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Geismar 2005

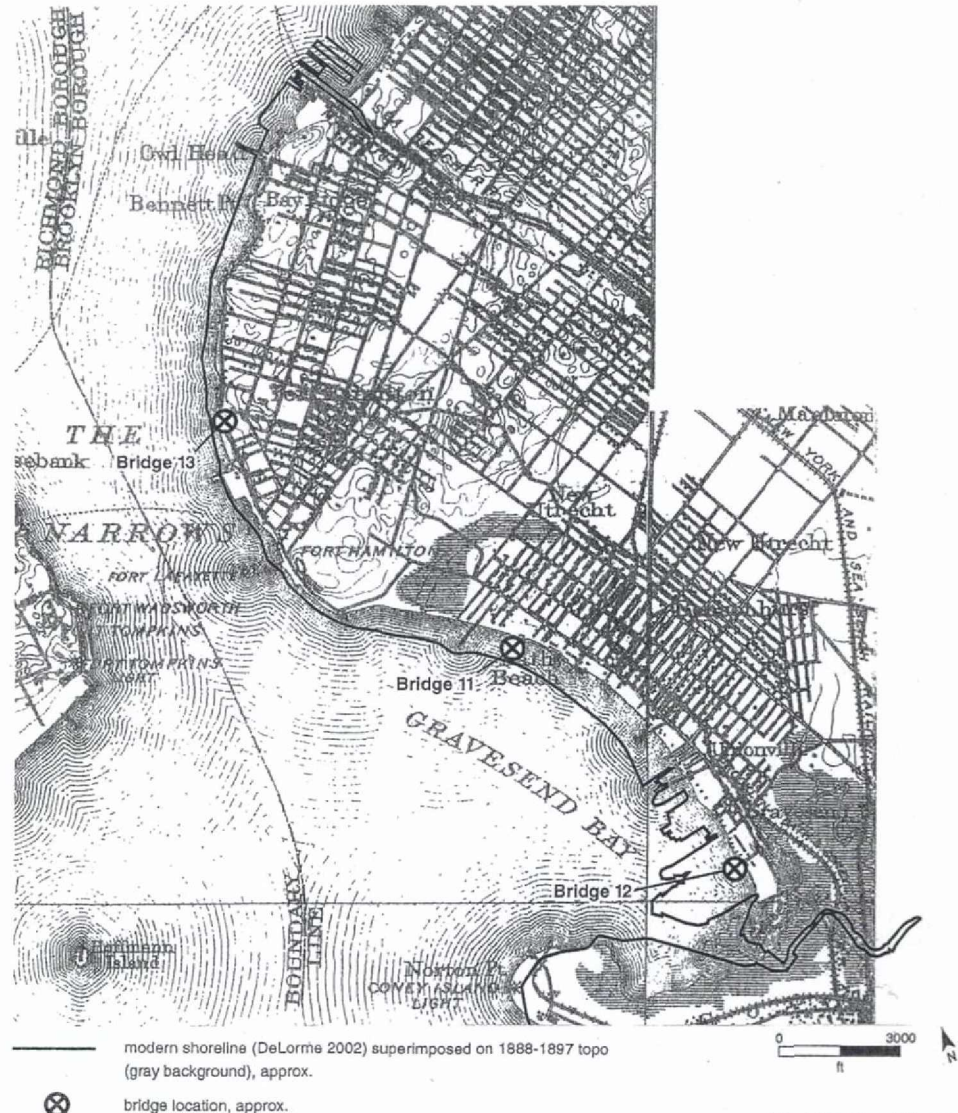
1A Archaeological Assessment of Three Bridges Shore (Belt) Parkway, Brooklyn, New York

Bridge #11 – 17th Avenue Pedestrian Bridge

Bridge #12 – 27th Avenue Pedestrian Bridge

Bridge #13 – 92nd Street Pedestrian Bridge

Composite 1888-1897 Map and Modern Shoreline, Approximate



MARCH 2005

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LANDSCAPE ARCHITECTURE – SITE PLANNING – URBAN DESIGN



McGinley Kalsow
& Associates LLP
ARCHITECTS & PRESERVATION PLANNERS

1A Archaeological Assessment of Three Bridges Shore (Belt) Parkway, Brooklyn, New York

Bridge #11 - 17th Avenue Pedestrian Bridge

Bridge #12 - 27th Avenue Pedestrian Bridge

Bridge #13 - 92nd Street Pedestrian Bridge

Prepared by Joan H. Geismar, Ph.D.
March 2005

ABSTRACT

This report presents the findings of 1A background research carried out to assess potential archaeological sensitivity where three pedestrian bridges will be replaced or reconstructed on the Shore (Belt) Parkway in western Brooklyn (Kings County), New York. It was prepared for the New York City Department of Transportation (NYCDOT) through McGinley Kalsow & Associates LLP of Somerville, MA to fulfill a requirement of the project's environmental review. Designated Bridge 11, Bridge 12, and Bridge 13 for this project, all three bridges currently span the Shore (Belt) Parkway. Two are located on land reclaimed from Gravesend Bay, and the third on enhanced and disturbed shore. Although research did not reveal any obvious prehistoric or historic-era archaeological potential, it is possible that conditions prior to the inundation caused by rising sea levels that accompanied deglaciation may have been more amenable to human use or occupation. Shell middens or other cultural features, remnants of past use by prehistoric populations, or peat deposits indicative of former, deeply buried land surfaces, could remain under fill. If so, long-buried prehistoric resources might be an issue. Therefore it is recommended that a qualified archaeologist review and assess construction-related soil boring data from each bridge site when they are available.

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INTRODUCTION

This report presents the findings of 1A background research carried out to assess potential archaeological sensitivity where three pedestrian bridges will be replaced or reconstructed on the Shore (Belt) Parkway in western Brooklyn (Kings County), New York (Figure 1). Intended to fulfill a requirement of the project's environmental review, Joan H. Geismar, Ph.D. prepared the report for the New York City Department of Transportation (NYCDOT) through McGinley Kalsow & Associates LLP of Somerville, MA. All three pedestrian bridges, designated Bridge 11, Bridge 12, and Bridge 13 for this project, currently span the Shore (Belt) Parkway adjacent to or near the waters of the New York Bight. Bridge 12 in Gravesend, the most southerly of the three, and Bridge 11 in the Bath Beach section, about a mile to the north, are located near or at Gravesend Bay. Bridge 13 in Fort Hamilton, further north, overlooks the Narrows that separate Brooklyn from Staten Island and New York's Upper and Lower Bay.

The proposed undertaking, in the design stage at this writing, entails replacement of Bridge 11 and Bridge 12 and reconstruction of Bridge 13 reusing its existing eastern access and bridge abutments. The research goal was to determine the impact, if any, that the undertaking will have on archaeological resources listed, or eligible for listing, in the State and National Registers of Historic Places. Most often the guidelines for assessments of archaeological resources are those stated in Criterion C of the National Park Service's criteria for inclusion in the National Register. This criterion considers sites or resources that have yielded, or may be likely to yield, information important in history or prehistory.

METHOD

Using documentary resources (historical maps, park and parkway construction maps and records from the archives of the City of New York Parks and Recreation, published and unpublished histories and reports, and park records and archives to name a few), the goal was 1) to assess the potential archaeological sensitivity of the three bridge sites (as noted above, identified as Nos. 11, 12, and 13) and, 2) to produce an illustrated report of the findings suitable for agency review. Among the unpublished reports that were researched were those on file at the New York City Landmarks Preservations Commission (Gimigliano 1983; Gimigliano and Church 1980; Pickman 1987), the Army Corps of Engineers (Panamerican 2003), and a report and addenda by Historical Perspectives made available through McGinley Kalsow & Associates LLP (Historical Perspectives 2001, 2000, 1997). This was in addition to published histories, archaeological literature, and Internet sites cited in the text. Maps and other data were obtained from the New York Public Library, the Municipal Archives, the Topographical Bureau of the Brooklyn Borough President's Office, the Geography and Map Division of the Library of Congress, and the Kings County Register's Office as well as other sources cited in the text.

For this study, the area of Potential Effects (APE) includes those places where impact will occur as a consequence of the proposed construction. This includes the direct impact of construction and the indirect impact of its implementation. Two of the three pedestrian bridges are located on former land under water and one on enhanced shore below a ridge (see Geology and the Modern Terrain below). As discussed below, these are settings that generally negate the possibility of finding intact prehistoric sites or any significant historic-era structures except possibly those associated with the landfill process. That said, the following report sections describe existing

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Project Locations (Bridges 11, 12, 13) (USGS DeLorme 2002, Brooklyn & Coney Island
Quadrangles)

1



conditions documented on a February site visit and through research as well as relevant development and relevant historical considerations.

Since designated bridge numbers are not successive (as noted above, No 12 is the most southerly, 11 is directly north, and 13 is the most northerly), and since site-related information is presented from south to north within each section, the bridge and site numbers in the following sections are not consecutive but are consistent.

EXISTING CONDITIONS

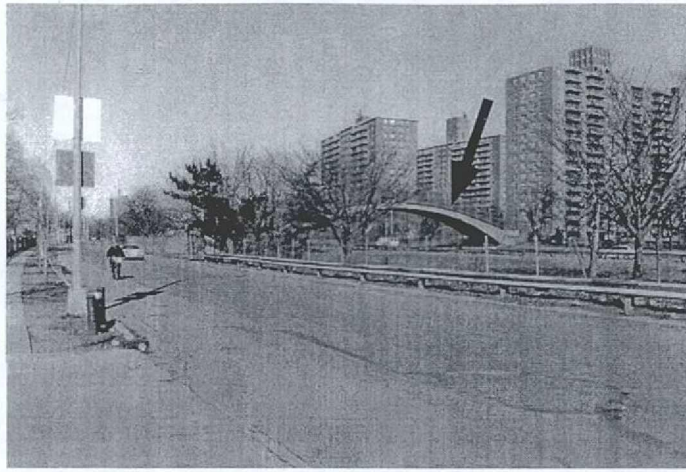
A site visit on February 11, 2005, a beautiful, clear day, provided the opportunity to photo document the three extant pedestrian bridges, all of them erected between 1938 and 1939, as well as the potential areas of impact (see Figure 1 for locations). A selection of photos accompanies the text that describes each site. All three bridges were included in the Robert Moses plan for the Shore (Belt) Parkway in the 1930s and are, therefore, components of the original parkway scheme. However, only two, Bridge 11 and Bridge 12, which are of similar design, were built under the original parkway contract. Erected by others, Bridge 13 has a totally different configuration. It should be noted that an assessment of the parkway's vehicular bridges located beyond (east of) the project area was carried out in 1997. That study, which did not include any pedestrian bridges, found only one of the assessed vehicular bridges possibly historically significant (Stewart in Historical Perspectives 1997: Addendum A).

Bridge 12

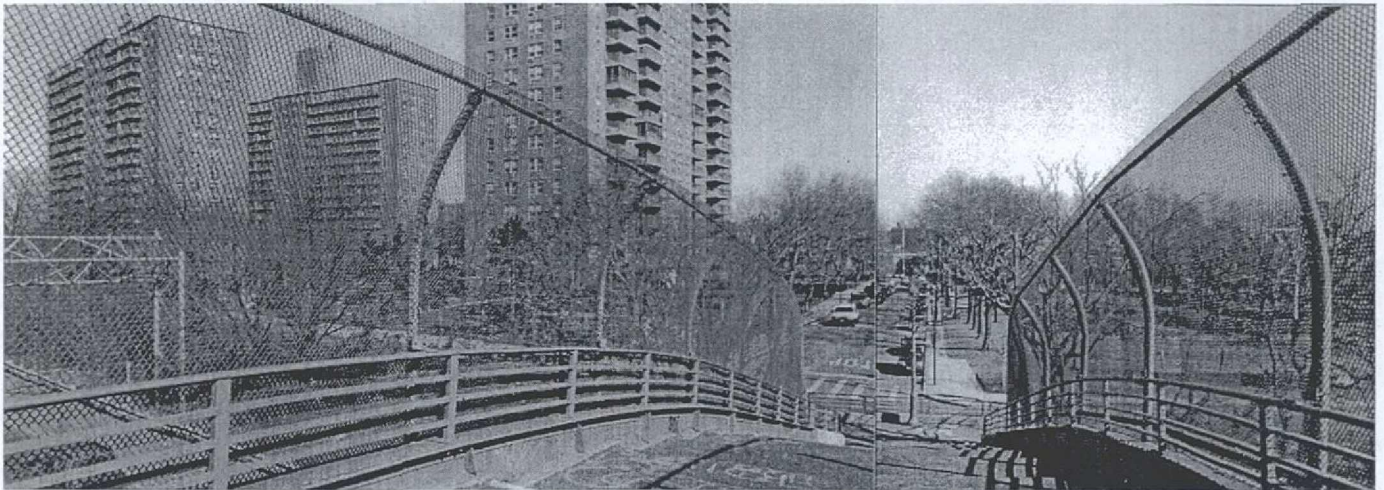
The arched span of Bridge 12 links the Shore (Belt) Parkway's north and south service roads at 27th Avenue in Gravesend (Figures 2 to 4). The bridge provides access to the west side of the parkway where commercial properties and social institutions are now located on land reclaimed from Gravesend Bay. The Brooklyn School for Special Children, small yacht clubs, and a Verizon telephone facility are among the establishments scattered in low-rise structures on the west side of the parkway. The bridge also links the Dreier-Offerman Playground on the east side of the parkway with the extensive playing fields of the Dreier-Offerman/Calvert Vaux Park on the west side near Gravesend Bay. The playground, a city park bounded by 27th Avenue, Cropsey Avenue, Bay 46th Street, and Shore Road, the parkway's northbound service road, was formerly the site of the German Home for Recreation of Women and Children. A 1982 newspaper article described The Dreier-Offerman Park on Gravesend Bay, as "34 acres of park and playground that once was a landfill," or, more succinctly, a "former dump," its fill the debris from construction of the Verrazano-Narrows Bridge (NY Times 1982). Now all 73-plus acres are parkland (Mattero 2001).

Bridge 12 is the only one of the three pedestrian bridges in this study not situated near the shore. Instead, it is separated from the waters of Gravesend Bay by the aforementioned stretch of reclaimed land, filled in stages, with much of its current configuration created from the debris of excavations, some of it related to construction of the Verrazano-Narrows Bridge that began in 1959 and opened in 1964 (e.g., USGS 2003; Mattero 2001; Jackson 1998:7).

