
National Park Service
Cultural Landscapes Inventory
2000



Floyd Bennett Field
Gateway NRA - Jamaica Bay Unit

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Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI), a comprehensive inventory of all cultural landscapes in the national park system, is one of the most ambitious initiatives of the National Park Service (NPS) Park Cultural Landscapes Program. The CLI is an evaluated inventory of all landscapes having historical significance that are listed on or eligible for listing on the National Register of Historic Places, or are otherwise managed as cultural resources through a public planning process and in which the NPS has or plans to acquire any legal interest. The CLI identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into a national database. In addition, for landscapes that are not currently listed on the National Register and/or do not have adequate documentation, concurrence is required from the State Historic Preservation Officer or the Keeper of the National Register.

The CLI, like the List of Classified Structures, assists the NPS in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2006), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two GPRA goals are associated with the CLI: bringing certified cultural landscapes into good condition (Goal 1a7) and increasing the number of CLI records that have complete, accurate, and reliable information (Goal 1b2B).

Scope of the CLI

The information contained within the CLI is gathered from existing secondary sources found in park libraries and archives and at NPS regional offices and centers, as well as through on-site reconnaissance of the existing landscape. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the site's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit. Unlike cultural landscape reports, the CLI does not provide management recommendations or

treatment guidelines for the cultural landscape.

Inventory Unit Description:

Floyd Bennett Field, part of the Jamaica Bay Unit of Gateway National Recreation Area, located southeast of Brooklyn, New York, is a 1,450-acre former municipal airport and Naval Air Station on an island in Jamaica Bay. Floyd Bennett Field is surrounded by water on three sides and is connected to Brooklyn and the Rockaway peninsula by bridges. The site is now used largely for recreational purposes, such as for community gardening, model airplane flying, and sporting activities, and by several on-site partners such as the New York City Police Department, the New York City Department of Sanitation, and as an Armed Forces Reserve Center. The site is characterized by features dating to the municipal and Naval Air Station eras including runways, airplane hangars, and World War II-era service buildings, as well as by newer recreation-related features dating to the NPS period such as a modern sports facility, picnic and campground areas, and community gardens.

HISTORICAL OVERVIEW

Floyd Bennett Field is significant for the period between 1928 and 1945, representing the development of New York's first municipal airport and the development of a major Naval Air Station during World War II. New York City purchased the site of the future airport, Barren Island, in the 1920s in the hopes of developing a large regional port in Jamaica Bay. When this plan failed to materialize, the property was chosen as the site of the first municipal airport in New York, closely following the opening of Newark Airport in New Jersey. Construction began in 1928 and Floyd Bennett Field was opened to commercial air traffic in 1931. The initial airport consisted of two perpendicular runways and a line of buildings along Flatbush Avenue. The airport was enlarged by the Works Progress Administration (WPA) who provided the design expertise and labor to expand the airport's capacity throughout the 1930s. By 1942, the Navy, who had been an on-site partner since the airport's inception, purchased Floyd Bennett Field from the City of New York, renaming it Naval Air Station, New York, NY (NAS New York) and closed the facility to commercial traffic. The Navy altered the airport extensively to accommodate the increased war-time activity. Runways were lengthened, scores of new buildings were built, and access to the facility was altered to create a more secure location. After 1945, Navy activity at the airfield decreased markedly, except for a brief escalation during the Korean War in the 1950s, and the Navy leased out portions of the field to other military and other public agencies. The Navy transferred the property to the National Park Service (NPS) in 1972 and Floyd Bennett Field became part of the newly established Gateway National Recreation Area.

SIGNIFICANCE SUMMARY

Floyd Bennett Field is associated with significant themes and contexts that fall within National Register criteria A, B, and C. The property derives significance under Criterion A on a state level in the area of transportation for the development of early municipal airports, and on a national level in the area of military for the development Naval Air Stations on the home front in World War II. The site is significant on a state level under Criterion C for the design of early municipal airports and on a local level for the design of Naval Air Stations during World War II. Floyd Bennett Field is also significant under Criterion B for its association with important individuals in early aviation, including Wiley Post, Howard Hughes, and Douglas Corrigan, however, further examination of Criterion B falls outside the

scope of this report. The period of significance for Floyd Bennett Field is 1928-1945, beginning with the construction of the municipal airport and continuing through the end of World War II.

ANALYSIS AND EVALUATION SUMMARY

Floyd Bennett Field reflects the conditions of the municipal airport and Navy airport eras. Several dominant landscape characteristics convey the property's historic character including spatial organization, circulation, vegetation, buildings and structures, and views and vistas. Historically, the flat terrain, open landscape, and proximity to water created ideal conditions for an airport, where sight lines were readily available and access for seaplanes was plentiful. Though initial airport development took place on a fraction of the land that was eventually included in the airport boundary, outlying areas were characterized by low-growing native vegetation, much of which was inundated regularly by the tides. Vegetation inside the airport was sparse, with the exception of a planting scheme at the airport entrance and Administration Building that included street trees and shrubs. As the City, WPA, and the Navy expanded the airport in the 1930s and 1940s new circulation features and buildings altered the spatial organization of the site. Runways, taxiways, aprons, roads, and parking lots were built to accommodate larger aircraft and increased numbers of personnel. To increase the buildable acreage, the Navy built seawalls and filled land on the island's perimeter. The Navy added many new buildings, often in new clusters of development outside of the original airport boundary. By 1945, most of the island's land mass was developed to some degree, contrasting with the sparse appearance of the municipal airport era. New clusters of development on the north, south, and east sides of the island blocked some direct water views but the historically flat and open character of the landscape remained due to the low growing vegetation, flat terrain, and long, open view corridors of the runways and taxiways.

The Navy made some changes to the airbase after 1945, including the demolition of several hangars and barracks. More significant alterations occurred during the NPS period beginning in 1972 when management objectives favored natural resource goals and the creation of recreational opportunities. Successional vegetation was allowed to grow in several formerly open expanses between the runways and along the northern extents of the site, impacting the historically open view corridors.

Despite the changes made, many character defining aspects of the landscape remain today. The runways and taxiways still create dramatic swaths of open, linear space. Clusters of development established during the municipal airport and World War II eras remain, including Hangar Row and the Seaplane Patrol Base on Jamaica Bay. As such, the study area retains integrity of location, design, setting, materials, workmanship, feeling, and association to the period of significance, 1928-1945. The condition of the landscape is fair. The growth of unmanaged vegetation in areas that were formerly maintained has impacted the condition. Likewise, numerous buildings on site are in disrepair.

Site Plan



Site plan for Floyd Bennett Field, Gateway National Recreation Area (NRA), 2008.

Property Level and CLI Numbers

Inventory Unit Name:	Floyd Bennett Field
Property Level:	Landscape
CLI Identification Number:	650084
Parent Landscape:	650084

Park Information

Park Name and Alpha Code:	Gateway NRA - Jamaica Bay Unit -GATE
Park Organization Code:	1774
Subunit/District Name Alpha Code:	Gateway NRA - Jamaica Bay Unit - GATE
Park Administrative Unit:	Gateway National Recreation Area

CLI Hierarchy Description

Floyd Bennett Field is one of nine component landscapes of Gateway National Recreation Area. The others are Battery Weed, Breezy Point, Fort Hancock, Fort Tilden, Fort Wadsworth, Great Kills, Jacob Riis Park, and Miller Field.

Concurrence Status

Inventory Status: Complete

Completion Status Explanatory Narrative:

Several site visits were conducted in 2006 and 2007 as part of documentation of existing conditions for the Cultural Landscape Report for this site. The project team consisted of Sarah Cody and John Auwaerter of the Olmsted Center for Landscape Preservation, in partnership with the State University of New York – College of Environmental Science and Forestry. Additional research for this Cultural Landscape Inventory was completed by Lisa Nowak of the Olmsted Center.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	09/05/2008
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/30/2008

National Register Concurrence Narrative:

On September 30, 2008, the New York State Historic Preservation Office concurred through via email with the findings of the CLI. Hard-copy correspondence documenting the consultation and their response was received in October 2008.

Concurrence Graphic Information:

SEP-5-2008 01:00P FROM: CULTURAL RESOURCES M 718-354-4550 TO: 916172235172 P.1/1

**CULTURAL LANDSCAPES INVENTORY
CONCURRENCE FORM**

Floyd Bennett Field
Gateway National Recreational Area

Gateway National Recreational Area concurs with the findings of the Cultural Landscape Inventory (CLI) for Floyd Bennett Field including the following specific components:

MANAGEMENT CATEGORY: May Be Preserved and Maintained

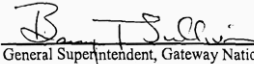
CONDITION ASSESSMENT: Fair

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

The Cultural Landscape Inventory for the Floyd Bennett Field is hereby approved and accepted.


General Superintendent, Gateway National Recreational Area

9-5-08
Date

Concurrence form for Floyd Bennett Field, September 5, 2008.

Geographic Information & Location Map

Inventory Unit Boundary Description:

The CLI study area includes most of Floyd Bennett Field, a former municipal airport and Naval Air Station located on Barren Island in Jamaica Bay, New York. The study area incorporates the entire airfield, the main complex of buildings along Flatbush Avenue known as Hangar Row, and a former Navy Seaplane Base, maintenance area, and Coast Guard Air Station along Jamaica Bay. Proceeding in a clockwise direction, the boundary of the study area begins at the juncture of Mill Basin and the northeast corner of Runway 1-19 and travels east to Jamaica Bay. The boundary turns south and follows Jamaica Bay, passing the former Coast Guard Air Station, now the site of the New York City Department of Sanitation Training Area and the New York City Police Department Aviation Unit. At the boundary of the South Support Area and the location of the City Pier remnants, the project area

Floyd Bennett Field
Gateway NRA - Jamaica Bay Unit

boundary turns west, following a surface road, crossing into a successional woodland, before running along the south side of Taxiway 4. The boundary crosses over Taxiway 7, makes a slight northward turn and meets Flatbush Avenue. The boundary follows Flatbush Avenue in a northwesterly direction, past Hangar Row, to the extension of Runway 12-30. The remnant of the feature is included in the boundary, which turns southeast before following the north side of Runway 6-24. At the juncture of Runway 6-24 and Runway 1-19, the project area boundary turns north and meets the point of beginning along Mill Basin.

Four parcels located within Floyd Bennett Field are excluded from the CLI study area. Three reside within the NPS boundary and one parcel is owned by another federal agency. The North 40 Natural Area, the former Navy munitions-communication area located north of the study area, and the South Support Area located south of the study area, were part of the historic airfield but have been excluded from the CLI study area due to diminished integrity. The Marine Corps Reserve Center, built in the 1950s within the historic limits of Floyd Bennett Field, is not included in the study area because it is not owned by the NPS. The portion of Gateway National Recreation Area (NRA) west of Flatbush Avenue across from Hangar Row is also excluded from the CLI study area because it was not historically part of Floyd Bennett Field, but rather part of the city's Brooklyn Marine Park that became part of Gateway NRA in 1972 (when Runway 1-19 was lengthened in c.1952, the Navy apparently maintained a right-of-way within the city park to maintain a flight-path clear zone).

State and County:

State: NY

County: Kings County

Size (Acres): 773.00

Boundary UTMS:

Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	158,164
UTM Northing:	1,014,505
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Are
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	159,908
UTM Northing:	1,016,457
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Are
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	153,361
UTM Northing:	1,017,944
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Are
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	153,376
UTM Northing:	1,016,480
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Are
Type of Point:	Area
Datum:	NAD 83

UTM Zone:	18
UTM Easting:	151,482
UTM Northing:	1,014,890
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Area
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	151,509
UTM Northing:	1,014,110
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Area
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	155,775
UTM Northing:	1,010,552
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Area
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	156,350
UTM Northing:	1,010,814
Boundary Datum Other:	Other Digital Source: Gateway National Recreation Area
Type of Point:	Area
Datum:	NAD 83
UTM Zone:	18
UTM Easting:	155,948
UTM Northing:	1,011,656

Boundary Datum Other:

Other Digital Source: Gateway National Recreation Area

Location Map:



Floyd Bennett Field is part of the Jamaica Bay Unit of Gateway National Recreation Area (Gateway National Recreation Area (NRA) web site).



The CLI study area is outlined in blue (Courtesy of the 2008 draft Cultural Landscape Report for Floyd Bennett Field, SUNY ESF).

Regional Context:

Type of Context: Cultural

Description:

Prior to the island's use as an airport, Barren Island hosted a thriving community based around several local industries. It formed in the late 1800s when the population grew to approximately 1,400 people. This population base did not last for long and many people left the island as industries closed after World War II. Planning for Floyd Bennett Field began in the late 1920s and by 1931, New York City's first municipal airport opened for business. This followed the brief operation of the island's first private airfield, the Barren Island Airport in the late 1920s. Through the 1930s, Floyd Bennett Field served civilian and military purposes before being redesignated as a Naval Air Station during World War II. The infrastructure of the airport was increased significantly during the war years, much of which is still evident today.

Type of Context: Physiographic

Description:

Floyd Bennett Field is characterized by its natural features, notably flat terrain and proximity to water. These attributes played a major role in the decision to locate an airfield on Barren Island. Historically, the island was a mixture of dry coastal dunes and low wetlands subject to tidal inundation. During the course of airport development, the area's wetlands were filled and the shoreline was reinforced to create a larger landmass with a more regular perimeter. The flat topography is still a dominant landscape characteristic, providing abundant views to the surrounding water bodies.

Type of Context: Political

Description:

Floyd Bennett Field is a unit of Gateway National Recreation Area. The property was under private and public ownership through c.1941. New York City acquired roughly two-thirds of the island in the 1920s and retained ownership through the 1930s and operated the first municipal airport in New York City. In 1941, the Navy purchased the airport and surrounding lands owned by the City and private citizens. They administered the property as Naval Air Station, New York, NY, until transferring the land to the Department of the Interior in 1972, when the property was designated as Floyd Bennett Field, a unit of Gateway National Recreation Area.

