

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

LIGHTHOUSE INFORMATION FORM

NUMBER 20

MASSACHUSETTS HISTORICAL COMMISSION
80 Boylston Street, Boston, MA 02116

PHOTOGRAPH KEY

Leslie Fox - MHC - 1981

1. Light tower
2. Main staircase (iron)
3. Keeper's dwelling
4. Generator shack

Jack Clarke - CCPDC - 1980

5. Highland Light Station

HISTORIC NAME: Highland Light Station
(preferred) (also, Cape Cod
Truro Light)

TOWN: Truro

LOCATION: Near Rt. 6, 9 mi. south of Rac
Pt.

COUNTY: Barnstable CODE: 001

CONGRESSIONAL DISTRICT: 10th

LOCATION OF LEGAL DESCRIPTION:

Barnstable County Courthouse

Registry of Deeds

VERBAL BOUNDARY DESCRIPTION:

Please refer to the attached assessor's map.

SKETCH MAP



LAT./LONG.: 42° 2' 22" / 70° 3' 39"

UTM COORDINATE: 19/411/500/4655/300

USGS QUADRANGLE: BOSTON, MA; NH; CT; RI; ME

SCALE: 1:250,000

ACREAGE: 6.47 acres

OWNER(S): United States Coast Guard
First Coast Guard District
408 Atlantic Avenue
Boston, MA 02210

STATUS: Manned/Active

RECORDED BY: Leslie L. Fox, Jack Clarke

ORGANIZATION: MHC

DATE: 1980; August 1981

Highland Light Station (also, Cape Cod Light), Truro

SITE DESCRIPTION:

The Highland Light Station (also called the Cape Cod Light) sits atop "the clay pounds" of the cliffs at North Truro, on Cape Cod. In 1794, the Reverend Levi Whitman wrote, "That mountain of clay in Truro seems to have been erected in the midst of sand hills by the God of Nature for the foundation of a lighthouse, which, if it should be obtained, in time no doubt would save the lives of thousands."

Access to the Light is easily made by road, but the station is enclosed by a chain link fence to prevent tourists from wandering about. The clay cliffs are eroding at a rapid rate, and are only 75' or so from the station at the present time. The high cliffs, the long sandy beach at the bottom, the view out to sea, and the windswept hill on which the lighthouse is the only tall structure, offer a dramatic landscape. It is located about nine miles south of Race Point Beach, on the Atlantic Ocean side of Cape Cod. The National Park Service owns the property surrounding the light station as part of the Cape Cod National Seashore.

MAJOR ELEMENTS:

The complex consists of the brick lighthouse (1857) and attached walkway (1857), the old keeper's house (1857), the new keeper's house (1961), and a generator shed (1857). The new keeper's house is considered non-contributing.

TOWER

- Exterior: The 1857, 66' cylindrical brick tower rises 120' above sea level. The exterior of the tower is painted white, as is the entryway connecting it to the old keeper's house. Access can only be made through the main entrance of the house and then through the brick entryway, a one-story structure, also built in 1857. This entry houses the last two remaining radio beacon clocks operated by the Coast Guard, and a large automatic radio beacon. This beacon sends its morse code characteristics every 6 minutes, signaling "HI". An early double iron door which reads "Truro Light House" opens into the tower itself. (A local citizen donated the doors, hoping the 1857 Lighthouse would be named as he wished.) The interior of the tower has walls 4 1/2' thick at the base, which taper to 2' thick at the top. Four air shafts run the length of the tower within the brick walls.
- Interior: The exposed brick interior has been sandblasted except for the bottom six rows, which have been whitewashed. It is laid up in headers except for 2 1/2 rows of stretchers over the door. The floor is cement.
- Stairs: An iron circular staircase, not the original, leads up to the light. The staircase has a square iron and a polished wood handrail, probably hand carved. 16 stairs, painted red, lead to a small platform, then to another 12 stairs to another platform, painted white on the underside, and 12 more steps to a landing.
- Ladder: A curved iron ladder hung by 2 straps, 2 1/2" wide, painted red and black, leads to a half landing. Each riser is 4 1/2" X 9" X 24". From the half landing, seven more stairs ascend to a full landing, which was once used for the clockwork or for storage. The pendulum hole in the center of the room has been covered over and the metal shaft which once held mercury for balance has been sealed.
- First Landing: The only window above the ground floor in the lighthouse is on this level and faces inland. Set into the wall 12", its measurements are 32" X 47 1/2" on the outer edges and 27" X 43" inside the frame, which is wooden. A 5' 3/8" wide granite lintel rests above it. Large granite blocks also support the double doorway directly above it in the lamp room. On the upper wall just below the white ceiling is a double brick corbel. An enormous cast iron cross piece is set deep into the wall on four sides. In the center of the crosspiece and fixed in the ceiling is the housing for the pendulum.
- Stairs: Eight wrought iron, elaborate open-work steps lead to the lamp room. A thin iron railing with an elegant curved end runs up the stairs. Each step is 1 1/4" X 6 1/2" X 22" wide.
- Lamp Room: The lamp room has an iron floor and vertical wooden sheathing on the walls. An inside opens onto two sets of wooden doors that lead to the first balcony. Both sets are probably original, and

- are arched at the top. The outer door has the original iron ring and latch.
- Balcony: the railing on this balcony is simple and made of iron. An eight step iron ladder on the inland side leads up to the upper balcony through a circular hold in the latter.
- Ladder: each metal step is braced on the near side by a single round iron pole.
- Lens Room: entering the lens room, two brass handles are located in the wall along the ladder. The outer walls consist of floor to ceiling glass panes, sixteen in all. The middle panes measure 27" X 39". Grated vents are located at the bottom of each window to allow air into the lens room, but keep out sand. The cone-shaped roof is still in its original design, which permitted smoke and residue from the fuel to escape. The two DCB 36" drum lamps, one above the other, can be seen 32 miles to sea, and one is used by pilots flying west from Europe to pinpoint their location. The exterior of the lens room is iron and is painted black. The design is typical, except for the large expanse of glass, and the ventilator atop the lighthouse. It is not the usual ball-shape, but is cylindrical with a conical hood.
- Fog Horn: A foghorn is located on the exterior, seaside of the lighthouse and is automatic, sounding every 15 seconds when needed. There is also a radar reflector attached here.

KEEPER'S HOUSE

The old keeper's house, connected by the entry to the lighthouse, has housed from one to three keepers at a time. The shingled Queen Anne style, 1 1/2 story dwelling has an L-shaped plan. Built in 1857, the exterior appears relatively unaltered, though the house has been modernized. There are two front doors on the west end, one of which opens onto a porch on the northwest end of the house. The fenestration is irregular and all windows contain 6/5 sash. The roof has been re-shingled with red asphalt and the two original thin white brick chimneys have two corbeled rows painted black at the top. One is located into the center of the dwelling, while the other is located near the far edge of the slightly lower ell. The foundation is brick.

SHED

Directly behind the keeper's house is a small, one-story generator shed, which resembles many oil houses. It was built in 1857 and is now used as a well house.

NEW HOUSE

A modern ranch-style house was built in 1961 for a second keeper and his family. It replaced another shingle dwelling, which may have been built in the mid-nineteenth century.

FOUNDATIONS

Near the edge of the cliff are the foundations of the original oil house (brick), and the watch tower (cement), and a beacon.

