

# HISTORICAL PERSPECTIVES INC.



**Addendum  
Phase IA Archaeological Documentary Study  
Downtown Far Rockaway  
Urban Design and Streetscape Reconstruction  
Far Rockaway, Queens County, New York**

**NYCDDC, NYCDOT and NYCDEP  
Capital Project SE-830/SANDR02  
NYS DOT PIN X760.79  
NYSOPRHP/SHPO Project 17PR01317**

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Prepared For:



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November 2018

## **MANAGEMENT SUMMARY**

SHPO Project Review Number (if available): **17PR01317**

Involved State and Federal Agencies: **HUD (CDBG-DR funding); FHWA/USDOT (Congressional Earmark funding for design); NYS GOSR- NY RISING (NYS CDBG-DR funding for construction); NYSDEC (SPDES General Permit for Stormwater Discharges), DEC and USACE (Tidal wetlands permits)**

Phase of Survey: **Addendum Phase IA Archaeological Documentary Study**

### **Location Information**

Location: **Beach Channel Drive between Nameoke Avenue and Hassock Street, Nameoke Avenue between Beach Channel Drive and Redfern Avenue, and west of Horton Avenue towards the Chandler Street outfall within the Downtown Far Rockaway neighborhood**

Minor Civil Division: **08101**

County: **Queens**

### **Survey Area**

Length: **Varies**

Width: **Varies**

Number of Acres Surveyed: **ca. 1.8**

USGS 7.5 Minute Quadrangle Map: **Far Rockaway**

### **Archaeological Survey Overview**

Number & Interval of Shovel Tests: **N/A**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A, urban area**

### **Results of Archaeological Survey**

Number & name of precontact sites identified: **None**

Number & name of historic sites identified: **None**

Number & name of sites recommended for Phase II/Avoidance: **None**

Report Authors(s): **Julie Abell Horn, M.A., R.P.A., Historical Perspectives, Inc.**

Date of Report: **November 2018**

## **EXECUTIVE SUMMARY**

The New York City Department of Design and Construction (NYCDDC), in conjunction with the New York City Department of Transportation (NYCDOT) and the New York City Department of Environmental Protection (NYCDEP), are proposing capital projects SANDR02 and SE-830—together known as the Downtown Far Rockaway Urban Design and Streetscape Improvements project in the Borough of Queens, New York (Figures 1, 2 and Appendix A). The proposed project is a comprehensive street improvement project that would involve reconstruction of a number of streets and sidewalks including roadway geometric improvements such as narrowing roadbeds to accommodate wider sidewalks, two new pedestrian plazas, and the reorganization of public transportation to improve safety and provide a more hospitable pedestrian circulation. The proposed project also includes new infrastructure, such as water mains, storm and sanitary sewers, and street lighting.

At the request of NYCDDC and AKRF, Inc., in October 2017 Historical Perspectives, Inc. (HPI) completed a Phase IA Archaeological Documentary Study for 18 streets comprising 29 blocks where new water and sewer lines are proposed to be installed. Based on the Phase IA results, HPI concluded that the project site had no sensitivity for potential precontact or historic period archaeological resources due to the extensive disturbance to the original landform from grading, filling, and significant subsurface utility construction. HPI recommended no further investigations for archaeological resources in the project site. The Phase IA Archaeological Documentary Study was submitted to the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRP or SHPO). NYSOPRHP/SHPD concurred with the Phase IA conclusions and recommendations (Perazio 3/28/2018). The concurrence letter is included as Appendix B.

Since completion of the original Phase IA Archaeological Documentary Study in October 2017, three new segments have been added to the overall project (Figures 1, 2 and Appendix A). These segments are:

1. Beach Channel Drive between Nameoke Avenue and Hassock Street,
2. Nameoke Avenue between Beach Channel Drive and Redfern Avenue, and
3. A segment through the undeveloped marshland within the mapped but unbuilt section of Horton Street west of Pinson Street, crossing into a city-owned tax lot, which will connect to an existing segment attached to the Chandler Street outfall.

The present Addendum to the Phase IA Archaeological Documentary Study addresses these three new segments of the project to satisfy the requirements of Section 106/SEQRA/CEQR, and to comply with the standards of the NYSOPRHP/SHPD and the New York City Landmarks Preservation Commission (LPC) (New York Archaeological Council 1994; NYSOPRHP/SHPD 2005; LPC 2002<sup>1</sup>; CEQR 2014).

The archaeological Area of Potential Effect (APE) for the segments includes the entire length and width of Beach Channel Drive from Nameoke Avenue to Hassock Street (approximately 480 feet long and 80 feet wide), the entire length and width of Nameoke Avenue from Beach Channel Drive to Redfern Avenue (approximately 415 feet long and 50 feet wide), and the entire length and width of the segment through the marshlands within the unbuilt Horton Avenue (approximately 240 feet long and 80 feet wide). Beach Channel Drive is slated to receive both new sanitary and storm sewers, Nameoke Avenue is slated to receive a new storm sewer, and the area west of Horton Avenue will receive a new storm sewer.

Based on the Addendum Phase IA results, HPI concludes that the three new project site segments have no sensitivity for potential precontact or historic period archaeological resources due to the extensive disturbance to the original landform from grading, filling, and significant subsurface utility construction, as well as the late development of the area, after the streets had already been provided with utilities. HPI recommends that no further investigations are warranted for archaeological resources in these three project site segments.

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<sup>1</sup> This Phase IA Addendum was contracted and initiated in May 2018, prior to the adoption of the 2018 LPC Archaeological Guidelines.

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## I. INTRODUCTION

The New York City Department of Design and Construction (NYCDDC), in conjunction with the New York City Department of Transportation (NYCDOT) and the New York City Department of Environmental Protection (NYCDEP), are proposing capital projects SANDR02 and SE-830—together known as the Downtown Far Rockaway Urban Design and Streetscape Improvements project in the Borough of Queens, New York (Figures 1, 2 and Appendix A). The proposed project is a comprehensive street improvement project that would involve reconstruction of a number of streets and sidewalks including roadway geometric improvements such as narrowing roadbeds to accommodate wider sidewalks, two new pedestrian plazas, and the reorganization of public transportation to improve safety and provide a more hospitable pedestrian circulation. The proposed project also includes new infrastructure, such as water mains, storm and sanitary sewers, and street lighting.

At the request of NYCDDC and AKRF, Inc., in October 2017 Historical Perspectives, Inc. (HPI) completed a Phase IA Archaeological Documentary Study for 18 streets comprising 29 blocks where new water and sewer lines are proposed to be installed. That project site included the following streets (in alphabetical order):

1. Bayport Place from Central Avenue to Nameoke Avenue/Dinsmore Avenue (1 block)
2. Beach 18<sup>th</sup> Street from Foam Place to Mott Avenue (1 block)
3. Beach 19<sup>th</sup> Street from Mott Avenue to Cornaga Avenue (1 block)
4. Beach 20<sup>th</sup> Street from Mott Avenue to Cornaga Avenue (1 block)
5. Beach 21<sup>st</sup> Street from Mott Avenue to Cornaga Avenue (1 block)
6. Beach 22<sup>nd</sup> Street from Mott Avenue to Loretta Road (2 blocks)
7. Beach Channel Drive from Birdsall Avenue to Nameoke Avenue (1 block)
8. Birdsall Avenue from Redfern Avenue to Beach Channel Drive (1 block)
9. Central Avenue from Nameoke Avenue to Mott Avenue (3 blocks)
10. Foam Place from Central Avenue to Beach 18<sup>th</sup> Street (2 blocks)
11. Hassock Street from Redfern Avenue to Beach Channel Drive (1 block)
12. Horton Avenue from Beach Channel Drive to Pinson Street (1 block)
13. Loretta Road from Beach 22<sup>nd</sup> Street to President Street (1 block)
14. Mott Avenue from Redfern Avenue to Scott A. Gadell Place (4 blocks)
15. Nameoke Avenue from Redfern Avenue to Central Avenue (3 blocks)
16. Redfern Avenue from Nameoke Avenue/Hassock Street to Mott Avenue (3 blocks)
17. Scott A. Gadell Place from terminus to Mott Avenue (1 block)
18. Smith Place from Foam Place to Mott Avenue (1 block)

Based on the Phase IA results, HPI concluded that the project site had no sensitivity for potential precontact or historic period archaeological resources due to the extensive disturbance to the original landform from grading, filling, and significant subsurface utility construction. HPI recommended no further investigations for archaeological resources in the project site. The Phase IA Archaeological Documentary Study was submitted to the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRP or SHPO). SHPO concurred with the Phase IA conclusions and recommendations (Perazio 3/28/2018). The concurrence letter is included as Appendix B.

Since completion of the original Phase IA Archaeological Documentary Study in October 2017, three new segments have been added to the overall project (Figures 1, 2, and Appendix A). These segments are:

1. Beach Channel Drive between Nameoke Avenue to Hassock Street,
2. Nameoke Avenue between Beach Channel Drive and Redfern Avenue, and
3. A segment through the undeveloped marshland within the mapped but unbuilt section of Horton Street west of Pinson Street, crossing into a city-owned tax lot, which will connect to an existing segment attached to the Chandler Street outfall.

The present Addendum to the Phase IA Archaeological Documentary Study addresses these three new segments of the project to satisfy the requirements of Section 106/SEQRA/CEQR, and to comply with the

standards of the NYSOPRHP/SHPO and the New York City Landmarks Preservation Commission (LPC) (New York Archaeological Council 1994; NYSOPRHP/SHPO 2005; LPC 2002<sup>2</sup>; CEQR 2014).

The archaeological Area of Potential Effect (APE) for the segments includes the entire length and width of Beach Channel Drive from Nameoke Avenue to Hassock Street (approximately 480 feet long and 80 feet wide), the entire length and width of Nameoke Avenue from Beach Channel Drive to Redfern Avenue (approximately 410 feet long and 50 feet wide), and the entire length and width of the segment through the marshlands within the unbuilt Horton Avenue (approximately 240 feet long and 80 feet wide). Beach Channel Drive is slated to receive both new sanitary and storm sewers, Nameoke Avenue is slated to receive a new storm sewer, and the area west of Horton Avenue will receive a new storm sewer.

Figures 1 and 2 show the overall project site with the three new segments included. Appendix A shows the project site plans for the three new segments.

## **II. METHODOLOGY**

The present review of the three new APE segments builds on the data already collected for the initial Phase IA Archaeological Documentary Study. Much of the background information has not changed for these three new segments. Where information differs, it is presented below. Historic maps from the original study have been updated to show the conditions of the new segments over time.

