

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ Page _____

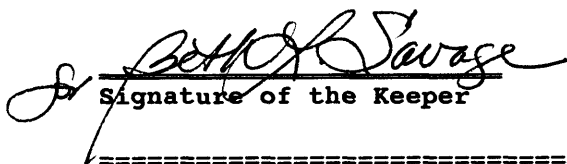
SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 89001474 Date Listed: 05/29/90

Saybrook Breakwater Lighthouse Middlesex CT
Property Name County State

Operating Lighthouses in Connecticut
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.


Signature of the Keeper

05/29/90
Date of Action

Amended Items in Nomination:

8. Statement of Significance: Level of Significance

All properties included in the multiple property nomination Operating Lighthouses in Connecticut were considered to meet the criteria within a statewide context.

10. Geographical Data: Acreage

The acreage is <1.

This information has been confirmed with John Herzan, National Register Coordinator, CTSHPD, by telephone.

DISTRIBUTION:

- National Register property file
- Nominating Authority (without attachment)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR FEDERAL PROPERTIES

1474
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RECEIVED AUG 24 1989

DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Saybrook Breakwater Lighthouse

AND/OR COMMON

Saybrook Breakwater Lighthouse

2 LOCATION

STREET & NUMBER

South end of the west Saybrook jetty, which extends southward into Long Island Sound from Lynde Point, west side of Connecticut River

NOT FOR PUBLICATION
CONGRESSIONAL DISTRICT

CITY, TOWN
Saybrook

VICINITY OF

STATE
Connecticut

CODE

COUNTY
Middlesex

CODE

3 CLASSIFICATION

CATEGORY

- DISTRICT
- BUILDING(S)
- STRUCTURE
- SITE
- OBJECT

OWNERSHIP

- PUBLIC
- PRIVATE
- BOTH
- PUBLIC ACQUISITION**
- IN PROCESS
- BEING CONSIDERED

STATUS

- OCCUPIED
- UNOCCUPIED
- WORK IN PROGRESS
- ACCESSIBLE**
- YES, RESTRICTED
- YES, UNRESTRICTED
- NO

PRESENT USE

- AGRICULTURE
- COMMERICAL
- EDUCATIONAL
- ENTERTAINMENT
- GOVERNMENT
- INDUSTRIAL
- MILITARY
- MUSEUM
- PARK
- PRIVATE RESIDENCE
- RELIGIOUS
- SCIENTIFIC
- TRANSPORTATION
- OTHER

4 AGENCY

REGIONAL HEADQUARTERS (If applicable)

U.S. Coast Guard Third District, Governors Island

STREET & NUMBER

CITY, TOWN
New York

VICINITY OF

STATE
New York 10004

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

U.S. Coast Guard Third District, Legal Dept., Governors Island

STREET & NUMBER

CITY, TOWN
New York

STATE
New York 10004

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

see thematic form

DATE

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input checked="" type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input checked="" type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Saybrook Breakwater Lighthouse (Light List #943), established in 1886, marks a sand bar on the west side of the entrance to the Connecticut River. Presently painted white, the cast-iron tower stands at the south end of the West Saybrook jetty, which extends southward into Long Island Sound from Lynde Point.

Its foundation consists of a cylinder, 30 feet in diameter and 32 feet high, composed of cast-iron plates bolted together through flanges cast on the inside edges. Assembled nearby, the cylinder was transported to the site and lowered through 17 feet of water onto a sand and gravel surface. Riprap was deposited around it, while concrete was used to fill the bottom and perimeter, leaving a central cavity for the cistern and basement area. A corrugated profile was cast into the inner surface of the iron plates, presumably as a stabilizing factor for the concrete fill. Brick lining for the basement incorporates brick walls around the cistern in the northeast quadrant.

The 48 feet high lighttower tapers from an interior diameter of 21 feet at the top of the first story to 10 feet 2 inches at the watchroom level. A brick lining, 12 inches thick at the bottom and 8 inches thick at the top, insulates and stabilizes the bottom three stories of the tower. A cylindrical cast-iron watchroom rests atop the fourth story, supporting a 12-sided cast-iron lantern above. Both watchroom and lantern levels have railed galleries.