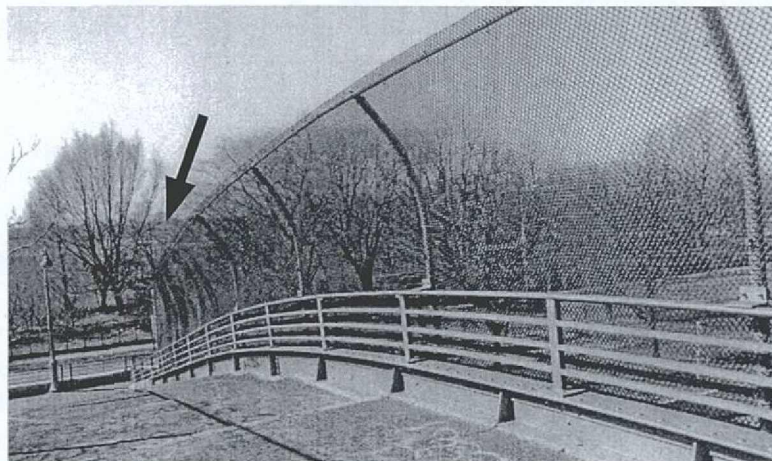
Before land reclamation occurred, what became the Dreier-Offerman Playground was situated on Gravesend Bay off Harway Avenue, widened and renamed Cropsey Avenue in this area after 1924



2 View of Bridge 12 (arrow) looking northeast across the Shore (Belt) Parkway toward the Contello Towers apartments (Geismar 2/11/05)



3 Composite view across span of Bridge 12 looking east toward the Dreier-Offerman Playground (right side of photo) on the south side of 27th Avenue. The Contello Towers apartments are to the left. (Geismar 2/11/05)



4 View west from Bridge 12 looking in the direction of Gravesend Bay. Reclaimed land (arrow) separates the bridge from the bay. (Geismar 2/11/05)

1924 (File Map L599 1924). Formerly a private home, the residential buildings became a seaside institution in 1899 (e.g., Brooklyn Daily Eagle 1901; Hyde 1899). Dorothy A. Dreier, who had bought the property the previous year, sold it to the German Home for one dollar in 1899 (Liber of Deeds [LD] 6:477; Figure 5). Initially, the home apparently flourished (e.g., Brooklyn Daily Eagle 1901).

It is possible that Dorothy Dreier had a personal connection to the home: on June 6, 1898, Mrs. Theodore Dreier, possibly Dorothy A., and the children of Henry Offerman turned the property and home into a memorial to Theodore Dreier, Henry Offerman, and Lena Maria Offerman, his wife (Plaque N.D.). In 1933, more than likely in anticipation of the parkway's construction, and perhaps of the land reclamation that would shift its site inland, the German Home donated the vacant property to the city for a park (e.g., cited in City Planning 1944; Figures 6 and 7). A *New York Times* article mentions a Halloween party to be held in the Dreier-Offerman Park that indicates the city had opened what is now the playground, by October 1935, when the Shore (Belt) Parkway was still in the planning stage (NY Times 1935). Across from the playground today, and dominating the skyline to the north, are the Contello Towers, a complex of three large, high-rise co-op and rental apartments erected between 1959 and 1963 (Sanborn N.D. [current] Vol. 12:19; Jackson 1998:3; see Figures 2 and 3).

Gravesend was settled in 1643 by Deborah Moody, an English woman, when New Netherland was under Dutch rule. At the time, she was seeking a haven for her Anabaptist followers, but, after its founding, Gravesend was tolerant of many religions. Soon after Gravesend was established, the Dutch founded five towns on Long Island: Breuckelen, or Brooklyn, in 1646, New Amersfoort, now Flatlands, in 1647, Midwout, or Flatbush, in 1652, New Utrecht in 1657, and Bostwijk, or Bushwick, in 1661 (e.g., Jackson 1998:xix). Despite its early beginnings, Gravesend remained rural throughout most if not all the 19th century (e.g., Beers 1873; Figure 8). This began to change with the introduction of public transportation in 1875, and it increased as these transportation facilities improved (Jackson 1998:142). However, Gravesend's pre-1900 development is not germane to the Bridge 12 site since it remained land under water until construction of the Shore (Belt) Parkway in the late 1930s (for example, see Hyde 1929; Vol. 4 Plate 185; Figure 9; also see The Shore (Belt) Parkway below).

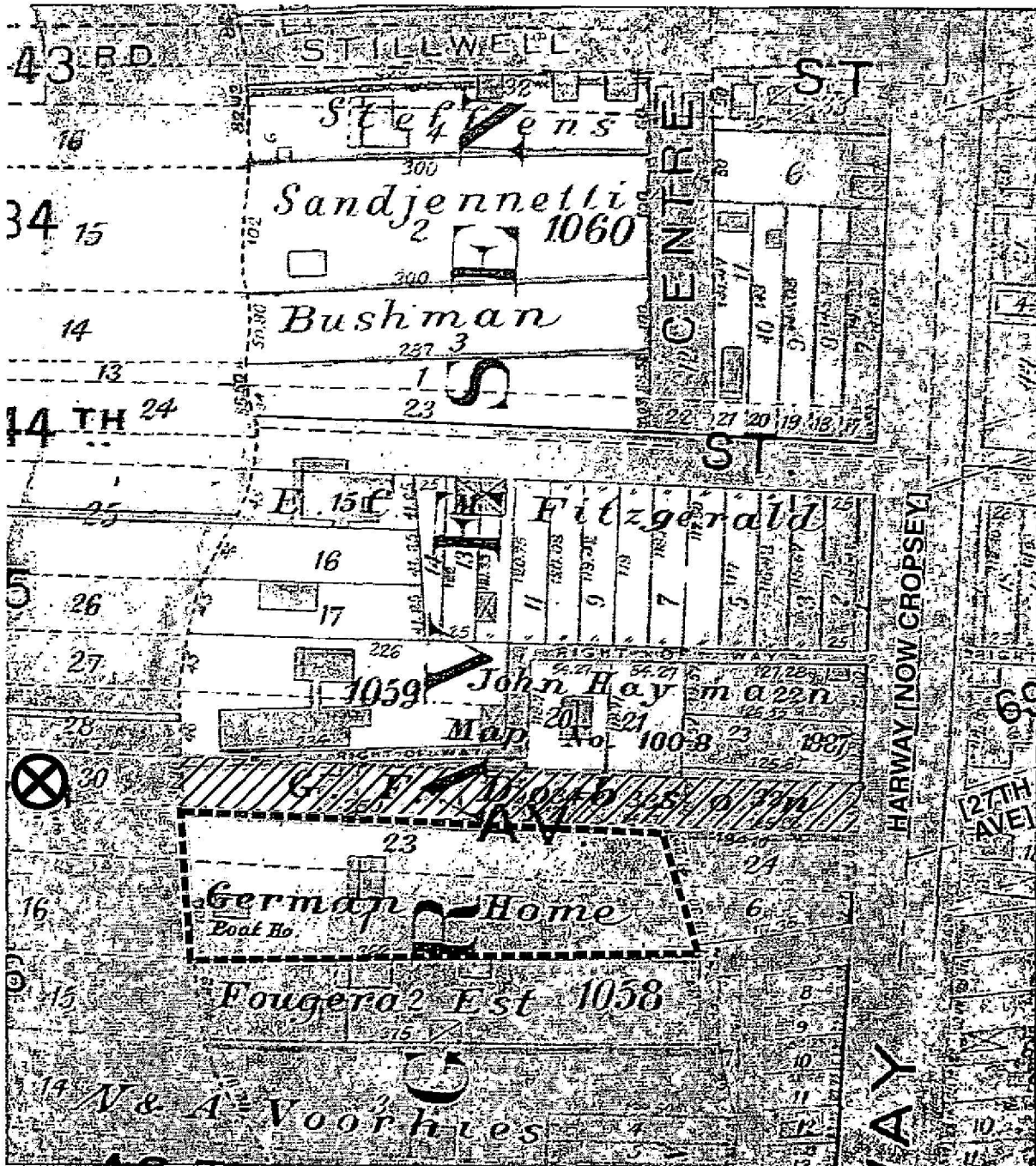
Perhaps the most historical connection to both Bridge 11 and Bridge 12 to the south was to a man and an event. In 1895, Calvert Vaux, a 70-year-old British-born architect, drowned between these two bridge sites, not far from his son's Bensonhurst home where he was staying. Together with his partner Frederick Law Olmsted, Vaux was the designer of four of New York City's great parks: Central Park and Morningside Heights in Manhattan and Prospect Park and Fort Greene Park in Brooklyn.¹ According to newspaper accounts, his apparent suicide occurred on Tuesday, November 20, 1895 (NY Times 1895a; Brooklyn Daily Eagle 1895a). His body was recovered from the bay at Bath Beach near Bay 17th Street the next morning (NY Times 1895b; Brooklyn Daily Eagle 1895b), that is, in the vicinity of the future site of Bridge 11 at 17th Avenue. It is for this talented, tragic figure that the expanded Dreier-Offerman Park, now comprising over 75 reclaimed acres, was renamed in 1998 (Mattero 2001).

¹ Fort Greene Park, originally created as Washington Park in 1848, was redesigned by Olmsted and Vaux in 1867 and renamed Fort Greene Park in commemoration of an earthen fort rebuilt on the site after the Revolutionary War. It was partially redesigned at least three more times, perhaps most famously by Stanford White of McKim Mead and White in 1905 (e.g., Geismar 2005).

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 12 Location 1899 (Hyde 1899: Plate 2)

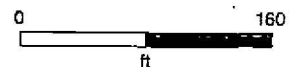
5



future bridge location, approx.



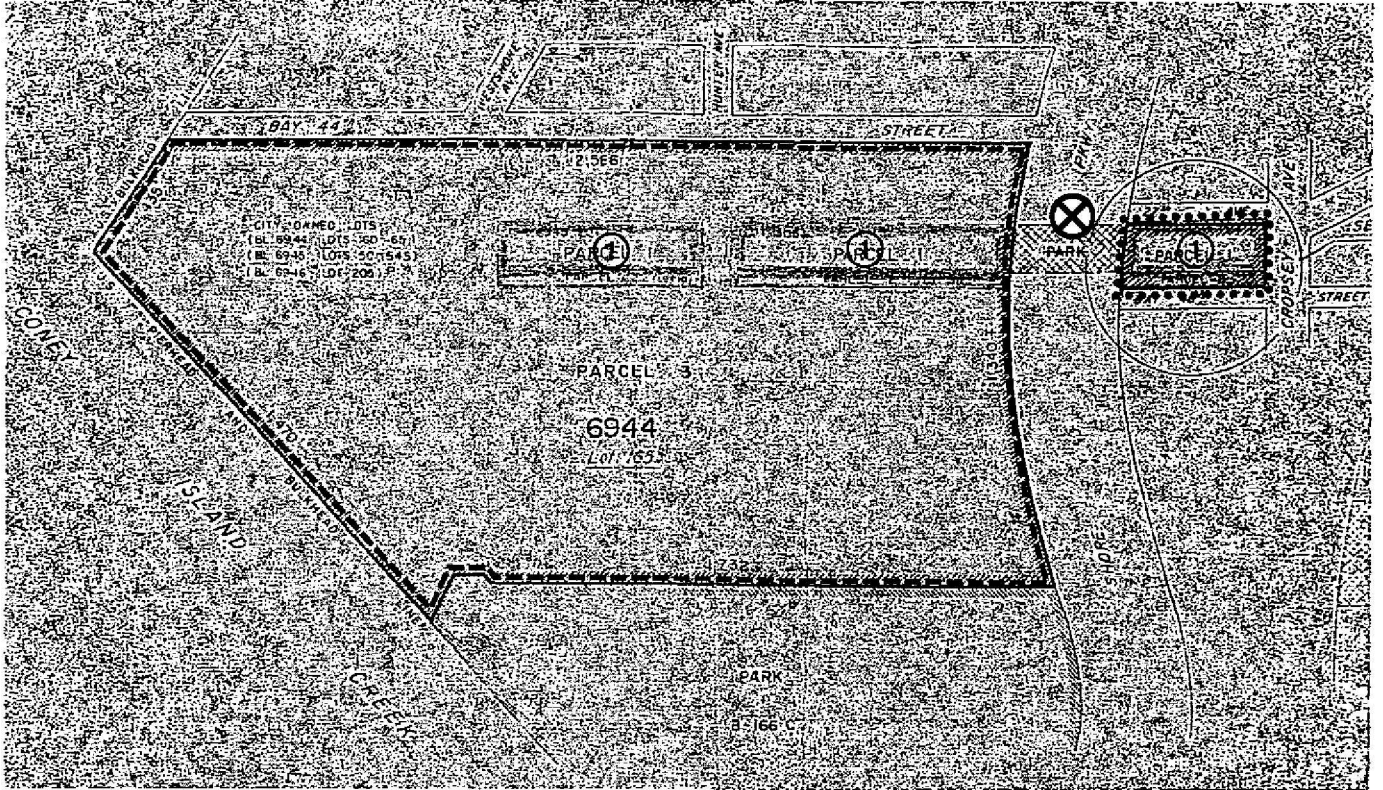
future 27th Avenue



SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 12 in Relation to Proposed Parklands (Parks 1933)

6



future bridge location



1933 park acquisition as a gift



partly Dreier-Offerman Park, now Calvert Vaux Park



now Dreier-Offerman Playground

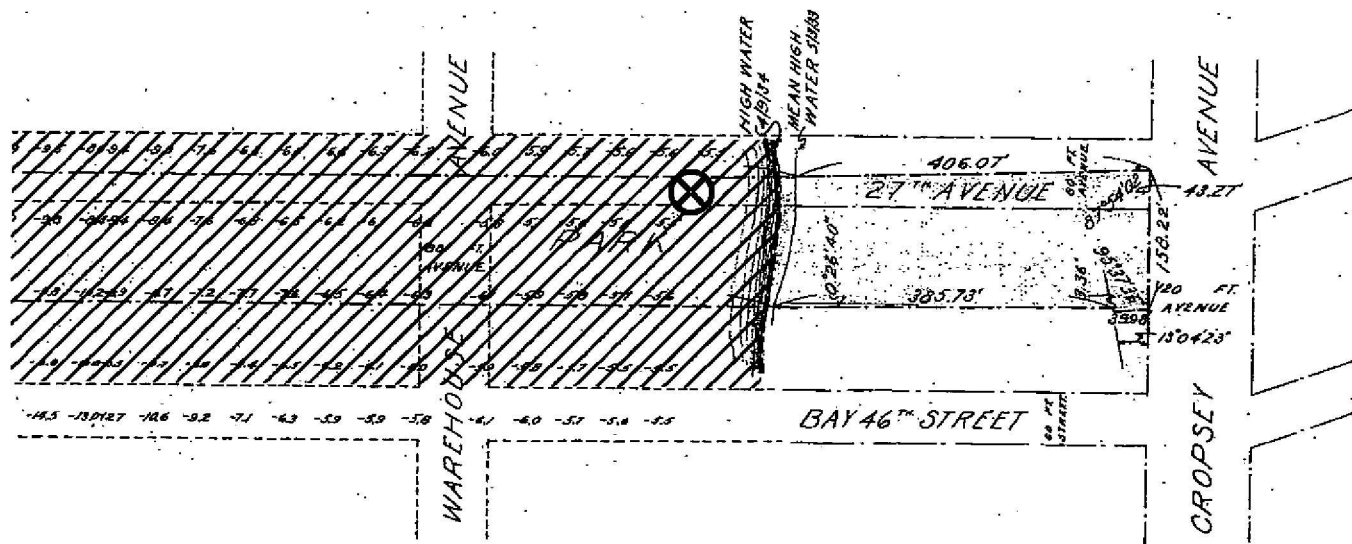
no scale
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SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 12 Location 1934 (Parks 1934)

7



future bridge location, approx.