## **III. CURRENT CONDITIONS AND ENVIRONMENTAL SETTING**

### **A. Current Conditions**

The project site segment on Beach Channel Drive measures approximately 480 feet in length and 80 feet in width. It was widened to its current extent in the mid-twentieth century; prior to that it had been 50 feet wide. Today, the segment consists of a roadbed, paved with asphalt, measuring 50 feet wide, and sidewalk and grassy areas on each side, measuring 15 feet wide each (Photographs 1 and 2).

There are numerous subsurface utilities under Beach Channel Drive and its sidewalks, as shown in Appendix A. These include gas lines, water lines, sanitary sewer lines, and storm sewer lines. The drawing for this segment shows that there is an abandoned 8-inch gas line and existing 12-inch and 16-inch gas lines within the roadbed. The existing water line, running down the approximate center of the street, is 16 inches in diameter. Two existing sanitary sewers, also running within the street, are 6 inches and 10 inches in diameter. A storm sewer measuring 12 inches in diameter is located under the sidewalk on the eastern side. There are catch basins on both sides of Beach Channel Drive near Hassock Street.

Currently, the street exhibits large patches and swaths of newer asphalt over linear trenches attesting to disturbance from utility work that has occurred at various times in the past. Existing water mains generally are located greater than 2 feet below grade, and existing storm and sanitary sewers at depths of from approximately 5 to 15 feet below grade (ftbg), depending on location. The utility maps make a specific notation that there is also the possibility that unmapped utilities and manholes may exist throughout the project site. It is not uncommon for subsurface investigations into streetbeds in urban environments to reveal unrecorded utility lines.

The project site segment on Nameoke Avenue measures 404-418 feet in length (the north side is shorter than the south side due to the angle of the Redfern Avenue intersection) and 50 feet in width. The segment consists of the asphalt covered roadbed, concrete sidewalks on both sides of the street, grassy strips between the some of the sidewalk areas and the roadbed (Photographs 3 and 4). Additionally, there are approximately 5-foot wide strips of land on both sides of the street beyond the sidewalks that are included in the APE as part of land for future street widening, but which will not be affected by the current project. These strips are being used as part of the front yards of the properties along the street (see Appendix A).

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<sup>2</sup> This Phase IA Addendum was contracted and initiated in May 2018, prior to the adoption of the 2018 LPC Archaeological Guidelines.

Nameoke Avenue and its sidewalks also have a number of subsurface utilities, as shown in Appendix A. These include gas lines, water lines, sanitary sewer lines, and storm sewer lines. The sanitary sewer is 24 inches in diameter, the storm sewer is 30 inches in diameter, the water line is 24 inches in diameter, two gas lines are 6 inches and 8 inches in diameter. There are catch basins along both sides of Nameoke Avenue near the two intersections.

As with Beach Channel Drive, currently Nameoke Avenue exhibits large patches and swaths of newer asphalt over linear trenches attesting to disturbance from utility work that has occurred at various times in the past. Existing water mains generally are located greater than 2 ftbg, and existing storm and sanitary sewers at depths of from approximately 5 to 15 feet ftbg, depending on location.

The project site segment west of Hassock Street is an 80-foot wide segment through the marshlands within the unbuilt Horton Avenue, and crossing into a city tax lot (Photographs 5 and 6). The segment measures approximately 240 feet in length. There is a large storm sewer within this segment measuring 11 feet wide and 4.5 feet high, and which is located approximately 6 ftbg.

## B. Topography and Hydrology

The three project site segments are located in proximity to Motts Basin, a naturally shallow inlet of water. According to the 1899 Jamaica Bay nautical charts, Motts Basin at its deepest ranged between 4 and 7.8 feet, from low to high tide (U.S.C.S. 1899). Surrounding this central channel was a wider area of mudflats along the shoreline, and in general, shoreward of the mudflats were salt marshes. Several small creeks drained the marshes into the basin, including a creek just west of the project site along the approximate modern line of Chandler Street. The project site segments along Beach Channel Drive and Nameoke Avenue were at the edge of the mudflats. Historic maps indicate that Beach Channel Drive was either on firm ground, or slightly overlapping the mudflats. Nameoke Avenue was on firm ground. The project site segment west of Horton Avenue was within the mudflats or marshlands surrounding Motts Basin.

In its natural condition, the Nameoke Avenue segment was approximately 10 feet above sea level, the Beach Channel Drive segment was less than 10 feet above sea level and the segment west of Horton Avenue was at approximately sea level. Elevations recorded in 1921 for the Final Maps of Queens (Figure 11), show that the Beach Channel Drive segment was less than 5 feet above sea level at its northern end intersecting Hassock Street and approximately 10 feet above sea level at its southern end intersecting Nameoke Avenue. The Nameoke Avenue segment was approximately 10 feet above sea level across its entire extent. The segment west of Horton Avenue was still shown as less than 5 feet above sea level. Today, Appendix A drawings show that Beach Channel Drive is approximately 6 feet above sea level at its intersection with Hassock Street and 10.5 feet above sea level at its intersection with Nameoke Avenue. The Nameoke Avenue segment is 10 feet above sea level at both ends, but rises to 12 feet above sea level in the middle of the block. The segment west of Horton Avenue is approximately 5 feet above sea level at the eastern end and 2 feet above sea level at the western end.

## C. Soils

According to the soil survey for New York City (Figure 3), the three project site segments fall within soil mapping unit 211, known as “Pavement & buildings-Flatbush-Riverhead complex, 0 to 8 percent slopes” and described as:

Nearly level to gently sloping urbanized areas of outwash plains that have been substantially cut and filled, mostly for residential use; a mixture of anthropogenic and gneissic outwash soils, with up to 80 percent impervious pavement and buildings covering the surface (USDA 2005:14).

No soil borings have been completed for the three project site segments as part of this project, although a number of soil borings were completed for other locations within the overall project site with similar conditions, as described in the initial Phase IA Archaeological Documentary Study.

#### **IV. BACKGROUND RESEARCH/HISTORICAL OVERVIEW**

The majority of the background information presented in the initial Phase IA Archaeological Documentary Study is the same for the three new project site segments. The following discussion presents segment-specific information.

As with the overall project site, the three new segments have not been subjected to an archaeological investigation and there have been no precontact or historic period archaeological sites previously recorded within the segment locations. However, several studies have been conducted within a one-mile radius, and are on file at the NYSOPRHP/SHPO and the LPC. The full list of studies within a one-mile radius was presented in the initial Phase IA Archaeological Documentary Study. Nearest to the project site, a Phase IA Archaeological Assessment was conducted for the Sewer Outfall at the end of Chandler Street, approximately one block west of the project site (HPI 2008). The study concluded that there was no remaining archaeological sensitivity on the property due to prior disturbance.

Based on the distance of the project site to the broadly drawn boundaries of nearby NYSM #4050, the SHPO's Cultural Resource Information System (CRIS) indicates that the three new project site segments are within an area of archaeological sensitivity. Boesch's sensitivity study for Queens indicates that the three project site segments are within an area of high archaeological sensitivity (Boesch 1997).

The three new project site segments are in an area of Far Rockaway that was vacant until about 1891, when what is now known as Beach Channel Drive was laid out. The street was first called Sheridan Boulevard and later Regina Boulevard. Nameoke Avenue, constructed at about the same time, was originally called Carlton Avenue. The segment west of Horton Avenue has never been developed with any roadways or buildings.

The historic maps presented in the initial Phase IA Archaeological Documentary Study have been updated to show the three new project site segments. These maps are:

- Figure 4: U.S.C.S. 1835.
- Figure 5: U.S.C.S. 1844.
- Figure 6: Conner 1852.
- Figure 7: Beers 1873.
- Figure 8: U.S.C.S. 1879.
- Figure 9: U.S.G.S. 1891.
- Figure 10: Wolverton 1891.
- Figure 11: Topographical Bureau 1921.

The lots along Beach Channel Drive and Nameoke Avenue were developed with residences beginning in the 1890s. The 1891 Wolverton map (Figure 10) depicts one residence at the northwest corner of what is now the Beach Channel Drive and Nameoke Avenue intersection; by issuance of the 1901 Sanborn insurance map, another residence had been constructed across the street, at the northeast corner of the intersection, and another residence had been built on the north side of Nameoke Avenue. The south side remained vacant. The 1912 Sanborn map update shows that many of the lots on both sides of Beach Channel Drive and Nameoke Avenue now had residences on them. The first subsurface utilities likely were installed in Beach Channel Drive and Nameoke Avenue at the time the streets were laid out; the 1901 Sanborn map shows water lines in place by 1901. After the Village of Far Rockaway was incorporated in 1888, underground sewers and gas lines had been installed under local streets as well (Bellot 1917:88).

As automobile traffic increased during the twentieth century, Beach Channel Drive was widened from 50 feet to 80 feet, taking approximately 15 feet of front yard area from each side of the street. Sanborn maps show that the change occurred at some time between 1933 and 1951. As noted above, Nameoke Avenue is officially mapped as 50 feet wide, although the roadbed and sidewalks are only 40 feet wide; the remaining

10 feet (5 on each side of the road) are within street widening areas that are presently used as part of the front yards of the abutting lots and will not be affected by the current project.

All three project site segments have had ongoing disturbance during the twentieth century from installation and repair of subsurface utilities. As shown in Appendix A, there are numerous conduits for gas, water, sanitary and storm sewers under Beach Channel Drive and Nameoke Avenue, and a large storm sewer under the undeveloped segment west of Horton Avenue.

## **V. CONCLUSIONS**

The purpose of this Addendum Phase IA Archaeological Documentary Study was to determine whether archaeological resources from Native American and historical period occupations could have been deposited in the three project site segments, if they could have remained intact, surviving later historical development and disturbance, and last if any potential resources could be impacted by proposed project plans. The following sections outline the conclusions for these resources.

### **A. Precontact Archaeological Sensitivity**

The project site segments are located in an area that while known to have had precontact occupation based on historic sources, has nonetheless never had a precontact period archaeological site recorded in the vicinity since the early twentieth century. The known Native American sites once located in the project site vicinity were along natural waterways and shorelines, often consisting of shell middens which rose above the natural grade, but which have long since disappeared from the visible landscape.

The Beach Channel Drive and Nameoke Avenue segments are located along the natural shoreline of Motts Basin, on firm ground which in its natural state was only a few feet above sea level. The segment west of Horton Avenue is within marshland. In their original condition, all three segments would have had the potential for precontact period archaeological resources. However, results of the research for this project have demonstrated that all three project site segments have experienced substantial disturbance during the historic era from grading, backfilling, and deep utility installations, which appears to have severely compromised any original landform that may have been favorable to Native American occupation. Soil borings completed as part of a Phase II Corridor Site Investigation for the DDC (LiRo 2016, Appendix B of the initial Phase IA Archaeological Documentary Study) some of which were within similar conditions and a block or two from the project site segments, do not suggest the survival of pre-development landforms that might have contained precontact resources. Rather, the soil borings largely indicate a pattern of disturbance from grading and filling across the overall project site. This is corroborated by survey maps (Appendix A) and most importantly, by the site inspection that indicates widespread disturbance to the natural landform from roadbed construction and multiple existing utility trenches within the project site segments.

