side of the project site adjacent to Arthur Kill Road there is no indication of a driveway curb cut. The project site between the road curb and west for about 30 ft (9 m) is relatively flat and this appears to be the only section of the parcel that is superficially undisturbed. On the north side, there has been no clearing as on the south side. There is, however, a significant drop in elevation between the two parcels (Photograph 2). It is not clear if this is the result of filling on the north lot or cutting on the project site.

About 84 ft (56 m) north of the picket fence and 108 ft (33 m) west of the Arthur Kill Road curb cut, the project site slope has been cut to create a flat surface. The slope break is abrupt and similar in configuration to that resulting from a barn bank. The resultant artificial terrace measures about 50 ft (15 m) north-south by about 30 ft (9 m) east-west and it is disrupted on its east, north, and south sides. A masonry footer or foundation corner, termed Feature 1, was identified on the terrace (Photographs 6 through 8). Brick, scattered concrete fragments, and framing members including beam fragments were observed on the terrace and on the cut bank (Photograph 7). Glass bottles in the area of the building remnants included a marked bottle from “Hadkins, Tottenvillle NY”. This bottler was in operation from 1863 to 1950.

The Phase IA walkover in conjunction with the map reviews resulted in the identification of two areas of archaeological sensitivity. The first, designated Area A, is located on the eastern side of the project site on the 30-foot contour terrace adjacent to Arthur Kill Road (see Figure 3). The second area, named Area B, is the terrace cut that contains Feature 1. Area B was interpreted as the location of an historic shed shown on the 1917 Sanborn map (see Figure 3).

VHB recommended systematic shovel testing at 25- and 12-foot intervals in these two areas. The eventual shovel testing in Area A took the form of a single shovel test line off-set from the existing curb cut by 30 ft (9 m) in order to avoid residual disturbance adjacent to Arthur Kill Road. The line terminated in the north is disturbance. In Area B, a cruciform consisting of four shovel tests was proposed. However, this was modified during fieldwork because of disturbance north and east of Feature 1.

Eight shovel tests were excavated and their soil stratigraphy is summarized on Table 4 below.

Table 4. Bridgeview Plaza (VHB 29334), Shovel Test Summary

STP #	Depth inches (cm)	Soil Description	Artifact Summary
A1	0 -6 (0 – 17)	7.5YR 4/4 brn, sa si; grvl and peb w/ grass mat. Under mat, hard packed B horizon.	2 clear glass in mat (not kept)
A2	0 – 5.5 (0 – 14)	10YR 3/2 – 2/2 vry dk gr brn to vry dk brn, sa; roots, gravels	None
	5.5 – 24 (14 – 62)	10YR 5/6 with 10YR 3/2 mottles, si sa;	See Table 5

Table 4. Bridgeview Plaza (VHB 29334), Shovel Test Summary			
STP #	**Depth inches (cm)**	**Soil Description**	**Artifact Summary**
		disturbed, grvl and peb	
	At 24 (at 62)	10YR 6/2 lt brn gr, clay; increasing grvl and peb	None
A3	0 – 2 (0 – 4)	7.5YR 2.5/1 blk, organic mat w/ sa	2 clear glass (not kept)
	2 – 9 (4 – 23)	7.5YR 4/4 brn, cl sa; grvl, peb, cobbles with increasing consolidation. B horizon.	None
A4	0 – 4 (0 – 10)	10YR 2/1 blk, organic mat w/ sa	See Table 5
	4 – 19 (10 – 30)	7.5YR 4/6 strong brn, si sa; grvl and peb, consolidated	None
	At 19 (at 30)	10YR 6/4 lt yel brn, cl; grvl and peb, consolidated	None
A5	0 – 10 (0 – 14)	10YR 4/4 dk yel brn sa w/ heavy organic	See Table 5
	10 – 17 (14 – 30)	10YR 4/6 dk yel brn sa; grvl and peb	None
	17 – 20 (43 – 51)	10YR 5/6 yel brn sa; increasing grvl and peb with consolidation	None
B1 (2, 20-in square excavations)	0 – 13 (0 – 33)	10YR 5/6 yel brn sa; loose, uniform clean fill sand with artifacts, root, and a thin organic top mat	See Table 5
B2 (25 feet south of Feature 1)	0 – 24 (0 – 62)	10YR 5/6 yel brn sa; loose, uniform clean fill sand with artifacts, root, and a thin organic top mat	See Table 5
B3 (8 feet west of Feature 1)	0 – 9 (0 - 23)	10YR 2/1 blk to 10YR 3/1 vry dk gry si sa w/ organics; minor gravel	See Table 5
	9 - 20.5 (23 – 52)	10YR 3/6 dk yel brn sa with minor si; occasional gravel and pebble. Soil is very clean	None
	20.5 – 27 (52 – 68)	7.5YR 4/6 strong brn, clean sand	None

Key: Shade: Dk = dark; V = very
Color: Blk = black; Brn = brown; Yel = yellowish, yellow
Soils: Cl = clay; Sa = sand; Si = silt
Other: Grvl = gravel; Peb = pebbles; Rts = roots

Shovel Tests A1 through A5 had disturbed profiles which terminated in a highly gravelliferous soil stratum. This stratum appears to correspond to the Wethersfield soil series Bw1 and Bw2 strata. No artifacts were recovered from the stratum. The artifacts that were found came from the uppermost A horizon or an underlying mottled zone comprised of A and B soils. Observed and collected artifacts included clear and amber bottle glass and asphalt including asphalt concrete (Table 5).