Management Information

General Management Information

Management Category: May be Preserved or Maintained

Management Category Date: 09/05/2008

Management Category Explanatory Narrative:

Floyd Bennett Field falls into the management category “May Be Preserved and Maintained” because it meets National Register criteria, but due to condition or other factors does not qualify for the “Should Be Preserved or Maintained” classification. The property is significant under National Register Criterion A on a state level in the area of transportation for the development of early municipal airports, and is significant on a national level in the area of military for the development of Naval Air Stations on the home front during World War II. The site is also significant under National Register Criterion C for municipal airport design and for the design of Naval Air Stations during World War II. The site’s cultural resources, however, are not addressed in the park’s legislated significance, that of preserving and protecting “for the use and enjoyment of present and future generations an area possessing outstanding natural and recreational features” (Legislation establishing Gateway National Recreation Area, 1972, 86 Stat. 1301).

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Concession Contract/Permit

Expiration Date: 4/14/2023

Management Agreement Explanatory Narrative:

Aviator Sports has a concession to run a recreational sports facility north of the Administration Building along Flatbush Avenue.

Type of Agreement: Cooperative Agreement

Expiration Date: 3/30/2021

Management Agreement Explanatory Narrative:

The New York City Department of Sanitation runs a training facility on site under a cooperative agreement.

Type of Agreement: Special Use Permit

Expiration Date: 5/31/2023

Management Agreement Explanatory Narrative:

New York City Police Department Aviation Unit is located on site under a Special Use Permit.

Type of Agreement: Special Use Permit

Expiration Date: n/a

Management Agreement Explanatory Narrative:

New York City Public Schools use Building 272 and an adjacent parking area under a Special Use Permit.

Type of Agreement: Special Use Permit

Expiration Date: n/a

Management Agreement Explanatory Narrative:

Polytechnic University has use of the fields near Building 272 under a Special Use Permit.

Type of Agreement: Other Agreement

Expiration Date: 6/12/2023

Management Agreement Explanatory Narrative:

Federal Aviation Administration.

Type of Agreement: Other Agreement

Expiration Date: 12/7/2012

Management Agreement Explanatory Narrative:

Cricket Club

Type of Agreement: Other Agreement

Expiration Date: 10/1/2011

Management Agreement Explanatory Narrative:

Community Gardens

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: Other Restrictions

Explanatory Narrative:

Portions of the site are currently closed to public access.

Adjacent Lands Information

Do Adjacent Lands Contribute? No

National Register Information

Existing NRIS Information:

Name in National Register:	Floyd Bennett Field Historic District
NRIS Number:	80000363
Primary Certification Date:	04/11/1980

Significance Criteria:	A - Associated with events significant to broad patterns of our history
Significance Criteria:	B - Associated with lives of persons significant in our past
Significance Criteria:	C - Embodies distinctive construction, work of master, or high artistic values

Period of Significance:

Time Period:	AD 1928 - 1945
Historic Context Theme:	Shaping the Political Landscape
Subtheme:	World War II
Facet:	The Home Front
Time Period:	AD 1928 - 1945
Historic Context Theme:	Developing the American Economy
Subtheme:	Transportation by Land and Air
Facet:	Air Travel (Airplanes/Airports)

Area of Significance:

Area of Significance Category:	Military
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Area of Significance Category:	Transportation
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Statement of Significance:

Floyd Bennett Field, a site within the Jamaica Bay Unit of Gateway National Recreation Area, is associated with significant themes and contexts that fall within National Register criteria A, B, and C.

Based on findings from the draft Cultural Landscape Report for Floyd Bennett Field, the following statement of significance represents a proposed revision to the existing National Register documentation. The property derives significance on a state level under Criterion A in the area of transportation for the development of early municipal airports, and on a national level in the area of military for the development Naval Air Stations on the home front in World War II. The site is significant on a state level under Criterion C for the design of early municipal airports and on a local level for the design of Naval Air Stations during World War II. Floyd Bennett Field is significant under Criterion B for its association with important individuals in early aviation, including Wiley Post, Howard Hughes, and Douglas Corrigan, however, further examination of Criterion B falls outside the scope of this report. In addition, national significance in the area of transportation for the municipal airport and the location of record-setting flights by nationally known aviators was considered for this report, but the research to date was considered inadequate to make that determination.

The recommended period of significance for Floyd Bennett Field begins in 1928, the year construction began on the airport, and extends through the end of World War II in 1945. This period includes the formative years of the airport's design and development, the municipal airport period when the Navy, Coast Guard, and other agencies shared resources at the airport, and finally, the World War II period when the Navy purchased and greatly expanded the airfield into Naval Air Station, New York, NY (NAS New York). The period of significance does not extend to 1972, the date the Navy decommissioned NAS New York, because of the limited character defining-changes made to the airbase after 1945 and because use and physical development of the site after World War II does not reflect the areas of significance.

Floyd Bennett Field was developed as New York City's first municipal airport, following the mobilization of the political will to compete for regional passenger and airmail service. Initial development of the airport was undertaken by the City of New York between 1928 and 1931 and was greatly enlarged and improved with the help of federal work-relief programs, notably the Works Progress Administration (WPA), between 1934 and 1938. The airport featured the most up-to-date facilities and landing technology, including eight large hangars, a terminal building, and a seaplane base on Jamaica Bay. Although never a commercial success due to its distance from Manhattan, Floyd Bennett Field was actively used for both commercial and private craft, including numerous record-setting flights and sightseeing tours, as well as by the military.

The Navy had a presence at the field beginning in 1931, and over the years expanded operations into several hangars. In 1940 in the lead-up to World War II, the Navy developed its own Seaplane Patrol Base along Jamaica Bay, adjoining a Coast Guard Air Station completed in 1938. By 1940, following the city's shift to North Beach Airport (later named LaGuardia) as its primary commercial airport, the Navy began to press for acquisition of Floyd Bennett Field for redevelopment into a Naval Air Station. NAS New York was commissioned on June 2, 1941 and the Navy leased the property from the City until February 9, 1942 when it acquired it through condemnation. Upon acquisition, the Navy substantially enlarged the airport with new runways and taxiways, a communications-munitions area, maintenance buildings, and a support area containing barracks, offices, dining halls, and related facilities.

After the war, the Navy did not need the extensive infrastructure and began to lease portions of the field to other agencies. Some physical improvements occurred during this time, notably alteration of existing facilities during the Korean War to accommodate improved airplane technology and the demolition of World War II-era barracks, but few changes were equivalent to the extensive World War II development. In 1972, the Navy finally closed Floyd Bennett Field and the majority of the site was transferred to the NPS and incorporated into Gateway National Recreation Area. The U.S. Coast Guard Air Station was decommissioned in 1996 and transferred to the NPS for incorporation into Floyd Bennett Field.

NATIONAL REGISTER CRITERION A

Transportation – Development of the Municipal Airport:

Floyd Bennett Field is presently listed on the National Register under Criterion A in the area of transportation for the development of early municipal airports. As one of the earliest intact municipal airports in New York state, Floyd Bennett Field derives significance on a state level. Floyd Bennett Field municipal airport represents the formative period of commercial aviation in the United States and its design closely follows the U.S. Department of Commerce-defined design guidelines and standards. Although never a commercial success, Floyd Bennett Field was New York City's first municipal airport and served as a prominent location for the origin and destination of numerous record-breaking airplane flights.

The construction of Floyd Bennett Field closely followed the opening of the first municipal airport in the New York City metropolitan area in Newark, New Jersey. New York City officials sought to catch up with New Jersey in the competition for airmail contracts and for the profits generated from regional commercial air traffic. City officials and consultant Clarence D. Chamberlain, a well known aviator, supported the development of an airport on Barren Island, recently connected to Brooklyn by a land bridge as part of an unrealized vision to transform Jamaica Bay into a world class harbor. The island's flat terrain, clear views, mild weather patterns, and proximity to water for seaplane access were deciding factors in choosing the location for New York's first municipal airport.

The airport was designed by engineers and architects employed by the New York City Department of Docks. Building from an initial conceptual plan, the Department of Docks produced a detailed design by the fall of 1928. The design followed the Federal Air Commerce Act of 1926, which promoted standards and guidelines for commercial airlines and airport design, as part of the federal government's regulation of interstate commerce. The City developed specifications for the airport based on the 'A1A' rating, the highest standards set by the Department of Commerce. Following the standards, the designers arranged Floyd Bennett Field's support buildings in a line off to one side of the runways and located the airport close to a major highway, Flatbush Avenue.

Construction of Floyd Bennett Field began in May 1928 and the initial development was substantially complete within two years. By 1933, Floyd Bennett Field became the second busiest airport in the country. Experimental flyers of the early aviation age used the facility for numerous record breaking

flights. Aviator Wiley Post broke his previous around-the-world flight time after taking off and landing from Floyd Bennett Field in 1933. Similarly, Howard Hughes and his four man crew departed from and landed at Floyd Bennett Field on their record-breaking around-the-world flight five years later.

The airport underwent additional refinement, expansion, and development in four distinct phases of construction. The first phase, from 1928 to 1931, included filling and grading of the site, and construction of the primary facilities including runways, aprons, hangars, and an administration building-passenger terminal. The second phase, from 1932 to 1933, included construction of the seaplane base along Jamaica Bay, and addition of landing guidance systems, maintenance buildings, and a sewage disposal facility. A substantial expansion of the airport occurred during the third phase between 1934 and 1938, made possible through assistance from the WPA program. Work included the addition of two runways, enlargement of the hangars, improvement of the airport entrance landscape, new parking lots, two new runways, and construction of the Coast Guard Air Station along Jamaica Bay. During the fourth construction phase between 1939 and 1941, the Navy expanded its presence at the airport in the run-up to World War II, notably through development of a seaplane patrol base along Jamaica Bay.

The Navy expanded the airport between 1941 and 1945 when it was redeveloped as NAS New York. The Navy used some of the resources and spatial patterns established in the commercial aviation period in their development plan, but also created new facilities on the periphery of the original airport. Despite changes to the scale of the airport, many landscape features and patterns established between 1931 and 1941 are still evident today.

Correspondence from the National Historic Landmarks program in August 2005 recommended that Floyd Bennett Field is significant on a national level as an example of early municipal airports and due to its location as the setting for several record-breaking flights by nationally known aviators during the 1930s. Further examination for changing the significance level falls outside the scope of this inventory but subsequent study may provide the documentation needed to substantiate the National Historic Landmarks recommendation.

Military – United States Military at Floyd Bennett Field:

Floyd Bennett Field is significant under National Register Criterion A for its association with the military, specifically the development of naval airfields on the home front in World War II. In correspondence from August 2005, the National Historic Landmarks Program recommended that the property be considered significant on a national level for its World War II-era development.

It was common in the early twentieth century for U.S. Naval Air Stations to be located at municipal airports. After the huge expenditure of resources during World War I, little federal funding was available for new military bases, forcing the War Department to make use of existing aviation facilities. The Navy was present at Floyd Bennett Field from the beginning, occupying Hangar 5 just one week after the airport opened in 1931. Although the Navy and the airport functioned independently at Floyd Bennett Field, their operations supported each other. The municipal airport enjoyed the funding brought by the Navy and the Navy saved money and gained public exposure by utilizing existing public facilities.

Floyd Bennett Field

Gateway NRA - Jamaica Bay Unit

The Navy continued to use space at the airfield throughout the 1930s and invested in development of a Seaplane Patrol Base along Jamaica Bay in 1940. The U.S. Coast Guard also used civilian airports as a base for their air operations and established an air station along Jamaica Bay in 1936, just north of the municipal airport's seaplane base.

Between 1941 and 1945, Floyd Bennett Field was redeveloped as a war-time military facility, when the Navy gained ownership of the entire site and extensively expanded the existing airport facilities. Floyd Bennett Field, commissioned NAS New York by the Navy on June 2, 1941, played a significant role in the American home front during World War II. Several aviation units of the Atlantic Fleet, three submarine patrols squadrons, a scout observation service unit, and two Naval Air Transport Service squadrons were based at the station. NAS New York served as the main air station for the New York City area and functioned as part of a system of military installations in the area that included the Coast Guard Air Station, an air corps base on Mitchell Field, Long Island, and an Army anti-aircraft harbor defense at Fort Tilden across Rockaway Inlet. Between 1941, when NAS New York was commissioned, and 1944, the military personnel at the base increased from thirty to over 4,000.

NAS New York became the busiest Naval Air Station in the country during World War II. The most important operations at NAS New York included maintaining, repairing, and shipping aircraft for use overseas, training personnel, testing helicopter technology, and conducting anti-submarine patrols. As a result of the rapidly increasing number of aircraft being produced, the Navy commissioned several Naval Air Ferry Commands to transport aircraft from the production plants to the test facilities and then overseas. The Navy chose to headquarter the Naval Air Ferry Command at NAS New York due to its advantageous location near several military production plants and for its proximity to the Atlantic Ocean for ease of shipping equipment to Europe. Within a year of the commission, the VRF-1 unit of the Naval Air Ferry command at NAS New York had become the largest air squadron in the country. NAS New York was also unique in that it became the only military center for developing and testing the recently invented helicopter and based their helicopter pilot training facility at the Coast Guard Air Station, which was under Navy control during the war.

The Navy and Coast Guard made extensive changes to the landscape during the war years to meet their needs. Marshlands and the remnants of the former Barren Island residential community on the periphery of the original airfield were filled and new facilities were built on the reclaimed land. The Navy built communications equipment, barracks, storage facilities, runways, hangars, utilities, and seaplane facilities. Several distinct clusters of development emerged, separated by wide open expanses with clear site lines across the airfield. Fewer changes were made after 1945. With some noticeable subtractions due to demolition and neglect, much of the infrastructure and spatial patterns established by the military during World War II within the CLI study area are evident today. The North Forty Natural Area to the north of the study area and former main barracks area to the south have lost historic integrity due to building demolition and alternation, and natural succession from open field to woods.