The cast-iron plates of the tower each are one story in height and overlap the plate below in a semi-circular ridge. Architectural elements on the first, second, and third stories, such as the entrance door and the pedimented windows, are each cast as the central part of a single plate. The gallery at the first story level was roofed over in 1927 with transite (asbestos building lumber). Supporting the gallery roof at the perimeter of the foundation are plain steel posts incorporating three pipe rails. A metal wall encloses the western segment of this gallery.

On the northeast facade, an elliptically arched entrance with an outer metal plate door and an inner wood door with glass panels is enclosed by a simple, unembellished iron door hood. Above the entrance is a plate with the inscription "G. W. and F. Smith Iron Co., Boston, Mass." The most decorative architectural features of the lighthouse exterior are

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NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

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Saybrook Breakwater Lighthouse

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the molded cast-iron window surrounds, embellished with projecting shallow-peaked lintels, recessed spandrels, molded cornices, flanking consoles, and molded sills. The segmentally arched window openings contain double-hung wood sash with two-over-two lights on the first, second and third floors. These window openings are arranged asymmetrically to accommodate interior lighting requirements. On the fourth story, regularly spaced bullseye or porthole windows are topped by a continuation of the molded lower edge of the top course of cast-iron plates. Flanking the round windows, simple cast-iron brackets with open triangular centers cover vertical seams between wall plates. The brackets support the watchroom gallery above, and anchor stanchions which carry the railing around the watchroom gallery.

Both the watchroom and lantern galleries are edged with double pipe rails supported on ornate cast-iron stanchions. Each stanchion is anchored to the deck by a threaded bar which has been inserted through a semi-circular projection at the edge of the deck and secured with an ornate pendant. Beneath the watchroom gallery, each of the threaded bars also has been inserted through a sleeve, cast as part of a bracket which supports the gallery deck.

The lantern is decagonal in plan, the upper half of its walls containing rectangular panes of glass. Below the windows, round ventilators with adjustable covers are set into vertical beaded board sheathing and connected to outlets on the exterior. The drainage system for interior condensation is well preserved; molded channels and drain holes can be seen in the metal framing at the bottom of each pane. The peaked, iron-plate lantern roof supports a spherical iron ventilator on beak molding and a lightning rod.

On the interior only structural elements remain from the period prior to automation in 1968. The 12" brick lining on the first story was utilized for round-arched niches for storage purposes. Additional storage was provided on upper floors in closets and cupboards fitted into the space between the brick lining and the interior metal staircase wall. The cast-iron stairs wind around the periphery of the tower from the first to the fourth story, anchored to the brick lining and the interior wall. Curving cast-iron ship's ladders provide access to the basement, watchroom and lantern. A central cast-iron column rises from a brick platform in the basement to the ceiling of the fourth story,

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supporting the floors at each level. Floors are comprised of wedge-shaped cast-iron sections, bolted together on the underside and covered with cement on the first story and narrow wood floor boards on the second and third stories. Plaster covers the brick walls on all stories but the fourth, where vertical beaded board sheathing covers the walls. Eight glazed portholes in the watchroom ceiling introduce light from the lantern above.

The present lighting apparatus is electrified and automated. It replaced an earlier incandescent oil-vapor lamp which, in 1917, replaced the original seventeen light oil wick lamp.

United States Department of the Interior
National Park Service

**National Register of Historic Places
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Saybrook Breakwater Lighthouse
Old Saybrook, CT

Section number 7 Page Amendment

Description (continued):

In 1989, Saybrook Breakwater Lighthouse was re-photographed and examined in the field in order to bring the National Register documentation fully up to date. Following are the features or characteristics of the lighthouse that differ from its condition and appearance as described in the National Register Inventory/Nomination form prepared in 1985.

Adjoining the east side of the lighthouse foundation, a concrete pad has been poured atop the breakwater, supporting a fuel tank.