In summary, results of this study indicate that multiple factors have contributed to the widespread disturbance across the three new project site segments. HPI concludes that there is no remaining sensitivity for potential precontact resources.

### **B. Historic Period Archaeological Sensitivity**

The Beach Channel Drive and Nameoke Avenue segments were undeveloped prior to the 1890s when the original streets were laid out. When Beach Channel Drive was widened from 50 feet to 80 feet in the mid-twentieth century, approximately 15 feet were taken from front yards of residences on both sides of the street. The residences had been constructed beginning in the 1890s. The segment west of Horton Avenue has been undeveloped marshland throughout its history. As described in detail above, various utilities have been installed beneath all three of the project site segments.

Based on these results, HPI concludes that there is no indication that there were any uses of the project site segments that would have any archaeological footprint or potential significance, and historic period archaeological sensitivity for the segments is low.

## **VI. RECOMMENDATIONS**

Based on the Addendum Phase IA results, HPI concludes that the three new project site segments have no sensitivity for potential precontact or historic period archaeological resources due to the extensive disturbance to the original landform from grading, filling, and significant subsurface utility construction, as well as the late development of the area, after the streets had already been provided with utilities. HPI recommends that no further investigations are warranted for archaeological resources in these three project site segments.

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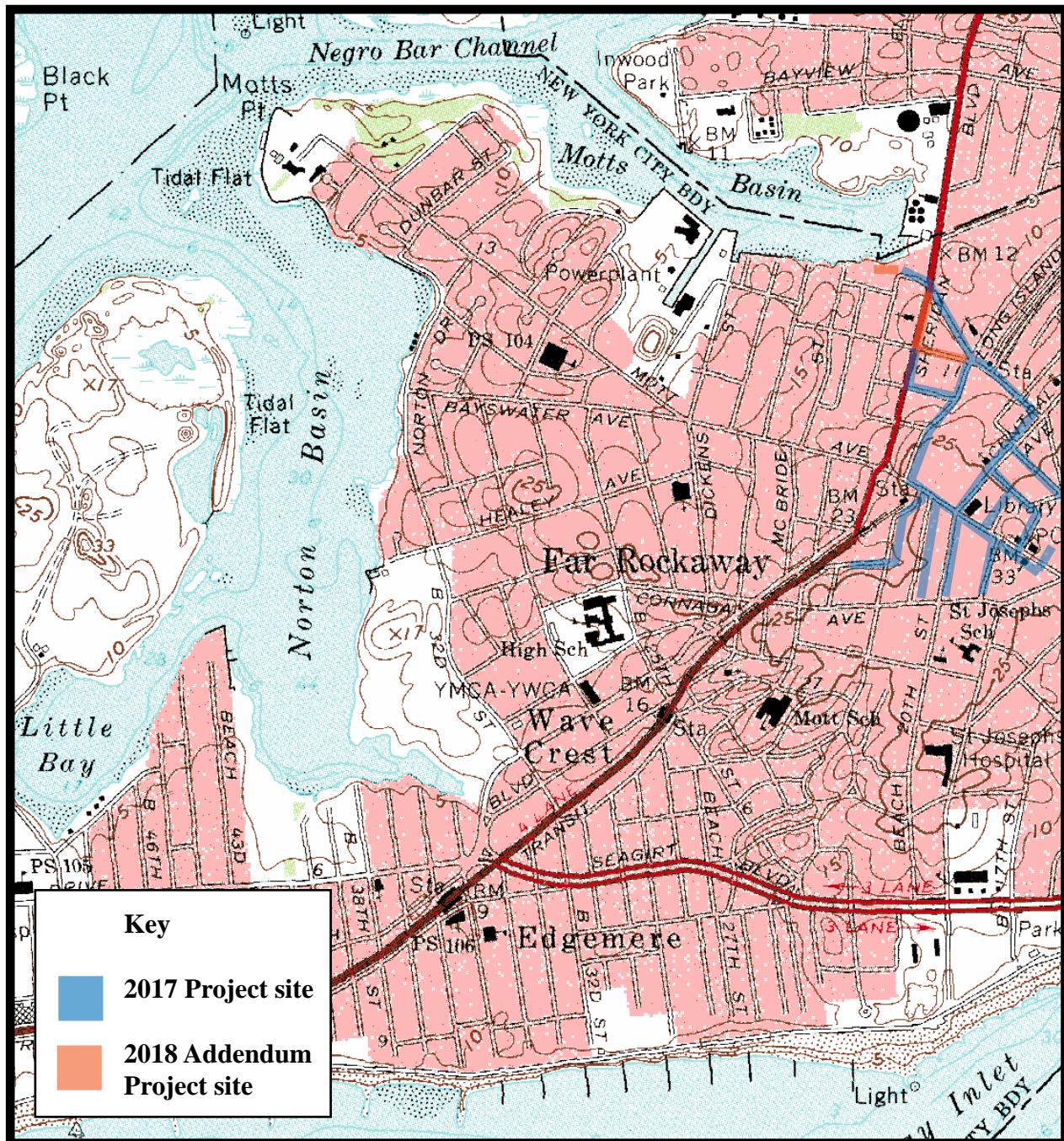
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**Addendum, Phase IA Archaeological Documentary Study  
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Far Rockaway, Queens County, New York**



**Figure 1: Project site on *Far Rockaway, N.Y.* topographic quadrangle (U.S.G.S. 1969).**

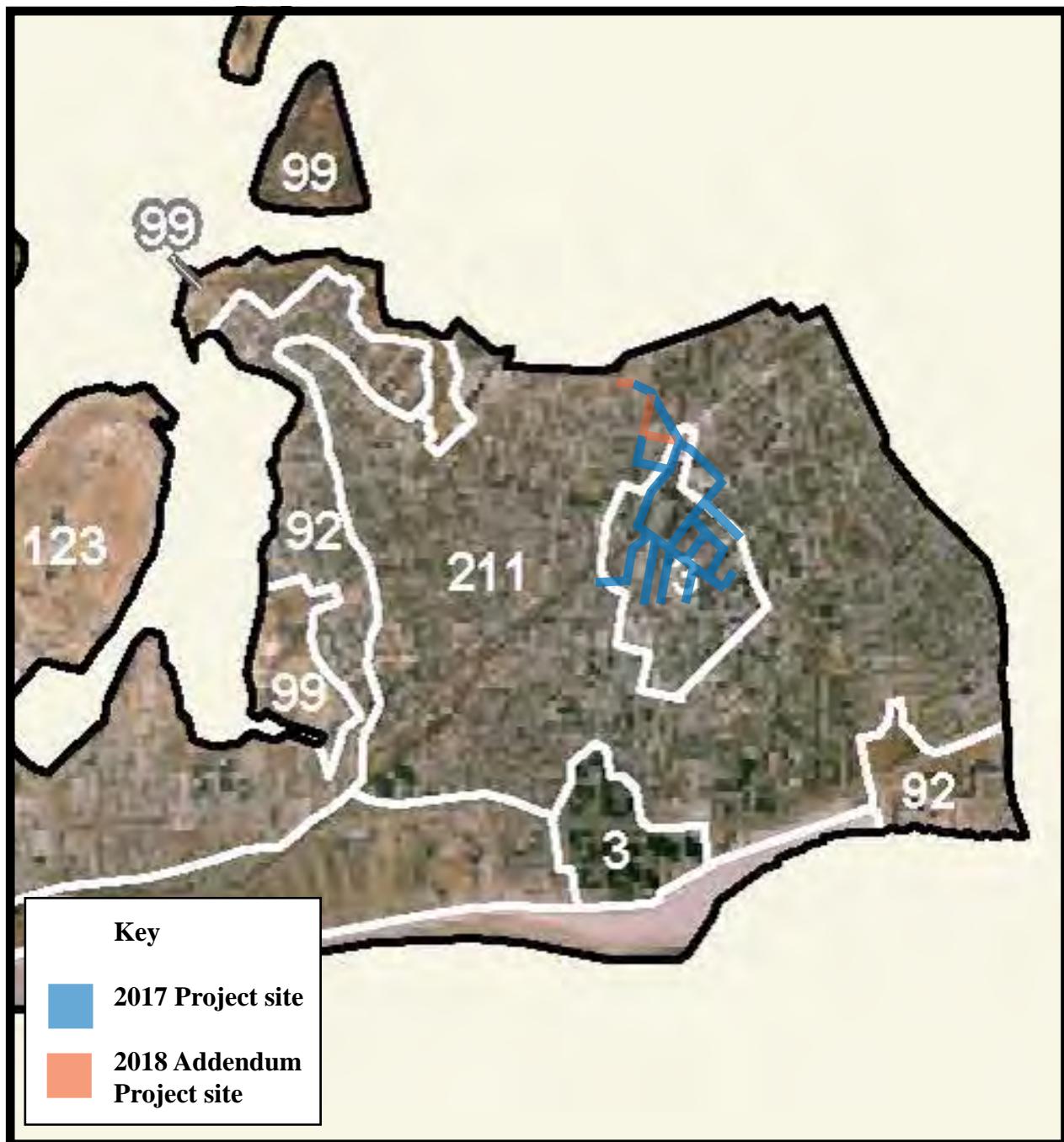
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Addendum, Phase IA Archaeological Documentary Study  
 Downtown Far Rockaway Urban Design and Streetscape Reconstruction  
 Far Rockaway, Queens County, New York

Figure 2: Project site and photograph locations on modern street map (DoITT 2018).