NATIONAL REGISTER CRITERION C

Municipal Airport Design:

Floyd Bennett Field is significant on a state level under National Register Criterion C for the design of early municipal airports, as presently documented in the National Register. Floyd Bennett Field is a rare surviving example of early municipal airport design and construction. The original airport design embodied the architectural, landscape architectural, engineering, and planning principles that emerged in response to the growing demand for commercial aviation. The Federal Air Commerce Act of 1926 promoted standards and guidelines for commercial airlines and airport design as part of the federal government's regulation of interstate commerce, and the design of Floyd Bennett Field followed these standards. The design and layout of the original airport illustrates the intent to construct airports that were not only functional, but also safe and comfortable for the civilian population who were still largely unfamiliar with air travel.

Designers with the New York City Department of Docks adhered to the guidelines in the 1926 Federal Air Commerce Act by arranging the support buildings in a line off to one side of the runways and by locating the airport close to a major highway, Flatbush Avenue. This road served as a defining spatial feature and many circulation, landscape, and structural features were oriented parallel or perpendicular to it. Hangar Row, the line of initial airport buildings, was situated parallel to Flatbush Avenue and was characterized by eight nearly identical hangar buildings with uniform setbacks. The Administration Building was designed as the focal point of the airport, being at the center of Hangar Row and on axis with the entry driveways. This geometric spatial patterning continued to the first runways, aprons, and taxiways. Runway 15-33 and the first airport apron mirrored the parallel orientation to Flatbush Avenue and Runway 6-24 abutted them at a right angle. Later WPA improvements followed these design precedents and two new runways were constructed on a diagonal to Runway 6-24, crossing near its midpoint.

Along with the overall layout, a significant landscape feature of the municipal airport design is the original airport entrance and the area surrounding the Administration Building. Through the WPA, the City of New York constructed the new entrance landscape in 1935-1936. The design included the addition of two diagonal entry drives and numerous walks, with the areas between the entry drives and sidewalks surfaced in turf grass. Hedges, edging the walks, bordered the smaller lawn areas, to either side of the entry drives. The central walk was flanked by sycamore trees, and encircled a flagpole and an entrance sign. This redesign of the entrance formalized the entry experience and focused views down the diagonal circulation routes to the Administration Building. The design of the entry drives, pedestrian walkways, and inclusion of ornamental plant materials illustrate the emphasis placed on creating airport spaces that would allow the public to feel welcome and comfortable. Ornamental plantings were also installed around the Administration Building, which had two large planting beds to either side of the main entrance. This landscape also tied the airport into the surrounding park development underway during the second half of the 1930s, which included Brooklyn Marine Park, Jacob Riis Park, Shore Parkway, and redesign of Flatbush Avenue into Marine Parkway with its extension over Rockaway Inlet on the Marine Parkway Bridge.

The Administration Building (1931), built in the Neoclassical Revival style with Art Deco ornamentation, was typical for public buildings of the period such as train stations, libraries, and court houses. The design also responded to the desire to present a familiar and comforting appearance to passengers wary

about the new technology of flight. The pleasantly styled, well-landscaped building served as the focal point of the airport and welcomed passengers to Floyd Bennett Field in a manner they were accustomed to. In contrast, the remainder of the airport buildings in Hangar Row (1930-38) reflect a more modern design that use elements of Art Deco style that reflected the technologically advanced aviation-related use of the buildings. The current National Register listing identifies Art Deco architecture, not Neoclassical architecture, as the significant design style associated with Floyd Bennett Field. Further study by a qualified architectural historian is necessary to determine if the site's Neoclassical architectural features are eligible for inclusion in the National Register listing.

Despite some notable changes, the original design of the municipal airport landscape is still evident through the largely open character of the airfield, the organization of the runways and taxiways, the Coast Guard Air Station, and the spatial organization of Hangar Row. Significant changes to the municipal airport since it was closed in 1941 include growth of successional woods and an area of pine trees on the periphery of the airfield; the construction of parking lots and entrance drives over Runway 15-33 and the former passenger loading and gate area on the Hangar Row apron; covering of portions of Runways 12-30 and 1-19 with vegetation; the addition of a large connecting building over Hangars 5 and 6, together with a new utility building within the entrance area; and removal of Hangar A in the former Naval Seaplane Patrol Base. The airport entrance area has also been changed through the removal of the Field House, historic light standards, and ornamental plantings; replacement of historic parking areas with lawn; and addition of security fences and light standards that are not compatible with historic conditions. The existing wood sign is an accurate reproduction of the historic feature installed in 1936. The changes made to the municipal airport by the Navy during World War II are significant in their own right and do not in general obscure the earlier municipal airport landscape.

Naval Air Station Design:

Floyd Bennett Field is locally significant under National Register Criterion C for the design of domestic Naval Air Stations during World War II. The Navy's plans for the expansion of Floyd Bennett Field into NAS New York were typical of its war-time development elsewhere across the nation that employed standardized plans based on availability of resources and limitations of the local climate. The principal ground facilities of waterside Naval Air Stations remained largely the same as they were prior to the war. These included seaplane ramps, seaplane parking areas, seaplane hangars, wharfs, landplane hangars, landplane runways, shops, schools, and personnel buildings including barracks, recreational halls, and dispensaries. The sites for Naval Air Stations required a limited amount of landplane facilities alongside a protected body of water where seaplanes could take off and land under a variety of weather conditions. One change in facilities during the war resulted from advances in aircraft, which became faster and larger. These craft required longer, more stable runways.

Although Naval Air Stations featured standardized plans and types of facilities, no two were alike. Runway configurations varied widely, as did the location of hangars, barracks, and other support facilities. NAS Quonset Point, the largest NAS built during World War II on the East Coast, was similar in size to NAS New York and contained a similar runway pattern built on fill in Narragansett Bay. A notable difference in the two air stations was New York's origins as a municipal airport with its non-military hangars and administration building. This mixture of military and civilian infrastructure

was not, however, unusual among Naval Air Stations since many were located at former municipal airports. Forty-three of the eighty-six Naval Air establishments in the eastern United States during World War II were located at former municipal airports and thus it was characteristic for them to incorporate both civilian and military aspects.

The Navy's war-time plans for buildings, structures, circulation, and landscape improvements were designed for quick and efficient construction. War-time building construction fell into two general types: permanent, intended for continued use after the war and usually employing masonry and steel; and temporary, not intended for use after the war and usually built of wood frame and modular construction. Aside from facilities at the Naval Aviation Patrol Base, the permanent war-time infrastructure at NAS New York was largely built prior to the war as part of the municipal airport, while new construction was generally temporary in design. At the time that redevelopment of Floyd Bennett Field was just beginning, the Bureau of Yards and Docks outlined a set of rules for new construction designed to conserve resources and labor. These rules were formalized into a "Joint Directive on Wartime Construction" issued on May 20, 1941 by the War Production Board, the Secretary of the War, and the Secretary of the Navy. This directive required that buildings be no more elaborate or extensive than was absolutely essential, and that substitutes should be found for scarce materials, such as steel.

World War II naval development at the airfield, aside from the Aviation Patrol Base along Jamaica Bay, was not comparable to the style of the original airport or the Coast Guard Air Station. Many new facilities were constructed out of unadorned concrete, wood, and metal due to the war-time shortage of labor and building materials that became acute in the spring of 1942.

At NAS New York, the Navy expanded the existing facilities of the original airport in response to the difference between the size of military aircraft and the commercial airplanes formerly used at the airport and to accommodate the increased number of personnel. Most of this development was built in 1941 and 1942. To improve the landing facilities, the Navy widened and lengthened three of the four existing concrete runways with asphalt extensions and added a fifth runway along the northern boundary of the field. Changes were also made to features along Hangar Row. The Navy redesigned portions of the interior of the Administration Building to accommodate the needs of military personnel and the original control tower was replaced with a more modern glass and steel construction to enhance visibility onto the airfield. At the same time, the Navy constructed a one-story wood-frame addition on the north side of the Administration Building and two barrel-vaulted hangars, Hangars 9 and 10 north of Hangars 7 and 8. The utilitarian wood-frame style of the Administration Building addition and Hangars 9 and 10 sharply contrasted with the brick and cast-stone buildings on Hangar Row. At the Aviation Patrol Base, the Navy constructed a maintenance-storage complex of concrete and metal buildings to support the operations of the air station, and also added a second hangar.

The Navy also extensively developed the areas north and south of the original airport boundaries during World War II, outside of the CLI study area. They filled the sandy marshlands to the north and developed a communications-munitions area with radio towers and several high-explosives magazines. This area, now known as the North 40 Natural Area, was flat and open, matching the broad character of the airfield. The Navy constructed a system of asphalt roads to connect the new facilities with

Hangar Row and the Aviation Patrol Base. South of the original boundaries, the Navy built a new seaplane base and a main barracks area with officer's quarters, recreation facilities, and infrastructure support buildings, such as a power plant and pump stations.

Much of the Navy development dating to World War II is visible today within the CLI study area, although several notable features have been lost. The expanded runways and perimeter taxiways are the most dominant naval features, along with the Aviation Patrol Base hangar (Hangar B) and surrounding maintenance-storage buildings. The Coast Guard Air Station remains largely as it did during the historic period, defining the eastern boundary of the site, although it has lost its barracks. The airport entrance, although not actively used during the war, was retained largely intact by the Navy. Significant changes from conditions at the end of World War II include the growth of successional woods and a planting of pine trees on formerly open airfield; the construction of an access road over Runway 15-33 and covering of several other runways with vegetation and berms; the loss of Hangar A in the Seaplane Patrol Base; and the addition of a Doppler radar tower south of the Coast Guard air station in the former Navy recreation area. In Hangar Row, changes since 1945 include the removal of Hangars 9 & 10 and the frame wing on the Administration Building; the construction of a large connecting building over Hangars 5 and 6; and the construction of recreational fields and parking lots on the Hangar Row apron and former passenger loading area that obscure historic circulation patterns. Within the airport entrance, changes since 1945 include the loss of ornamental plantings and light standards, replacement of parking lots with lawn, and the addition of fences and light standards that are not compatible with historic conditions.

Two areas of Floyd Bennett Field developed by the Navy during World War II, the North 40 Natural Area and the former Navy main barracks area, have been altered from their historic condition due to extensive demolition, some new construction, and natural succession in formerly open fields. According to National Register guidelines, these two areas have been excluded from the CLI study area boundary due to the diminished integrity of the landscape. However, if further archeological or architectural study concludes that these areas are significant, the boundary may be amended.

State Register Information

Identification Number:	80000363
Date Listed:	01/01/1980
Name:	Floyd Bennett Field Historic District

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type:	Historic Site
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Current and Historic Use/Function:	
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Primary Historic Function:

Airport

Primary Current Use:

Outdoor Recreation

Other Use/Function

Naval Facility

Other Type of Use or Function

Historic

Current and Historic Names:

Name

Barren Island

Naval Air Station, New York

Floyd Bennett Field

Type of Name

Historic

Historic

Both Current And Historic

Ethnographic Study Conducted:

No Survey Conducted

Chronology:

Year	Event	Annotation
AD 1600 - 1684	Inhabited	Long Island is inhabited by Lenape people who used what is later known to Europeans as Barren Island, for farming and hunting (Draft CLR, 2008, p 5).
AD 1626	Settled	The Dutch establish a settlement on present day Manhattan Island.
AD 1664	Land Transfer	The British take control of New Amsterdam and rename the colony New York.
	Land Transfer	Native Americans sell Barren Island to British settlers Samuel Spicer and John Tilton Senior (Draft CLR, 2008, p 6).
AD 1700 - 1850	Established	Nearby town of Flatlands is established as an agricultural community and remains as such for approximately 150 years despite its proximity to New York City (Draft CLR, 2008, p 7).
AD 1700 - 1800	Farmed/Harvested	Barren Island is not settled, but used for natural resources such as grazing, timber, and salt hay (Draft CLR, 2008, p 9).
AD 1762	Mined	William Moore leases the island for sand mining (Draft CLR, 2008, p 9).

AD 1800	Built	The first documented structure is built on Barren Island by a person with the last name Dooly. He builds an inn for fisherman on the east side of the island near Rockaway Inlet and a family home on the west side of the island (Draft CLR, 2008, p 9).
AD 1835	Land Transfer	Barren Island is subdivided into five parcels (Draft CLR, 2008, p 10).
AD 1850	Established	Lefferts R. Cornell opens a processing plant for animal carcasses on Barren Island, taking advantage of the isolated location to avoid complaints of his odiferous industry. Other similar industries, including fish, glue, grease, and fertilizer processing, soon follow (Draft CLR, 2008, p 11).
AD 1870	Established	Numerous factories are located on the south-central shore of Barren Island. They use the wetlands and bays of the island to dump industrial refuse and by 1873, the town identified the area as Dead Horse Harbor, now known as Dead Horse Bay (Draft CLR, 2008, p 12).
AD 1880	Inhabited	The 1880 census lists twenty-three dwellings and 309 residents, many of whom lived in company owned dormitories (Draft CLR, 2008, p 13).
AD 1896	Built	The New York Sanitary Utilization Company is built to process all the waste from New York City. The plant is located on the southeastern tip of Barren Island (Draft CLR, 2008, p 13).
	Built	The Sanitary Company develops a large complex of wharves and processing buildings. A village spreads westward in a linear fashion, containing residences, a church, a school, playground, and a water tower (Draft CLR, 2008, p 14).
AD 1900	Built	A bridge and boardwalk crosses the island's marshes to connect the community on the east side of the island to the one on the west (Draft CLR, 2008, p 16).
AD 1919	Abandoned	The New York Sanitary Utilization Company closes due to pressure from neighboring communities (Draft CLR, 2008, p 19).