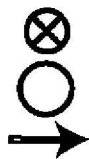


high water 1934



water



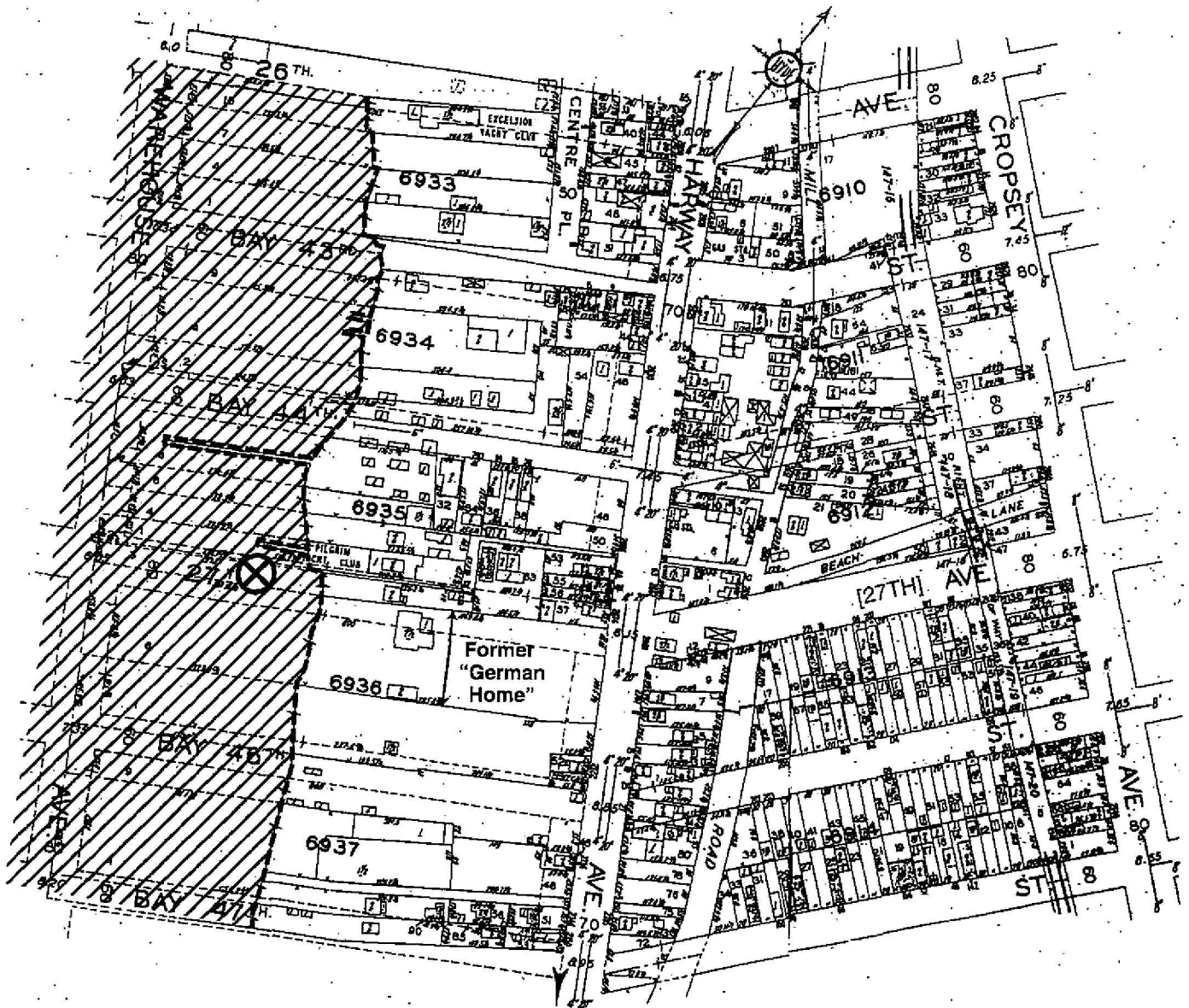


Indian Pond

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 12 Location 1929 (Hyde Vol. 4 1929: Plate 185)

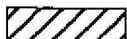
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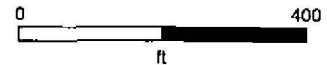
future bridge location, approx.



water line



water



Bridge 11

Bridge 11, an arched span almost identical to Bridge 12, overlooks Gravesend Bay at 17th Avenue in the Bath Beach section of what was originally the Dutch town of New Utrecht, an area that remained rural throughout much of the 19th century (e.g., Beers 1873; Figure 8). The bridge is adjacent to a residential neighborhood of one to four story homes and garden apartments that, at the turn of the 20th century, was a summer retreat for the wealthy (the nearby Dyker Beach Golf Course is a remnant of that phase of its development). The Bath Playground, another New York City playground, is situated east of the parkway's service road at 17th Avenue. The bridge allows pedestrian access to a waterside esplanade on the west side of the parkway that extends north to Fort Hamilton and Bay Ridge (Figures 10 and 11).

Bath Beach, was recognized as a distinct Brooklyn neighborhood after the elite "discovered its beautiful shore" at the turn of the 20th century (Jackson 1998:1). In addition to being a haven for the rich, it developed into a family resort once public transportation became available. Besides its shore, attractions included an amusement park built by the Ulmer Brewery in 1893. A residential community that had developed around the amusement park persisted after it is said to have closed in 1899 (Jackson 1998:2).² Another attraction was Captain's Pier at the foot of Bay 19th Street, apparently where, as discussed previously, Calvert Vaux took his life by drowning in 1895.

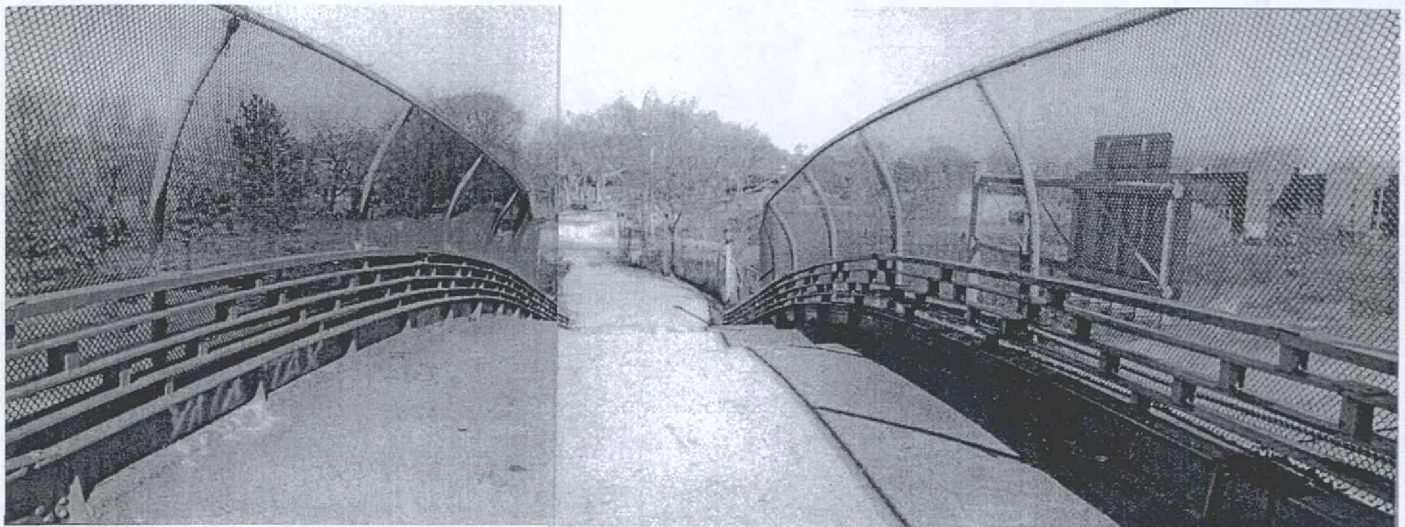
Like Bridge 12, until construction of the Shore (Belt) Parkway, the site of Bridge 11 was land under water (for example, see Hyde 1929; Figure 12; also see The Shore (Belt) Parkway below). Therefore, any history directly associated with the bridge begins with the filling of an embayment to expedite the parkway's construction in 1938-1939.

Bridge 13

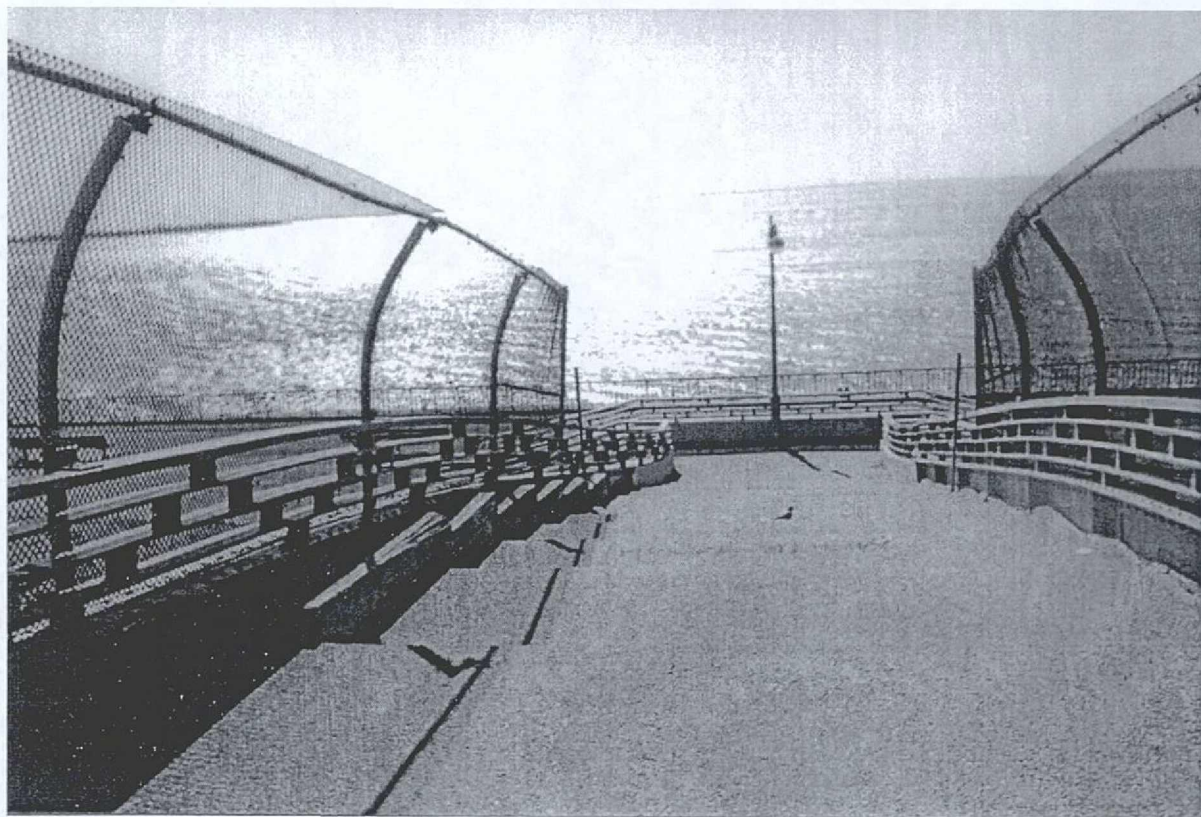
Bridge 13 spans the Shore (Belt) Parkway at 92nd Street in Brooklyn's Fort Hamilton section (considered by some to be Bay Ridge). Also originally part of the Dutch town of New Utrecht, Fort Hamilton commands a beautiful view of the Upper Bay, the Narrows, and the Verrazano-Narrows Bridge. Opened in 1964, the bridge was undoubtedly a looming addition to the landscape beginning in the early 1960s. As mentioned previously, the design of Bridge 13 differs from the others in this assessment. Drawings date its construction to 1939, about a year later than the other two bridges. Below Shore Road, a stepped walk, which gradually descends the ridge that gives Bay Ridge its name, provides access to the bridge (Figures 13 to 16). This ridge is part of Shore Road Park that runs along the waterfront from Owl's Head Park to Fort Hamilton.

New Utrecht's history began in 1652 with the Dutch West India Company's acquisition of land from the Noyack, or Nyack, Indians (Jackson 1998:4). As noted, Bay Ridge and Fort Hamilton, like Bath Beach, were initially part of this Dutch Town. Originally identified as Yellow Hook by its early settlers, this section was unofficially renamed Bay Ridge sometime between 1845 and 1855 (Bangs 1912:71).

² According to newspaper articles and a 1922 Sanborn insurance map, Ulmer Park remained at Bay 25th Avenue and Harway Avenue at least into the 1920s (Hyde 1922:Plate 93; e.g., Brooklyn Daily Eagle 1902; NY Times 1899).