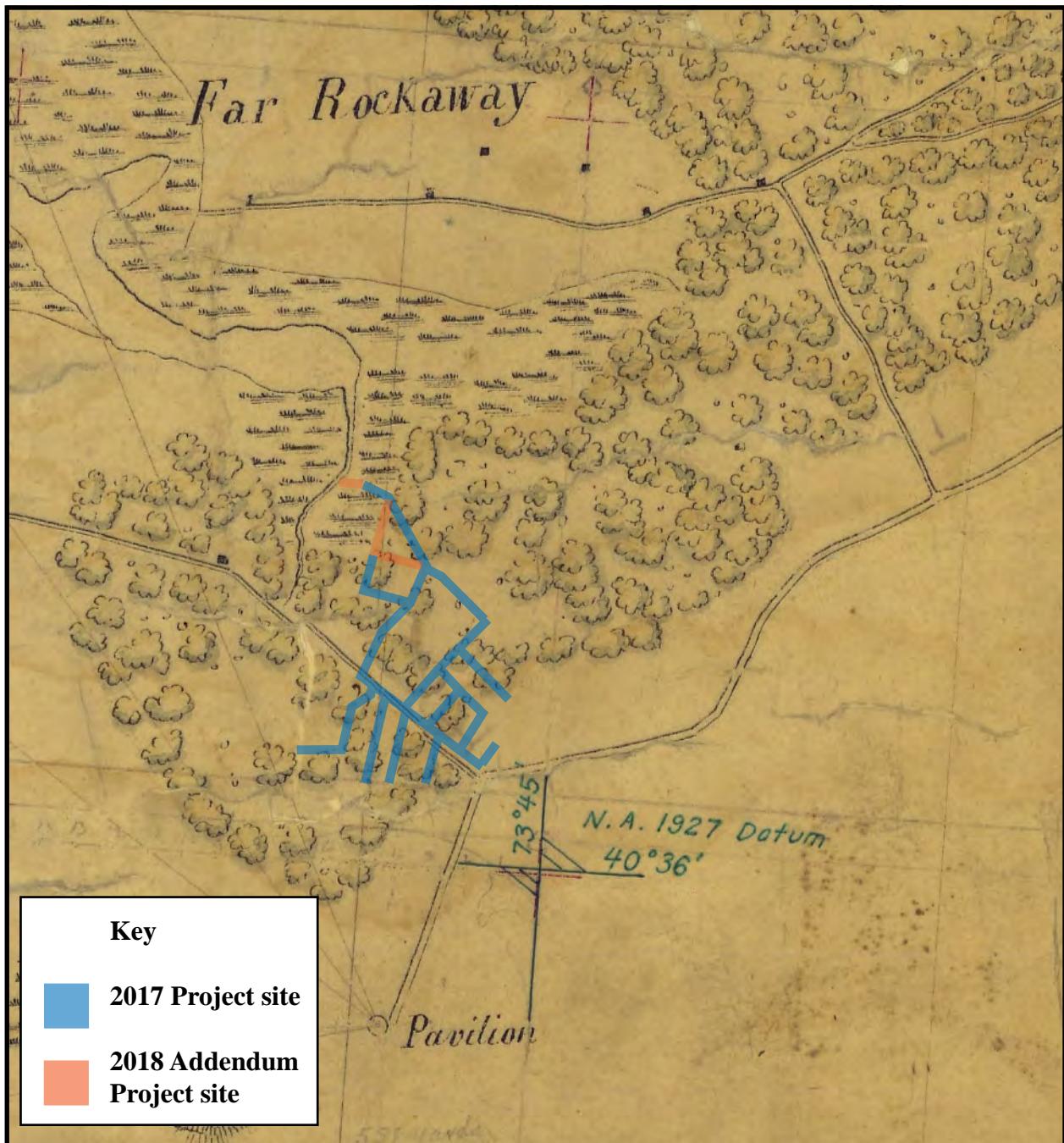


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Downtown Far Rockaway Urban Design and  
Streetscape Reconstruction  
Far Rockaway, Queens County, New York**



**Figure 3: Project site on *New York City Reconnaissance Soil Survey* (U.S.D.A. 2005).**

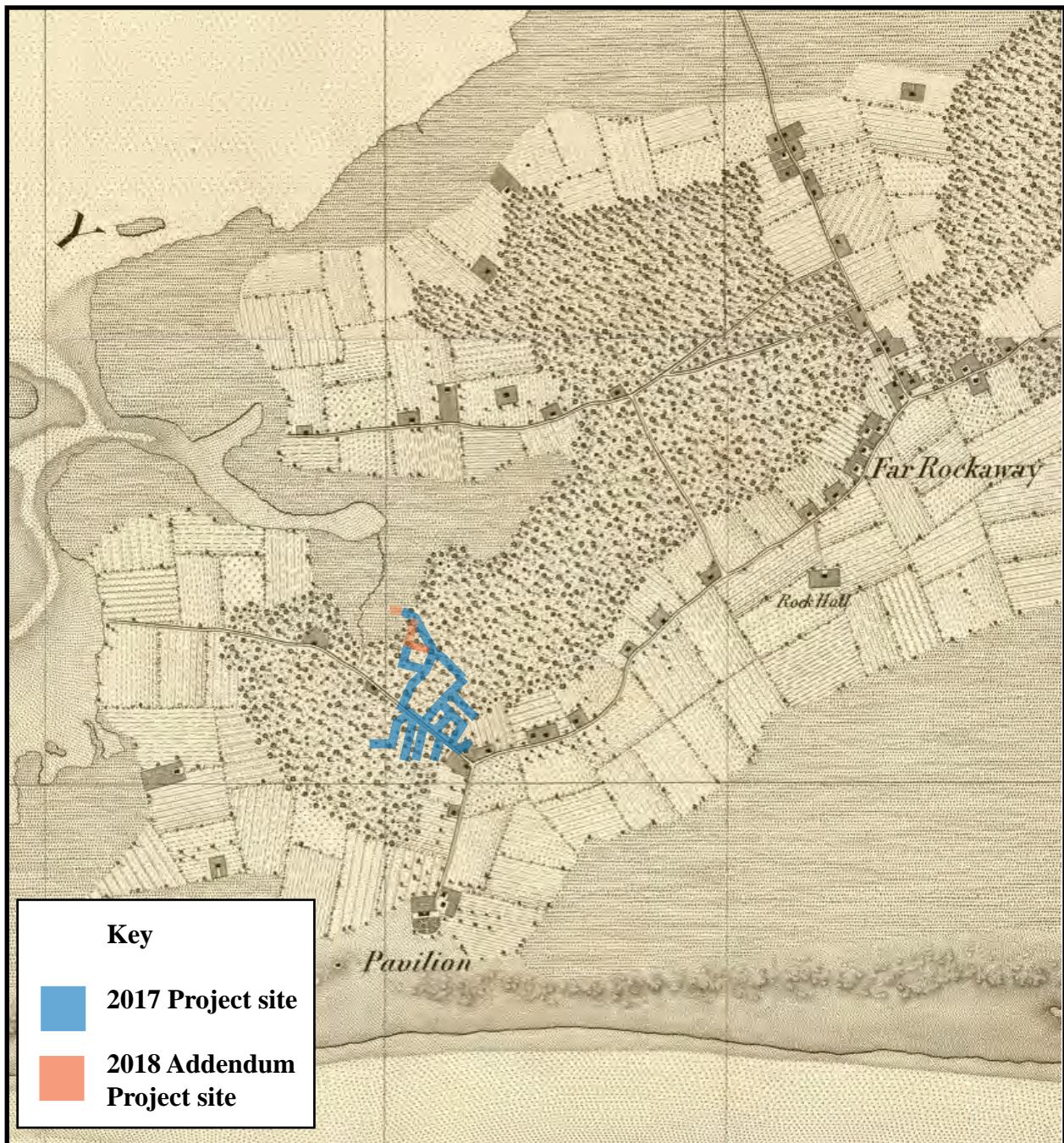
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Downtown Far Rockaway Urban Design and  
Streetscape Reconstruction  
Far Rockaway, Queens County, New York**



**Figure 4: Project site on *Map of the South Coast of Long Island...* (U.S.C.S. 1835).**

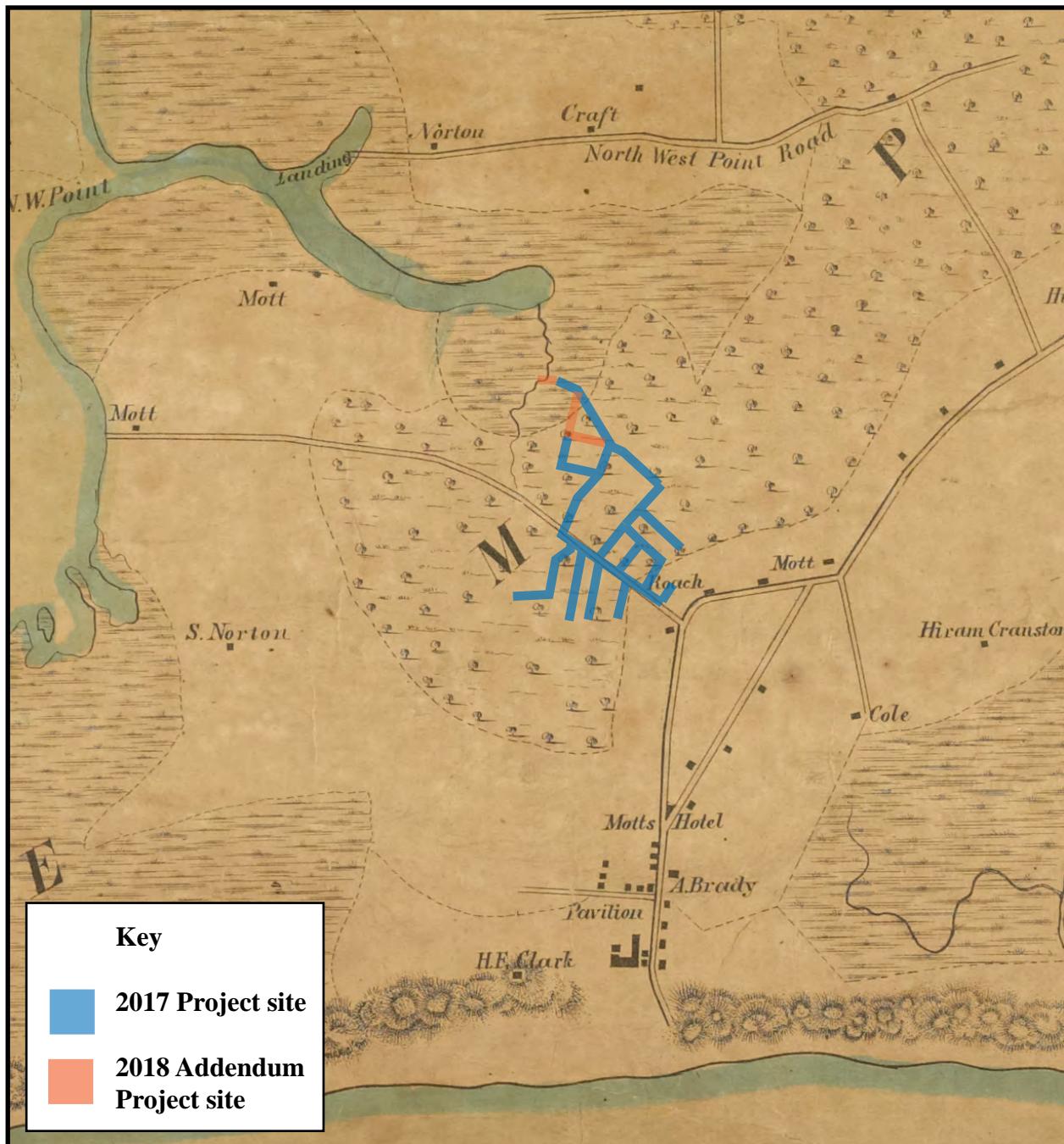


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Downtown Far Rockaway Urban Design and  
Streetscape Reconstruction  
Far Rockaway, Queens County, New York**