The gallery roof around the perimeter of the foundation has been removed, along with the posts that supported it. In place of the posts is found a series of vertical pipes used to support the chain that serves as a handrail.

The windows are now blocked up with black-painted plywood and sheet metal. The sash has been removed from all the openings. Some of openings retain a portion of their molded interior surrounds.

Saybrook Breakwater Lighthouse still retains the requisite degree of integrity for National Register eligibility.

8 SIGNIFICANCE

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION		
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE		
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE		
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIA		
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER		
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input checked="" type="checkbox"/> TRANSPORTATION		
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)		
		<input type="checkbox"/> INVENTION				

SPECIFIC DATES built 1886

BUILDER/ARCHITECT G.W. & F. Smith Iron Co., Bost

STATEMENT OF SIGNIFICANCE

Saybrook Breakwater Lighthouse, established in 1886, is significant as an early example of the cone-shaped, prefabricated cast-iron lighthouses which dominated the new construction of the Lighthouse Board in the Third Coast Guard District from 1881 until the second decade of the twentieth century. The tubular cast-iron foundation on which the lighthouse rests represents a major engineering achievement in the development of foundations, sturdy enough to withstand the battering of ice floes at waterbound sites in northern states. Minor variations in detailing distinguished succeeding models of conical cast-iron lighthouses; Saybrook Breakwater Lighthouse represents the first phase of development. Saybrook Breakwater is also significant as an integral part of the nineteenth century campaign to improve aids to navigation on Long Island Sound, marking a hazardous bar at the mouth of the Connecticut River.

Saybrook Breakwater Light stands on a breakwater only a mile and a half from the Lynde Point Lighthouse, a land based masonry tower established in 1802 to mark the west side of the entrance to the Connecticut River. The challenge of marking waterbound hazards to navigation had been met in the first few decades of federal control through the deployment of buoys and lightships. One such buoy was approved by Congress on March 3, 1831, to mark Saybrook Bar at the mouth of the Connecticut River.

Such an aid to navigation was inadequate for the needs of the increased maritime traffic in Long Island Sound after the Civil War. The technology required to build an adequate lighthouse foundation from cast-iron for underwater sites where ice floes were a danger was well developed by the mid-1870s. At that time Major George H. Elliot, Engineer-Secretary of the United States Lighthouse Board, designed a tubular cast-iron lighthouse foundation to be prefabricated in curved sections and assembled near the site. This design was a major accomplishment in the history of American lighthouse engineering. The earliest known use of this type of foundation was at Southwest Ledge Lighthouse, near New Haven, Connecticut in 1877. Saybrook Breakwater Lighthouse was one of the early structures which resulted from this development.

In 1883, an inadequate appropriation was made for a lighthouse for Saybrook "Bar". An additional appropriation was requested and approved. The subfoundation on the sand and gravel bottom was finished in 1885,
See Continuation Sheet

9 MAJOR BIBLIOGRAPHICAL REFERENCES

see continuation sheet

10 GEOGRAPHICAL DATA see location map

ACREAGE OF NOMINATED PROPERTY _____

UTM REFERENCES

A	ZONE	EASTING	NORTHING	B	ZONE	EASTING	NORTHING
C	ZONE	EASTING	NORTHING	D	ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION

see site plan

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES
see thematic form

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Dorothy B. Templeton/Historian

ORGANIZATION

John Milner Associates, Inc.

DATE

October 22, 1985

STREET & NUMBER

309 North Matlack Street

TELEPHONE

(215) 436-9000

CITY OR TOWN

West Chester

STATE

PA 19380

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES NO _____ NONE _____

[Signature]
STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is _____ National _____ State _____ Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

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I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

[Signature]

DATE 5-29-90

DIRECTOR, OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

DATE

ATTEST:

KEEPER OF THE NATIONAL REGISTER

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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Saybrook Breakwater Lighthouse

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and an iron tubular foundation 32 feet high and 30 feet in diameter was bolted together and sunk into place in 17 feet of water.