AD 1920	Neglected	Industrial decline on the island precipitates a drop in population and deterioration of the island's resources (Draft CLR, 2008, p 19).
	Planned	An extensive plan to build roads, fill wetlands, and channelize the marshy waterways around Jamaica Bay emerges to increase the amount of developable land (Draft CLR, 2008, p 19).
AD 1925	Altered	Flatbush Avenue is extended and connects the island to Brooklyn (Draft CLR, 20).
AD 1927	Established	A small, private, grass strip airfield, known as Barren Island Airport, opens (Draft CLR, 2008, 21).
AD 1928	Built	The first municipal airport in the region is built in Newark, New Jersey (Draft CLR, 2008).
AD 1928 - 1931	Planned	New York City officials choose Barren Island as the site of a municipal airport due to the flat, open topography, calm weather, and because it is already owned by the Department of Docks, a New York City department. Filling and grading work takes place first, followed by the construction of hangars, administrative building, passenger terminal, and runways (Draft CLR, 2008).
AD 1928	Built	The first phase of construction includes filling 350 acres of wetland between Jamaica Bay's interior channel and Flatbush Avenue. Two reinforced concrete runways are built with gravel drainage strips on their shoulders. This is followed by the construction of hangars, administrative building, passenger terminal. Two rows of privet hedges are planted along the northern border of the airport to keep sand off the landing field (Draft CLR, 2008).
AD 1932	Built	The second phase of airport construction includes building a sewage disposal system, parking areas, and transformers (Draft CLR, 2008).
AD 1934 - 1938	Altered	The WPA completes upgrades to the runways (Draft CLR, 2008).

	Altered	The Works Progress Administration redesigns the airport entrance to create a more inviting gateway. They added symmetrical, diagonal entry drives, pedestrian walkways, street trees, shrub borders, and foundation plantings (Draft CLR, 2008).
AD 1939 - 1941	Built	The Navy completes a Seaplane Patrol Base on the east side of airfield, along Jamaica Bay (Draft CLR, 2008).
AD 1942	Land Transfer	The Navy purchases Floyd Bennett Field from the City of New York (Draft CLR, 2008).
	Built	The Navy fills and grades areas north and south of the main airport area to increase the land mass of Barren Island for facility development (Draft CLR, 2008).
AD 1942 - 1945	Built	The Navy adds to the resources at the Seaplane Patrol Base. Most new structures are built out of unadorned concrete and sheet metal and create a less unified design appearance than earlier airport developments (Draft CLR, 2008).
	Built	On the site of the former Barren Island community on the southeast side of the island, the Navy builds a cluster of barracks, classrooms, and other support structures (Draft CLR 2008).
	Built	The Navy fills land north of the airport to create a radio communication complex (Draft CLR, 2008).
AD 1942	Built	To increase security, a new entrance for the airfield is built to the south of the previous entrance (Draft CLR, 2008).
	Built	In c.1942, the Navy builds a facility for landing dirigibles that extends north from Taxiway 1. It consists of a short taxiway leading to two concentric circles (Draft CLR, 2008).
AD 1950	Military Operation	The Korean War begins and the Navy increases operations at Floyd Bennett Field (Draft CLR, 2008).
	Altered	The Navy extends two runways to accommodate larger jets and built several new support structures (Draft CLR, 2008).

Floyd Bennett Field
Gateway NRA - Jamaica Bay Unit

AD 1953	Established	Several outside groups lease space at Floyd Bennett Field from the Navy, including the New York State Board of Education and the Air Force (Draft CLR, 2008).
AD 1960	Built	Two mobile home parks are built south of the airfield (Draft CLR, 2008).
AD 1971	Abandoned	The government decommissions NAS New York (Draft CLR, 2008).
AD 1972	Established	Legislation passes establishing Gateway National Recreation Area in October 1972, including Floyd Bennett Field (Draft CLR, 2008).
AD 1974	Established	Gateway National Recreation Area opens to the public (Draft CLR, 2008).
	Planted	A triangular-shaped pine tree windbreak is planted at the southern end of the airfield and the park establishes a campground within it (Draft CLR, 2008).
	Built	After 1974, the NPS develops the site of the former dirigible facility as part of Camps Tamarack and Goldenrod (Draft CLR, 2008).
AD 1980	Naturalized	The park begins to manage some of the formerly mowed grass areas as naturalized plant communities (Draft CLR, 2008).
AD 1980 - 2000	Maintained	The park leases land to numerous recreational groups who use the field for community gardens, an archery range, campgrounds, a cricket field, remote control airplane flying, and sporting events (Draft CLR, 2008).

Physical History:

INTRODUCTION

The following Physical History narrative has been extracted from the 2008 draft, “Cultural Landscape Report for Floyd Bennett Field.”

TIDAL ESTUARY AND EARLY DEVELOPMENT, PRE-HISTORY–1928

The native, pre-development site of Floyd Bennett Field consisted of numerous small islands, creeks, bays, and channels that were part of the tidal estuary of Jamaica Bay. Barren Island, located on the south side of the bay constituted the largest landmass in Jamaica Bay and was once part of the system of barrier beaches along the south shore of Long Island. Barren Island consisted of low dunes and sandy beach, surrounded by the wide-open expanse of the Atlantic Ocean, Jamaica Bay, and the low-lying south shore of Long Island. Salt grasses covered the marshes while trees and shrubs grew on the dunes and uplands. By the nineteenth century, Barren Island was transformed into an interior island within Jamaica Bay due to the tidally-influenced westward extension of Rockaway Beach.

While there is no evidence of Native American habitation in the project area, Barren Island was part of the Canarise homeland on the eve of European settlement in the seventeenth century and likely served as fishing and hunting grounds. Settlers occupied the city of Brooklyn and the nearby town of Flatlands, Barren Island went uninhabited until approximately 1800. However, local residents used the island’s rich natural resources including fisheries, grasslands, and hay. Local resident William Moore began mining sand from the island in 1740 but made no recorded improvements. By 1800, an innkeeper built a house for his family and a hotel to accommodate local fishermen on the east side of the island.

Throughout the second half of the nineteenth century, Barren Island developed rapidly. It became an active industrial center, with operations focused on disposal and rendering of wastes. Industries that benefited from the isolated location -- far from neighbors’ noses -- included fertilizer, glue, fish, and bone processing (Figure 1). By the 1890s, Barren Island’s largest factory, the New York Sanitary Utilization Company, opened for business, chartered to process garbage from New York City.

As industry grew, Barren Island developed a permanent population. Most residents on the island worked in the factories, although many other businesses and institutions developed to support the growing community. Two Barren Island clusters of development emerged, one on the south-central part of the island around the Products Manufacturing Company, just east of present-day foot of Flatbush Avenue, and the other on the southeastern corner of the island near the New York Sanitary Utilization Company. A main street with dwellings, a church, a school, and shops developed at the community on the southeastern corner of the island. The other was home to a hotel and numerous bungalows arranged in a haphazard fashion.

Industry on the island peaked just after the turn of the twentieth century and then declined. The final chapter to Barren Island’s industrial base was the closure of the New York Sanitary

Utilization Company in 1919 and the island's population declined rapidly with the loss of jobs. As part of a regional development plan in the early 1920s, the city built a 200-foot wide causeway across the marsh, connecting the south side of Barren Island to Brooklyn, via a Flatbush Avenue extension. This road provided the first reliable land route to the mainland in the island's history.

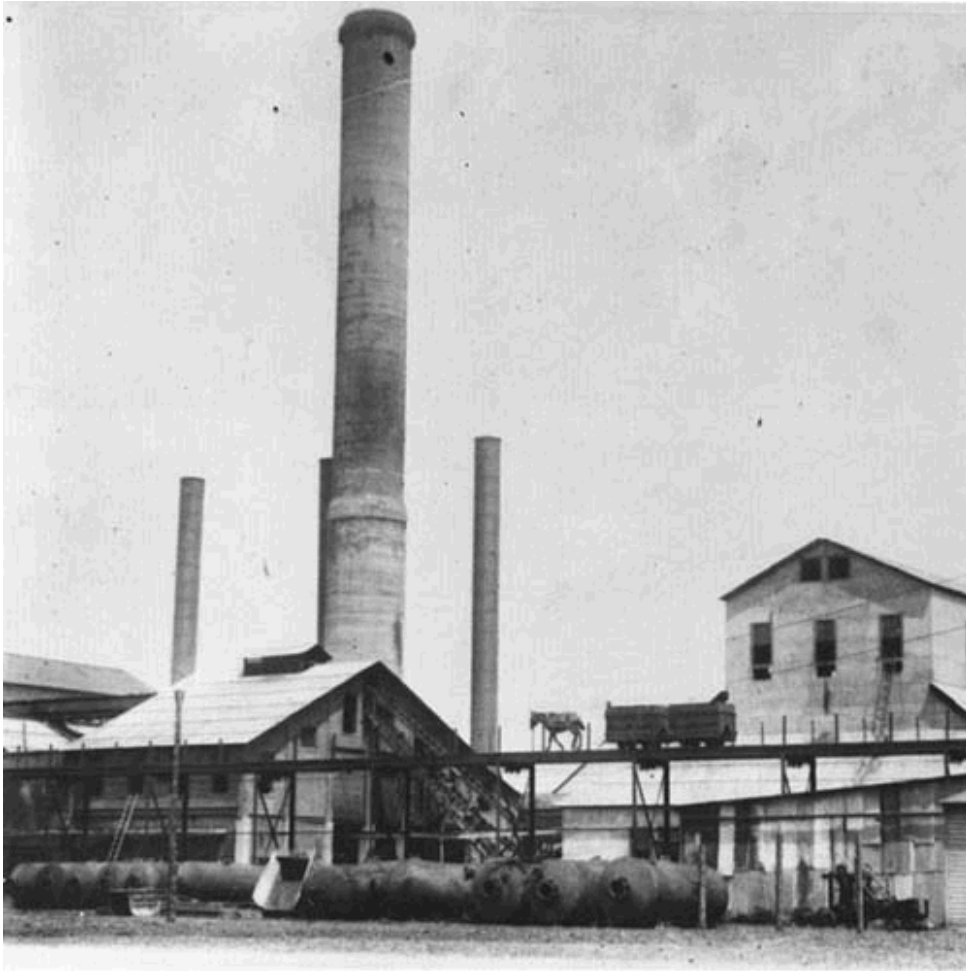


Figure 1. One of the Barren Island waste processing factories (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 18859).

FLOYD BENNETT FIELD, 1928–1941

At the same time that the Barren Island's industrial operations were declining, New York City officials recognized the potential for the development of Jamaica Bay. These plans extended back before construction began on Floyd Bennett Field, with plans announced for turning the bay into a major port and dredging began in 1910. The project sought to create not only a valuable harbor, but also developable land. Only small portions of the project were completed and Jamaica Bay never achieved the status of a grand commercial hub, but city officials did not forget the inherent development potential of the area.

By the mid-1920s, commercial aviation was gaining popularity and municipalities throughout the country constructed airports. New York City officials were slow to respond to the demand for a municipal airport and by the time the city began planning, construction was already underway on New Jersey's Newark Airport. In 1927, New York City officials chose Barren Island and the tidal flats directly north of the island for the location of the city's first municipal airport and named it after the noted aviator, Floyd Bennett. One of the key reasons New York City officials chose this location was the access to water. Seaplanes became popular during this time and it was essential that the airport have the potential to develop seaplane facilities. Officials also saw Barren Island as an attractive site for an airstrip because the land was already owned by the city, under the Department of Docks. Construction of the airport began in 1928 by dredging navigation channels in Jamaica Bay and filling 350 acres of marshlands with the dredge material. Most airport facilities were located on the western edge of the site and included eight hangars, an administrative building/passenger terminal, taxiway, and two runways (Figure 2). The structures were clustered along the east side of Flatbush Avenue. Airport designers oriented the two runways perpendicular to each other, with the shorter of the two parallel to Flatbush Avenue. The airport opened for commercial transport on May 23, 1931 (Figure 3).

During the Great Depression, construction and improvements were addressed through the Works Progress Administration (WPA). These federally funded work crews completed numerous projects from 1934-1938 that enhanced existing facilities. Much of the WPA work focused on the western side of the property and on expanding the landing capabilities of the airfield. They built two new asphalt runways, oriented diagonally to the first two perpendicular runways, doubling the landing capacity (Figure 4). The airport entrance was formalized during this period with new pedestrian walkways, ornamental plantings, and diagonal entry drives (Figure 5). New signage, street trees, mixed shrub borders, and a flagpole made the entry space inviting to approaching visitors. Other WPA improvements included the construction of several new buildings near Flatbush Avenue and a second seaplane ramp extending into Jamaica Bay, north of the main airport facilities.

While Floyd Bennett Field was designed primarily as a commercial airport, the U.S. military had an influential presence at the airfield. The Navy occupied parts of the Hangar Row facilities for aviation training as early as June 1931. Over the years, the U.S. Navy gradually leased more facilities, expanding the aviation-training base. The Coast Guard also leased an area of the field from the City, erecting a Coast Guard Air Station in 1936 on the eastern side of the airport. Aside from the city's seaplane ramp, the Coast Guard facilities were the first to be established in the eastern side of the field. Similar to the clustered arrangement of Barren Island's factories and of Floyd Bennett Field's initial buildings, the Coast Guard developed the air station in a distinctive cluster, fronting on Jamaica Bay (Figure 6). The new facility was separated from the municipal airport facilities, but clearly visible across the flat, open landscape. This effort was followed by the construction of a Navy seaplane patrol base in the early 1940s, as war broke out in Europe and the U.S. increased military preparedness.

As U.S. involvement in World War II began, the Navy needed to develop a full Naval Air

Station in the New York City area. Despite efforts to identify alternate locations, the Department of War pressured the Navy to establish the station quickly, and ultimately decided to expand their facilities at Floyd Bennett Field. The financial shortcomings of the airport coincided with the increase in national defense programs, which ultimately created an opportunity for the Navy to obtain ownership of the site.