Table 5. Bridgeview Plaza (VHB 29334), Shovel Test Summary						
Shovel Test	**Stratum**	**Class**	**Type**	**Desription**	**Part**	**Count**
A2	I	Glass	bottle	amber	body	2

Table 5. Bridgeview Plaza (VHB 29334), Shovel Test Summary						
Shovel Test	**Stratum**	**Class**	**Type**	**Desription**	**Part**	**Count**
A2	I	Glass	bottle	clear	body	1
A2	I	Infrastructure	asphalt	n/a	n/a	1
A2	I	Infrastructure	asphalt concrete	n/a	n/a	1
Subtotal, A2						5
A4	I	Glass	bottle	amber	body	1
A4	I	Glass	bottle	amber	base	1
Subtotal, A4						2
A5	I	Glass	bottle	clear	body	1
A5	I	Infrastructure	asphalt	n/a	n/a	1
Subtotal, A5						2
Total, Area A						**9**
B1	I	Glass	flat	green, light	sheet	14
B1	I	Metal	iron	strapping	fragment	1
B1	I	Glass	bottle	clear	body	4
B1	I	Glass	bottle	aqua	body	1
Subtotal, B1						20
B2	I	Metal	iron	spike	whole	1
B2	I	Metal	iron	strapping	fragment	1
B2	I	Architecture	stucco	n/a	fragment	4
B2	I	Glass	jar	clear	rim/neck, screw	1
B2	I	Glass	jar	clear	neck/shoulder	1
B2	I	Glass	vessel	clear	body	24
B2	I	Glass	flat	green, light	sheet	3
B2	I	Faunal	shell	clam	whole	2
B2	I	Faunal	shell	oyster	whole	4
B2	I	Metal	iron	weight	fragment	2
B2	I	Metal	iron	strapping	fragment	1
B2	I	Metal	iron	unidentified	fragment	1
Subtotal, B2						45
B3	I	Metal	iron	screw	head w/ partial shaft	1
B3	I	Metal	iron	staple, 1-inch	whole	1
B3	I	Architecture	brick	n/a	fragment	1
B3	I	Architecture	stucco	n/a	fragment	1
B3	I	Glass	flat	green, light	sheet	7
B3	I	Glass	bottle	clear, "O"	body	1
Subtotal, B3						12
Total, Area B						**77**
Total, All Areas						**86**

Except for an organic rich A horizon, the observed strata at and near Feature 1 in Area B appear to be clean sand and silty sand deposits. These soils were literally beach sand in consistency with few gravels and pebbles. The excavations in Shovel Tests B1 through B3 were terminated between 13 and 27 inches (33 and 68 centimeters) below surface and no intact, natural soil strata were encountered. The two lower strata in Shovel Test B3 appear to be clean fill layers (Photograph 9). The sand was friable, unconsolidated and has minimal natural inclusions of any type. The overlying stratum, present in all three 'B' shovel tests contained building debris in the form of flat glass and stucco chunks (see Table 5) in addition to a few fragments of bottle glass and miscellaneous metal objects. The latter included metal strapping, a large staple, a weight, a screw, and a large spike. No nails were found. A small number of whole clam and oyster shells were recovered from Shovel Test B2 but they were not heat modified.

Feature 1 proper is interpreted as a support column or footer of some type (Photographs 10 and 11). Constructed of brick and mortar, the feature consists of six courses of bonded brick. In plan outline, the feature is 'L' shaped with the short arm oriented north-south on the east side of the element. Unmodified stone was found at the foot of the feature on its south-facing side (Photographs 10 and 11) but there was no footer trench that could be discerned in the soft sand fill that encapsulated the feature on its south and west sides.

The associated artifacts recovered from the fill adjacent to the feature and in Shovel Tests B2 and B3 provide few functional clues. Stucco was recovered from all three tests as was flat glass but there was a marked absence of nails.

Photograph 7

Looking east from vicinity of Shovel Test B3 at Feature 1. Shovel Test B2 is to picture right.

Photograph 8

Looking north at south face of Feature 1.

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Views of Project Site and Study Area

Photograph 9

East wall of Shovel Test B3

Photograph 10

South wall of Feature 1. The brick to picture right is resting on ground.

Photograph 11

West wall of Feature 1.

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Conclusions and Recommendations

On the basis of contextual and background research and the results of the field investigations, VHB recommends no further archaeological work at the proposed Bridgewater Plaza. The data are insufficient to address the research questions concerning shoreline modification and site types.

The site file research revealed that the Project is located in an Area of Archaeological Sensitivity as defined by OPRHP. The sensitivity assignment is partially attributed to the reported presence of archaeological sites NYSM 770, 771, 4604 (OPRHP 08501.002627), 4606, 4620 (also OPRHP 08501.002627), and 8493. These sites were reported as shell middens, shell heaps, and camps.

The project site has been affected by historic events. The lot's west side was modified to accommodate part of the Staten Island Rapid Transit spur line right-of-way. Its south side was modified to create a grassy border while the east side has been affected by routine maintenance along Arthur Kill Road. The north side of the lot may have been recontoured as it is significantly lower than the adjacent lot to the north.

Finally, the small shed shown on the 1917 Sanborn Insurance Map appears to have been built in a re-contoured section of the project site's mid-slope. This terrace cut, termed Area B herein, contained Feature 1. Feature 1 is a masonry building element which is either a footer or a foundation section. Shovel tests adjacent to the feature and within the flat terrace found clean fill had been emplaced on two sides of the features and in the south and west sections of the terrace cut. The upper stratum in each shovel test contained window pane glass, bottle glass, stucco fragments, and miscellaneous metal objects including a railroad rail spike, a staple, a screw, and metal strapping. No building nails or tacks were recovered but dressed wood beams were noted on the surface.

Based on historic maps, the shed was removed sometime between 1925 and 1937. Other building debris in the area may be the result of the demolition of another outbuilding and this event, again based on historic maps, occurred between 1963 and 1977.

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