CHRONOLOGICAL HISTORY

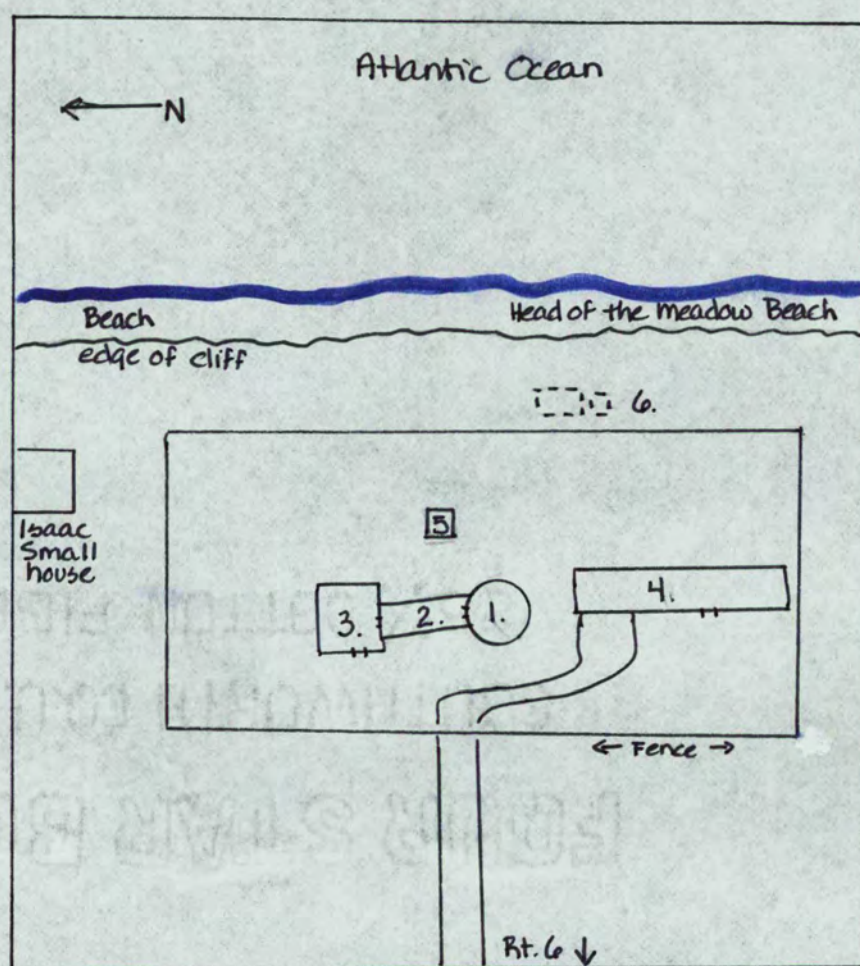
- 1796 - Frances Small sold 10 acres of land, known as the "Truro clay pound" to the U.S. Government. A temporary structure was erected.
- 1797 - The first lighthouse on Cape Cod was built after a lobby of local residents, led by Rev. Levi Whitman of Wellfleet, had caught the attention of the federal government by citing all the shipwrecks that had occurred there. First lit on June 12, 1797, it was a 30' brick tower, 3 1/2' thick at the base, with 15 whale oil lamps. Each lamp had a 15" reflector; these were arranged in 2 rows, eight lamps on the lower, seven on the upper. Each lamp held one quart of oil, which was enough for one night. It marked the first landfall on the transatlantic route to Boston.
A brick keeper's house was also built
- 1800 - A rotating eclipser, or screen, was placed in the lens room. It revolved slowly around the lens, creating a flashing light. Each revolution took 8 minutes.
- 1807 - The eclipser was removed because it was said to obscure the light. Issac Small, a descendant of Frances Small, lived nearby and recorded local maritime history relating to the Light. (The Small homestead is presently abandoned, and is located to the northwest of the station in the adjacent lot, near the edge of the cliff.)
- 1832 - a second lighthouse may have replaced the first; this is uncertain.
- 1833 - D. Whitney in his book, The Lighthouse, states, "The first lighthouse was built at Cape Cod as early as 1798, but was rebuilt first in 1833 and again in 1853." Thoreau in his 1857 journal states, "Small says the lighthouse was built about 60 years ago. He knows by his own age. A new lighthouse was built some twenty-five years ago (1832). They are now building another on the same spot."
- 1839 - 21" parabolic reflectors, a new lantern, deck, and chandelier were installed. This may be the rebuilding of the tower that Thoreau and Whitney refer to.
- 1840 - The iron doors to the tower which read "Truro Lighthouse" were added, possibly with the reconstruction of the tower.
- 1853 - Enoch S Hamilton was keeper. In his journal, he recorded 1,200 vessels passing Highland within a 12-day period.
- 1857 - The present 66' brick tower was built for \$15,000. The existing light and keeper's house were razed. A one-story 40' X 43" equipment shed and a 15'8" X 27'8" boathouse were built, to be moved twice over the years.
A First Order Fresnel lens, costing \$30,000, was installed. It had a visibility of 23 miles, was 12' high and 6' in diameter. A system of cog wheels, springs, and vacuum pumps supplied oil to four wicks, which were fed oil from a tank beneath the burner (in the lamp room). Three keepers were needed to tend the light, instead of one.
- 1860 - Whale oil lamps in the lighthouse were converted to kerosene.
- 1899 - The Boston Chamber of Commerce appropriated \$15,000 to change the fixed lens to a flashing one of greater intensity.
- 1901 - A new First Order Fresnel lens was installed, with 820,000 candle-power. It consisted of 36 prisms arranged in tiers; it was 12' high and 9' in diameter, and rested on a 300-lb. bed of floating mercury in an iron base.
- 1902 - Reference to a watchtower on the property.

- 1904 - A U.S. Naval Radio station was established at Highland Light.
- 1909 - A complete water system was installed.
- 1915 - A new watchtower was built.
- 1919 - The Compass Station was established at Highland, advising ships by radio of their location.
- 1932 - A two-story watchtower, 10' X 16", was built. The lamps were replaced by a 1,000-watt electric bulb, which greatly intensified the light.
- 1936 - A four-car 21' X 42' garage was built.
- 1945 - The Fresnel lens was dismantled and scrapped. A 36" double drum lens was installed with 4,000,000 candlepower.
- 1976 - The Massachusetts Historical Commission considered the collapse of the watchtower and oil house, due to erosion, a "loss in cultural properties."
- 1980 - The exterior of the lighthouse and entry were repainted.
- 1986 - Coast Guard plans to automate Highland Light; this will not alter the appearance of the light. The dwellings will continue to be used as Coast Guard housing.

LEVEL OF SIGNIFICANCE

The Highland Light Station possesses integrity of location, design, setting, materials and workmanship as well as important associations with the development of aids to navigation in Massachusetts. Dating from the mid-nineteenth century, it is one of the better preserved complexes in the state, consisting of a tower, walkway, keeper's house and generator shed. It is also important as the site of the first lighthouse on Cape Cod. Additionally, it exhibits many especially interesting individual features such as its elaborate wrought iron work. The station meets criteria A and C of the NRHP on the state level as well as survey criteria 1a, 1d, 1e, 2a, 2c.

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION



Highland Light Station

1. Tower
2. entryway
3. Keeper's House
4. Modern Keeper's House, Garage
5. generator Shed
6. Foundations of oil house,
watch tower

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation Sheet

MAY 4 1987

Section number 8 Page 174Multiple Resource Area
Thematic GroupName Lighthouses of Massachusetts TR
State MASSACHUSETTS

Nomination/Type of Review

Date/Signature

Cover Substantive Review

Keeper

< 50 1. Cleveland LEDGE Light Station

Keeper

Substantive Review

Attest

2. Highland Light Station (Cape Cod Light)

Keeper

Entered in the
National Register

Attest

3. Gay Head Light

Keeper

Entered in the
National Register

Attest

4. Edgartown Harbor Light

Keeper

Entered in the
National Register

Attest

5. Derby Wharf Light Station

Keeper

Entered in the
National Register

Attest

6. East Chop Light

Keeper

Entered in the
National Register

Attest

7. Eastern Point Light Station

Keeper

Entered in the
National Register

Attest

8. Long Island Head Light

Keeper

Entered in the
National Register

Attest

9. Long Point Light Station

Keeper

Entered in the
National Register

Attest

10. Marblehead Light

Keeper

Entered in the
National Register

Attest

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Highland Light Station (Lighthouses of Massachusetts TR)
Barnstable County
MASSACHUSETTS

- ☐ resubmission
☐ nomination by person or local government
☐ owner objection
☐ appeal

~~Entered in the~~
 National Register

Working No. 4/28/84
 Fed. Reg. Date: 2/2/88
 Date Due: 6/15/87
 Action: ☒ ACCEPT 6-15-87
☐ RETURN
☐ REJECT
 Federal Agency: USCG

Substantive Review: ☐ sample ☐ request ☐ appeal ☐ NR decision

Reviewer's comments:

Recom./Criteria _____
 Reviewer _____
 Discipline _____
 Date _____
 _____ see continuation sheet

Nomination returned for: _____ technical corrections cited below
 _____ substantive reasons discussed below

1. Name

2. Location

3. Classification

Category	Ownership	Status	Present Use
	Public Acquisition	Accessible	

4. Owner of Property

5. Location of Legal Description

6. Representation in Existing Surveys

Has this property been determined eligible? ☐ yes ☐ no

7. Description

Condition

- ☐ excellent ☐ deteriorated
☐ good ☐ ruins
☐ fair ☐ unexposed

Check one

- ☐ unaltered
☐ altered

Check one

- ☐ original site
☐ moved date _____

Describe the present and original (if known) physical appearance

- ☐ summary paragraph
☐ completeness
☐ clarity
☐ alterations/integrity
☐ dates
☐ boundary selection

8. Significance

Period Areas of Significance—Check and justify below

Specific dates Builder/Architect

Statement of Significance (*in one paragraph*)

- ☐ summary paragraph
- ☐ completeness
- ☐ clarity
- ☐ applicable criteria
- ☐ justification of areas checked
- ☐ relating significance to the resource
- ☐ context
- ☐ relationship of integrity to significance
- ☐ justification of exception
- ☐ other

9. Major Bibliographical References

10. Geographical Data

Acreage of nominated property _____

Quadrangle name _____

UTM References _____

Verbal boundary description and justification _____

11. Form Prepared By

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

____ national ____ state ____ local

State Historic Preservation Officer signature

title

date

13. Other

- ☐ Maps
- ☐ Photographs
- ☐ Other

Questions concerning this nomination may be directed to _____

Signed _____ Date _____ Phone: _____



LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

Highland Light Station
Truro #20

Photo #1 of 4

Highland Lt.



LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

Highland Light Station
Truro #20

Photo #2 of 4

Stairs ~~from~~^{to} lamp room
~~to lens room~~ from landing
Highland Lt.



LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

Highland Light Station
Truro #20

Photo #3 of 4

1st keeper's dwelling, Highland Lt.
& entranceway



generator/
oil house
Highland Lt.