**Figure 5: Project site on Map of New-York Bay and Harbor and the Environs (U.S.C.S. 1844).**

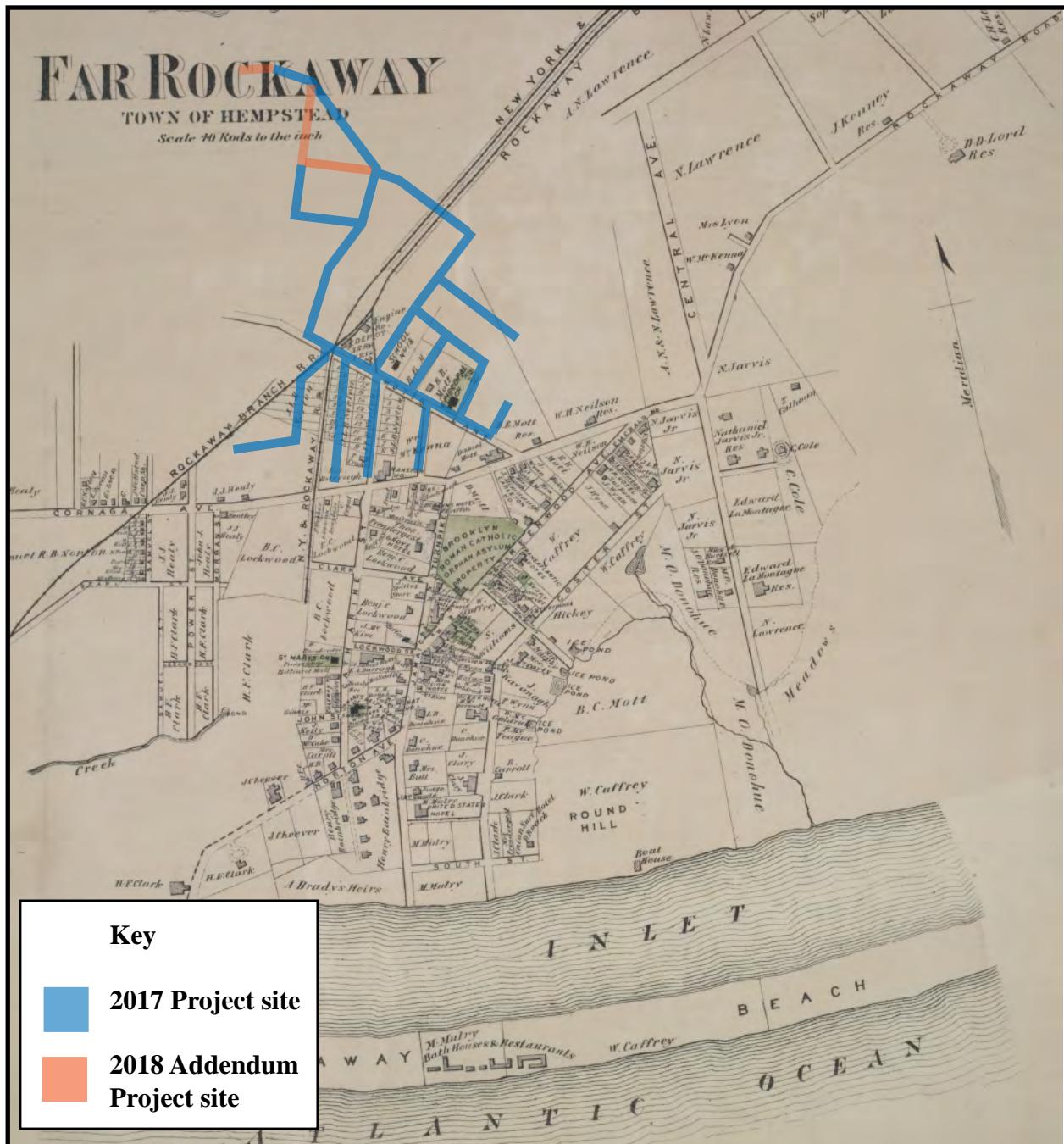
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Streetscape Reconstruction  
Far Rockaway, Queens County, New York**



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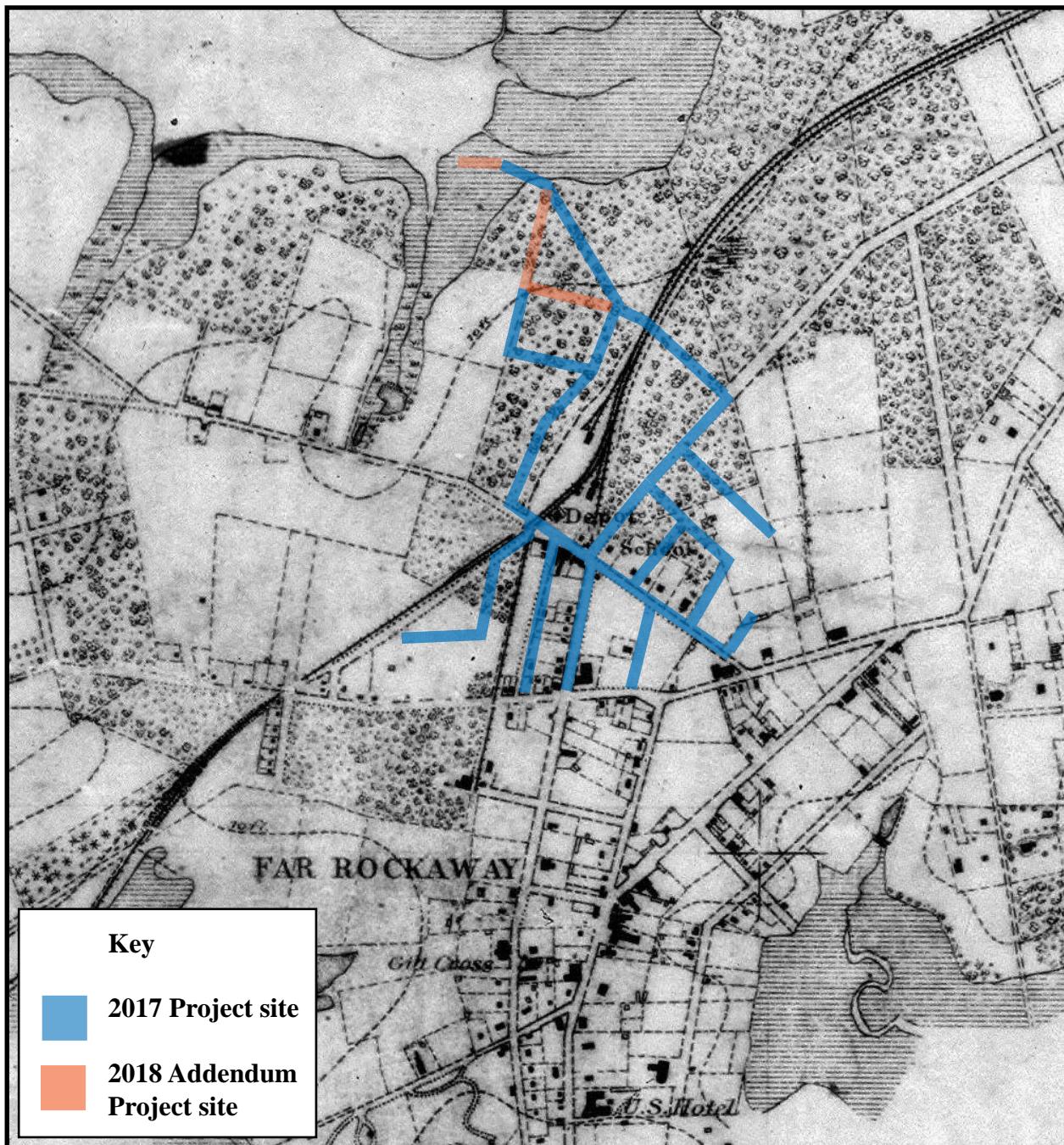


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 Streetscape Reconstruction  
 Far Rockaway, Queens County, New York