The foundation followed the design worked out by Major Elliot: curved, cast-iron plates of identical dimensions were bolted together to make rings, or courses, by means of wrought iron bolts attached through flanges cast into the inner edges of the plates. The cast-iron rings were then bolted together vertically before being submerged onto the subfoundation. Concrete made with Portland cement was used to fill the foundation, leaving a cavity at the top for the basement and cistern of the superstructure.

The lighthouse superstructure has a truncated cone configuration, made of five courses of curved cast-iron plates, which, like the foundation, were flanged to facilitate a bolted assembly. It was fabricated by the G. W. and F. Smith Iron Company of Boston, Massachusetts. A lining of brick was installed, which supports the outer edge of a peripheral cast-iron winding stair and five cast-iron landings. The inner ends of the stair treads are supported by a curved metal wall. Saybrook Breakwater represents the earliest example in the nominated group of this stairway design, which was continued in later lighthouses of this configuration into the twentieth century. Closets built into the brick lining on the first or living room story were fitted with shelves and drawers in a manner unique in the nominated group. On the kitchen, bedroom and radio room levels, the storage space is fitted above and below the stairs as closets and cupboards. Openings for the windows and the entrance door have the segmental arches and cast-iron trim typical of the first phase of cast-iron lighthouse development.

By June 15, 1886, the pier, superstructure and lantern were completed, and the light was first exhibited on that date. Riprap was placed around the site for protection up to the level of the high water mark.

Fog-signal equipment was supplied in 1889, at which time the Breakwater Light took over the fog warning function from Lynde Point Lighthouse, only one and a half miles away. In 1890 a fourth order Fresnel lens was fitted, replacing the original fifth order lens. Six years later a Gamewell fog bell striking machine was approved for the lighthouse. In 1917, a 17 wick oil lamp was converted to incandescent oil vapor. Since 1958 the fog signal has been operated by remote control. At that time

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personnel from Saybrook Breakwater lived at Lynde Point and stood watch only during inclement weather.

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INVENTORY -- NOMINATION FORM**

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Saybrook Breakwater Lighthouse