Highland Light Station
Truro #20

Photo #4 of 4

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION



#4. Highland Light house

Highland Road

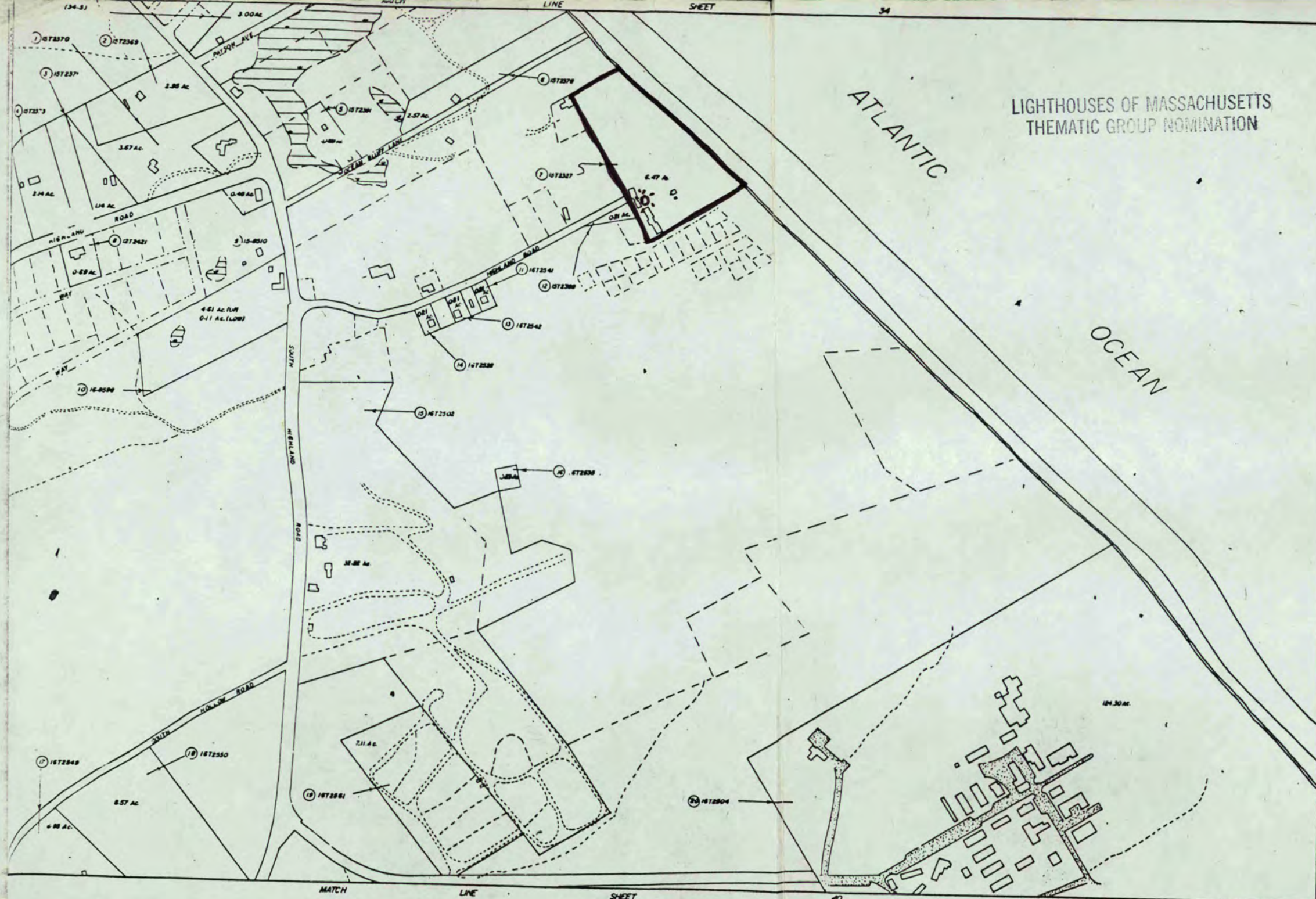
No. Truro, MA

10/80

Jack Clarke

CAPE COD PLANNING
AND ECONOMIC DEVELOPMENT COMMISSION
1st DISTRICT COURT HOUSE
BARNSTABLE, MASS. 02730

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION



#4.
HIGHLAND LIGHTHOUSE

Truro Assessor's
Map from Town Hall
1979
Sheet 37
1" to 200' (reduced
copy)

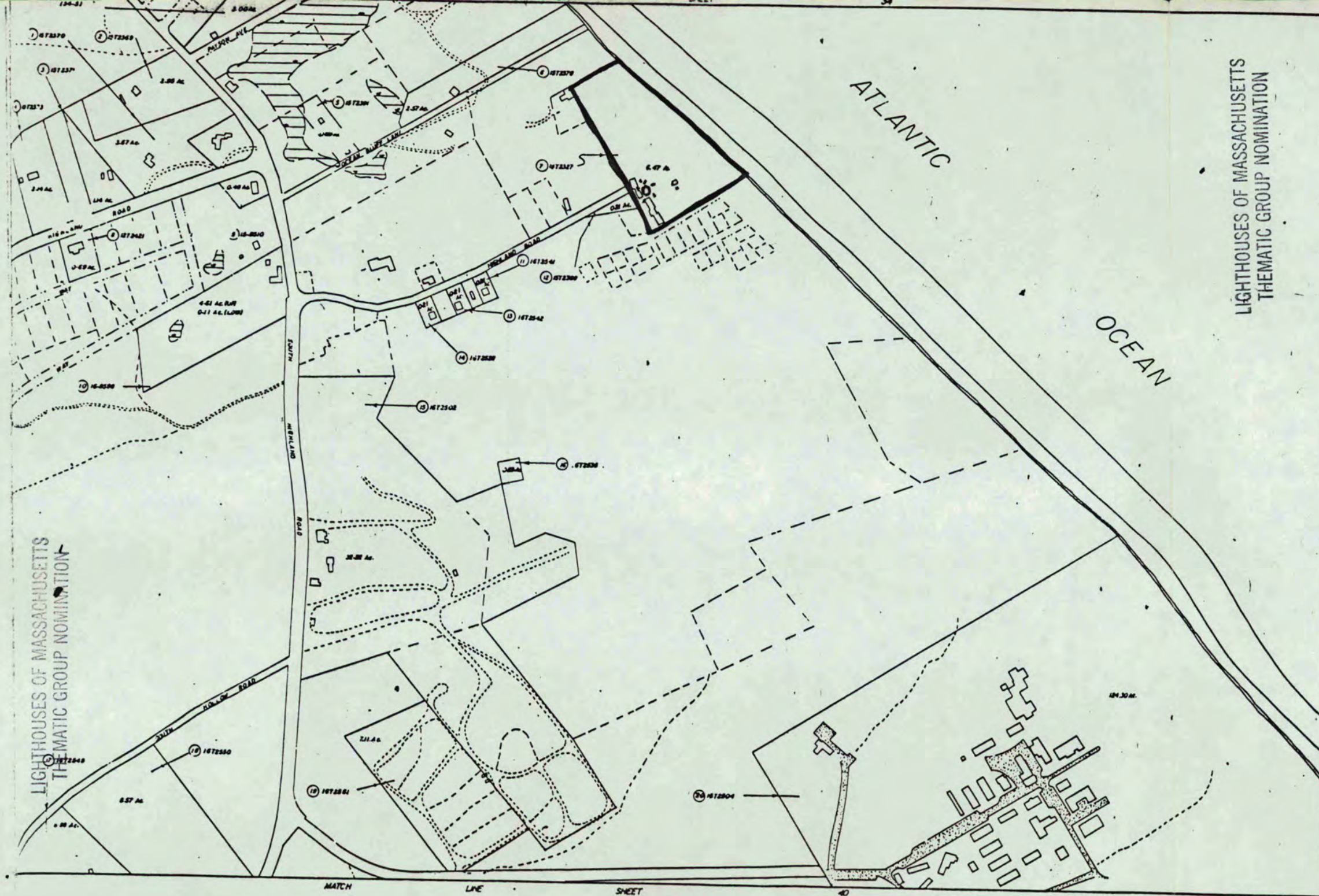
TOWN
OF
TRURO
ASSESSORS'
ATLAS
SHEET NO

37

compiled and drawn by
SLADE ASSOCIATES
REG. LAND SURVEYORS
EAST MAIN ST. AT RTE 6
WELLFLEET, MA. 02667
Scale: 1 in. = 200 Ft.

N = 375,000

1979 TOWN OF TRURO



LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION



#4.
HIGHLAND LIGHTHOUSE
Truro Assessor's
Map from Town Hall
1979
Sheet 37
1" to 200' (reduced
copy)

TOWN
OF
TRURO
ASSESSORS'
ATLAS
SHEET NO
37

compiled and drawn by
SLADE ASSOCIATES
REG. LAND SURVEYORS
EAST MAIN ST. AT RTE. 6
WELLFLEET, MA. 02667
Scale: 1 in. = 200 Ft.

N = 379,000

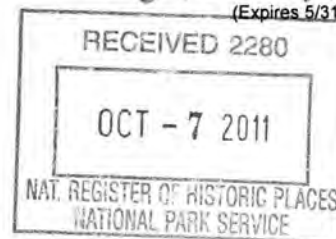
LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

Please refer to the map in the
Multiple Property Cover Sheet
for this property

Multiple Property Cover Sheet Reference Number: 64000282

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form



This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).