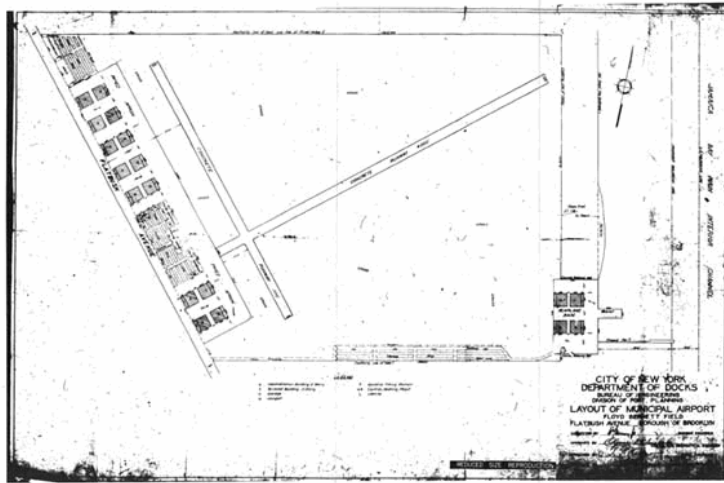


Figure 2. Layout plan for Floyd Bennett Airport, circa 1928. Eight of the fourteen hangars depicted were eventually built (Blakemore, "Historic Structures Report," 16).



Figure 3. View of the airport looking northeast at the parking area north of the Administration Building, circa 1935-1940 (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 18963).

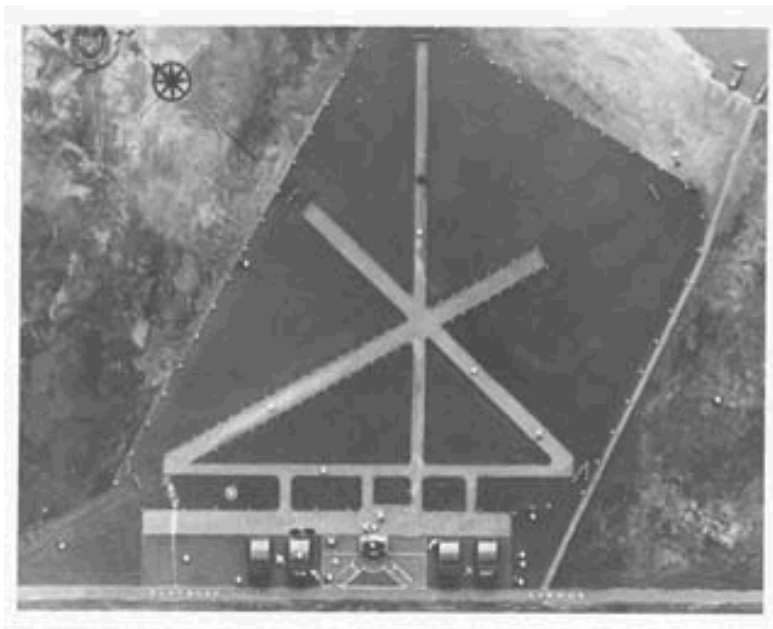


Figure 4. Aerial view of Floyd Bennett Field showing the runways constructed by the Works Progress Administration (WPA), built on a diagonal to the initial two runways (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 18860).

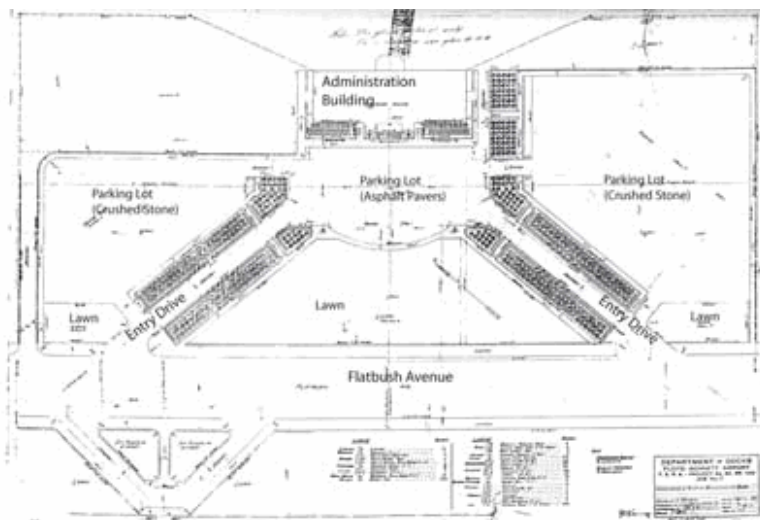


Figure 5. Plan of the WPA redesigned airport entrance, 1935 ("Historic Structures Report, The Administration Building (The Ryan Center) Gateway National Recreation Area, Floyd Bennett Field," 183).



Figure 6. View of Floyd Bennett Field looking southwest, 1940. The 1940 Navy Seaplane Patrol Base and the Coast Guard Air Station are visible in the lower left side of the photograph (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 18927).

NAVAL AIR STATION, NEW YORK, FLOYD BENNETT FIELD, AND WORLD WAR II, 1941–1945

Discussions between the Navy and New York City officials regarding the sale of Floyd Bennett Field began as early as 1939 yet it was not until early 1941 that the Navy submitted a formal request to purchase the property. Not wanting to lose their first municipal airport, city officials resisted, instead offering to lease the property to the Navy. Initially, the Navy accepted the offer, although they continued negotiations to purchase the airfield. On May 26, 1941, the City closed Floyd Bennett Field to commercial traffic and one week later, the Navy officially commissioned Naval Air Station, New York, NY (NAS New York). The Navy leased the property for approximately eight months while negotiations to purchase the airport continued. On February 9, 1942, a declaration of taking was filed and the Navy paid the city \$9.25 million for the airport.

In its first few years of occupation, the Navy extensively developed the site, filling and grading areas north and south of the original airport, constructing numerous buildings and improving existing facilities. The resulting air station supported an enormous increase in personnel and equipment. The majority of buildings and structures the Navy constructed during World War II were concentrated in an area south of the original airport at the site of the Barren Island community, including barracks, warehouses, and office buildings. A communications and ammunitions storage area was developed in an area north of the airport, presently known as the North 40 Natural Area. In c.1942, the Navy built a facility for landing dirigibles extending north

from Taxiway 1 (former Runway 6-24). This facility consisted of a short taxiway leading to two concentric circles, probably surfaced in stabilized earth.

At the Seaplane Patrol Base along Jamaica Bay, the Navy added another hangar and constructed numerous support buildings, including a maintenance facility, sewer pump station, power plant, and torpedo storage facility. They added a fire station and garage west of the Coast Guard Air Station. Unlike the development in the bounds of the original airport, the Seaplane Patrol Base did not present a unified design style. While the two hangars were identical, the support structures varied greatly. As evident in period photographs, the Navy constructed the buildings of unadorned concrete and sheet metal with only two buildings constructed of brick. In spite of the varied design approach, the expansion of the Seaplane Patrol Base, particularly the maintenance complex, and its proximity to the Coast Guard Air Station, created a distinct cluster on the east edge of the airfield, clearly defining the Jamaica Bay development.

In late 1941, at the same time that the Navy began the process to obtain the airport, it also began the process of obtaining ownership of the area south of the airport boundary. This included the last remaining privately owned land on the southeastern tip of Barren Island where a few residences of the Barren Island Community remained on a fifty-one acre tract. The Navy filed the declaration of taking condemning the property on December 29, 1941 and immediately evicted all residents.

The Navy utilized the approximately 240 acres of the former Barren Island community on the south end of the field to construct support facilities from 1942 through the end of World War II in 1945. Primarily, the Navy used this area to build barracks and classrooms but also included dining and recreation facilities, gasoline pump houses, storage buildings, a boathouse, a laundry house, offices, maintenance shops, and Marine barracks. While documentation has not been discovered that details the design and construction of the south support area buildings, period photographs illustrate that the Navy primarily constructed one-to-two story wood-frame buildings. A wharf used to load aircraft onto freight ships headed overseas to aid in the war effort was built on the southern end of the site, extending into Rockaway Inlet. West of the wharf, a seaplane parking apron and ramp were constructed.

The Navy's development of the southern portion of the property had a marked impact on the overall character of the landscape. The Navy constructed a new circulation system with a series of asphalt roads, connecting the area with the east and west sides of the airfield. The buildings and structures that had remained from the Barren Island community's industrial past were relatively small in scale. Since the industrial period, many of the buildings had been demolished, greatly diminishing the density of the area. The Navy's buildings were considerably larger and taller than the private residences, most of which were part of a small bungalow colony. The Navy concentrated its construction on the western half of this southern area, making a distinct cluster of buildings.

In addition to developing the southern portion of the property, the Navy also developed the area north of the original airport in 1942. Prior to Naval ownership, these city-owned lands were

almost entirely sand and marshland. Development began with dredging and filling operations. Encompassing approximately half of the newly filled area, the Navy expanded the central airfield to the north between 1942 and 1945, using the northern half of the area to erect a radio communication complex. Part of the new communication system included a thirty-one-foot by thirty-eight-foot radio transmitter building surrounded by three radio antenna towers. Other buildings constructed included a shotgun range house and several storage facilities east of the radio towers. An asphalt road and several small drives connected the new complex with the Seaplane Patrol Base and Hangar Row.

The Navy's development of the northern area greatly impacted the natural environment. Prior to development, the northern area was susceptible to inundation, resulting in minimal natural vegetation. Once the Navy filled the area, the shoreline extended further north into Mill Basin and Irish Channel. Yet, despite the new development, the area retained its flat, open character. The one-story concrete buildings constructed were relatively small and spread out. It is probable that native reed and salt grass grew in the areas sandy soil; however, it was likely kept at a low height to maintain open views off the airfield.

While the Navy concentrated a great deal of work on areas not originally associated with the municipal airport, it also established new facilities and improved existing infrastructure within the original airport boundaries. Much of the Navy's expansion concentrated on improving the support facilities located along Hangar Row along Flatbush Avenue. In January 1942, the Navy demolished a WPA garage along Hangar Row to make room for a barracks building. The new barracks was a two-story, 'I' shaped wood frame building, which housed one hundred aviation students and a mess hall. After completing the barracks, the Navy constructed a synthetic training building, a fire house, pump house and transformer vault, located south of the new barracks and perpendicular to Flatbush Avenue. While the Navy buildings did not all reflect a similar design approach, their location and spatial configuration with the existing Hangar Row facilities further emphasized the area's strong linear and horizontal definition.

The Navy altered the Administration Building to suit their needs. Many changes were interior but a wood-frame addition to the north side of the building completed in 1943 to serve as a communication center. At the same time as the construction of the addition, the Navy redesigned the Administration Building control tower with angled glass and steel windows, replacing the original classical arched windows to increase visibility onto the field.

As part of the new development south of Hangar Row, the Navy also established a new entrance onto the airfield in circa 1942, south of the original airport entrance. After relocating the entrance, the Navy installed a property fence along Flatbush Avenue, prohibiting entry into the air station (Figure 7). The closing of the original entrance strongly impacted the overall character of the area. During the Floyd Bennett Field era, it was important that the entrance seem inviting and comfortable for the passengers arriving at the airport. With the site now operating as a military base, the Navy essentially needed to create the opposite effect, warning the public to stay out of the air station.

In conjunction with constructing new facilities, the Navy also altered the runway system in 1942

to accommodate its new equipment. Existing runways were lengthened and widened and a new runway was built in the newly filled land. To aid the new runway system and improve landing capabilities, the Navy installed five new asphalt taxiways (Figure 8).



Figure 7. View of the airport entrance and Administration Building, 1942. The Navy installed the guard booths and gates to limit access ("Historic Structures Report," 251).

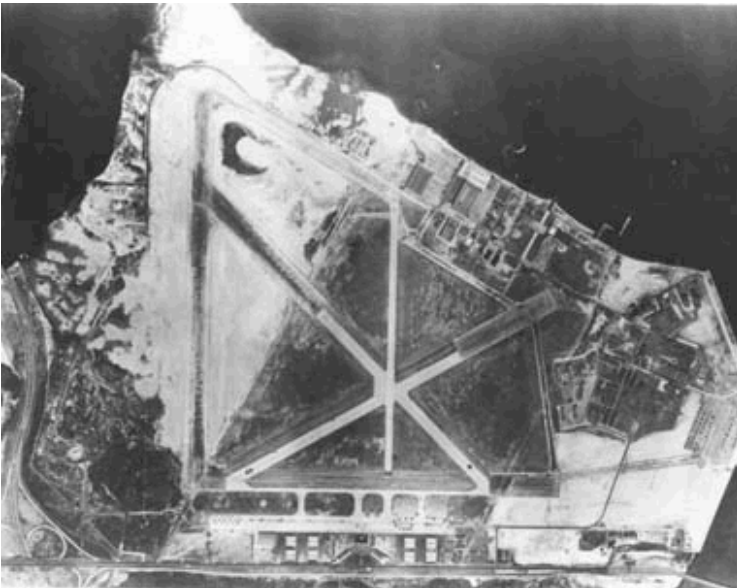


Figure 8. View of Naval Air Station, New York, 1943. The Navy made major changes to the airport: the Navy Post development (at right) and the radar and communications center (at left) (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 18958).

NAS-NEW YORK, FLOYD BENNETT FIELD, AND THE COLD WAR, 1945-1972

At the close of World War II, military operations decreased across the nation and little new

development occurred in the years immediately following the war. The Navy began to lease areas of the field to outside agencies, including the New York City Police Aviation Bureau and the U.S. Air Force (the New York City Police Department also had a presence at Floyd Bennett Field prior to World War II, but not during the war). In the early 1950s, Floyd Bennett Field was reinvigorated as the U.S. became involved in the Korean War.

Airplane technology developed rapidly in the post-World War II era, causing the Navy to upgrade its facilities at Floyd Bennett Field to accommodate larger aircraft, including jets. Two runways were extended and a new taxiway built to connect them. The Navy built several new support structures on the south side of the airfield, including new barracks, mess halls, a garage, and several maintenance buildings (Figure 9). Several World War II-era barracks were removed. They also moved the airport entrance further south, along Flatbush Avenue.

The Navy leased space to numerous agencies, military and non-military, to make use of the unused infrastructure at the airport. One such group was the Housing Authority who leased two buildings until 1953, after which the Navy transferred control of one of the buildings to the New York State Board of Education. The Air Force renewed their lease through 1956. Differing from the previous lease, the Air Force now had use of all buildings in Hangar Row, including the Administration Building. The fact that the Navy no longer required use of the Administration Building and its control tower illustrated the drastically lessened demand on the site as a Naval Air Station.