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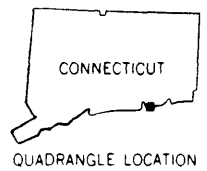
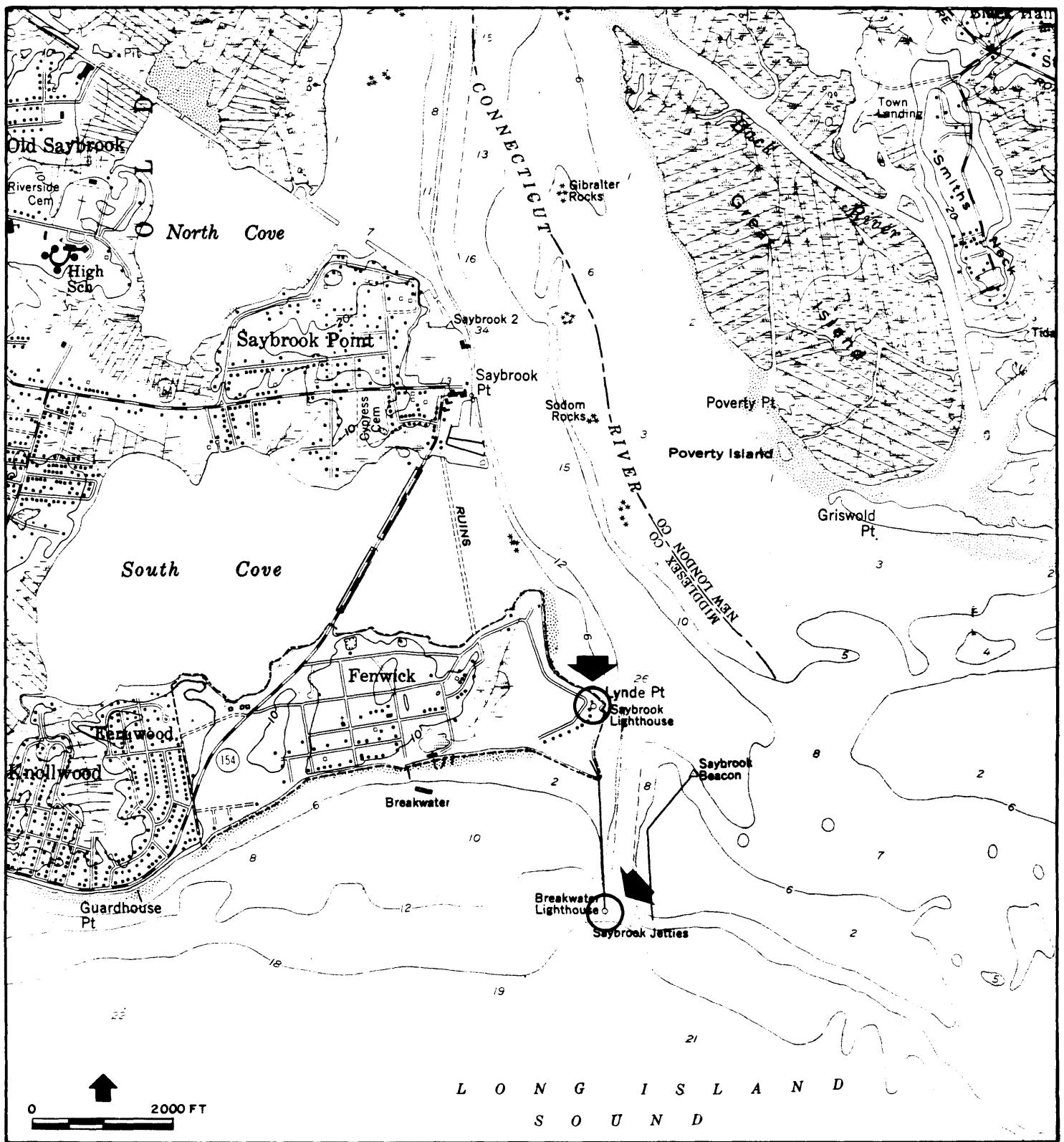
PAGE

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Description of Saybrook Breakwater Light Station,
National Archives Record Group 26, 1887 and 1927.

U.S. Coast Guard Third District Legal Department property files,
Connecticut: "Saybrook Breakwater" and "Lynde Point".

U.S. Lighthouse Board, Annual Report of the Lighthouse Board,
1883-1890, 1892, 1895, 1899, 1902.