1. Name of Property

historic name Highland Light Station

other names/site number Cape Cod Light

2. Location

street & number Highland Light Road

city or town Truro

state Massachusetts code MA county Barnstable code 001 zip code 02652

☐	not for publication
☐	vicinity

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ☒ meets ☐ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

☐ national ☒ statewide ☐ local

Signature of certifying official Admiral T. M. ...

Date October 7, 2011

State or Federal agency/bureau or Tribal Government National Park Service

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria.

Signature of commenting official

Date

Title

State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

☒ entered in the National Register

☐ determined eligible for the National Register

☐ determined not eligible for the National Register

☐ removed from the National Register

☒ other (explain):

Additional Documentation Approved

Signature of the Keeper James Salter

Date of Action 12/1/2011

Highland Light Station
Name of Property

Barnstable County, MA
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

- ☐ private
☐ public-local
☐ public-State
☒ public-Federal

Category of Property
(Check only one box.)

- ☐ buildings
☐ district
☐ site
☒ structure
☐ object

Number of Resources within Property
(Do not include any previously listed resources in the count.)

Contributing	Noncontributing
_____	_____ buildings
_____	_____ sites
_____	_____ structures
_____	_____ objects
_____	_____ total

Name of related multiple property listings
(Enter "N/A" if property is not part of a multiple property listing.)

Lighthouses of Massachusetts - Thematic Group Nomination

Number of contributing resources previously listed in the National Register

1

6. Function or Use

Historic Functions
(Enter categories from instructions.)

TRANSPORTATION: water-related

Current Functions
(Enter categories from instructions.)

RECREATION AND CULTURE: museum
TRANSPORTATION: water-related

7. Description

Architectural Classification
(Enter categories from instructions.)

NO STYLE

Materials
(Enter categories from instructions.)

foundation BRICK
walls BRICK; WOOD: Shingle

roof METAL: Cast iron; ASPHALT
other GLASS

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

Name of Property

City/Town

County and State

Section Number 7 Page 1

NOTE: The Highland Light Station was listed in the National Register of Historic Places (National Register) on June 15, 1987 as part of the Light Houses of Massachusetts – Thematic Group Nomination. The Light Station is listed under National Register criteria A and C at the State level in the areas of Maritime History, Transportation, Engineering, and Architecture. In 1996, the United States Coast Guard moved the Light Station 450 feet west to save it from destruction due to erosion of the bluff on which it was located. The purpose of this amendment to the original National Register documentation is to provide a more thorough discussion of the themes and events that are important to understanding the history and significance of the Light Station, describe its present appearance and setting, provide justification for inclusion of the Light Station in the National Register under Criteria Consideration B, and amend the count of resources, period of significance, and National Register boundary.

DESCRIPTION

Setting

The Highland Light Station (also known as Cape Cod Light) is located at the eastern end of Highland Light Road in the village of North Truro in Truro, Massachusetts. In 1996 the Light Station was moved 450 feet west to its present site on the Highland Golf Links property, a historic 9-hole, links-style golf course that is now part of the Cape Cod National Seashore (Cape Cod NS). The Light Station was originally located at the southwest corner of a 10-acre parcel of land known in local property records as the Lighthouse Tract. At the time of its construction in 1856-1857 the Light Station stood approximately 500 feet from the edge of high clay cliff that rose about 120 feet above the Atlantic Ocean. Just before the Light Station was moved the cliff edge had eroded to the point where it was only about 120 feet from the building and the Lighthouse Tract had been reduced in size to about 4 acres. The National Register boundary for the Light Station now conforms to the footprint of the structure.

The Highland Light Station sits atop the Highland Plain, commonly known as the Highlands of North Truro. The plain terminates at the cliff's edge overlooking the Atlantic Ocean approximately 550 feet to the east. The land area surrounding the Light Station to the north and west is relatively flat. To the south is a steep ravine and low rolling wooded hills. The Highland Golf Links is the dominant landscape feature in the area immediately surrounding the Light Station. It was initially developed in 1898 as part of the Highland House tourist resort complex and remains in operation as a public golf course run by the Town of Truro through a cooperative lease with the NPS. The golf holes consist of grassed tees, fairways, and greens; small sand bunkers; asphalt and gravel paved cart paths; and natural roughs. Low-growing coastal vegetation, including pitch pine and scrub oak barrens, sand plain grasslands, heath lands, and grassy heaths is interspersed between the holes and defines the limits of the golf links property.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

Name of Property

City/Town

County and State

Section Number

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The primary access to the Light Station is via Highland Light Road, which extends east from its intersection with Aldrich Road through the northern half of the golf links. Highland Road terminates at a small parking area built after the Light Station was moved to accommodate visitor traffic. A pedestrian pathway leads from the parking area around the keeper's quarters to the north then east to the original site of the Light Station. The road also provides access to the Highland House and Highland Golf Links Clubhouse on the north side of the road and three cottages (Beacon, Haven, and Rock cottages) to the south. The Highland House is the most significant surviving building of the former tourist complex and now serves as a museum operated by the Truro Historical Society. The Clubhouse is a converted tourist cottage formerly known as the Margaret Adams Cottage. All of the buildings are associated with the development of the Highland House resort during the early twentieth century, and together with the Highland Golf Links, are contributing properties in the Truro Highlands Historic District.

Non-historic landscape elements associated with the Light Station have been added to the area immediately surrounding its current location. They include a four-foot-high chain-link fence that encloses a rectangular grass lawn on the west side and a split rail and post wood fence that surrounds a walking path on the east. A granite boulder with a metal plaque that commemorates the fiftieth anniversary of the 1898 wreck of the Portland steamer about 7 miles offshore is located immediately west of the keeper's quarters veranda and within the lawn area enclosed by the chain-link fence. The plaque was originally attached to the Light Station, but was moved and placed on the boulder after the structure was moved to provide visitor's a better opportunity for viewing. The fencing and plaque are outside the revised National Register boundaries for the Light Station.

The **Highland Light Station** is an example of a first-order coastal light station. It is oriented on a north-south access and is comprised of three parts: the circular brick **Highland Light Tower (LCS No. 040462, MHC No. TRU.LH)**; a one-and-one-half-story, wood frame **Keeper's Quarters (LCS No. 040463, MHC No. TRU.354)**; and a two-part, brick **Connector (LCS No. n/a, MHC No. n/a)**. The term "light station" was used by the U.S. Lighthouse Service to distinguish lighthouses where resident keepers were employed from unmanned lights. Light stations usually consisted of a light tower, keeper's quarters, and a number of support buildings and structures such as an oil house, fog-signal building, workshop, water supply, privy, landing wharf, boathouse and boat ways, barn, roads, walks, and fences. In colder climates, like that of New England, the keeper's quarters were often attached to the light tower, either directly to or, as is the case with the Highland Light Station, to an enclosed passageway that connected the two structures. Other associated structures that were constructed along with the light station or were added to the Lighthouse Tract at later dates included an assistant keeper's quarters, which were attached to the light tower via a separate connector; a fog signal building; a barn; a henhouse; three wood houses; a coal house; a generator shed; and detached quarters constructed by the Coast Guard to house personnel and their families. With the exception of the generator shed and Coast Guard quarters, none of those other building and structures was extant at the time the Highland Light Station was initially listed

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

Name of Property

City/Town

County and State

Section Number

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Page

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in the National Register in 1987. Those two buildings were demolished around the time the Light Station was moved in 1996.

Exterior Description

Highland Light Tower

The Highland light tower is a cylindrical brick tower that measures 66 feet high from ground level to the top of its lantern house vent ball. The tower consists of a long tapering shaft that extends from the foundation to a straight-sided watch deck and watch gallery, which is surmounted by a straight-sided lantern and lantern gallery. The shaft walls are approximately 3 feet 7 inches thick at the base and approximately 2 feet 2 inches thick where it meets the watch gallery. Two lightning-rod grounding cables, both painted white, run down the east and west sides of the shaft. The exterior wall of the watch deck is 7 feet 1 ¼ inches high.

The main shaft and watch deck are constructed of brickwork painted white. The walls of the lantern consist of 16 window panels joined by vertical iron mullions painted black. The panels are 9 feet 11 ½ inches high by just over 2 feet wide. Each panel is divided horizontally into three sections by black-painted iron mullions. The lower sections are 2 feet 7 ½ inches high and consist of thin-gage aluminum sheet. Slotted sheet-metal covers at the base of these sections connect to interior vents. The middle sections are 3 feet 4 ⅜ inches high, while the upper sections are a little less than 4 feet high. Both of these sections are of plexiglass set into the frame with sealant. Each upper horizontal mullion has a hand-hold cast into it, which is also painted black. Together these hand-holds form a continuous inner handrail around the lantern gallery. The cap of the lantern consists of eight metal sections bolted together. The peak of the roof is capped by a slotted ventilator for the lantern deck. The lantern cap is painted black.

The watch deck is surrounded by the watch gallery, which is the lower of two observation decks. The floor of the watch gallery is composed of 15 granite blocks, with a curved underside that is painted black. The length of each block is approximately 2 feet 6 inches, and the depth is 2 feet 6 inches. The tops of the joints between the blocks are covered with a protective strip of sheet metal. A 3-foot-high iron railing with balusters and square posts runs around the perimeter of the watch gallery. It is painted black. Eight tie rods painted black connect the watch gallery to the lantern gallery above it. An iron ladder on the west side of the watch gallery leads to a narrow circular opening in the floor of the lantern gallery; this is the only access to the lantern gallery. The ladder is painted black. Immediately to the north of the ladder is a large support for a former signal staff, also painted black. The floor of the lantern gallery is composed of four cast-iron sections that have been bolted in place, which are continuous with the floor at the interior. A slotted lip 5 inches high runs around the lantern gallery where a pipe railing has been installed. The entire assemblage is painted black.