10 Composite view of Bridge 11 looking east toward the Bath Playground in Bath Beach. (Geismar 2/11/05)

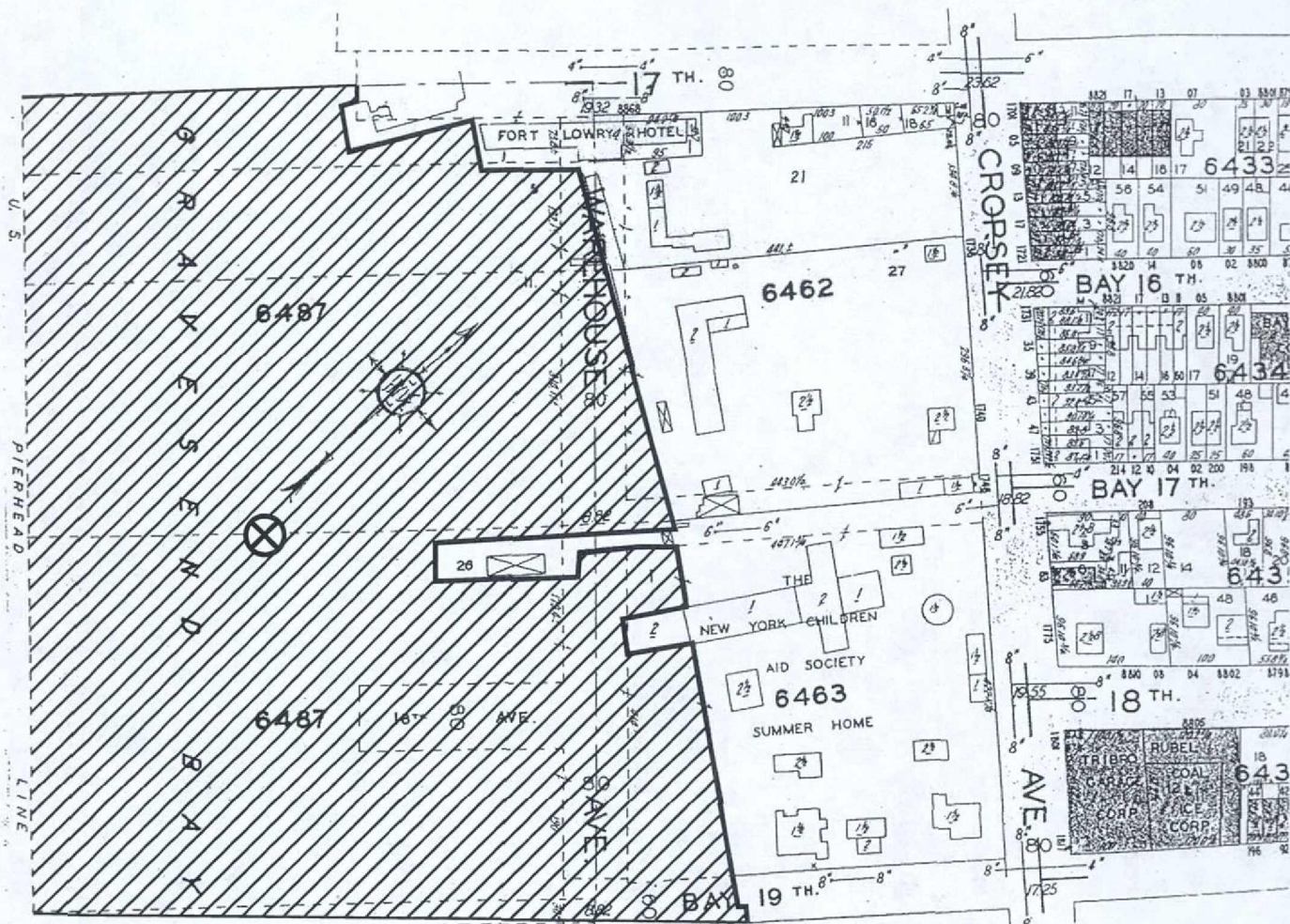


11 View across Bridge 11, looking west toward Gravesend Bay and an esplanade located along the water in this area. (Geismar 2/11/05)

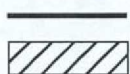
SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 11 Location 1929 (Hyde Vol. 3 1929: Plate 83)

12

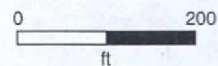


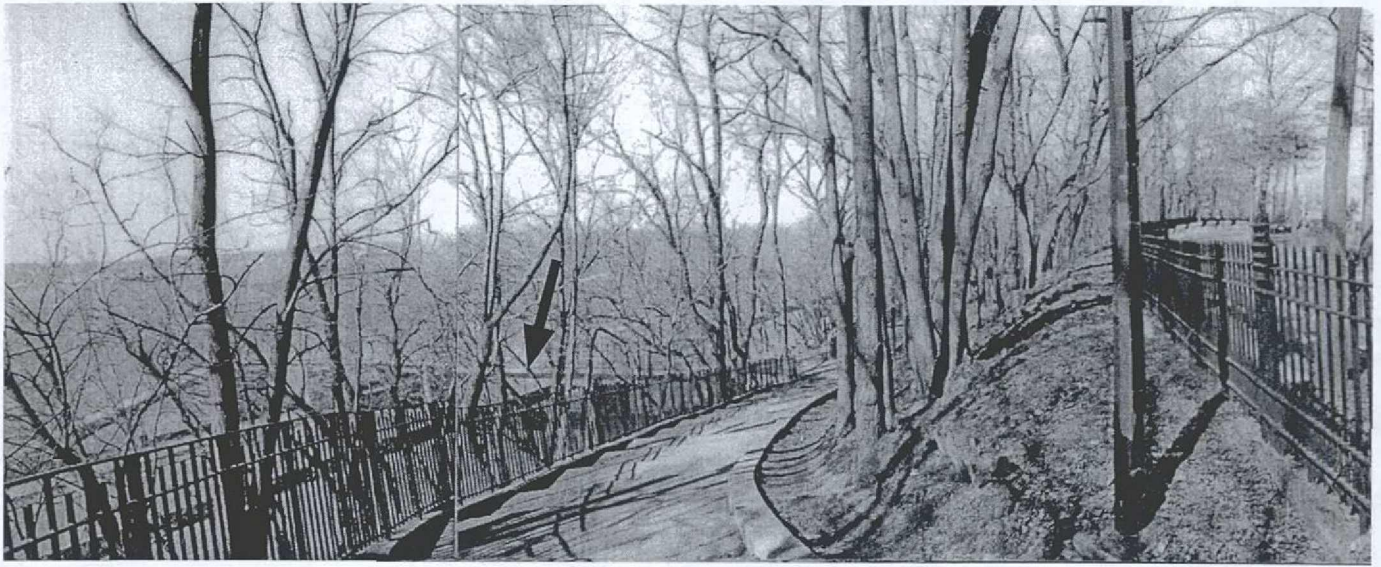
future bridge location, approx.



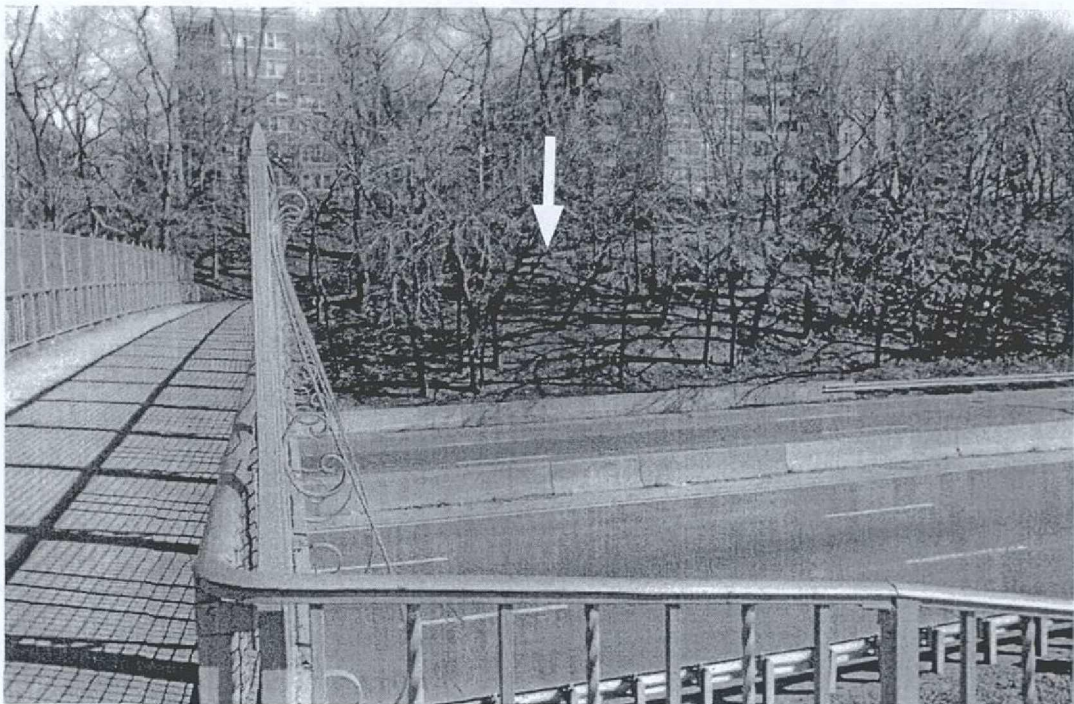
shore 1929

water

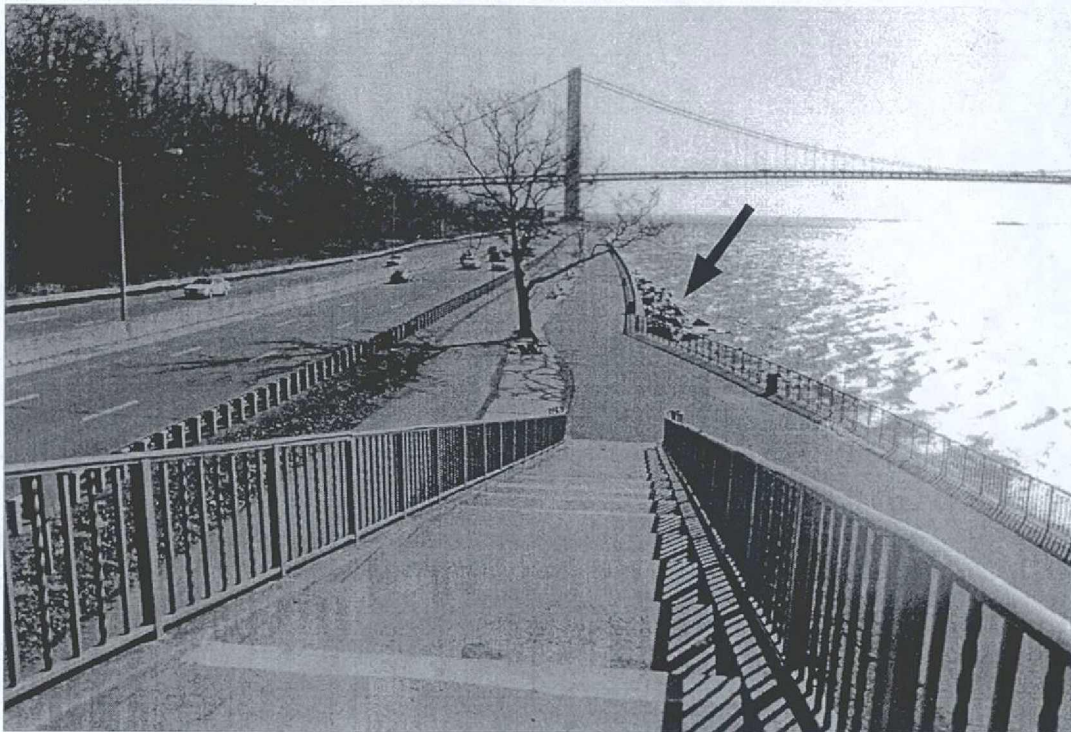




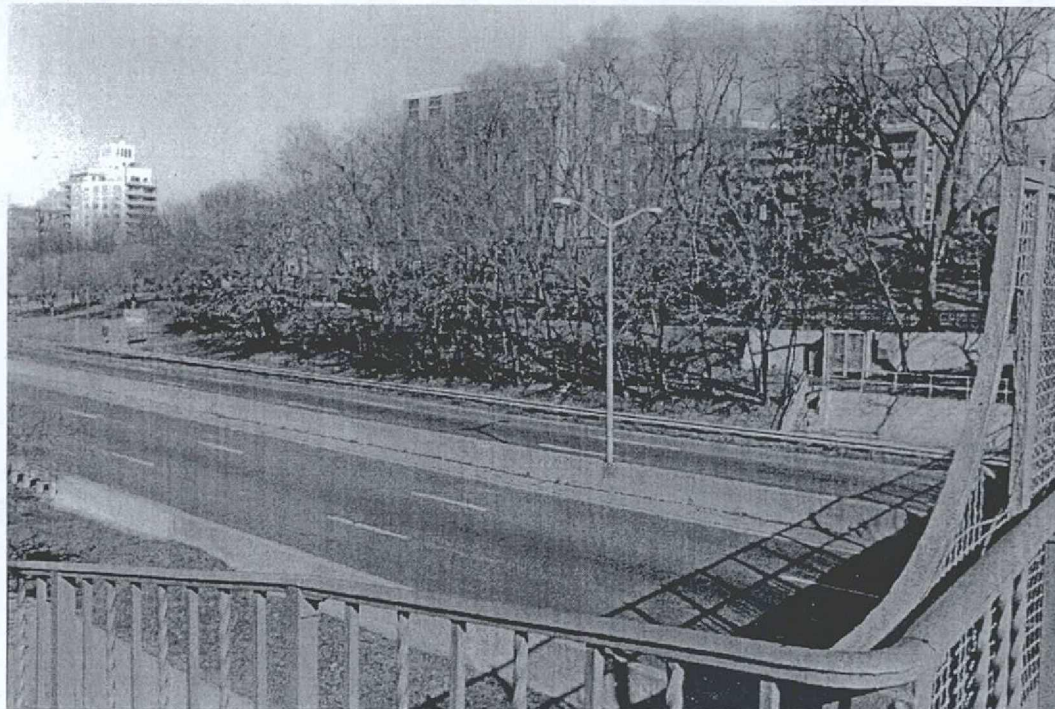
13 Composite view looking northwest across the Narrows and New York's Upper Bay from the stepped access to Bridge 13 below Shore Road (to the right). Bridge 13 is just visible in the center background of the photo (arrow). (Geismar 2/11/05)



14 Looking across the Shore (Belt) Parkway towards the pedestrian access approach to Bridge 13 (arrow) situated below Shore Road. Note the slope the approach traverses. (Geismar 2/11/05)



15 View south from Bridge 13, looking toward the Verrazano-Narrows Bridge and the esplanade along the water. Note rip-rap (arrow) on the right (west) side of the esplanade. (Geismar 2/11/05)



16 View from the west side (water side) of Bridge 13 looking toward the ridge north of the bridge and apartment buildings on the east side of Shore (Belt) Parkway. (Geismar 2/11/05)

In 1679, Jasper Dankers and Peter Sluyter, Lapadist travelers to the New World seeking a place to settle with their fellow worshipers, recorded a local visit in their journal (cited in Bangs 1912). They document an area near the water co-inhabited by Dutch and French settlers and what has been translated as the "Najack" Indians. They describe sparse European settlement on agriculturally rich land; in terms of social conditions, they document a European population in the throws of a smallpox epidemic, apparently not the first. While undoubtedly devastating to the nearby Nyack settlement as well as the Europeans, Dankers and Sluyter make no mention of this aspect of the epidemic.