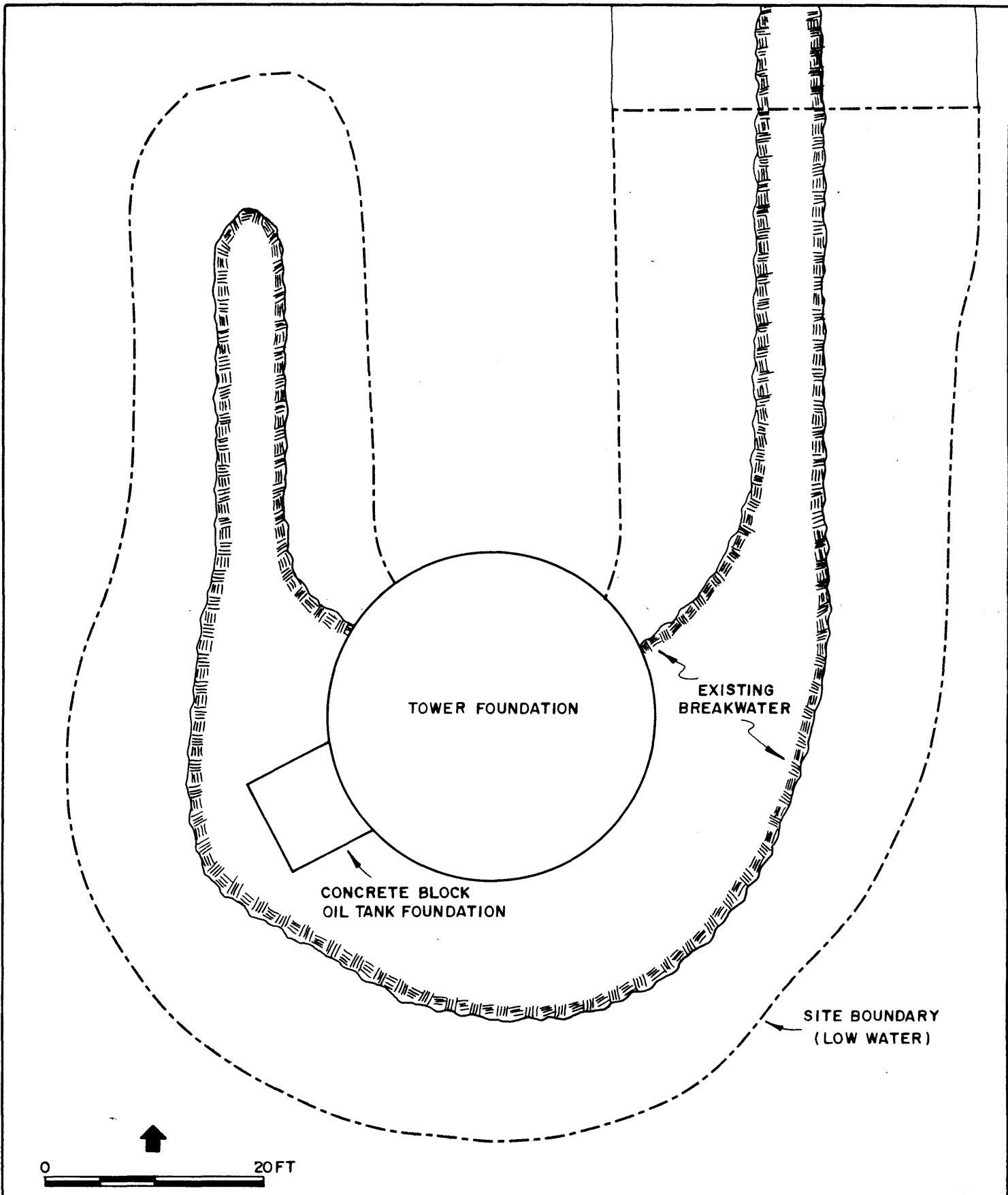


SAYBROOK BREAKWATER LIGHTHOUSE, LYNDE POINT LIGHTHOUSE
 Middlesex County, Connecticut.

Old Lyme, Connecticut Quadrangle, 1958
 1:24000

Saybrook Breakwater Lighthouse
 UTM References:
 18.722570.4571160

Lynde Point Lighthouse
 UTM References:
 18.722490.4572060



TOWER FOUNDATION

EXISTING
BREAKWATER

CONCRETE BLOCK
OIL TANK FOUNDATION

SITE BOUNDARY
(LOW WATER)

0 20 FT

SITE PLAN

SAYBROOK BREAKWATER LIGHTHOUSE
Middlesex County, Connecticut

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Photographs
Section number _____ Page Amendment _____

Saybrook Breakwater Lighthouse
Old Saybrook, CT

All photographs:

1. SAYBROOK BREAKWATER LIGHTHOUSE
2. Old Saybrook, CT
3. Photo Credit: HRC, Hartford, CT
4. March 1989
5. Negative filed with Connecticut Historical Commission,
Hartford, CT

North elevation, with breakwater in foreground, camera facing
south
Photograph 1 of 7

Watch deck and lantern, camera facing southeast
Photograph 2 of 7

Maker's plate over door, camera facing east
Photograph 3 of 7

Typical window, exterior, camera facing north
Photograph 4 of 7

Watch-deck railing, camera facing southeast
Photograph 5 of 7

Interior staircase, including window with a remnant of its molded
surround
Photograph 6 of 7

Celing of watch deck (floor of lantern deck)
Photograph 7 of 7