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The south elevation of the shaft has two rectangular window openings located approximately 10 brick courses above grade. They measure 3 feet wide by 4 feet high. Each has a granite sill and lintel, both painted white. Cement parging on the top exposed surface of the sills slopes to the exterior. There is a third window opening on the northwest elevation of the shaft, immediately below the watch gallery (at the level of the interior weight deck). The size of the opening is similar to that of the south-elevation windows. All three openings contain deeply recessed six-over-six double-hung sash. A doorway on the north side of the watch deck wall leads to the interior of the watch deck. The doorway is arched, 2 feet wide and 5 feet 9 inches high. The exterior door is of board-and-batten construction, with six vertical wood boards secured by three horizontal battens, and is painted white.

Relatively few alterations, other than normal maintenance and repairs, have affected the light tower's exterior appearance. It has been continuously whitewashed or painted white since its construction. The tie rods connecting the watch gallery to the lantern gallery were installed in 1868. Around the time of the 1987 automation of the beacon, glass blocks replaced the original double-hung sash in the tower's window openings. After the light station was relocated in 1996, double-hung sash were reintroduced. In April 2001 the entire exterior of the tower was repainted, a new window was installed, and some of the brickwork on the ocean-facing side of the tower was replaced.

Keeper's Quarters

The one-and-one-half-story L-shaped keeper's quarters consists of two rectangular sections: the main block (roughly 24 feet wide by 26 feet deep), which faces west, and an extension, or ell, projecting from the east half of the north elevation (roughly 15 feet wide by 17 deep). The west wall of the ell is set back 12 feet from the west wall of the main block. A covered one-story porch extends along the entire west wall of the ell and along much of the north wall, where it ends at an enclosed area (the north vestibule), which juts out past the ell. The height of the ell roof at the ridge is about 8 feet above the porch roof, shorter than the main block's roof. The east wall of the ell is flush with the east wall of the main block. The south elevation of the main block abuts the connector.

The main block, ell, and north vestibule are wood-frame and clad with unfinished wood shingles that have an exposure of approximately 5 inches. The foundations of the main block and ell are of brick painted white. The foundation of the north vestibule consists of white-painted brick piers with white-painted wood lattice panels between the piers.

The gable roofs on the main block, the ell, and the north vestibule are covered with red asphalt shingles. The main block and ell roof overhangs range from 12 to 18 inches. A PVC vent pipe protrudes from the roof of the main block near the north end. A brick chimney at the center of the ridge line has been painted white. On the

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chimney the date 1857 is painted in black letters. The top three courses are corbeled; the top five courses are painted black. The chimney is flashed with metal flashing painted to match the color of the roofing. A brick chimney painted white is located on the ridge at the north end of the ell roof. Its top six courses are painted black. The top three courses are corbeled, and there is an opening under the chimney cap oriented east to west. Step flashing at the chimney has been painted red to match the roof. The gable roof of the north vestibule is asymmetrical: the short south slope projects to protect the south doorway, while the long north slope covers the remainder of the vestibule.

Trim elements on both the main block and ell consist of plain boards painted white, including corner boards, window and door surrounds, and cornice boards at the roof lines. Sections of wood gutter also painted white run the lengths of the roofs. The raking ends on the north and south elevations of the main block and ell roofs are trimmed with two plain overlapped boards painted white. The soffit of the north vestibule's south roof slope is a white-painted wood panel that covers three rafters extending from the entry ridge. In addition, the four gabled dormers (described below) have plain white trim boards on the sides and double-layered wood trim at the roof pitches.

All the window openings are rectangular and, unless otherwise specified, contain one-over-one double-hung wood sash with white aluminum storm sash. The west elevation of the main block has two window openings in the foundation containing three-light sash and two window openings at the first-story level; the northern first-story opening contains six-over-six double-hung sash. A gabled dormer with one window opening is cut into the roof line approximately centered over the middle bay. The west wall of the ell has two window openings at the first-story level, looking onto the porch. A gabled dormer with one window opening on the west roof slope of the ell extends down through the eaves line to just above the porch roof. There is a single window opening on the north wall of the main block at the second-story level. A second window opening is located at the second-story level of the ell, toward the east end of the north wall. The east wall of the ell contains two window openings at the first-story level, both containing six-over-six double-hung sash. The east elevation of the main block, like the west elevation, has two window openings in the foundation with three-light sash. Three window openings pierce the first-story level of the east elevation of the main block. Two dormers, each with one window opening, are located in the east roof slope of the main block, above the two northern first-story windows. They do not break the eaves line but extend upward. Each has its own gable roof, with peaks of unequal height (the roof of the south dormer is slightly lower). There is one first-story window opening near the west end of the south wall of the main block and two evenly spaced window openings on the second floor.

There are three entrances to the keeper's quarters at the first-story level. The entrance to the main block is located at the south end of the west elevation, where three wood steps lead from a small concrete slab to the floor of a small open porch with white-painted wood railings. A white aluminum storm door covers the rectangular doorway, which contains a white-painted wood door with a four-light glass panel above three

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recessed horizontal panels. The west wall of the north vestibule contains a rectangular doorway leading from the wraparound porch into the interior of the vestibule. The six-panel wood door is painted white and covered by an aluminum storm door. A similar door in the south wall of the vestibule is accessed by three wood steps and a small open porch with a white-painted wood railing. A bulkhead with gray metal doors leading to the basement of the main block is located near the center of the exposed south foundation wall.

The wraparound porch is supported by white-painted brick piers. Sections of pressure-treated wood lattice painted white run between the piers to screen the area under the porch. The perimeter of the porch is partially enclosed by a wood-shingled half-wall approximately 2 ½ feet high and capped by a white-painted flat board 10 ½ inches wide. Four columns and two pilasters—one at each end of the porch—rest on the half-wall and support the roof above. These are spaced approximately 7 feet apart, are painted white, and taper from the base to the neck. Their bases are 10 inches square. There is no wall between the northwest column and the adjacent column to the south, where an unpainted wood-plank deck and handicapped-accessible ramp are attached to the porch. The hipped roof of the porch is covered with red asphalt shingles. A plain cornice board and wooden gutter, both painted white, extend along the porch roof line.

At the time of its construction, the keeper's quarters was sided with vertical board-and-batten siding, painted a brick-red color, and roofed with wood shingles. It had slightly pedimented lintels over all the door and window openings, and all the window openings contained six-over-six double-hung wood sash. The ell had only one story and no wraparound porch; the building also had no roof dormers. In addition to the main entrance on the west elevation of the main block, the ell had an entrance at the south end of the west elevation and a second entrance at the south end of the east elevation.

The original siding was replaced circa 1880 with clapboards and painted white. Around the turn of the twentieth century the keeper's quarters was significantly enlarged by the addition of a second story to the original ell and three roof dormers. As part of this renovation, the original main entrance at the south end of the west elevation was converted to a window, and a new main entrance was created from a window at the north end of the west elevation. In addition, a window opening at the first-story level of the main block's north elevation and one of the window openings at the second-story level of this elevation were removed; several window openings in the main block were moved slightly; both exterior doorways were removed from the ell and replaced with window openings; a new window opening was added on the north wall of the ell at the first story; and the bulkhead entrance to the cellar was added. Shortly after, a wraparound porch was installed and the large dormer on the east side of the main block roof was built.

The first wraparound porch was replaced circa 1930 with the currently extant structure. The wood roofing material was replaced with hexagonal asphalt shingles circa 1935, and the clapboard siding was replaced with unpainted wood shingles. Sometime in the second half of the twentieth century, the exterior stairs to the porch

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were relocated from the west to the north side, and two first-story window openings were removed (one in the north elevation of the ell facing onto the porch and one in the north wall of the north vestibule). By 1966 the main entrance to the keeper's quarters had been returned to its original location at the south end of the west elevation and the former doorway was filled in and shingled over. A hood and partial porch enclosure were added to this entrance after 1980. All the windows and most of the doors, as well as much of the exterior trim, were replaced after a water pipe burst in the early 1990s. When the light station was moved in 1996, the original northern window opening in the west elevation was re-created, the porch enclosure sheltering the main entrance was removed, and ramp access to the porch was installed.

Connector

The Connector is composed of two attached one-story brick units with gable roofs that function as a covered passageway between the keeper's quarters to the north and the light tower to the south. The almost-square south section (measuring approximately 13 feet 10 inches by 13 feet 7 inches) is slightly larger and taller than the rectangular north section (measuring approximately 19 feet 5 inches by 6 feet). The north wall of the north section is attached to the keeper's quarters; the south wall of the south section connects with the light tower. The brick exteriors have been painted off-white. The gable roofs are covered with red asphalt shingles. The north end of the south-section roof overhangs the lower roof of the north section. Its raking eaves are trimmed with plain white overlapped boards. The south end of the south-section roof curves to follow the light tower. The step flashing here is painted white. The plain cornice, eave overhangs, and gutters are of white-painted wood. There are three segmentally arched window openings in the connector: one in the middle of the west wall of the north section and one each near the center of the east and west walls of the south section. All three openings are set close to the eaves and contain six-over-six rectangular double-hung sash. Two segmentally arched doorway openings inset in the east wall of the north section and a segmentally arched doorway opening at the south end of the west wall of the north section contain four-panel rectangular wood doors. The northernmost door in the east wall is inoperable.