**Figure 7: Project site on *Atlas of Long Island, New York* (Beers 1873).**

0 500 1000 1500 2000 2500 FEET

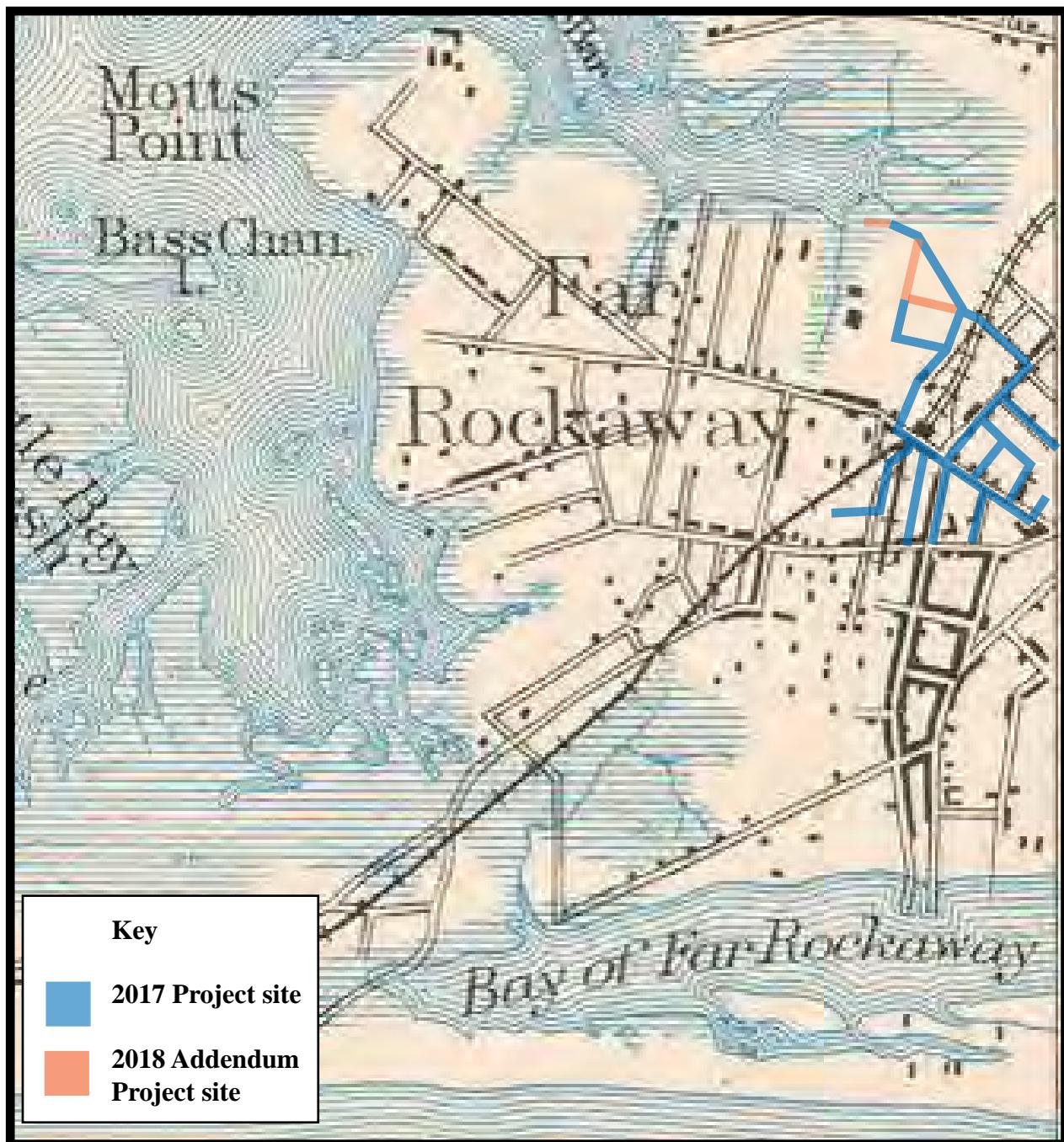


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 Streetscape Reconstruction  
 Far Rockaway, Queens County, New York



0    500    1000    1500    2000    2500    FEET

**Figure 8: Project site on Far Rockaway, Lawrence, Woodsburgh, and East Rockaway, Long Island, N.Y. (U.S.C.S. 1879).**

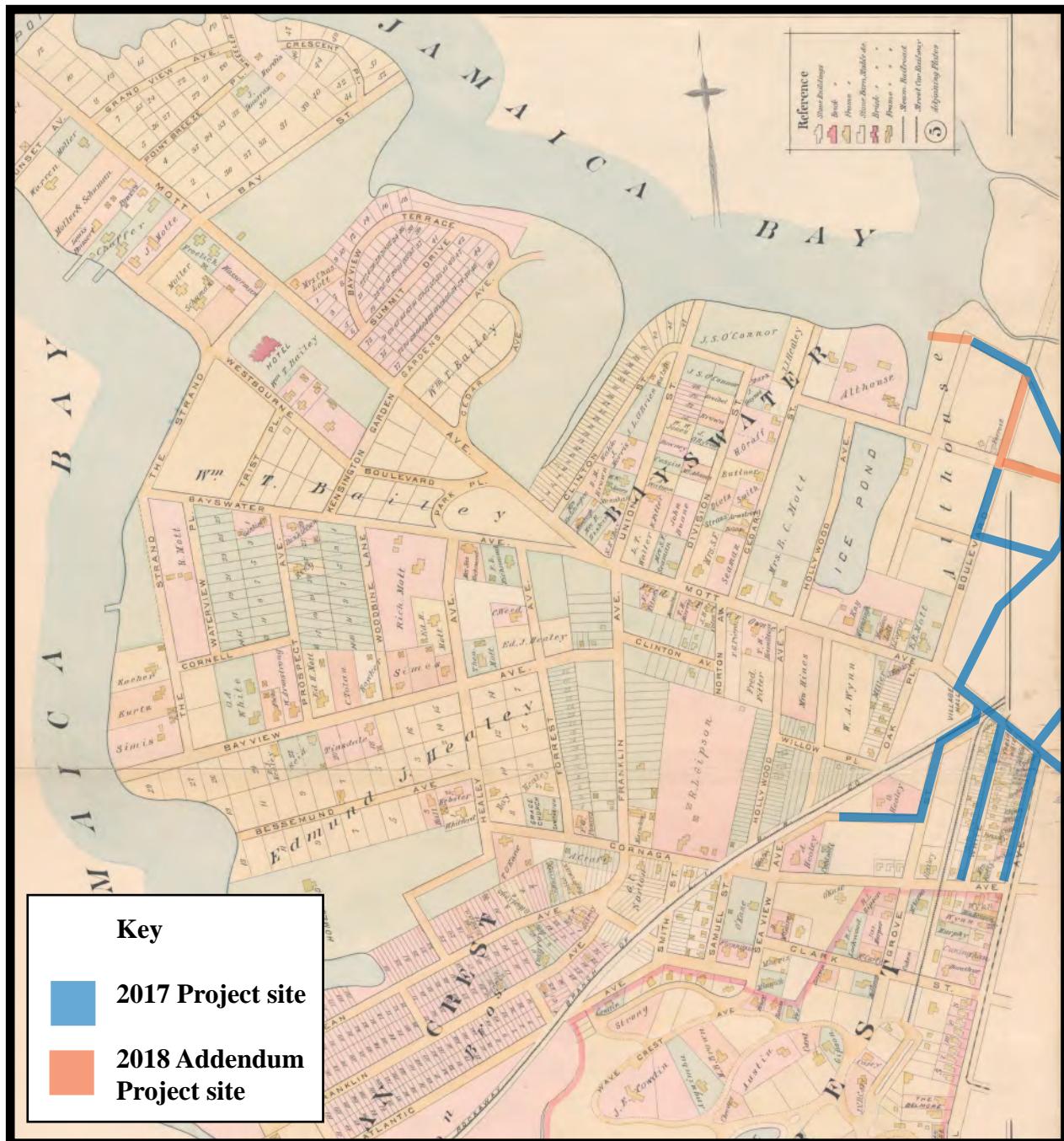


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Downtown Far Rockaway Urban Design and  
Streetscape Reconstruction  
Far Rockaway, Queens County, New York**

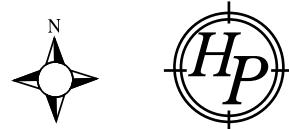


**Figure 9: Project site on Brooklyn, N.Y. 15 minute topographic quadrangle (U.S.G.S. 1891).**

0    1000    2000    3000    4000    5000    FEET

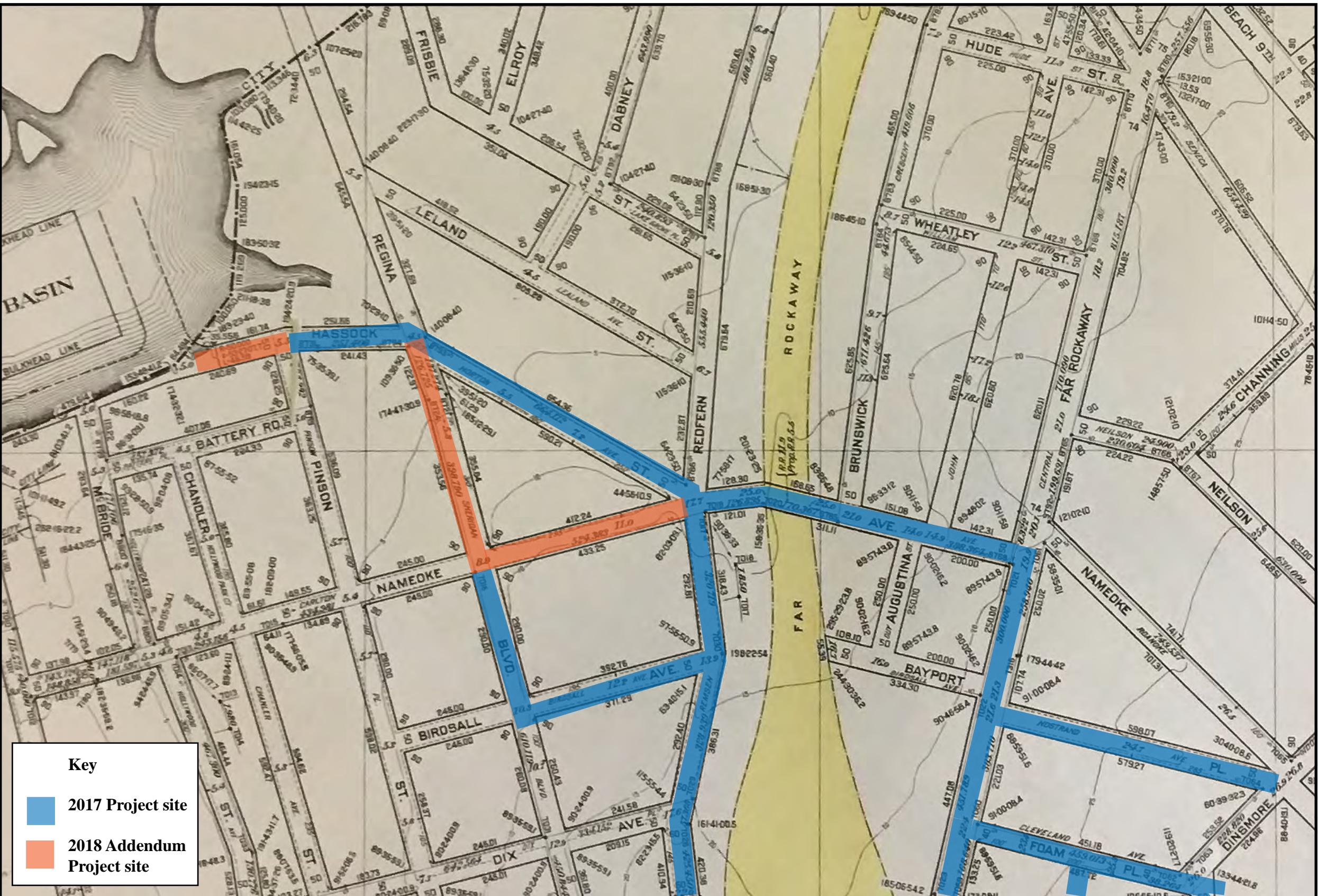


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Downtown Far Rockaway Urban Design and  
Streetscape Reconstruction  
Far Rockaway, Queens County, New York**



**Figure 10: Project site on *Atlas of Queens County, Long Island, New York* (Wolverton 1891).**

0 500 1000 1500 2000 2500 FEET



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Far Rockaway, Queens County, New York

0 100 200 300 400 500 FEET



Figure 11: Project site on *Final Maps of the Borough of Queens*, Section 232 (Topographical Bureau 1921).



Photograph 1: Beach Channel Drive north of Nameoke Avenue. View looking northeast.