Despite the Korean War buildup, military use at the NAS New York never reached the levels sustained during World War II. However, the increase in use of the Naval Air Station lasted through the Vietnam War. As troops withdrew from overseas, the U.S. experienced a widespread military demobilization. Again, the national demilitarization created a drastic decrease in use at Floyd Bennett Field and by the mid-1960s the Navy considered shutting down all operations at the airfield. Rather than a sudden shut down, the Navy gradually slowed operations, closing individual facilities at the site. Non-military uses at the site continued on a limited basis, evidenced by the two mobile home parks constructed south of the airfield in the early 1960s. In June 1971, the U.S. government officially decommissioned NAS New York at Floyd Bennett Field.



Figure 9. View of Naval Air Station, New York, circa 1950. The configuration of the air base during the Cold War was largely the same as at the end of World War II (National Archives and Records Administration, Still Pictures Group, RG 80, Image 674699).

FLOYD BENNETT FIELD, GATEWAY NATIONAL RECREATION AREA, 1972-2008

When the NAS airfield closed, the City proposed a large-scale housing development with industry and retail on site. Many public officials and community residents opposed the plan, not wanting to see this vast expanse of open land developed. In the end, the Department of Defense transferred ownership of the land to the Department of the Interior for inclusion in a new national recreation area. In October 1972, the federal government passed legislation establishing Gateway National Recreation Area (Gateway NRA), one of the first urban park systems in the nation. The new park was opened to the public in 1974 (Figure 10).

Gateway NRA included over 26,000 acres, bringing together recreational, natural, and cultural resources in both New York and New Jersey. Floyd Bennett Field encompassed approximately 1,450 of the total acreage and included most of the former Naval Air Station, excluding an Armed Forces Reserve Center on Rockaway Inlet, the Coast Guard air station, and a tract of land surrounding the Navy patrol hangar.

As was common throughout the site's history, the NPS leased parts of Floyd Bennett Field to outside groups. This included the Floyd Bennett Garden Association, which established the community gardens in the southern area of the field, used by residents from throughout New York City. The NPS later relocated the community gardens to its current location, south of Hangar Row. Outside groups, in cooperation with the NPS, established several recreation opportunities on the site including a remote-controlled airplane flying field, a cricket field, archery range, camps, and campgrounds. The NPS also began to manage much of the

formerly manicured vegetated areas as naturalized plant communities. The areas between the runways were managed as naturalized grasslands and wildlife habitats and the former radio communications complex, now known as the North 40 Natural Area, transitioned to natural woodlands with walking trails. The NPS also acquired new land not associated with the historic airfield such as land west of Flatbush Avenue, which included part of the Brooklyn Marine Park. In 1996, the NPS acquired the Coast Guard property and now leases the area, including a portion of a runway to the New York City Police Department.

Throughout the years, the NPS has developed management documents to guide the treatment of the site, although none focus exclusively on the landscape. The NPS has worked with a number of organizations to develop different recreational opportunities on site. These include Aviator Sports and Recreation, an organization formed specifically to construct an extensive indoor/outdoor sports complex on Hangar Row, the Floyd Bennett Garden Association which manages the community garden plots, and the Historic Aircraft Restoration Project headquartered in Hangar B. The NPS has demolished several buildings, including numerous Navy buildings in an attempt to restore the conditions of the commercial aviation era at Floyd Bennett Field.



Figure 10. View looking southeast to the Administration Building from Flatbush Avenue, April 1979. The site was now open to the public as a unit of Gateway National Recreation Area (NPS Gateway NRA Museum Collection, Fort Wadsworth, photograph 22536).

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

For the purposes of a Cultural Landscape Inventory (CLI), a landscape is analyzed and evaluated according to a number of characteristics. Eight such landscape characteristics were found to be relevant to the landscape of Floyd Bennett Field: Natural Systems, Spatial Organization, Land Use, Vegetation, Circulation, Buildings and Structures, Views and Vistas, and Small-Scale Features. Of these, spatial organization, circulation, vegetation, buildings and structures, and views and vistas are the most significant landscape characteristics at Floyd Bennett Field. Through the analysis and evaluation process, features associated with each characteristic are also identified as appropriate. Overall, the landscape of Floyd Bennett Field retains integrity to the period of significance, 1928-1945.

The spatial organization of Floyd Bennett Field reflects the significant patterns established during the municipal airport era and the World War II Navy period. Key spatial qualities established during the municipal airport period included the geometric circulation patterns, architectural uniformity of scale, spacing, and massing along Hangar Row, and large amounts of flat, open space for clear views across the airport. Much of this can be evidenced today. Character defining Navy-era contributions to the site's spatial organization included the increased scale of the runway system, the filling and regularizing of the shoreline, and the scores of war-time support structures built throughout the island. Many of the Navy's World War II changes to the site's spatial organization remain with the exception of a decrease in maintained open space due to successional woodlands and the loss of several deteriorated war-time structures.

Circulation established in the initial phase of municipal airport design and construction established some of the most significant landscape features on site. The geometric layout of the early runways, both perpendicular and parallel to Flatbush Avenue, defined the organization of the buildings of Hangar Row. Later municipal airport improvements included expanding the runways, building on the geometric patterns established previously, and a redesigned entry connecting Flatbush Avenue and the Administration Building. The new entry featured axial driving lanes and pedestrian paths that focused traffic and views toward the Administration Building. The early runways remain today, although they are obscured by later layering of additional runways. The entry experience is also intact, despite not being the actively used entrance any longer. Navy-era changes to the circulation system expanded upon the compact and geometric layout of the municipal airport-era. A drastically increased program of infrastructure improvements created many new roads throughout the site to connect new hangars, barracks, and storage facilities. The Navy extended the original runways and added several new ones. Even though several World-War II buildings have been removed, most of the contemporary roads remain. The runways established by 1945 exist, although several have been altered by being covered in mulch and grassy vegetation and by the addition of earthen berms.

Historically, vegetation at Floyd Bennett Field was kept to a minimum. Cut grass surrounded the runway system to allow clear views in all directions. Improvements to the airport entry in the 1930s added street trees, hedges, and foundation plantings along the redesigned Flatbush Avenue entrance and at the Administration building to enhance the visitor experience. The Navy continued this

approach to vegetation management during World War II, keeping copious amounts of cut grass to retain open views. Ornamental plantings were not incorporated into the expansion campaign. The vegetation at Floyd Bennett Field has changed since the period of significance due to management changes of the NPS. Several areas of the site are now allowed to grow naturally. Woody vegetation covers some areas that were previously cleared. The park added mulch and berms to portions of the runway system where grasses and forbes flourish today.

Buildings and structures were key elements of the municipal and Navy airport eras, each of which displayed distinct characteristics unique to the context in which they were built. Airport designers clustered all of the structures of the early airport along Flatbush Avenue along Hangar Row. The Neoclassical revival Administration Building stood at the center of the line of buildings and several uniform glass and metal hangars flanked it to the north and south. These were built in popular styles of the time that reflected trends in early airport construction. The tight geometry of the district was altered slightly with the addition of several small support buildings on the south side of Hangar Row in the 1930s. Two more clusters of buildings were constructed prior to World War II, a Coast Guard Air Station and a Navy Seaplane patrol base, both east of the municipal airport along Jamaica Bay. Several of these buildings were modified during World War II, notably the Administration Building, to accommodate military needs. The Navy added many more buildings and structures outside of the municipal airport boundaries during World War II, building extensively on the south part of the island and also to the north and expanding the existing facilities on Jamaica Bay. These buildings contrasted with the carefully designed structures of Hangar Row. Most were unadorned reinforced concrete or metal buildings, erected with expedience, not style in mind. Some of these war-time buildings have been removed in recent years and others stand in disrepair. The NPS and its partner groups have rehabilitated some to serve new uses. Evidence of the design intent of both the municipal airport and the Navy Air Station are sufficiently visible to illustrate the historic condition of the period of significance.

INTEGRITY

The Floyd Bennett Field CLI study area retains integrity to the period of significance (1928-1945). While individual features have been altered, overall the historic character and integrity of the Floyd Bennett Field expanded historic district remains.

Location:

All land and associated features within the proposed boundaries were historically part of Naval Air Station, New York (NAS New York) in 1945. The location of the major features that remain on-site – the Administration Building, hangars, runways – have not changed since the end of the period of significance in 1945.

Design:

Since the end of the period of significance in 1945, several features within the Floyd Bennett Field landscape have been changed; however, the overall landscape has not been altered beyond recognition. Overall, spatial relationships, circulation patterns, and buildings remain intact. Changes

that have been made to individual features since 1945 include the 1935 airport entrance by the WPA, which has been altered through the removal of plant materials and the addition of the current fence separating the field from Flatbush Avenue, the alteration of Hangar Row through the addition of the access road, the presence of the new sports complex, and the addition of three lighted parking lots with concrete curbing constructed on top of the original apron. While much of the open land between the runways is being managed as naturalized grasslands that retain the general open character of the historic turf, the northern areas between Runways 1-19 and 6-24 contain dense successional woods, which detract from the historic design, when these areas were all mown grass or low grasses and shrubs.

Setting:

Floyd Bennett Field was originally selected as the location of New York City's first municipal airport specifically because of its setting; its location on Jamaica Bay created ideal conditions for the development of not just the airport, but also as a Naval Air Station. Since the landmass Floyd Bennett Field was constructed on is somewhat isolated, connected to the rest of Brooklyn via Flatbush Avenue, modern development within the city has had little impact on Floyd Bennett Field.

Much of the development that took place surrounding Floyd Bennett Field may not have occurred without the presence of the airport. The Gil Hodges Memorial Bridge was constructed in 1936 as part of a parkway system developed to increase open space and recreational opportunities for the New York metropolitan area. When the bridge was constructed, Flatbush Avenue also became a major arterial that connected not just Floyd Bennett Field with the rest of Brooklyn but with Rockaway Peninsula and ultimately with the rest of Long Island.

The context provided by Flatbush Avenue is an important part of the overall character of Floyd Bennett Field. The current condition of Flatbush Avenue reflects the setting of Floyd Bennett Field during the period of significance. In particular, the WPA designed the main entrance in 1935 and planted two rows of sycamore trees along the central walkway and Flatbush Avenue, providing a visible connection between the design of Flatbush Avenue and Floyd Bennett Field. Further development throughout Brooklyn and Long Island have had virtually no visual impact on Floyd Bennett Field, and the surrounding context of Flatbush Avenue and the Gil Hodges Memorial Bridge reflect the historic context in which Floyd Bennett Field was located.

Materials:

All types of construction materials, including paving, plants, and other landscape material are included under this aspect of integrity. Many individual features, such as the Administration Building and some of the hangars, retain their original materials. A major change can be seen in the new materials of the sports complex, which intentionally contrasts with the design and materials of the original hangars. Another significant change in materials has been the loss of the plant materials once found at the WPA entrance. While the open lawn remains, the loss of the ornamental plantings has altered the character of the airport entrance. Although changes have been made to the materials of a number of individual features, many of the changes are either reversible or have impacted only portions of historic features, leaving much of the historic materials intact.

Workmanship:

Although changes have been made to individual features, evidence of the original workmanship of Floyd Bennett Field and NAS New York remains evident in the landscape. Many of the buildings and structures retain workmanship, and in spite of the addition of asphalt over sections of the runways, access roads, and parking lots, the original concrete remains exposed in other areas, clearly displaying the method of construction used during the period of significance.

Feeling:

The fundamental element contributing greatly to the character of the historic landscape was the feeling of broad open spaces, which remains largely intact despite the growth of successional woods. Despite this change, the overall development patterns also remains intact, particularly the layout of the runways and the buildings and structures both along Hangar Row and Jamaica Bay. These features were important with regard to the site's functioning as a municipal airport and as a Naval Air Station.

Association:

Although no longer an active airport or military property, the overall layout of the remaining features, particularly the runways, buildings on Hangar Row, and the hangars, aprons, and support buildings along Jamaica Bay, accurately portray the function of the landscape as it was during the period of significance.

Landscape Characteristic:

Other - Natural Systems and Topography

Historic Condition:

Prior to extensive filling that occurred with the construction of the airport, the site consisted of a tidal estuary in a series of islands, the largest of which was Barren Island. Because of the primary ocean currents and the strong tidal action in the bay, the resulting barrier islands shifted over time, making it difficult to develop the land in Jamaica Bay. However, in the late nineteenth century, efforts began to shape Jamaica Bay and its estuary into a commercial port.

The Jamaica Bay climate greatly influenced the decision to locate Floyd Bennett Field. Aviator Clarence D. Chamberlain, a consultant for the city of New York, cited the mild and clear conditions at Barren Island as a major advantage for an airfield because of the good sight distances. When the City of New York decided to locate Floyd Bennett Field in Jamaica Bay in the twentieth-century, there was no landmass large enough to support development. To solve this, the Department of Docks dredged the bay and filled in the small creeks and inlets to create a landmass that was approximately 330 acres, large enough to support the airport. During the historic period, the stabilization of the landmass through the construction of seawalls and bulkheads effectively controlled the currents and tides.

During initial construction of the municipal airport, the natural topography was altered from a series of islands, marshes, and creeks into an expansive, level surface, raised sixteen feet above the mean water line. The Department of Docks laid a layer of clay and topsoil over the central airfield. The level topography was important to its use both as a civilian airport and a Naval Air

Station. When the Navy expanded the site in 1942, it dredged Jamaica Bay and filled in the area north of the original airport. As part of this operation, the land was graded to match the elevation of the airport, although it was not as evenly graded or treated with topsoil as was the original airport. These topographic characteristics remained intact throughout the duration of the historic period.

The geology of Barren Island and the constructed landmass on which Floyd Bennett Field was built determined the natural flora that thrived. The soil of Floyd Bennett Field was mostly sand, which dictated a limited palette of vegetation on the island. During the historic period, areas that were not seeded and planted with grass were comprised primarily of salt grass and low-lying scrubby vegetation. Minimal successional vegetation grew on the island during this time.