The Connector was originally painted brick red to match the keeper's quarters. In 1881 both the keeper's quarters and the connector were painted white; although the building's cladding was changed to unpainted wood shingles circa 1930, the connector's paint scheme remained white throughout the twentieth century to match the tower. It was painted its current off-white color after the 1996 relocation of the light station. A concrete floor was laid in the connector circa 1900. The southernmost door in the east wall of the north section of the connector originally opened into a second brick passageway that led to the assistant keeper's dwelling. The dwelling and most of its connecting passage were demolished in 1961. In 1987 several alterations were made to the connector in conjunction with the automation of the light tower. The remnant of the passageway to the assistant keeper's dwelling on the east wall of the north section was rebuilt to create a new concrete-block entry with a pedimented gable roof for the tower. In addition, the east window opening in the south section was

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bricked in, and a large fixed plate-glass window replaced the original smaller window openings in the west wall of the south section. These alterations were removed after the light station was relocated and renovated in the 1990s.

Interior Description

Highland Light Tower

The interior plan of the light tower consists of the circular first level and four decks above: the half deck, weight deck, watch deck, and lantern deck. The iron entry door from the connector opens into the north wall of the first level. A brick arch three courses in height forms the header of the doorway on the tower side. The diameter of the first level is 10 feet 1 ½ inches. Two window openings 9 ½ inches apart are inset approximately 2 feet 10 inches into the south side of the tower wall. The bottoms of the windows' sills are 12 courses above the floor. A cast-iron stair curves up to the half deck, following the inside curve of the tower walls. While the exterior walls taper from the base as they rise up to the underside of the watch gallery, the interior walls of the tower are plumb. The half deck is semicircular in plan, with a radius of approximately 5 feet 6 inches. A curved "ship" ladder ascends from the half deck to the weight deck. A single window opening one course above the floor exists on the northwest side of the tower wall at this level. An ornate iron staircase leads from the weight deck to the watch deck through an opening at the west side of the weight deck ceiling. The diameter of the watch deck is approximately 11 feet. A doorway to the watch gallery is located on the north side of the watch deck wall. The doorway opening is 2 feet wide by 5 feet 9 inches high. A very steep and ladder-like open stair ascends to an opening in the floor of the uppermost deck, the lantern deck, which houses the light apparatus.

The floor on the first level is smooth concrete. The half deck floor is composed of three steel plates bolted together through perimeter flanges. The underside of the deck is reinforced with intermediate stiffening webs, one set running parallel to the straight edge of the landing, the other set running perpendicular. The circular floor of the weight deck consists of four sections of steel plate, painted gray. The opening cut in the weight deck floor for the ship ladder is edged by a balustrade of wrought iron with square balusters. The newel post is topped with a knob. The balustrade follows the perimeter of the stair opening and curves in a half-circle at the center. All elements are painted black. The floor of the watch deck consists of four steel plates with a circular plate at the center. The steel plates are bolted together through flanges at their seams and are painted gray. A pipe railing painted black edges the opening in the floor for the stair down to the weight deck. The original perimeter-ring floor of the lantern deck is visible only from below. It is composed of four sections of flanged steel plate with intermediate stiffening webs, bolted together at the flanges and painted white. This floor has been covered by a circular flat steel plate in three sections to support the current light. A wood quarter-round base molding covers the junction of the floor and wall. A stock iron handrail protects the opening in the floor for the stair down to the watch deck.

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The walls throughout the tower are unpainted red brick. Above the beginning of the stair on the first level, the six names of those who worked on the exterior repainting and its completion date are painted on the brick wall with black paint on a white background. The date on this sign is "20 September 1991." The three courses of brick nearest the ceiling of the weight deck are corbeled. The watch deck walls are furred out with vertical wood tongue-and-groove boards. A chair rail consisting of a plain strip of narrow molding divides the wall at a height of 3 feet 3 ¾ inches. Below the chair rail, the wall is painted black, while the wall above is painted white. The "walls" of the lantern deck consist of 16 panels of equal size rising from floor to ceiling, each divided into three horizontal sections. The sill of each panel is bolted to the floor, and intermediate horizontal mullions are bolted to the vertical members. The bottom sections of the panels consist of painted aluminum. Sheet-metal vent covers with filters are located at the base of each panel. The top two sections of each panel are filled with plexiglass. The tops of the panels form a continuous iron ring. A vent is centered above each panel. Iron pegs pin the vertical mullions to the perimeter lintel. Attached to these blocks are eye hooks and eye bolts that may have been used for curtains. All of the metal is painted white.

The ceiling of the weight deck is the underside of the steel floor of the watch deck. A large cast-iron cone is located at the center of this ceiling, connected to four heavy I-beams. This cone formerly held the weights that operated the light. The ceiling of the watch deck is formed by the underside of the steel-plate lantern deck, painted white. The ceiling of the lantern deck is covered with sections of sheet metal that are painted white, the underside of the truncated cone spaced several inches below the underside of the roof. The sheet metal is secured with bolts of alternating size. At the center of the ceiling, a circle is cut out for a ventilator.

The interior window sills and lintels in the tower are of gray granite. The doorway in the north wall of the watch deck has a thick granite sill and contains three doors. Innermost is a pair of four-panel wooden doors with black strap hinges at the top and bottom. The middle door is cast iron painted white with an arched top and a single arched panel in the center. This door is curved in plan to correspond to the curvature of the wall. The exterior door is wood board and batten, painted white with a rounded top.

The open stairway from the first level to the half deck begins near the east side of the tower entrance from the connector and hugs the tower wall. The stair has two small landings and is of stock light station design. The treads measure 1 foot 10 ½ inches wide and 10 ¼ inches deep at the wall, narrowing to 6 ½ inches at the railing. The treads consist of steel plate with a raised diamond pattern within a plain border. The flight to the first landing has 16 treads, the flight from there to the second landing has 12 treads, and the flight to the half deck has 12 treads. The landings are curved, having steel-plate floors with a raised diamond pattern. The stair is bolted at intervals to the brick wall. There is no stringer: the individual steps are bolted to each other vertically by the threaded rods that serve as the balusters for the handrail, each of which passes through two steps. The bottom of the rod is bolted by a cap nut. All these elements are painted black. The stair balustrade has a wooden

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handrail and newel post and square wrought-iron balusters. The handrail and newel are unpainted; the balusters are painted black.

The curved ladder leading from the half deck to the weight deck has eight open cast-iron treads with the same diamond pattern used on the first-level stair and the half deck floor. The treads are bolted through their ends into two flat steel-plate stringers on each side; the stringers are bolted to the floor and to the deck above. The treads and stringers are painted black. A pipe rail is bent to form the post and railing on both sides.

The stair between the weight deck and the watch deck is very ornate. The stringer ornamentation consists of a double serpentine pattern divided by vertical members. The treads are also cast-iron with a woven elliptical and open-diamond pattern. Their ends are set into the brick. The wrought-iron handrail and balusters are round. The balusters are fastened into the handrail with bolted T-shaped plates that extend to fit over the balusters. All the elements are painted black.

The open stair leading from the watch deck to the lantern deck consists of eight cast-iron treads, painted black. The furred-out wall is cut around each tread, indicating that the wall was installed after the stair. A short knotted rope hanging from the ceiling is used in place of a railing.

Alterations to the interior of the light tower consist mainly of changes to the light beacon. The light tower was originally equipped with a first-order fixed Fresnel lens. In 1902 a new Fresnel lens was installed in the tower, and the beacon characteristic was changed from fixed to flashing. This new beacon required a gravity weight to be hung from the center of the winding mechanism, necessitating a change to the interior stair configuration of the tower. The current iron staircase attached to the inner walls of the tower from the first level to the half deck was installed in 1903, replacing the original spiral staircase that had wound around a central pole. Also at that time a new deck (the half deck), occupying only half the available floor space, was constructed below the original lowest deck (the weight deck), with a ladder-type stair connecting the two. In 1906 the lantern lining and cowl were replaced. In 1932 the beacon was electrified, but the old Fresnel lens was retained to intensify the newly generated light. The 1947 installation of a Crouse-Hinds double-drum rotary beacon necessitated the installation of a new steel floor plate over the original lantern deck perimeter ring. A battery-operated Crouse-Hinds DCB-224 light beacon contained in a revolving steel drum was installed when the light was fully automated in 1987. It was replaced by the current light beacon in 1998, when the light station was opened for public visitation and interpretation. The current 110-watt automated light beacon is rated at 4 million c.p. with a visibility of 20 miles. In April 2001 lead paint was sandblasted from the interior of the lantern room and the tower's stairs, and both were repainted. In addition, a new ventilation system was installed.

Keeper's Quarters

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The keeper's quarters has an L-shaped plan and consists of three floors: a cellar, a first floor, and a second floor. The main block contains two main rooms on each floor; the ell contains one room on each floor.