This part of New Utrecht remained rural and agricultural for decades, but by the late 19th century (Beers 1873; Figure 17), once again, after access was continually improved through new rail connections, it became the home of artists and a retreat of the well to do. By 1929, large private homes on extensive grounds lined the ridge, with one such residence on each side of 92nd Street where it overlooked the waterfront and the future site of Bridge 11 (e.g., Hyde 1929:Vol. 3:Plate 29 Figure 18). Now, these homes have been replaced by apartment buildings although a few one- and two-family houses are still found in the neighborhood, many of them with yards and private garages. It is said that when the Verrazano-Narrows Bridge was planned, 8,000 residents unsuccessfully protested its construction, and a vocal activist group was born (Jackson 1998:5). Many of them undoubtedly lived on the ridge in apartments with beautiful views perhaps ultimately made even more dramatic, if less bucolic, by the bridge.

Shore Road Park, a 58-acre city park, extends south from Owl's Head Park at 65th Street to the southernmost part of Fort Hamilton at the Gowanus Expressway approach to the Verrazano Narrows Bridge. The stepped access from the ridge at 92nd Street to Bridge 13 is through this park. On the west side of the pedestrian bridge is the esplanade noted at Bridge 11, a walk that, again, offers spectacular views of the Narrows, the Verrazano-Narrows Bridge, Staten Island, and New York Bay (see Figures 13 and 15).

GEOLOGY AND THE MODERN TERRAIN

Two glacial features joined at the western end of Long Island, in the project area, the Ronkonkoma and the Harbor Hills Moraines. The natural landscape in the project area has been determined both by these ancient geological underpinnings and the machinations of modern man. The southern two-thirds of the project area, in the vicinity of Bridge 12 and Bridge 11 comprises the flat terrain of an outwash plain created by glacial run-off. The ridge of Fort Hamilton and Bay Ridge to the north, where Bridge 13 is located, is the local high point of the two terminal moraines. In simple terms, it comprises glacial debris that includes soils and boulders dislodged and advanced by the glacier and then "dropped" at its edge as it melted and retreated.

Glacial activity affected both land and water in the project area. As glaciers melted, the land rebounded, or rose, with the removal of the weight of the ice; equally or even more dramatic were sea level changes, also the result of melting ice. In the New York Bight, or coast, from 7,000 to 3,000 BP (before the present), sea levels that rose steadily and relatively rapidly created modern sea level. Levels continue to rise, but have slowed since 3,000 BP. In all, it is estimated

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

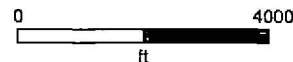
Bridge 12 and Bridge 13 Locations 1873 (Beers 1873, detail)

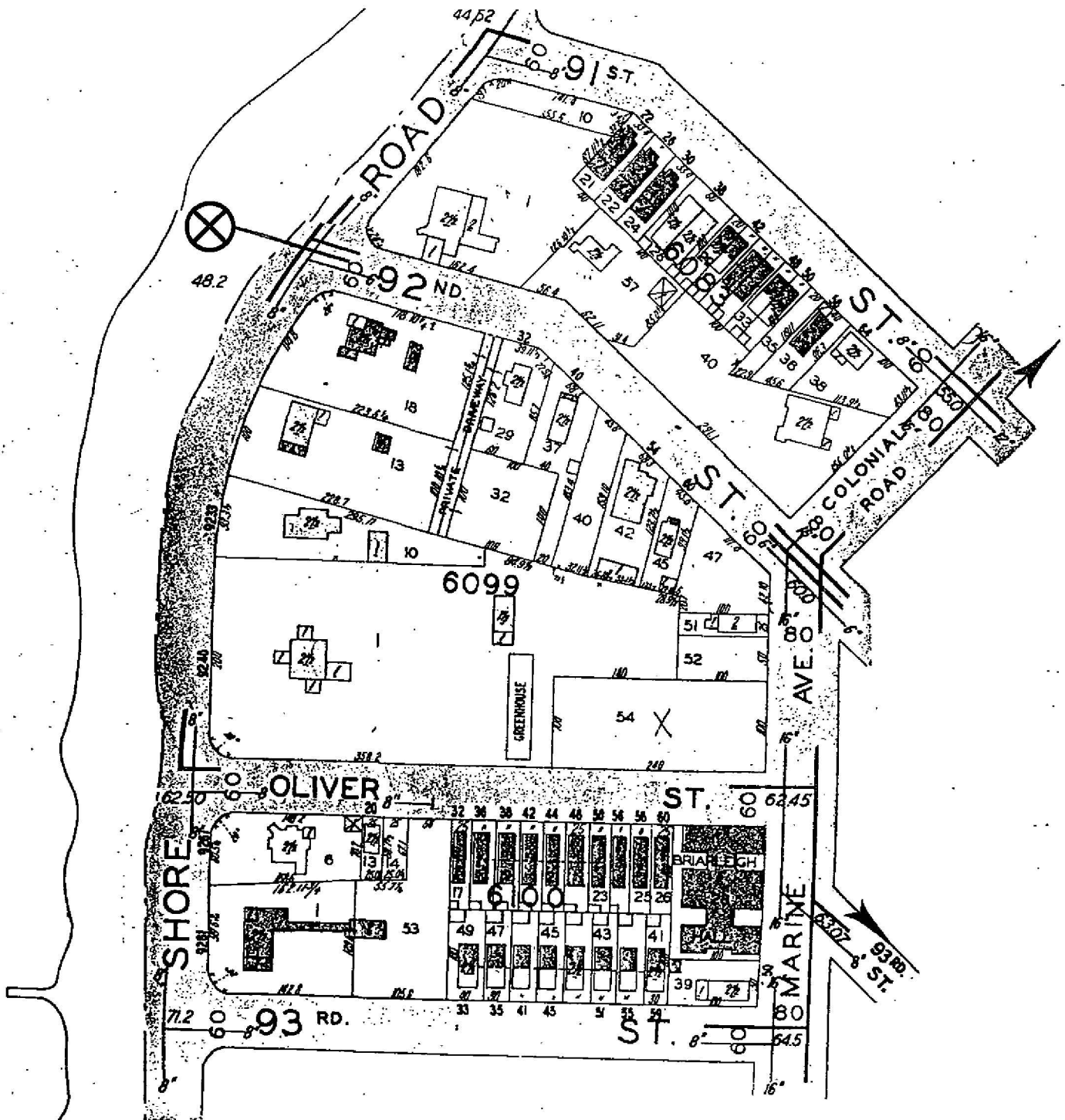
L Johnson?

17

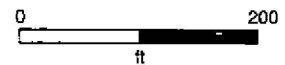


future bridge location, approx.





future bridge location, approx.



that sea level has risen approximately 400 feet since the glacial retreat.³ Radiocarbon dated peat deposits provide a sea level curve that indicates the rising sea inundated the project area approximately 2,500 to 3,800 years ago (Historic Conservation and Interpretation, Inc. 1983 cited in Pickman 1987:6). Estimating the effect, it is said that before the glacial retreat, "the shoreline lay at the outer edge of the continental shelf, about 100 miles from the present shoreline" (Panamerican 2003:4-25). Prior to this inundation, New York Bay and the Narrows would have been dry land.

Historical and modern maps of the shoreline in the project area document vast changes that are not the result of natural causes, but of land reclamation. For example, an 1844-1845 coastal map documents a shoreline dotted with farms and scattered homes near the shore (Hassler 1844-1845; Figure 19). While development occurred as the century progressed, the land configuration remained essentially unchanged (e.g., U.S. Geological Survey 1902, surveyed 1887-1898; Figure 20). It was during the 20th century, mostly to accommodate construction of the Shore (Belt) Parkway, that dramatic land alterations occurred (see Figure 21). While maps document land reclamation in the vicinity of Bridge 12 and Bridge 11, Bridge 13 appears from map data and from construction photos to be at least in part an existing shore enhanced and elevated through the introduction of concrete debris, boulders, and other detritus (e.g., Figures 22 and 23). This is also suggested by parkway plans that indicate existing contours elevated for landscape purposes (see Figure 29 below).

Like the terrain, the rip-rap introduced to create the esplanade along the Shore (Belt) Parkway is a mixed glacial and man-made phenomenon. It incorporates regional rocks--schist, gneiss, quartzite, marble, basalt, and diabase—with debris from subway excavations and material excavated during construction of the World Trade Center (USGS 2003).

PREHISTORIC CONSIDERATIONS

In 1922, Arthur C. Parker, archaeologist, historian, and director of the Rochester Museum of Arts and Science from 1924 to 1945, wrote:

"There is little recorded concerning the archaeology of Kings County the early erection of towns and villages over its area soon blotting out original traces. Without doubt, however, it was occupied in nearly every part, and once was an important place of Indian travel and traffic." (Parker 1922:582)

Using historical records, not archaeological investigation, both Parker and Reginald P. Bolton document the same sites or finds within one mile of both Bridge 11 and Bridge 13, but none within a mile of Bridge 12 (Parker 1922; Figure 24; Bolton 1922 (not illustrated); Bolton 1934:144; Figure 25).⁴ A summary of this information is presented in Table 1 and illustrated in Figure 26.

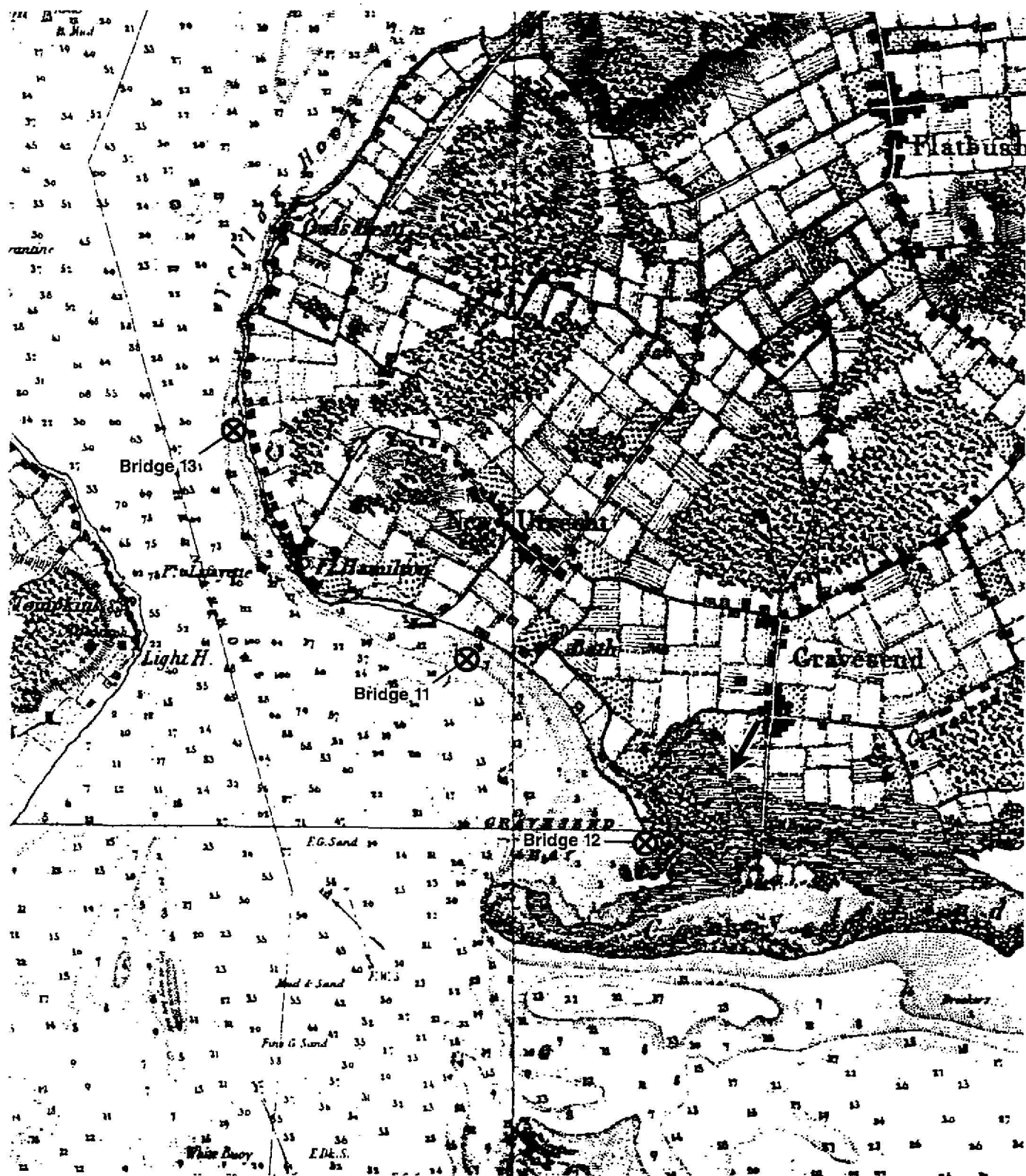
³ Today, the water depth maintained during the daily in-and-out flow of the tides through the Narrows is 100 feet, the deepest water in the Hudson River drainage and the inner New York Bight (USGS 2003).

⁴ It is interesting to note that Bolton does not document either of these sites in his earlier publication, *New York City in Indian Possession* (1920), apparently deriving his information for later publications from Parker.