Post-Historic and Existing Conditions:

There has been no substantial change since the historic period to the geology and geomorphology of the site. The topography of Floyd Bennett Field remained largely unchanged until c.1996 when several earthen berms were constructed along the new access road (Runway 15-33) (Figure 11). However, successional woodlands have emerged on some of the formerly open land areas. They have grown in several areas where it was either previously bare or planted with grass, most notably, along the south boundary of Runway 6-24 and the west boundary of Taxiway 6. Since NPS ownership, dense successional woods have been allowed to grow up to heights of over six feet (Figure 12). Primarily, the successional woods appear to occur outside the airport's original north boundary. Successional woods are also located in the area surrounding the WPA dope shop, transformer vault, and the Navy barracks, south of the hangars.

Character-defining Features:

Feature: Berms

Feature Identification Number: 132884

Type of Feature Contribution: Non Contributing

Feature: Successional woods

Feature Identification Number: 132886

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Figure 11. Several earthen berms were placed on the runways in 1996 and allowed to naturalize with grasses and forbes (SUNY ESF, 2006).



Figure 12. Walking trail through the successional growth in the North 40 Natural Area (SUNY ESF, 2006).

Spatial Organization

Historic Condition:

During both the Floyd Bennett Field and World War II eras, the area that is included in the study area consisted of extensive amounts open land. The majority of the original airport development was located on the west boundary, along Hangar Row, parallel to Flatbush Avenue. Frontage along Jamaica Bay remained undeveloped and open with the exception of the airport seaplane ramp until the U.S. Coast Guard began construction on their new hangar and garage in 1936. The majority of development along Jamaica Bay occurred prior to and during World War II, when the Navy constructed a seaplane patrol base and several support structures from 1940-1942. The Navy also expanded the existing runways and constructed

entirely new runways during the war. The long, flat runways further emphasized the open character of the landscape. The alignment of the various features, particularly the runways, organized the site with straight lines and clearly defined angles, creating distinct geometric patterns in the landscape.

Post-Historic and Existing Conditions:

Since the end of the historic period in 1945, the overall spatial organization has not changed, despite alterations that have occurred in particular areas. Successional woods have grown in the northern portion of the district, along the southern edge of Runway 6-24, the western edge of Taxiway 6, and north of the Seaplane Patrol Base, while the remainder of the land between the runways is managed as naturalized grasslands and wildlife habitat. A few small structures have been constructed since 1945. Shelters, cabins, and tent platforms have been constructed in the campgrounds both within the pine windbreak and within the successional woods west of the seaplane patrol base; five small structures, constructed as a Navy utility and storage complex, are located north of the patrol base. These structures are not readily visible in the landscape and do not adversely affect the historic spatial organization of the property.

Character-defining Features:

Feature: Hangar Row

Feature Identification Number: 132888

Type of Feature Contribution: Contributing

Feature: Airport Entrance

Feature Identification Number: 132890

Type of Feature Contribution: Contributing

Feature: Airfield

Feature Identification Number: 132892

Type of Feature Contribution: Contributing

Feature: Jamaica Bay Development/Navy Seaplane Patrol Base and U.S. Coast Guard
Air Station

Feature Identification Number: 132894

Type of Feature Contribution: Contributing

Land Use

Historic Condition:

During the historic period, Floyd Bennett Field functioned as a civilian and military airfield. During World War II, land use became more diversified with the training and housing of military personnel. While most military housing was located outside the study area, barracks were located at the Navy Seaplane Patrol Base as well as in the area developed south of the

hangars, along Flatbush Avenue.

Post-Historic and Existing Conditions:

At the end of World War II, Floyd Bennett Field operated as a naval air reserve training station, training and housing military personnel as well as maintaining aircraft. In 1952, the southern-most seaplane ramp and apron were transferred to the Army as part of the U.S. Armed Forces Reserve Center. In 1972, the NPS obtained ownership of all remaining portions of Floyd Bennett Field, incorporating the site in the newly legislated Gateway National Recreation Area (Gateway NRA) with the exception of the Coast Guard Air Station and the southeastern portion of Runway 12-30. In 1974, Floyd Bennett Field opened as a public recreation area, changing the historic land use to emphasize recreation and natural resource conservation. The Coast Guard Air Station remained on site through 1996, although with increasingly limited operations. Although little of the landscape is still used for aviation, the Historic Aircraft Restoration Project (H.A.R.P.) is housed in Hangar B, which was formerly part of the Navy Seaplane Patrol Base. As part of Gateway NRA's natural resources conservation mission, the areas between the runways are managed as naturalized grasslands in order to provide wildlife habitat.

The NPS also leases several areas of Floyd Bennett Field to outside agencies and concessionaires. The New York Police Department (NYPD) leases the Coast Guard Air Station and the New York Department of Sanitation leases part of the former Navy Seaplane Patrol Base. The NYPD area includes the ten-acre Coast Guard Air Station and the former recreation area just south of the station. In c.1999, the National Oceanic and Atmospheric Administration constructed a Doppler weather tower in the former U.S. Coast Guard recreation area. The southeast portion of Runway 12-30 is included in their lease and is bounded inside their fence.

The Floyd Bennett Garden Association has established community gardens, located in southern-most grass panel along Hangar Row. The community gardens include garden plots, a composting area, and a picnic/barbeque area. The NPS has established campgrounds within the pine windbreak and west of the Seaplane Patrol Base. Aviator Sports and Recreation constructed the Aviator Sports and Recreation complex in 2006, located on Hangar Row. Its primary facility is centered in Hangars 5-8 and a large infill building constructed to connect the two pairings of hangars. Large outdoor playing fields with bleachers, scoreboards and stadium lighting are located on the northern-most portion of the Hangar Row apron.

Vegetation

Historic Condition:

During the historic period, there were four types of planted vegetation at Floyd Bennett Field: mown grass between the runways, a privet hedge at the north boundary of the airport, ornamental shrubs and trees at the WPA-designed airport entrance, The Department of Docks planted grass between the runways as part of the original airport development in 1928. It appears that this grass was maintained at a low height throughout the historic period. The Department of Docks planted the privet hedge in 1929, but the Navy removed the hedge in 1941, when they expanded the airfield. In 1935, the WPA redesigned the main entrance into

the airport on Flatbush Avenue that included a planting plan with a variety of shrubs and perennials. They also planted sycamore trees in two central lines at the entrance and along Flatbush Avenue.

Post-Historic and Existing Conditions:

Little of the WPA-designed entrance plantings remain with the exception of the lawn areas and the sycamore trees (Figure 13). A pine windbreak was planted in a triangular form in 1974 between the southern ends of Runways 1-19 and 12-30, amongst which a campground was developed. The mature pine windbreak retains its distinct triangular shape, although the trees are in decline. Vegetation in the spaces that were planted with turf along the airport runways have changed to different types of grasses.

Character-defining Features:

Feature: Airport Entrance lawn area

Feature Identification Number: 132896

Type of Feature Contribution: Contributing

Feature: Entrance area plantings (hedges, sycamores)

Feature Identification Number: 132898

Type of Feature Contribution: Contributing

Feature: Pine windbreak

Feature Identification Number: 132900

Type of Feature Contribution: Non Contributing

Feature: Airfield vegetation

Feature Identification Number: 132902

Type of Feature Contribution: Non Contributing

Feature: U.S. Coast Guard Hangar plantings

Feature Identification Number: 132904

Type of Feature Contribution: Undetermined

Landscape Characteristic Graphics:



Figure 13. Little of the WPA-era entrance planting remains except for the sycamore trees (SUNY ESF, 2006).

Circulation

Historic Condition:

During the historic period, circulation consisted primarily of the runways, taxiways, aprons, and parking lots. When Floyd Bennett Field first opened in 1931, there were only two runways, 15-33 and 6-24. The WPA added Runways 1-19 and 12-30 in 1935. Originally, the circulation features were constructed primarily of concrete. One exception was the use of rectangular asphalt pavers in the parking area around the Administration Building and in sections of the Hangar Row apron directly surrounding the hangars. Throughout the historic period, the circulation system at Floyd Bennett Field continually expanded. Most of the expansion involved the interconnected runways, taxiways, and aprons. Parking lots along Hangar Row and access roads connecting the various parts of the landscape were also constructed. Less dominant circulation features included pedestrian pathways. During World War II, existing features were altered, addressing the changing needs of the Navy, including the extension of all existing runways, with the exception of Runway 6-24. Due to space constraints, the Navy re-designated Runway 6-24 a taxiway and constructed a new Runway 6-24 at the northern end of the airfield. Almost all the circulation features added or expanded by the Navy were constructed of asphalt, except for the Seaplane Patrol Base apron and seaplane ramp, which were both concrete. During World War II, the Navy relocated the main entrance to its current location (outside the historic district) and installed a tall fence that runs between Flatbush Avenue and Floyd Bennett Field to prohibit all vehicular access to the site from either of the two previous entrances (Figure 14).

Post-Historic and Existing Conditions:

Since 1945, there have been few significant changes in the overall circulation patterns of the runways, taxiways, and aprons, outside of the extension of several runways in the 1950s and 1960s. However, individual features have been compromised by the addition of a new access

road over Runway 15-33, parking lots, and berms, all constructed in c.1996 (Figure 15). Also, the Aviator Sports and Recreation complex built in 2006 has altered the condition of the apron system that surrounded Hangars 5-8. Access onto the site has also changed since the end of the historic period. A gate in the fence located west of the Administration Building allows pedestrians to enter the site from the WPA entrance.

Character-defining Features:

Feature: Airport South Boundary Road

Feature Identification Number: 132906

Type of Feature Contribution: Contributing

Feature: World War II Entrance Drive

Feature Identification Number: 132908

Type of Feature Contribution: Contributing

Feature: Entrance Drive (JB-276) [Diagonal Airport Entrance Drives]

Feature Identification Number: 132910

Type of Feature Contribution: Contributing

IDLCS Number: 41260

LCS Structure Name: Floyd Bennett Field - Entrance Drive

LCS Structure Number: JB-276

Feature: Patrol Road (North Perimeter Road)

Feature Identification Number: 132912

Type of Feature Contribution: Contributing

Feature: Airport Entrance Walkways

Feature Identification Number: 132914

Type of Feature Contribution: Contributing

Feature: Runways (1929-31) (JB-280-A) [Runways 6-24 and 15-33 (including access road)]

Feature Identification Number: 132916

Type of Feature Contribution: Contributing

IDLCS Number: 41264

LCS Structure Name: Floyd Bennett Field - Runways (1929-31)

Floyd Bennett Field
Gateway NRA - Jamaica Bay Unit

LCS Structure Number:	JB-280-A
Feature:	Runways (1937-38) (JB-280-B) [Runways 1-19 and 12-30]
Feature Identification Number:	132918
Type of Feature Contribution:	Contributing
IDLCS Number:	41265
LCS Structure Name:	Floyd Bennett Field - Runways (1937-38)
LCS Structure Number:	JB-280-B
Feature:	Taxiway 1 and 2
Feature Identification Number:	132920
Type of Feature Contribution:	Contributing
Feature:	Taxiway 3
Feature Identification Number:	132922
Type of Feature Contribution:	Contributing
Feature:	Taxiway 4
Feature Identification Number:	132924
Type of Feature Contribution:	Contributing
Feature:	Taxiway 5
Feature Identification Number:	132926
Type of Feature Contribution:	Contributing
Feature:	Taxiway 6
Feature Identification Number:	132928
Type of Feature Contribution:	Contributing
Feature:	Taxiway (JB-280-C) [Hangar Row Apron]
Feature Identification Number:	132930
Type of Feature Contribution:	Contributing
IDLCS Number:	41267
LCS Structure Name:	Floyd Bennett Field - Taxiway
LCS Structure Number:	JB-280-C

Feature: U.S. Coast Guard Taxiway

Feature Identification Number: 132932

Type of Feature Contribution: Contributing

Feature: Hangar Row Taxiways

Feature Identification Number: 132934

Type of Feature Contribution: Contributing

Feature: Navy Seaplane Patrol Base Apron

Feature Identification Number: 132936

Type of Feature Contribution: Contributing

Feature: Passenger Tunnel (JB-001-A)

Feature Identification Number: 132938

Type of Feature Contribution: Contributing

IDLCS Number: 41269

LCS Structure Name: Floyd Bennett Field - Passenger Tunnel

LCS Structure Number: JB-001-A

Feature: Seaplane Ramp 'B'

Feature Identification Number: 132940

Type of Feature Contribution: Contributing

Feature: U.S. Coast Guard Seaplane ramp

Feature Identification Number: 132942

Type of Feature Contribution: Contributing

Feature: U.S. Coast Guard Air Station roadways

Feature Identification Number: 132944

Type of Feature Contribution: Contributing

Feature: Administration Building parking lots

Feature Identification Number: 132946

Type of Feature Contribution: Non Contributing

Landscape Characteristic Graphics:



Figure 14. Gates are used to block former entrances and direct visitors to the official entry road (SUNY ESF, 2006).



Figure 15. New parking lots were built on the apron and passenger loading area east of the Administration Building (SUNY ESF, 2006).

Buildings and Structures

Historic Condition:

During the historic period, buildings and structures within the study area consisted of facilities essential to the functioning of the airport as well as related military operations. These included the Administration Building, hangars, both the airport and the Navy compass roses, and several support buildings, such as transformer vaults, pump houses, and maintenance shops. Several

bulkheads and seaplane ramps were also constructed during the historic period. Apparent in the buildings and structures the Department of Docks and the WPA built during the Floyd Bennett Field era is a distinctly unified design. The approach is evident in the design of the Administration Building, the eight original hangars, the dope shop and a number of small, support brick buildings located in Hangar Row. The unity is seen in the buildings' materials and details. Each of these buildings is constructed of brick with cast-stone accents with streamlined classical detailing. In contrast are the Navy-constructed buildings and structures (Figure 16). These include the buildings at the Seaplane Patrol Base and several support buildings located south of Hangar Row. These buildings do not share the same design style as the civilian airport buildings, but embody a more austere, utilitarian character reflective of war-time conditions.