Currently the main entrance to the building is the door from the wraparound porch into the north vestibule (approximately 7 feet by 6 feet 8 inches) and ell (15 feet by 12 feet 2 ½ inches), now used as a gift shop. A doorway in the south wall of the ell leads into the southeast room of the main block (12 feet by 20 feet), which serves as an exhibit room. A blocked door to the connector is located in the southwest corner on the south wall. The west wall contains a door to the stair hall in the northwest corner and a doorway to the southwest room. The stair hall measures approximately 6 feet 3 inches by 9 feet 4 inches and contains a U-shaped stairway with winders leading up to the second floor. A door in the northwest corner of the hall provides access to the cellar stairs. The southwest room (16 feet ¾ inches by 11 feet 10 ¾ inches) is used as a presentation room. The original main entrance on the west wall of the main block opens directly into this room. A wall jog in the northeast corner extends one foot into the room. A doorway at the west end of the north wall leads to a half-bath (6 feet 3 inches by 7 feet 6 inches) located in the northwest corner of the main block.

The stair hall on the first story continues to the second story. At the top of the stairway is a small landing area with a wooden handrail and square balusters along the south and west edges. There are three pyramidal newel posts: one at either end of the balustrade and one at the corner. The assemblage is stained dark. An extension of the stair hall leads from a doorway in the east wall of the hall to the second-story bathroom and southeast chamber. A door on the south wall of the stair hall leads to the southwest chamber, and a door to the ell chamber is angled at the south end of the east wall of the hall. The ell chamber (17 feet 9 ½ inches by 12 feet 4 inches) has a crawl space closet at the west end of the north wall. Nearly all of the ceiling in this room is sloped, reflecting the ell's roof line. The southeast corner of the room has a double jog inward. A bathroom (10 feet 11 inches by 8 feet 2 inches) is located between the ell chamber and the southeast chamber. The southeast chamber is 13 feet by 10 feet 7 inches. There is a shallow closet near the center of the west wall; an opening in the closet ceiling leads to the attic. The southwest chamber measures 16 feet by 11 feet 2 inches. A shallow closet is located in the south end of the east wall; a crawl space closet is at the west end of the north wall.

Although the keeper's quarters originally had a full basement, the current cellar is modern, constructed when the light station was relocated in 1996. The new cellar has a concrete foundation with 4 feet of brick and brick central support piers. The original floor joists are visible at the ceiling, as well as some original lath near the entrance to the staircase. The door to the bulkhead stairs is a replacement.

On the first and second floors most of the interior walls and ceilings are covered with plasterboard and painted an off-white color. In the first-floor ell/gift shop a single encased wood beam runs east to west across the ceiling near the south wall; it is darkly stained and does not appear to be original. On the first floor, the floors are covered with one-foot-square vinyl composition tiles, and modern track lighting has been installed throughout.

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Upstairs, wall-to-wall carpeting covers the floors in all the rooms except the bathroom. The north, west, and east walls of the southeast chamber are covered with unpainted simulated wood paneling, while the south wall is covered with painted plasterboard. A quarter-round cornice covers the juncture between the walls and ceiling. The sloped part of the ceiling in this room is covered with painted composite board; the flat part is covered with plasterboard with battens running east to west. The walls of the southwest chamber are covered with simulated wood paneling. The ceiling is covered with white-painted composite board and wood battens. Forced hot-water baseboard heating elements with metal white-painted covers are identical throughout the keeper's quarters.

Doorways, doors, and windows are consistently typical throughout the first and second stories. Rectangular doorways range in width from 2 feet 6 inches to 2 feet 10 inches. Rectangular window openings range in width from 2 feet 8 inches to 2 feet 10 inches. Doorway and window surrounds are of standard stock molding 2 1/2 inches wide; doors are wood with four or six recessed panels. Both are typically darkly stained on the first story and painted off-white on the second story. On the first floor, standard darkly stained stock baseboard molding is typical. The first-floor stair hall contains some plain circa-1900 fabric, including the stair stringers, the surround on the doorway to the cellar stairs, and the baseboard between the cellar door and the stairway. On the second floor, some of the trim has been replaced with standard stock molding, but plain board trim painted white and possibly dating to 1900 is also extant in many places.

The original interior floor plan of the keeper's quarters was radically different from its current layout, which is largely the result of turn-of-the-century alterations. In its original configuration, the main entrance at the south end of the main block's west elevation opened into a hallway, with a second-story staircase directly in front of the door. The main block consisted of a two-room plan, with two staircases in the hall along the south wall. A doorway at the center of the south wall led to the connecting passageway to the light tower, while a stairway to the cellar was in the east half of the main block along the south wall, not under the stairway to the second floor. The dining room was in the back or east half of the main block and connected to the kitchen ell to the north. A chimney stack separated the parlor (or west room) from the dining room, and another stack was located at the center of the north wall of the kitchen ell. The second story occupied only the main block, containing two chambers separated by the chimney stack, each with one window on the north elevation. The stair hall, containing two window openings on the south wall, extended almost the full length of the same wall, with a closet in the southwest corner.

When the keeper's quarters was enlarged circa 1900, the main doorway was switched with the window at the north end of the main block's west elevation. A vestibule and closet were created at this entrance, and both stairways were relocated behind the vestibule, one under the other. The configuration of the stairway to the second story was changed from a straight run to the current U-shape with six winders (and no landings) negotiating the change of direction. The large chimney stack remained near the center of the main block, but the removal of the hall and staircases at the south end created enough space to shift the parlor and dining room to

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the south. A closet was created along the south wall of the dining room. The wall that had separated the dining room from the kitchen was moved to the south approximately 3 feet, keeping the same north-south division but in a slightly different location. The closets that had been at the north end of the kitchen ell were enlarged: the one in the northwest corner now contained a pantry with a sink that encased the smaller chimney stack, with a stovepipe feeding into the kitchen space. The new space in the northeast corner became an entry vestibule, with a "back door" proposed on the east wall. This configuration was changed again when the porch was added a few years later, perhaps at the time of actual construction, or shortly thereafter. The doorway then led into a small vestibule or mud room from the kitchen's north wall.

At the second-story level, the ell and its chimney were heightened to include a second story. All existing interior partitions in the main block were removed except those covering the main chimney stack. Since the original hall and staircase were removed, the two chambers were shifted to the south with a closet wall (the depth of the chimney stack) dividing them. A second closet was constructed for the southwest chamber, above the first-story entry vestibule. A closet wall also separated the southeast chamber from the newly built ell chamber. This latter chamber occupied some of the main block's space. One dormer window was installed in each of the chambers, with the southwest and ell chambers' dormers facing west and the southeast chamber's dormers facing east. A small window opening was also installed on the north wall of the ell chamber, immediately to the east of the chimney stack.

Subsequent changes to the interior have been relatively minor in comparison to the 1900 renovations. In 1909 a bathroom was added to the second story. In 1957 forced hot-water baseboard heating was installed. The main entrance was returned to its original location at the south end of the west elevation in the late 1960s. During the 1970s the Coast Guard modernized the interiors, probably adding the wood paneling and carpeting on the second floor at this time. Most of the interior fabric at the first-story level and some fabric at the second-story level was replaced or covered with new material after a burst water pipe occurred circa 1992. The building was further renovated after its 1996 relocation when it was converted for use as a museum. It currently houses a gift shop, display cases, and interpretive exhibits that tell the history of the light station.

Connector

The interior of the Connector consists of two one-story rectangular sections. The smaller north section has a window on the east wall, a sealed-off doorway to the keeper's quarters in the north wall containing a four-panel wood door, and a similar sealed-off doorway to the exterior on the east wall. Four-panel wood doors in rectangular openings with plain board surrounds located on each side of the south end of the north section provide the only exterior access to the connector. A rectangular doorway in the south wall with a plain board surround leads to the south section of the connector. The ceiling and walls are covered with white-painted plasterboard. The floor is concrete. A plain white-painted baseboard is present on all walls.

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The south section of the connector has a concrete floor and brick walls painted white; it is lit by a single window in each exterior wall. A barrel-vaulted passage through the brick wall of the tower exits at the south end of the connector; its brick walls are also painted white. At the south end of the passage is the entrance to the tower. It has a metal frame painted gray. The four-paneled iron door hangs on strap hinges and has a pull ring. A large key hole with curved plate is located below the ring pull. The door is painted gray and has black-painted raised letters that spell: "U S Truro Light House 1840." This door was apparently installed in the second (circa-1833) lighthouse during alterations circa 1840 and was subsequently salvaged and reused during the building of the 1857 light station.

No significant alterations have been made to the interior of the connector, other than the replacement and repair of various finishes. A plywood partition blocking access from the north section of the connector to the south (just north of the concrete-block tower entry that is no longer extant) was added in 1987, but has since been removed.

Statement of Integrity

The Highland Light Station exhibits a high degree of architectural integrity. It retains the majority of its original design and significant amounts of original or historic materials and workmanship. Each individual component has remained relatively true to its original design. The footprints of the light tower, keeper's quarters, and connector have not been altered since their construction in 1856-1857. The light tower is the station's most significant character-defining feature, being the most prominent feature at the site and the most important because of its role as an aid to navigation. The light tower retains a great deal of integrity from its original period of construction. The characteristic of the light—its flashing signal—dates to around the turn of the twentieth century. Significant interior features of the tower are its decks and the means of communication between them, as well as the beacon. The upper three decks and the two stairways between them are original. The lower stairway from the first level to the weight deck, including the half deck, dates to the first decade of the twentieth century. Changes made to the connector and the keeper's quarters reflect the changing activity of the site over time. As a result of sensitive alterations, many original construction materials remain, as well as evidence of the fine quality of historic workmanship exhibited.