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge Locations 1844-1845 (Hassler 1844-1845, detail)

19



⊗ future bridge location, approx.
→ marsh and stream

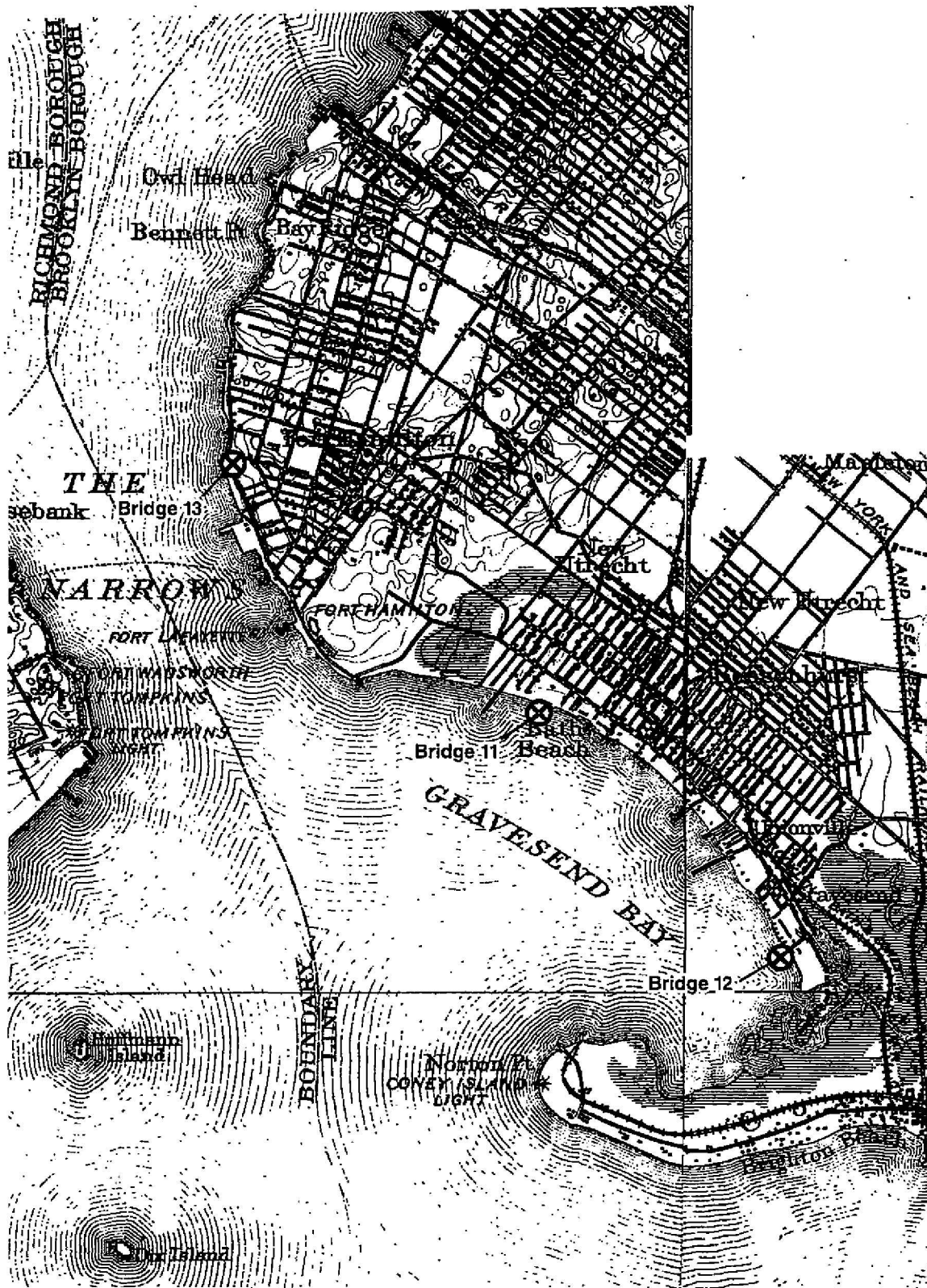
no scale available



SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Shoreline and Future Bridge Sites 1902 (USGS 1888, 1889 and 1897 Survey) (U.S. Geological Survey 1902)

20



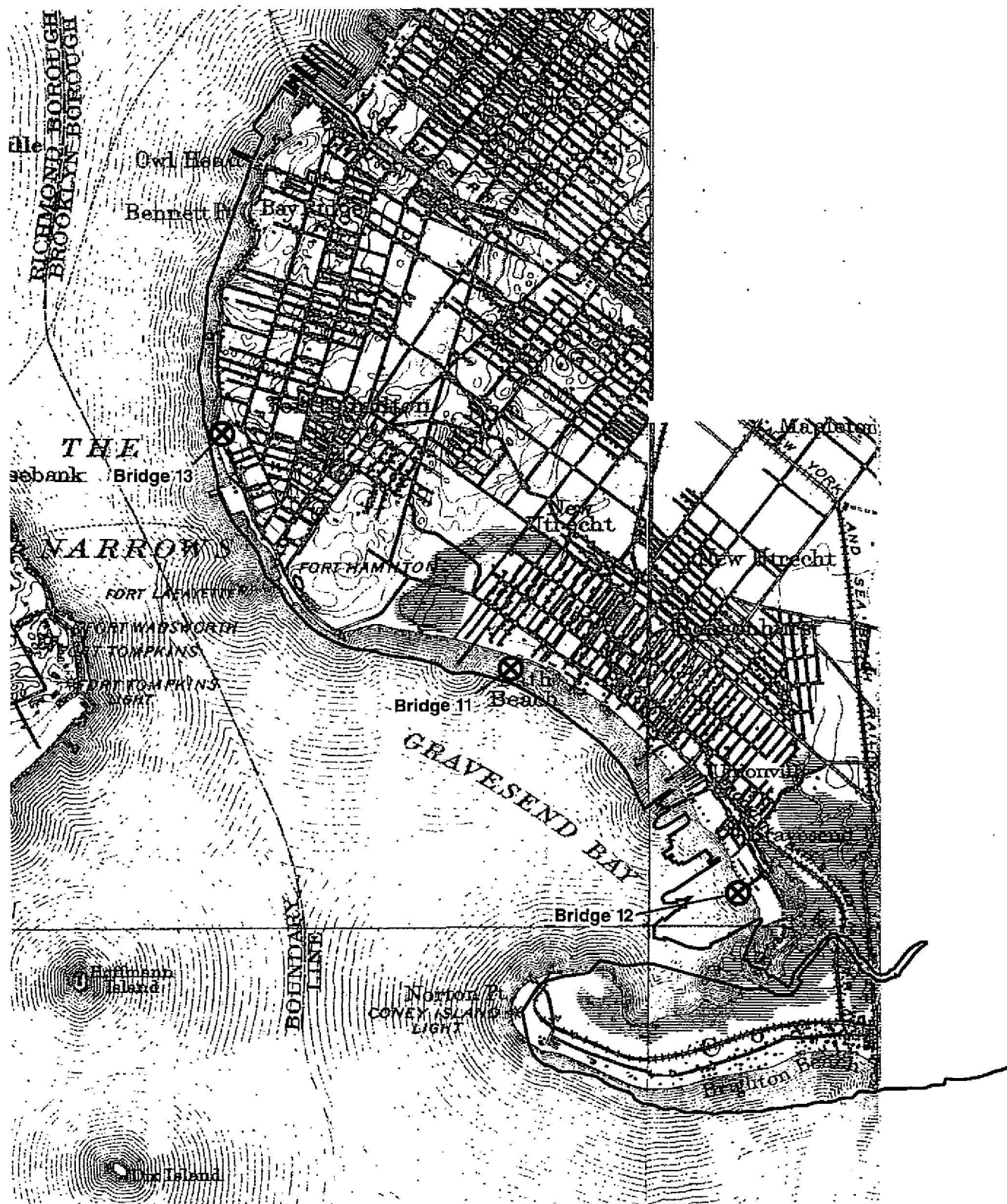
future bridge location, approx.



SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Composite 1888-1897 Map and Modern Shoreline, Approximate

21



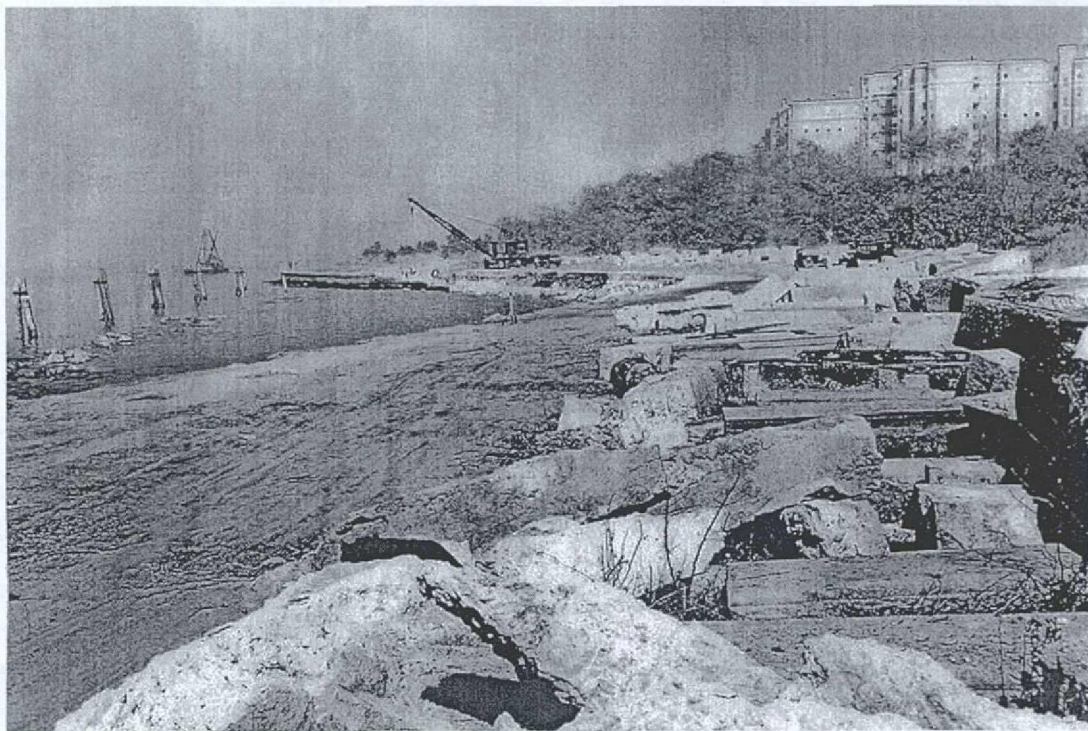
modern shoreline (DeLorme 2002) superimposed on 1888-1897 topo
(gray background), approx.



bridge location, approx.



22 Shore (Belt) Parkway under construction in the vicinity, but south, of Bridge 13. Note fill and some cribbing (arrow) visible north of the project APE. (Photo Brooklyn Public Library)

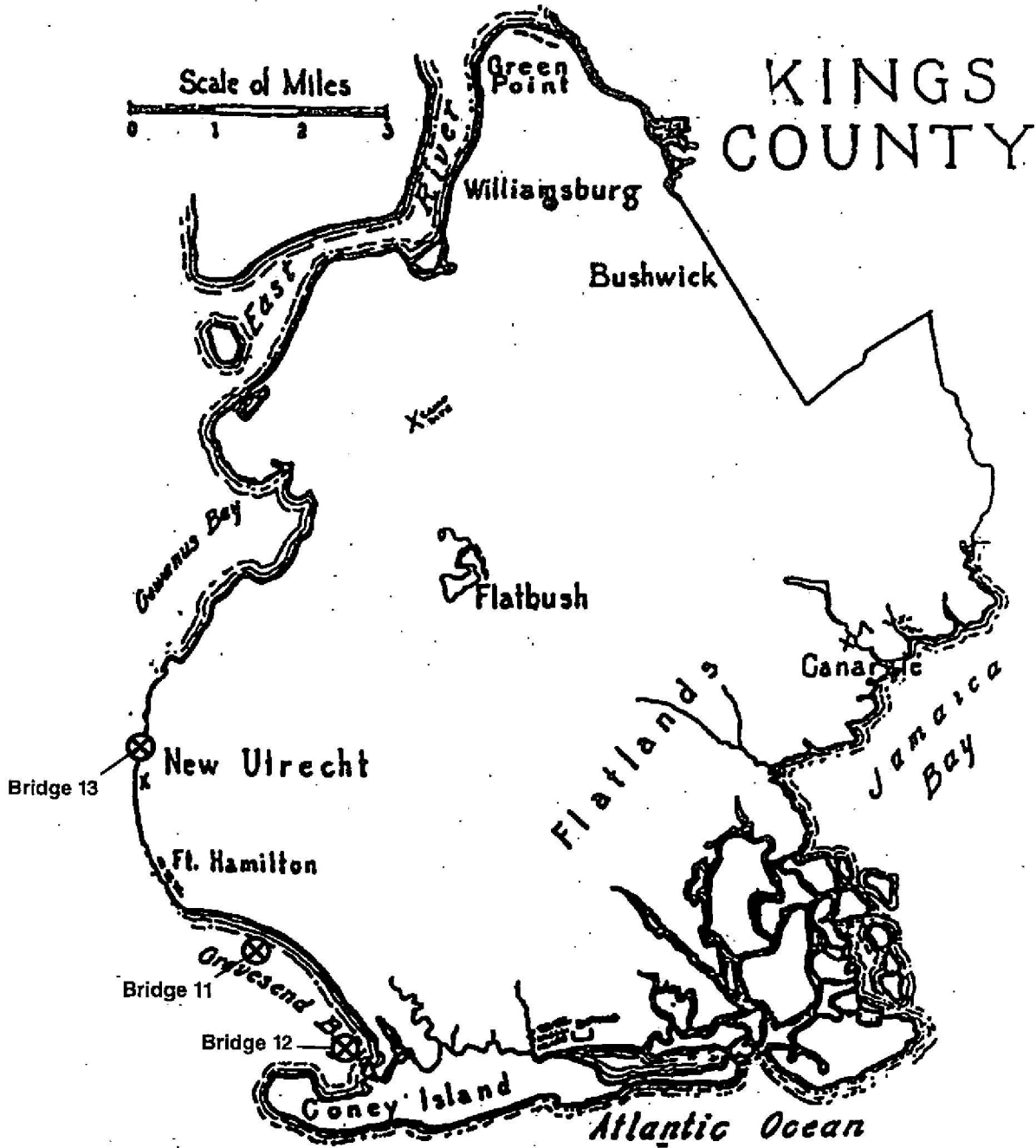


23 Same as above further north. Note concrete debris introduced on the beach in anticipation of filling. (Photo Brooklyn Public Library)

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Identified Native American Sites in Relation to Future Bridge Locations (Parker 1922)

24



Key to Relevant Symbols

- ⊗ future bridge location, approx.
- X campsite or other "indications," small area
- - - shell heaps or middens
- - - traces of occupation

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Known Prehistoric Sites in King's County (after Bolton 1934)