Photograph 2: Beach Channel Drive south of Horton Avenue. View looking southwest.



Photograph 3: Nameoke Avenue near intersection of Redfern Avenue. View looking northwest.



Photograph 4: Nameoke Avenue near intersection of Beach Channel Drive. View looking southeast.



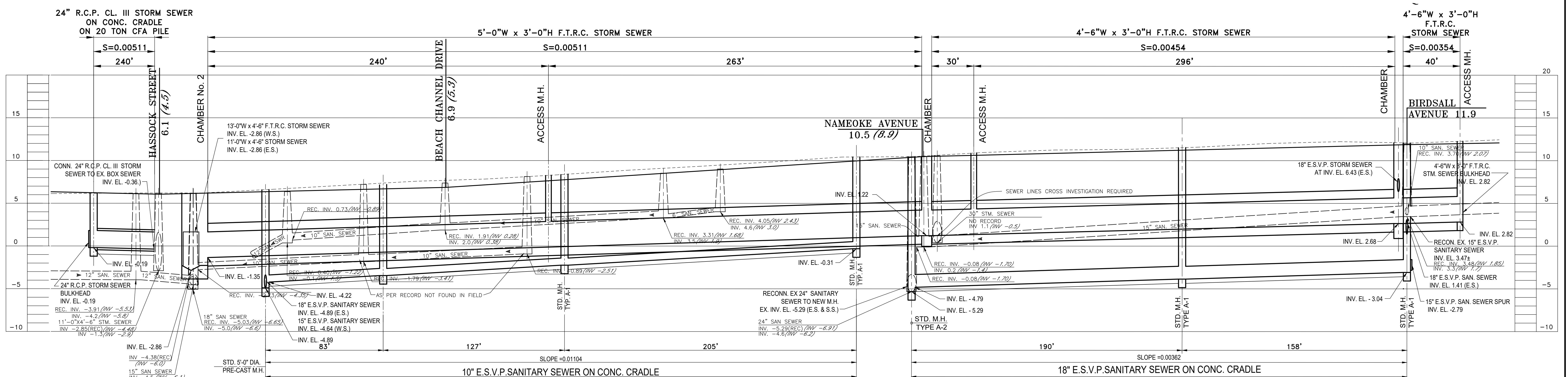
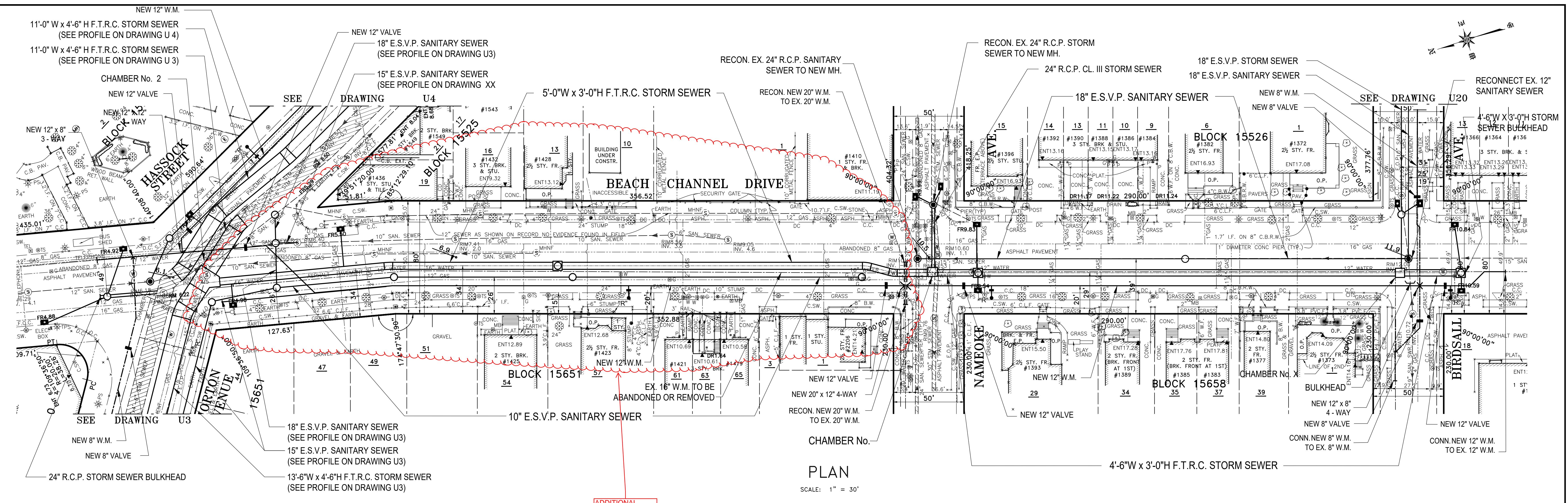
Photograph 5: Area west of Horton Avenue. View looking southeast.



Photograph 6: Area west of Horton Avenue. View looking northeast.

APPENDIX A: PROJECT SITE SEGMENT SURVEYS (DDC 2018)

SE-830 CONSTRUCTION OF STORM & SANITARY SEWERS IN MOTT AVENUE, ETC. BOROUGH OF QUEENS



NOTE: ALL ELEVATIONS NOT SHOWN IN PARENTHESES ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 "NAVD88". TO CONVERT THIS DATUM TO QUEENS HIGHWAY DATUM, SUBTRACT 1.625 FEET FROM EACH ELEVATION.

ELEVATIONS SHOWN THUS (XXXX) REFER TO THE QUEENS HIGHWAY DATUM.

NOTE: ALL ELEVATIONS NOT SHOWN IN PARENTHESES ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 "NAVD88". TO CONVERT THIS DATUM TO QUEENS HIGHWAY DATUM, SUBTRACT 1.625 FEET FROM EACH ELEVATION.

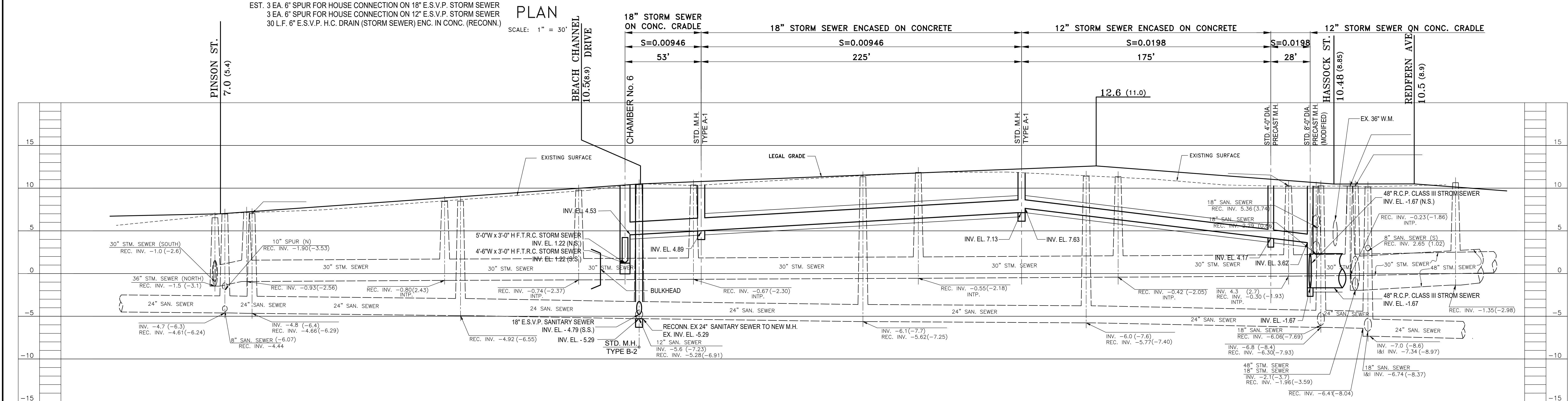
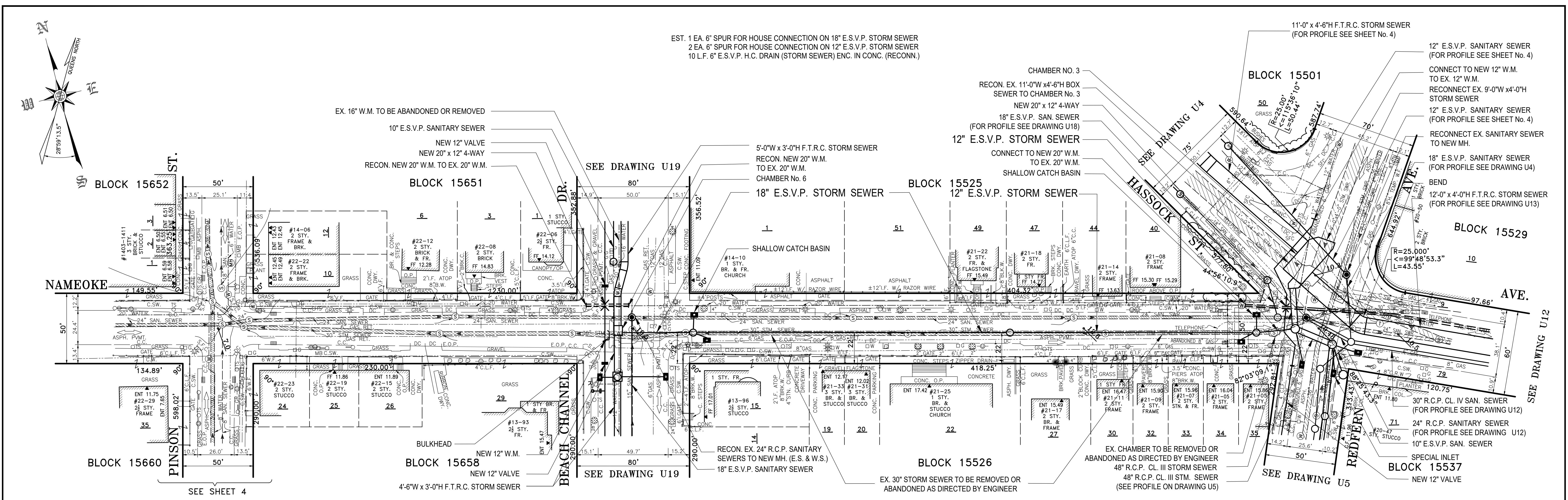
ELEVATIONS SHOWN IN PARENTHESES REFER TO THE QUEENS TOPOGRAPHICAL BUREAU DATUM.

ALL COORDINATES ARE SHOWN IN THE BOROUGH OF QUEENS COORDINATE SYSTEM.