Post-Historic and Existing Conditions:

Since the end of the historic period, several historic buildings and/or structures have been demolished and a few new structures have been constructed. In the late 1940s, the Navy demolished both Sperry floodlight towers (1932). In 1964, the Air National Guard demolished the WPA built brick field house (1937-1938) north of the Administration Building to make room for construction of a nose hangar, which has since been demolished. In c.1970, the Navy constructed its last building at Floyd Bennett Field, Tylunas Hall. In order to build it, the Navy demolished the 1940 office building and enlisted men's barracks located south of Hangar A. Sometime after 1980, the NPS demolished Hangars 9 and 10 and the Administration Building addition. Both Hangar Row structures were built by the Navy in 1943. The Navy-constructed Hangar A (1940) was demolished in 1998, either by the NPS or the New York City Department of Sanitation. In the former U.S. Coast Guard area, the NYPD has added a few structures: a guard booth, a temporary tent-style structure, and a training tower. The National Oceanic and Atmospheric Administration constructed a Doppler Tower in the former recreation area, south of the Coast Guard Air Station in c.1999. The NPS constructed several picnic shelters in the eastern campgrounds (Figure 17). The Light Beacon was erected in 1957, well after the historic period.

Character-defining Features:

Feature:	Administration Building (JB-001)
Feature Identification Number:	132948
Type of Feature Contribution:	Contributing
IDLCS Number:	8270
Feature:	Hangars 1 and 2 (JB-003)
Feature Identification Number:	132950
Type of Feature Contribution:	Contributing
IDLCS Number:	8271
Feature:	Hangars 3 and 4 (JB-004)
Feature Identification Number:	132952

Type of Feature Contribution: Contributing

IDLCS Number: 8272

Feature: Hangars 5 and 6 (JB-005)

Feature Identification Number: 132954

Type of Feature Contribution: Contributing

IDLCS Number: 8273

Feature: Hangars 7 and 8 (JB-006)

Feature Identification Number: 132956

Type of Feature Contribution: Contributing

IDLCS Number: 8274

Feature: Garage & Maintenance Shop (JB-026) [Dope Shop]

Feature Identification Number: 132958

Type of Feature Contribution: Contributing

IDLCS Number: 8275

Feature: Fire Pump House (JB-029) [Administration Building Pump House]

Feature Identification Number: 132960

Type of Feature Contribution: Contributing

IDLCS Number: 8276

Feature: Pump House (JB-030) [Dope Shop Pump House]

Feature Identification Number: 132962

Type of Feature Contribution: Contributing

IDLCS Number: 8277

Feature: Hangar Row Fire House

Feature Identification Number: 132964

Type of Feature Contribution: Contributing

Feature: Synthetic Training Building

Feature Identification Number: 132966

Type of Feature Contribution: Contributing

Feature: Electrical Vault (JB-057) [Transformer Vault]

Feature Identification Number: 132968

Type of Feature Contribution: Contributing

IDLCS Number: 8284

Feature: Sewer Pump Station

Feature Identification Number: 132970

Type of Feature Contribution: Contributing

Feature: Fire Station

Feature Identification Number: 132972

Type of Feature Contribution: Contributing

Feature: Fire Station Garage

Feature Identification Number: 132974

Type of Feature Contribution: Contributing

Feature: Maintenance Shop

Feature Identification Number: 132976

Type of Feature Contribution: Contributing

Feature: Torpedo Storage

Feature Identification Number: 132978

Type of Feature Contribution: Contributing

Feature: Power Plant B

Feature Identification Number: 132980

Type of Feature Contribution: Contributing

Feature: Cold Storage and Commissary

Feature Identification Number: 132982

Type of Feature Contribution: Contributing

Feature: General Storage Building

Feature Identification Number: 132984

Type of Feature Contribution: Contributing

Feature: Fire Protection Pump Station

Feature Identification Number: 132986

Type of Feature Contribution: Contributing

Feature: Fire Protection Structure

Feature Identification Number: 132988

Type of Feature Contribution: Contributing

Feature: Hangar B

Feature Identification Number: 132990

Type of Feature Contribution: Contributing

Feature: Transformer Building (JB-120)

Feature Identification Number: 132992

Type of Feature Contribution: Contributing

IDLCS Number: 8285

Feature: Circular Concrete Feature (JB-277) [Airport Compass Rose]

Feature Identification Number: 132994

Type of Feature Contribution: Contributing

IDLCS Number: 41262

Feature: Compass Rose (JB-278) [Navy Compass Rose]

Feature Identification Number: 132996

Type of Feature Contribution: Contributing

IDLCS Number: 41263

Feature: Seaplane Ramp (JB-279) [U.S. Coast Guard Bulkhead and Seaplane Ramp]

Feature Identification Number: 132998

Type of Feature Contribution: Contributing

IDLCS Number: 41266

Feature: Civilian Airport Bulkhead and Seaplane Ramp

Feature Identification Number: 133000

Type of Feature Contribution: Contributing

Floyd Bennett Field
Gateway NRA - Jamaica Bay Unit

Feature: Navy Seaplane Patrol Base Seaplane Ramp

Feature Identification Number: 133002

Type of Feature Contribution: Contributing

Feature: U.S. Coast Guard Hangar

Feature Identification Number: 133004

Type of Feature Contribution: Contributing

Feature: U.S. Coast Guard Garage

Feature Identification Number: 133006

Type of Feature Contribution: Contributing

Feature: U.S. Coast Guard Office Building

Feature Identification Number: 133008

Type of Feature Contribution: Non Contributing

Feature: NYPD Guard Booth

Feature Identification Number: 133010

Type of Feature Contribution: Non Contributing

Feature: NYPD Training Tower

Feature Identification Number: 133012

Type of Feature Contribution: Non Contributing

Feature: NOAA Doppler Tower

Feature Identification Number: 133014

Type of Feature Contribution: Non Contributing

Feature: Navy Storage Building

Feature Identification Number: 133016

Type of Feature Contribution: Non Contributing

Feature: NPS Comfort Stations

Feature Identification Number: 133018

Type of Feature Contribution: Non Contributing

Feature: Aviator Sports and Recreation Infill Building

Feature Identification Number: 133020
Type of Feature Contribution: Non Contributing
Feature: Underground Utilities
Feature Identification Number: 133022
Type of Feature Contribution: Non Contributing
Feature: Paint Storage
Feature Identification Number: 133024
Type of Feature Contribution: Non Contributing
Feature: Light Beacon (JB-145) [Beacon Tower]
Feature Identification Number: 133026
Type of Feature Contribution: Non Contributing
IDLCS Number: 8287
Feature: Rotating Platforms
Feature Identification Number: 133028
Type of Feature Contribution: Undetermined

Landscape Characteristic Graphics:



Figure 16. View looking south at Hangar B with the Navy Seaplane Patrol Base and apron. The design and construction of this World War II-era building contrasts with the municipal airport buildings of Hangar Row (see Fig. 13) (SUNY ESF, 2006).



Figure 17. The NPS erected picnic shelters in the eastern campgrounds, located near the Seaplane Patrol Base (SUNY ESF, 2006).

Views and Vistas

Historic Condition:

During the historic period, open views within Floyd Bennett Field were critical to its historic use as an active airfield, especially those needed by pilots to take off and land along the runways and between the air tower to the runways and were maintained as flight-path clear zones. Limited and clustered development during the municipal airport-era allowed for wide open views across the runways to Jamaica Bay. In the late 1930s, two clusters of buildings, the Navy Seaplane Patrol Base and Coast Guard Air Station were constructed along Jamaica Bay, slightly limiting water views from Hangar Row. The Navy continued a program of development during World War II, building numerous structures in the north and south portion of the island and further narrowed off-site views. Despite this, the interior of the island remained clear of visual obstructions and tall vegetation, allowing sweeping views across the airfield.

Post-Historic and Existing Conditions:

Today, the views out of and into the landscape have been altered. The view to the north is blocked by dense successional woods. The growth of successional woods in the airfield impacts historic views. The mature pine windbreak south of the original airport boundary also limits historic views within the site.

Landscape Characteristic Graphics:



Figure 18. The Aviatrix Sports and Recreation complex features bleachers, lights, and sports fields (SUNY ESF, 2006).

Small Scale Features

Historic Condition:

During the historic period, there were a variety of small-scale features in the Floyd Bennett Field landscape that supported the municipal airport and the Naval Air Station. The earliest known small-scale feature was the six-foot tall wooden fence that marked the airport's original north boundary, constructed in c.1930. Shortly after the wooden fence was built, a four-foot tall wooden fence was constructed along the airport's original south boundary. Fences were also installed around the parking areas to the north, east, and south of the Administration Building. During the Floyd Bennett Field era, the main concentration of small-scale features found in the landscape was at the airport entrance. In 1935, the WPA installed a metal flagpole and an entrance sign in the center of the central walkway that circled around these features. There were also two styles of light standards at the entrance, as well as lights along the runways. During World War II, the Navy constructed a chain-link property fence that ran along Flatbush Avenue that blocked off the original airport entrance.

Post-Historic and Existing Conditions:

Most of the original small-scale features were lost after the historic period. All of the fencing was removed. The NPS erected a new property fence along Flatbush Avenue, with gates at the original airport entrance and the World War II Navy entrance. Only the WPA flagpole remains as it did during the historic period. In 2006, the NPS reconstructed the WPA entrance sign and installed new Central Park style lights. The new cast iron-style lights were different in design and location than the original light standards, which have been lost. The original wood light standards have been removed to storage due to severe deterioration. The NPS has added contemporary lights in the parking lots east of the Administration Building, installed through Federal Highway Administration funding in 1996. By 2006, a water tank was removed due to

deterioration, but it was likely installed after the historic period. As part of the same project, guardrails were installed along the east and west sides of the access road constructed over Runway 15-33. Small-scale features associated with the Aviator Sports and Recreation complex include bleachers, stadium lights, scoreboards, goalposts, and a chain-link fence that surrounded the outdoor fields (Figure 18). The community garden plots are enclosed by chicken-wire type fencing. Picnic tables and pedestal grills are located to the south of the garden plots. Several small scale features, including tent platforms and picnic tables, are located in the campgrounds.

Character-defining Features:

Feature: Steel Flagpole (JB-282) [Airport Entrance Flagpole]

Feature Identification Number: 133030

Type of Feature Contribution: Contributing

IDLCS Number: 41270

Feature: Apron Drainage System (JB-280-D)

Feature Identification Number: 133032

Type of Feature Contribution: Contributing

IDLCS Number: 41261

Feature: Flatbush Avenue Fence

Feature Identification Number: 133034

Type of Feature Contribution: Non Contributing

Feature: Aviator Sports and Recreation Complex Fence

Feature Identification Number: 133036

Type of Feature Contribution: Non Contributing

Feature: Jamaica Bay Area Fences

Feature Identification Number: 133038

Type of Feature Contribution: Non Contributing

Condition

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 06/28/2008

Condition Assessment Explanatory Narrative:

The overall landscape of Floyd Bennett Field is in fair condition due to several factors. Areas around the Administration Building and some of the runways are in fair condition. However, several small historic buildings in the study area have collapsed. Likewise, the south hangars are in disrepair with broken windows and holes in their roofs. Much of the site's historic pavement is cracked and the mulch covering on the runways is damaging to the historic asphalt. The deterioration of several bulkheads coupled with shoreline erosion at the seaplane base affect the site's condition along the coast.

Stabilization Measures:

Bulkheads along the seaplane ramp require stabilization measures to combat coastal erosion. The condition of the main airfield has been compromised by the presence of some areas of successional woods between runways. The former dirigible landing field, near Camps Tamarack and Goldenrod, is obscured by the growth of native vegetation.

Impacts

Type of Impact:	Erosion
External or Internal:	External
Impact Description:	Erosion along the coast and exposure to tidal action impact the property's shoreline.
Type of Impact:	Release To Succession
External or Internal:	Internal
Impact Description:	Many acres of the site are returning to successional woods, impacting the grasslands.
Type of Impact:	Structural Deterioration
External or Internal:	Internal
Impact Description:	Numerous historic buildings are structurally deficient.

Stabilization Costs

Landscape Stabilization Cost: 9,576,000.00

Level of Estimate: C - Similar Facilities

Cost Estimator: Park/FMSS

Landscape Stabilization Cost Explanatory Description:

PMIS project number 145227 requests \$9,576,000 to replace 1200 feet of seawall at Floyd Bennett Field to combat shoreline erosion.

Treatment

Treatment

Approved Treatment: Rehabilitation

Approved Treatment Document: Development Concept Plan

Document Date: 01/01/1983

Approved Treatment Document Explanatory Narrative:

Neither the 1979 General Management Plan nor the 1983 Development Concept Plan address management of the Floyd Bennett Field cultural landscape, rather they focus on the restoration of the natural environment, development of recreational opportunities, and the development of educational programs. Landscape treatment actions have been developed as part of a draft Cultural Landscape Report for the property but no cost estimates have been generated. Draft treatment recommendations include removing berms from runways, mowing grasslands cyclically to suppress the growth of woody vegetation, removing non-historic small scale features from the landscape where possible, clearing successional woods from the edges of runways, and relocating parking lots to historic locations.

Several management documents address the approved treatment approach, rehabilitation, including the 1979 General Management Plan, the 1980 Development Concept Plan, revised in 1983, and the 1993 Facility and Recreation Use Plan.

Approved Treatment Completed: No

Approved Treatment Costs

Cost Date: 01/01/1983

Bibliography and Supplemental Information

Bibliography

- Citation Author:** Cody, Sarah and John Auwaerter
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- Citation Author:** United States Department of the Interior
Citation Title: Enabling Legislation, Gateway National Recreation Area, 86 Stat. 1308.
Year of Publication: 1972
Citation Publisher: United States Congress
Citation Title: National Register of Historic Places Form, Floyd Bennett Field Historic District.
Year of Publication: 1980
Citation Publisher: Department of the Interior, National Park Service