25

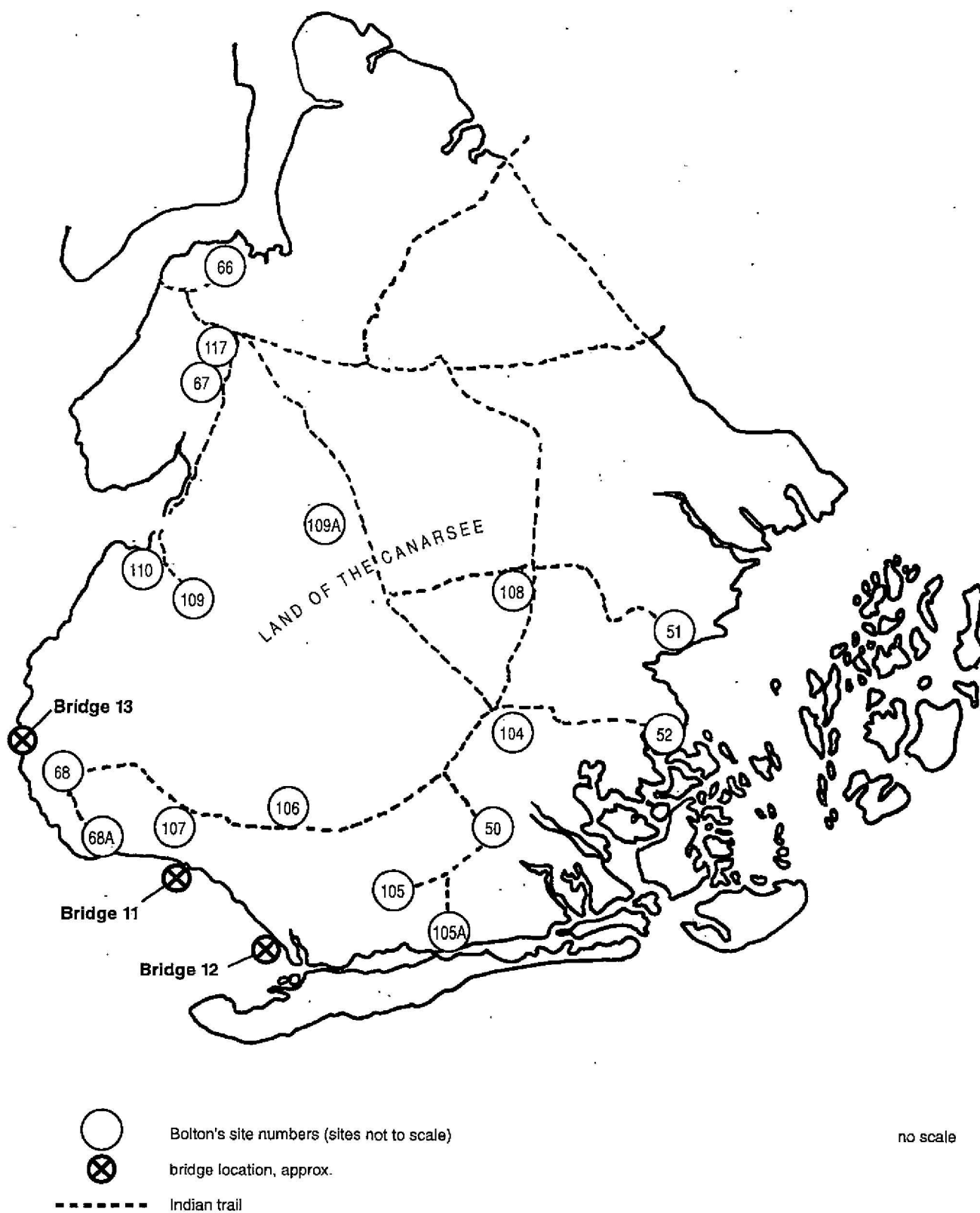


Table 1. SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES Known Archaeological Sites within 1-Mile Radius of Pedestrian Bridges Designated Nos. 12, 11, and 13

Map ID/ Bridge No. (see Fig. 26)	Location	Site Name/ NYSM No.	Type	Remarks	Source
Bridge 13	The Narrows	No. 3605	Occupation site	"Cache of stone and flint blades found at the Narrows in 1837. Furman says the quantity was a wagon load"*	Parker 1922:582 (Site No.1); (Furman 1874:31) [probably same as Bolton's Site No. 68, below]
Bridge 13	The Narrows (Bay Ridge)	Nayack	Shell Midden	Supposedly "the place to which the natives of Werpoes removed after the sale of Manhattan Island"; cites Furman regarding large collection of flint blades	Bolton 1934:147 (Site No. 68)
Bridge 13	Ft. Hamilton	No. 3611	Shell Midden	According to Parker map, traces of occupation; no description given	Parker 1922:Map 179 [probably same as Bolton's Site No. 68A, below]
Bridge 13	Ft. Hamilton	Ft. Hamilton	Unknown	Possibly a fishing camp	Bolton 1934:147 (Site No. 68A)
Bridge 11	New Utrecht	New Utrecht	?	Probable site, not explored; also possible "native" trail to Gravesend Bay.	Bolton 1934:147 (Site No. 107)

*Furman actually said, "...more than a wagon-load" (Furman 1874:31)

Note: no sites are identified within a one-mile radius of Bridge 11

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

26

Identified Archaeological Sites within 1-Mile Radius of Project Locations (Bridges 11, 12, 13) (Base: USGS DeLorme 2002)



Parker's observation regarding the Native American presence in Kings County is substantiated by the account of Dankers and Sluyter, the aforementioned Labadist travelers. In 1679, they described the dwellings of the Nyack (Nayack, Najack) near Fort Hamilton in their journal as quoted in Bangs:

...we came to the plantation of the Najack Indians, which was planted with maize or wheat. We found an old woman beating beans out of the pot. We went from there to her habitation, where we found the whole tribe together, consisting of seven or eight families and twenty or twenty-two persons. The house was long and low, about sixty feet long and fourteen or fifteen feet wide. The bottom was earth. The sides and roof were made of reed and bark of chestnut trees. The top or roof was open half a foot wide to let the smoke out. They built their fires in the middle of the floor, according to the number of families which lived in it. They lie upon mats with their feet toward the fire. They do not sit upon anything raised up, but sit on the ground or squat on their ankles. (Bangs 1912:35).

There is no doubt that Native Americans inhabited parts of the project area soon after, and probably before, European contact. Bolton noted this as the place where the natives of Werpoes supposedly went after the sale of Manhattan Island (Bolton 1934:147). If so, it means they had relocated to this part of Brooklyn in 1626, only decades before the founding of the Dutch towns.

Prehistoric and contact period settlement patterns indicate that Native Americans had a preference for well drained, elevated sites situated near fresh water. However, their sites were not confined to these areas. Adjacent marshes and embayments undoubtedly provided abundant shellfish and enough other marine resources in coastal areas to make them attractive during the millennia prior to contact. A summary follows of the various prehistoric culture periods that developed on a continuum (in addition to citations as noted, much of the following is extracted from Panamerican 2003:4-1 to 4-8).⁵

The prehistoric era--the millennia between glacial retreat and European contact--is divided into three major periods in northeastern North America that span about 12,000 years (all dates are approximate). The Paleo-Indian Period (12,000 to 10,000 BC) is characterized by seasonal camps located near fresh water. Often these are lithic workshops with remnants of stone tool manufacture. Paleo-Indians were highly mobile and adapted to hunting regional mega-fauna. The Archaic Period, divided into Early Archaic (8,000 to 6,000 BC), Middle Archaic (6,000 to 4,000 BC), Late Archaic (4,000 to 2,000 BC), is also characterized by seasonal campsites, but with increasingly complex stone tool kits and ever-more elaborate mortuary practices. Tool kits included implements for woodworking and for food preparation (in some instances the latter included steatite or soapstone pots). Later, as populations increased, seasonal villages appear as well as small, temporary occupation or work shop sites. The forests that advanced as warmer, more moderate weather developed provided more diverse food resources. Subsistence in both the Paleo-Indian and Archaic periods relied mainly on hunting and gathering. Toward the latter part of the Late Archaic, as the weather became more like that of today, horticulture became a minor,

⁵ Citations in the extensive Panamerican discussion of the prehistoric era as it pertains to the northeast include, in alphabetical order: Black 1981; Bolton 1934; Brennan 1977; Cassedy et al. 1993; Ceci 1990; Curtin 1996; Dent 1991; Funk 1972; Gwynne 1984; Harrington 1924; Kraft 1977; Kraft and Mounier 1982; Marshall 1982; Nicholas 1988; Ritchie 1980; Ritchie and Funk 1971, 1973; Robbins 1960; Schuyler 1977; Smith 1950.

but critical, subsistence strategy since it lead to more permanent settlement patterns. The introduction of pottery marks the Woodland Period (1,000 BC to AD 1650). It is also characterized by a growing dependence on horticulture and the presence of moderately large permanent or semi-permanent villages. Like the Archaic, it was divided into three periods, an Early, a Middle, and a Late Woodland. Unlike the Archaic, these culture periods are not well defined. Moreover, data for the Early and Middle Woodland for Long Island, where Kings County is located, are limited (Anon., N.D.), and shifts in subsistence patterns or in the way of life between the Late Archaic and the Early Woodland periods are not significant.

Burial mounds constructed elsewhere in New York State during the Early Woodland are not found in the Eastern New York region. The onset of the Middle Woodland, which, again, is not well defined but is differentiated by changes in pottery and smoking pipe styles, may not begin until well into Christian era. The major distinction of the Late Woodland, which begins about 900-1000 AD, is the increasing importance of cultigens such as corn, beans, and squash and the emergence of large villages and semi-sedentary populations. As noted, there is also a shift in mortuary practices (Ritchie 1969:179-180).

All prehistoric culture periods utilized marine resources, but their importance increased during the Woodland period. Shell mounds or middens found along estuaries and embayments throughout the region, some of them extremely large, are evidence of this preferred location (e.g., Panamerican 2003:4-21). However, only in the vicinity of Bridge 12 are creeks and streams documented historically, although well south and east of the APE (e.g., see Hassler 1844-1845; Figure 19 this report; also, USGS 1902; Figure 20). An identified local site, Gerritson Creek, also known as Ryders Pond, located beyond the project area to the southeast, was an upland site near a tidal creek. It contained Late Archaic to Contact Period artifacts, and therefore documented a long period of occupation (e.g., Panamercian 2003:4-11; Pickman 1987:2). A key factor in its long, if undoubtedly intermittent, occupation was its location. Although situated on a tidal creek, it was located beyond tidal action, and therefore offered access to fresh water.

While the former beach in the vicinity of Bridge 13 conceivably could have been the site of a temporary camp, the lack of fresh water would not have been conducive to long-term occupation.⁶ This is in contrast to the upland sites documented historically and, as discussed previously, noted in Parker and Bolton. However, there is the possibility, albeit somewhat slim, that evidence of ancient, buried landforms that could harbor archaeological materials and sites that predate sea level rise might be preserved under modern fill, or there may be peat deposits indicative of buried, ancient vegetation (e.g., Pickman 1987:5-7). Subsurface information, not currently available, would put the matter to rest

THE SHORE (BELT) PARKWAY⁷

Planning that began in 1922 to create an extensive recreation area accessed by an ambitious highway system lead to the construction of the Shore (Belt) Parkway in the 1930s. Originally called the Belt Parkway, it expanded and incorporated existing roadways and constructed new

⁶ Nineteenth century maps indicate former marsh, and therefore possibly springs, to the south, below Fort Hamilton (e.g., Hassler 1844-1845; USGS 1902; see Figures 19 and 20).

⁷ This section is adapted from Stewart 1997 with additional information cited in the text.

segments of highway to circumnavigate Brooklyn and Queens. To this day, some parts retain other names. For example, from Fort Hamilton to Gravesend, which includes the three pedestrian bridges in this study, it is also known as Ericson or Leif Ericson Drive (e.g., Geographica 1982). Intended to provide access to a series of new municipal parks and beaches, this ambitious plan was carried out under the leadership of Robert Moses, then the Commissioner of the Department of Parks. With planning beginning in 1934, the first contract was signed on November 16, 1938. When it officially opened on December 10, 1940, "the road made twenty-six park areas totaling 3,350 acres more accessible to families with cars" (Stewart 1997:1).

What is considered by most to be the Shore (Belt) Parkway begins at Owl's Head Park above the Narrows, north of Pedestrian Bridge 13, and runs south and then east through Coney Island, Marine Park, and Bergen Beach Park and other components of the Gateway National Recreation Area, past J. F. Kennedy International Airport to Laurelton Parkway. This is ostensibly the end of the Shore (Belt) Parkway, but not the Belt Parkway System. Laurelton Parkway, a short connector to the Cross Island Parkway, runs north to link the Shore (Belt) Parkway to the Bronx via the Whitestone Expressway and the Bronx-Whitestone Bridge (Wikipedia 2005), as Stewart notes, a distance of 34.5 miles from Owl's Head Park (Stewart 1997:1). With the exception of Staten Island, as originally built the parkway system connected all of New York City's boroughs via marginal streets (the construction of the Verrazano-Narrows Bridge completed the connection). According to Stewart, construction involved massive amounts of steel and concrete and "required pumping 11,800,000 cubic yards of hydraulic fill and moving 4,800,000 cubic yards of dry fill" (1997:2). This filling played an important role in creating the parkway at all the pedestrian bridge sites in this study, but most extensively at Bridge 11 and Bridge 12 located entirely on reclaimed land.

The cost of acquiring land for the parkway apparently was "modest" since "much of ...[it] ran through undeveloped land or marshland." Moses called it "reclaimed territory" (Stewart 1997:1). The four-lane parkway built in the 1930s was expanded to six-lanes after World War II (Stewart 1997:1). All this—the reclaimed marshes and shoreline and the parkway expansion—severely impacted the natural setting of the three pedestrian bridges in this study.

Bridge 12

Parkway construction maps indicate the location of Bridge 12 was land under water in 1938 with its site about 100 feet from the shore of Gravesend Bay (Figure 27). This bridge will be entirely reconstructed on the landfill introduced in 1938-1939.