NO.	DATE	DESCRIPTIONS	BY APPR'D
		REVISIONS	

FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS  
MOTT AVE. BETWEEN REDFERN AVE. & SOCTTA A. GADELL  
BOROUGH OF QUEENS

PROJECT ID : SE830 DATE: SHEET OF XX U19/x  
IN-HOUSE DESIGN



SEWER PROFILE ALONG NAMEOKE AVE.

"ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S BLUE INKED OR EMBOSSED SEAL SHALL BE CONSIDERED TO BE A TRUE VALID COPY"

"UNAUTHORIZED ALTERATIONS OR ADDITION TO A LAND SURVEYING DRAWING BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 145, SECTION 7209, PARAGRAPH 2 OF THE NEW YORK STATE EDUCATION LAW"

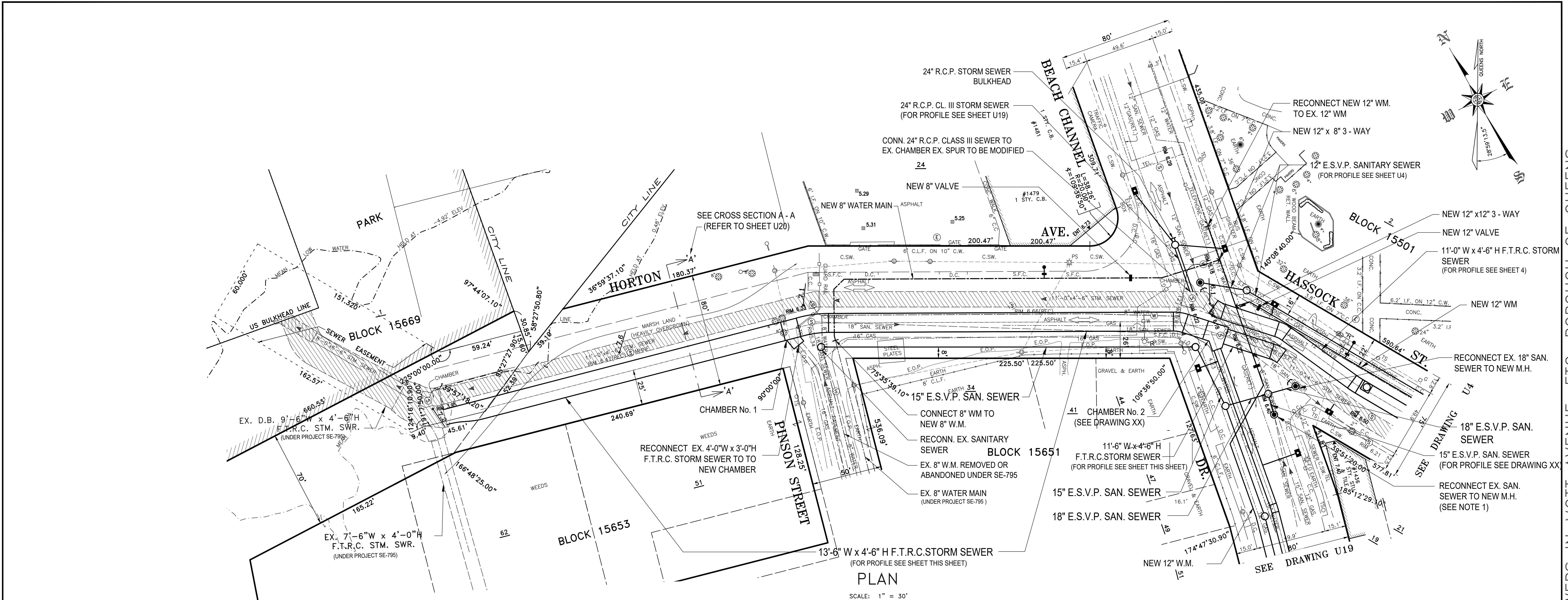
FIELD SURVEY WAS COMPLETED ON: JULY 29, 2015

LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP. CONSULT WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY DESIGN IMPROVEMENTS.

NOTE: ALL ELEVATIONS NOT SHOWN IN PARENTHESES ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 "NAVD88". TO CONVERT THIS DATUM TO QUEENS HIGHWAY DATUM, SUBTRACT 1.625 FEET FROM EACH ELEVATION. ELEVATIONS SHOWN THUS (XXXX) REFER TO THE QUEENS HIGHWAY DATUM.

DESIGNED	C. SCHWARTZ	SCALE	P.E.	CITY OF NEW YORK	NAMEOKE AVENUE	FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS
DRAWN	H. W. DAVIS	VERT: 1" = 5' HORIZ: 1" = 30'	C. SCHWARTZ, E.I.C	DEPARTMENT OF DESIGN + CONSTRUCTION	FROM BEACH CHANNEL DR. TO	MOTT AVE. BETWEEN REDFERN AVE. & SCOTT A. GADELL
CHECKED	K. SIGAL	CADD FILE _____ SHEET NO. 21 PLOT STYLE Black with Standard line wt.	K. SIGAL, DIRECTOR	DIVISION OF INFRASTRUCTURE	REDFERN AVE. PLAN & PROFILE	BOROUGH OF QUEENS
				BUREAU OF DESIGN		
						IN-HOUSE DESIGN
						U21 U36
						DATE: OCT. 2018 SHEET 44 OF 196

SE-830 CONSTRUCTION OF STORM & SANITARY SEWERS IN MOTT AVENUE, ETC. BOROUGH OF QUEENS



NOTES:

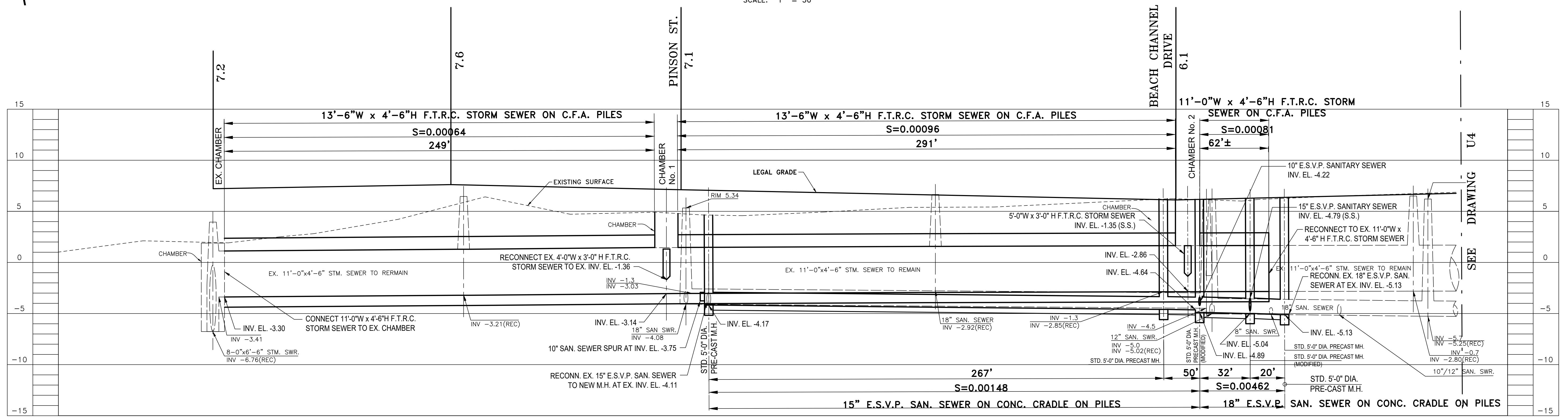
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE INVERT ELEVATIONS OF THE EXISTING SANITARY SEWERS TO BE CONNECTED TO THE PROPOSED SANITARY SEWERS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD THE CONTRACTOR'S INVESTIGATION REVEAL DISCREPANCIES BETWEEN FIELD CONDITION AND CONTRACT DRAWINGS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY. THE AFOREMENTIONED INVESTIGATION MUST BE PERFORMED PRIOR TO THE CONSTRUCTION AND COST THEREOFF SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL ITEMS OF WORK. NO ADDITIONAL PAYMENT SHALL BE MADE.

LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP. CONSULT WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY DESIGN IMPROVEMENTS.

"ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S BLUE INKED OR EMBOSSED SEAL SHALL BE CONSIDERED TO BE A TRUE VALID COPY"

"UNAUTHORIZED ALTERATION OR ADDITION TO A LAND SURVEYING DRAWING BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 145, SECTION 7209, PARAGRAPH 2 OF THE NEW YORK STATE EDUCATION LAW"

FIELD SURVEY WAS COMPLETED ON: OCTOBER 13, 2016



DESIGNED _____	SCALE AS SHOWN	C. SCHWARTZ, P.E.	CITY OF NEW YORK		HORTON AVENUE		FOR THE CONSTRUCTION OF STORM AND SANITARY SEWERS	
DRAWN _____ H. W. DAVIS	CADD FILE	ENGINEER-IN-CHARGE	DEPARTMENT OF DESIGN + CONSTRUCTION		MOTT AVE. BETWEEN REDFERN AVE. & SOCTTA A. GADELL		BOROUGH OF QUEENS	
CHECKED _____	PLOT STYLE	KLARA SIGAL, P.E.	DIVISION OF INFRASTRUCTURE		BUREAU OF DESIGN		IN-HOUSE DESIGN	
			FROM EXISTING CHAMBER TO BEACH CHANNEL DR.		PLAN & PROFILE		PROJECT ID : SE830	DATE: SHEET OF XX U3/XX

APPENDIX B: NYSOPRHP/SHPO CONCURRENCE LETTER



# Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO

Governor

ROSE HARVEY

Commissioner

March 28, 2018

Ms. Sandra Reyes-Guerra  
Sr. Landscape Architect  
NYS Department of Transportation  
Hunters Point Plaza  
47-40 21st Street  
Long Island City, NY 11101

Re: FHWA  
PIN X760.79 SANDR02 Downtown Far Rockaway Urban Design and Street  
Reconstruction Project  
Borough of Queens, Queens County  
17PR01317 / PIN X760.79

Dear Ms. Reyes-Guerra:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

SHPO has reviewed the Phase IA archaeological report submitted for this project – *Phase IA Archaeological Documentary Study, Downtown Far Rockaway Urban Design and Streetscape Reconstruction, Far Rockaway, Queens County, New York* (Historical Perspectives, October 2017). We concur with the recommendation that no further archaeological investigation is needed, but that an Unanticipated Discoveries Plan for the three specified side streets be created for the project. In addition, we continue to recommend that a Construction Protection Plan also be created. Please submit both plans for review and comment by this office.

If you have any questions, please don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Philip A. Perazio".

Philip A. Perazio, Historic Preservation Program Analyst - Archaeology Unit

Phone: 518-268-2175

e-mail: [philip.perazio@parks.ny.gov](mailto:philip.perazio@parks.ny.gov)

via e-mail only