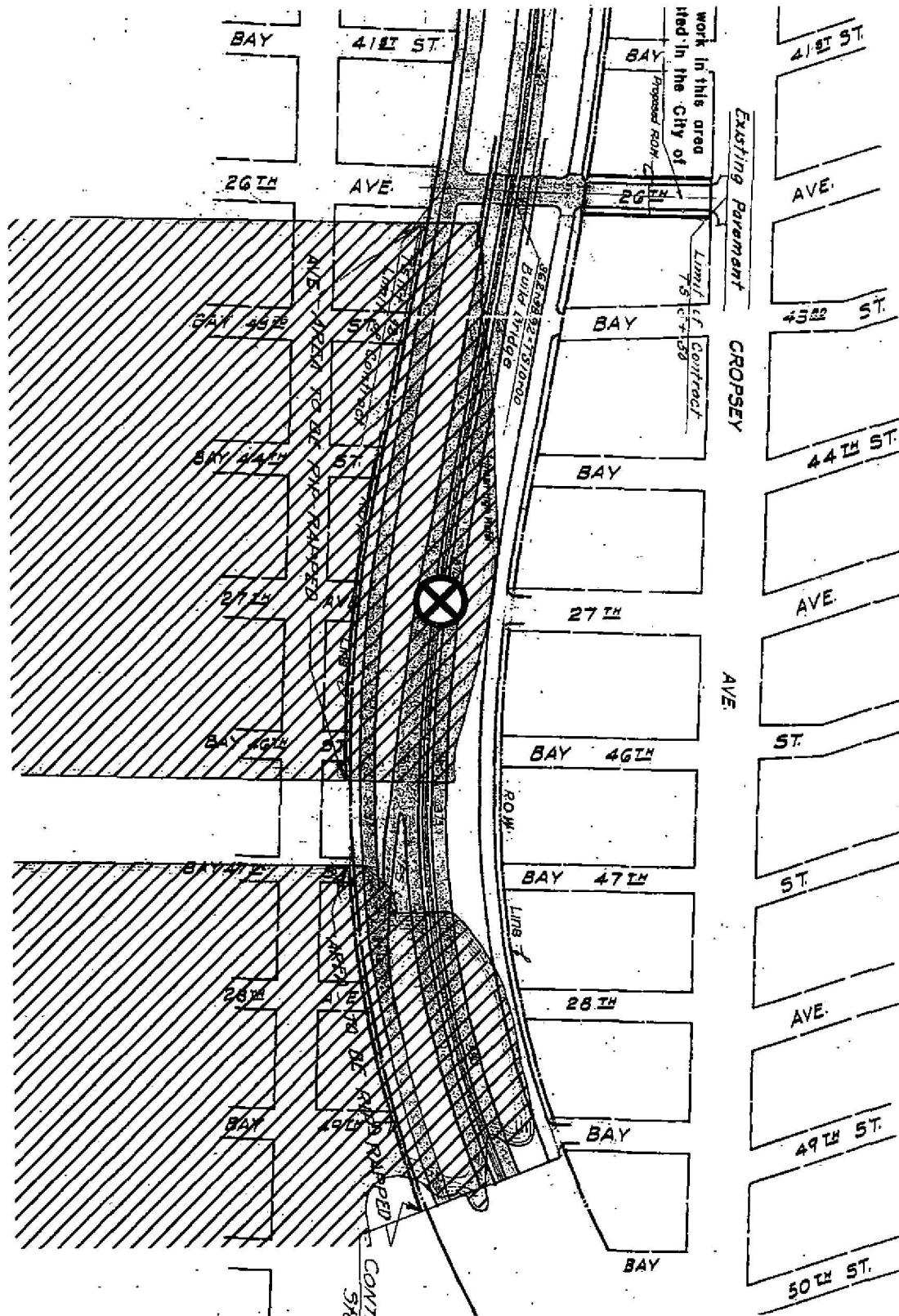
Bridge 11

According to parkway construction maps, the Bridge 11 site was about 400 feet off the shore at Bath Beach. Like Bridge 12, it was constructed from reclaimed land in 1938-1939 (Figure 28). This bridge will be entirely reconstructed

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 12 Location 1938 (Parks 1939a)

27



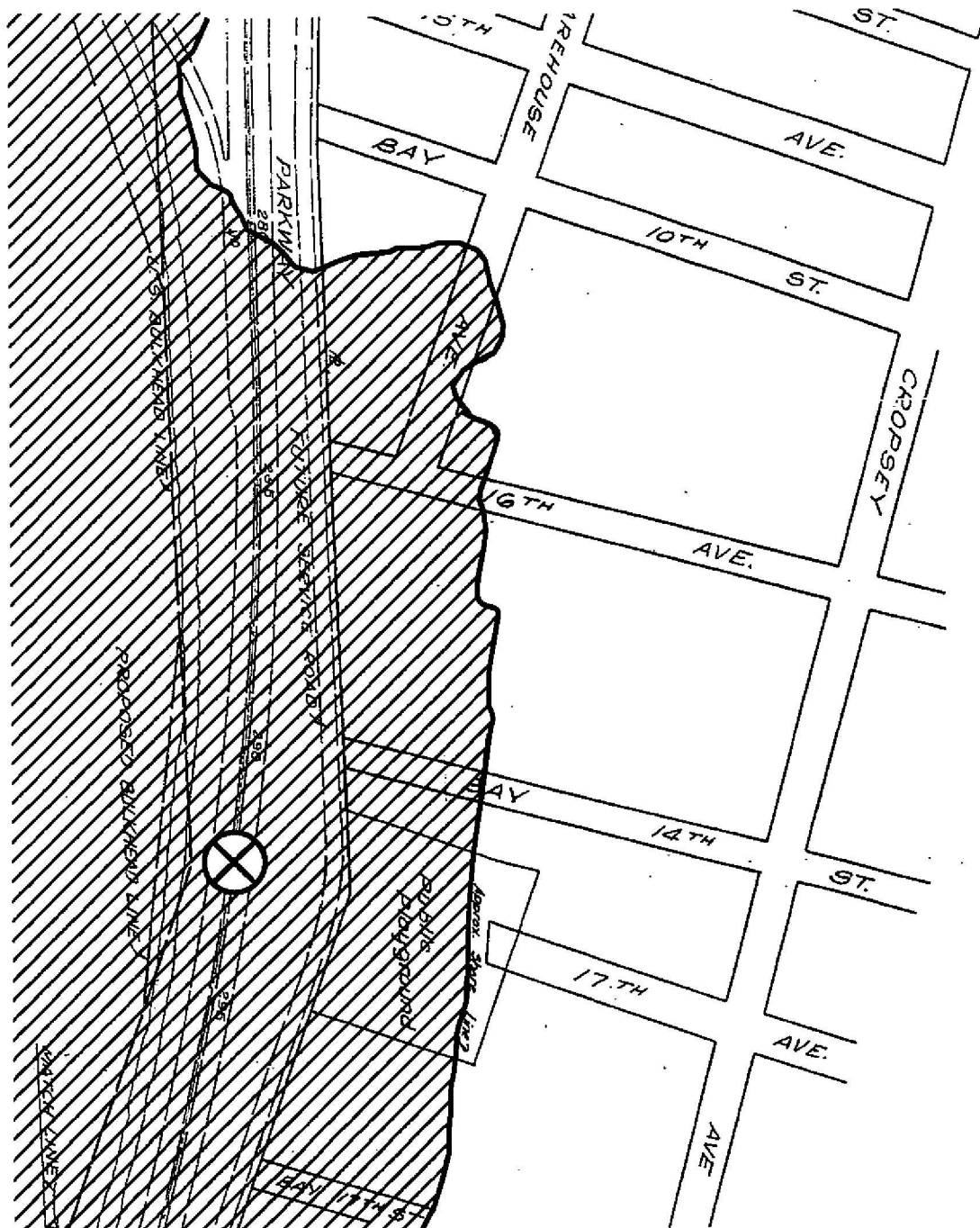
future bridge location, approx.

Gravesend Bay prior to filling

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Bridge 11 Location 1938 (Parks 1938)

28



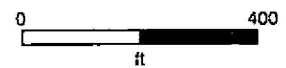
future bridge location, approx.



shore



water



Bridge 13

Original parkway construction plans, as well as historical maps, indicate that the site of Bridge 13 was at least in part originally the shore beneath the glacial ridge in what is now Fort Hamilton (Figure 29). Parkway and bridge construction at this location required filling, but perhaps only minimal land reclamation. Historical maps suggest this (see Figures 19, 20, and 21), as do construction photos (see Figures 22 and 23). Landscape plans for the parkway called for grading that included the introduction of large amounts of soil.

It is unclear whether the contours indicated on a parkway landscape plan, the only relevant plan available, are natural or a preliminary grade established through filling. Whatever the case, pre-parkway conditions did not appear to require the extensive land reclamation needed at Bridge 12 and Bridge 11. It is anticipated that the access through Shore Road Park to the 1939 bridge and its east abutments, all located on the landscaped ridge below Shore Road (e.g., see Figure 13), will be reused for the new bridge.

CONCLUSIONS AND RECOMMENDATIONS

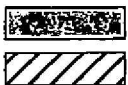
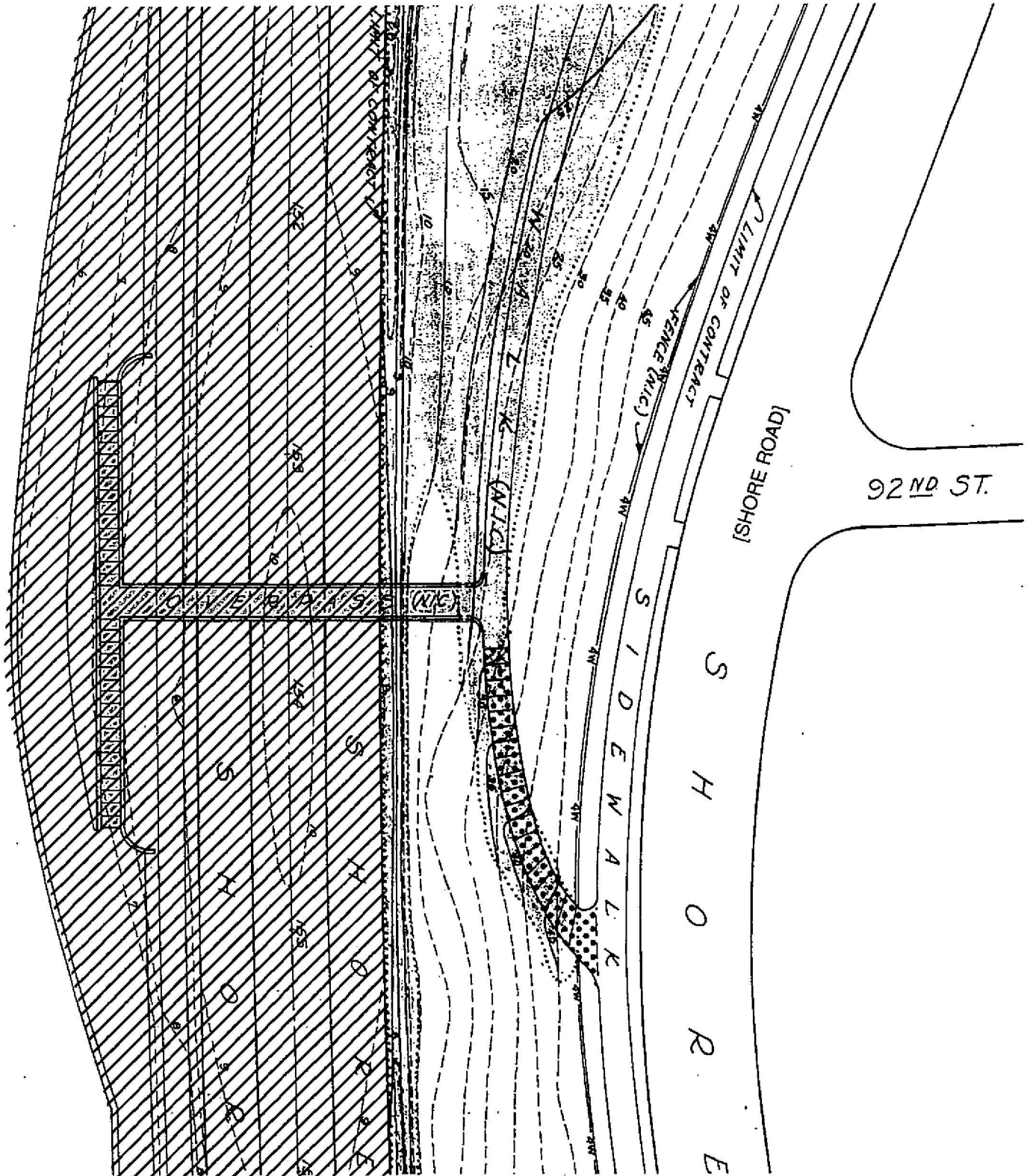
Research determined that historic-era archaeological issues are not a concern in the reconstruction of the three Shore (Belt) Parkway pedestrian bridges, designated Bridge 12, Bridge 11, and Bridge 13. Moreover, while the project area in general is potentially sensitive for prehistoric resources, specific site conditions at each bridge negate any obvious archaeological potential. The location of Bridge 13, on and adjacent to a glacial ridge and accessed by a stepped walkway along the slope, proved to be the only one of the three bridge sites with any possible potential. However, the ridge was extensively landscaped to create Shore Road Park. In addition, the existing walkway and eastern bridge abutments, the most potentially sensitive area, will be reused in the bridge alteration.

None of the bridge sites in the assessment were found to be locations typically chosen as prehistoric sites: none are upland locations, the documented preference of prehistoric populations, nor is fresh water, a prerequisite to long-term site selection, documented. The two sites where the bridges will be entirely reconstructed were both land under water prior to construction of the Shore (Belt) Parkway in 1938-1939 (Bridge 12 in Gravesend and Bridge 11 in Bath Beach), while Bridge 13 in Fort Hamilton was constructed on fill-enhanced shore and possibly some land reclaimed from the sea. That said, it is possible that local landforms and conditions prior to the inundation caused by rising sea levels that accompanied deglaciation may have been more amenable to human use or occupation. Shell middens or other cultural features, remnants of past use by prehistoric populations, or peat deposits indicative of former, deeply buried land surfaces, could remain under fill. If so, long-buried prehistoric resources might be an issue, 1) if cultural materials or peat deposits are present, and, 2) if proposed construction will impact any identified areas of concern. However, no subsurface data, such as soil boring logs, are available to fully assess the situation. It is recommended, therefore, that subsurface testing, such as construction-related soil borings, consider the requirements of an archaeological evaluation, and that a qualified archaeologist review and assess soil boring data from each bridge site when they are available.

SHORE (BELT) PARKWAY PEDESTRIAN BRIDGES

Proposed Bridge 13 1939 (Parks 1939b, detail)

29



proposed pedestrian bridge



stepped approach to bridge



former beach/shore



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