The light station also retains its historic setting characteristics despite the fact that it was moved 450 feet inland. Its current position approximates its historic location relative to the cliff line above the beach; and the configuration of the complex, including its orientation on the land, remains the same. The setting itself has remained consistent over time, largely resembling today its appearance at the time the light station was initially listed in the National Register. The relocation of the light station reflects a common practice in the maintenance of lighthouses, both during and after the historic period. Their siting near the constantly shifting coastline often

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resulted in the necessity of an inland move to preserve the structures. Examples of historic lighthouses in Massachusetts that have been moved recently include the Nauset Lighthouse in Eastham (moved 1996), Plymouth Light in Plymouth (moved 1998), and Sankaty Head Lighthouse in Nantucket (moved 2007). As a significant engineering achievement, the move of the Highland Light Station represents another important milestone in its history and allowed it to continue to function in its original capacity as an active aid to navigation.

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☒ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ **B** Property is associated with the lives of persons significant in our past.
- ☒ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ **D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☒ **B** removed from its original location.
- ☐ **C** a birthplace or grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☐ **G** less than 50 years of age or achieved significance within the past 50 years

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 36) has been requested
- ☒ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☒ recorded by Historic American Buildings Survey
HABS MA-750
- ☐ recorded by Historic American Engineering Record
#

Areas of Significance

(Enter categories from instructions.)

MARITIME HISTORY

TRANSPORTATION

ENGINEERING

ARCHITECTURE

Period of Significance

1856-1958

Significant Dates

1856-1857 - Construction

1901 - Alterations

Significant Person

N/A

Cultural Affiliation

N/A

Architect/Builder

William Buehle Franklin, construction supervisor

Primary location of additional data:

- ☐ State Historic Preservation Office
- ☐ Other State Agency
- ☒ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Name of repository

Multiple NPS repositories

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STATEMENT OF SIGNIFICANCE

Summary

The Highland Light Station possesses significance under National Register Criteria A and C at the State level and meets Criteria Consideration B for moved properties. The Light Station is currently listed in the National Register under the Light Houses of Massachusetts Thematic Nomination, which provides the primary contextual, property type, and listing criteria information for lighthouses that contribute to the thematic group. The period of significance for the Highland Light Station extends from 1856, when the current keeper's quarters was constructed, to 1958. The latter date represents the 50-year requirement for National Register eligibility and is selected because the light station continued to function in its original intended role as an important aid to navigation throughout the twentieth century and no significant event occurred to warrant an earlier period of significance ending date.¹

Under Criterion A, the Highland Light Station possesses significance in the areas of Maritime History, and Transportation. Throughout its history, the light station has served as a vital element of the Atlantic Coast's sea-borne transportation network and was directly associated with the development of Boston Harbor as one of the nation's commercial maritime centers in the nineteenth and early twentieth centuries. The initial 1797 Cape Cod light was constructed at the urging of local merchants and organizations concerned with protecting persons and vessels engaged in maritime pursuits, including international and coastal trading, fishing, and whaling, that made up a large share of Massachusetts economy. The three lighthouses ultimately constructed on the location served as primary coastal landfall lights that acted as both a sign post to orient mariners to their positions and a warning that pilots were entering an often treacherous stretch of the shoals that characterized navigation along Cape Cod. In recognizing the importance of the Cape Cod Light, the Lighthouse Board placed its improvement among its highest priorities after being given the responsibility to oversee the nation's system of aids-to-navigation in 1852. The completion of the Highland Light Station in 1857 places it within the Board's initial pre-Civil War improvement campaign, which resulted in the construction of many of the most important lighthouses along the Atlantic coastline. Since that time, the light station has continually served as an important safety and navigational beacon for maritime transportation and commercial activities in the northeastern United States.

¹ The Light House of Massachusetts Thematic Nomination includes a period of significance end date of 1940 for all lighthouses listed under its cover. The date appears to be arbitrary, and no justification of its selection is included in the documentation.

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The Highland Light Station is significant under Criterion C in the areas of Engineering and Architecture as an example of a distinctive type of first order seacoast light station that was developed by the Lighthouse Board to meet the functional requirements during its initial program to improve the nation's lighthouse system between 1852 and 1861. The term "light station" came into use in the early twentieth century to distinguish lighthouses with associated housing for resident keepers from those that consisted solely of a light tower. The evolution of this type of installation traces its roots to early manned lighthouses located in remote locations where it was necessary to provide shelter and subsistence for light keepers. As lighthouse technology advanced and the duties of the keepers increased in number and complexity, more personnel were required to ensure their proper and continuous operation. The Lighthouse Board adopted standards for facilities according to their order of significance within the nation's aid to navigation system. First order lights required a principal keeper and two or more assistants to operate and maintain the sophisticated Fresnel lenses, fog signals, and other equipment that became standard parts of the lighthouse complex during the period. Highland Light Station is an example of a subtype of the light station type installation that was developed for the harsh winter climate in the northeastern United States where the keeper and assistant keeper's houses were joined to the tower by a covered passageway, or hyphen, that allowed comfortable and immediate access to the light tower during all weather conditions. While the original assistant keeper's double-house and passageway were removed in 1961, the existing keeper's quarters, connector, and light tower remain as excellent representations of the unique type of first order light station design developed during the Lighthouse Board's initial period of improvements to the nation's aid-to-navigation system.

The Highland Light Station possesses additional significance under Criterion C in the area of Engineering as an expression of the federalization, modernization, and professionalization of lighthouse design under the Lighthouse Board. It embodies the characteristics of the standardized design, engineering, construction materials, and technology that typified lights constructed by the Lighthouse Board during the mid- to late nineteenth century and represented a vast improvement over its predecessor lights in terms of quality, function, and safety. This period is characterized by a shift from reliance on local custom collectors as superintendents for lighthouse construction to military personnel, including naval officers who were put in charge of the lighthouse districts and members of the U.S. Corps of Topographical Engineers who supervised the placement and construction of lights built during the period. The construction of the Highland Light Station was supervised by William Buell Franklin of the U.S. Topographical Engineers, who went on to serve as the supervising engineer for the Capitol Building and the Treasury and Post Office Department Buildings in Washington, D.C. and later served as a major general in the Army of the Potomac during the Civil War. The light's tall brick tower is an example of the greater uniformity of light support structures of the era. Coastal lights were generally taller than harbor lights and housed brighter lamps. These towers were built of cut stone and brick to allow taller towers for increased visibility. Brick examples like the Highland light tower had hollow double walls that made them lighter, cheaper, and provided thermal insulation. The light at Highland Light Station originally featured a first-order Fresnel lens, which was the most advanced and powerful optic available

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for navigational illumination. This type of lens, developed by the Frenchman Augustin-Jean Fresnel in 1822, combined refractive and reflective prisms that dramatically increased the candlepower of the oil lamps of the day. For many years Highland Light Station was the brightest navigational aid on the New England coast. The 1857 Fresnel lens was replaced with a larger, revolving light in 1901, and that unit was subsequently improved in 1932 with the installation of a brighter, electric light. The original lens was presumably destroyed after its removal, but a portion of it was preserved and is currently on display at the Highland Lighthouse Museum.

The Highland Light Station qualifies for listing under Criteria Consideration B because the move in 1996 did not materially alter the qualities of significance that make the property eligible for listing in the National Register. Selection of the light station's current site 450 feet west of the original location was based on a careful study of alternative locations that considered a variety of factors, including the impact of the move on the historical and natural settings and the suitability of the site for the long-term preservation of the light station. The selected site was the most appropriate choice because it preserved the overall setting of the light station and approximates its historic location relative to the cliff line above the beach before erosion took its toll and forced its removal. The move constituted a significant engineering achievement that marks another major event in the long history of this important coastal aid to navigation. The light station continues to retain a high degree of integrity through its continued operation as an aid-to-navigation and its integrity of design, setting, materials, workmanship, feeling, and association.

First and Second Cape Cod Lights, 1792–1851²

Massachusetts was the leader among the American colonies in the development of lighthouses. During the Colonial Period (1620–1784) the fortunes of the colony were dependent on the health of its maritime-related industries, including international and coastal trading, fishing, and shipbuilding. The sea provided the fastest and most efficient means for moving people, raw materials, finished goods, communications, and food products between the colonies and to and from European nations. Travel by sailing ship, however, was fraught with danger due to perverse weather and sea conditions, rudimentary on-board navigation equipment, and submerged hazards that exacted a heavy toll on life and property along Massachusetts's 750 miles of coastline. Befitting its position as the oldest and busiest port city in Colonial America, Boston was the site of the first permanent

² The three lighthouses constructed on the lighthouse tract in the Truro Highlands area were variously referred to in historical records as the Cape Cod Light and Highland Light. Early in its history, it was most commonly referred to as the Cape Cod Light because it was the first lighthouse erected on the Cape. The name Highland Light became more frequently used to distinguish the beacon from other lights later constructed on Cape Cod. For the purposes of this documentation, the first two lights are referred to as the first and second Cape Cod lights and the present 1857 structure is referred to as the Highland Light Station, which more exactly describes its type within the nomenclature subsequently established by the U.S. Lighthouse Service for manned installations and is how it is most commonly known to local residents.

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lighthouse constructed in the colonies. In 1716, at the request of local merchants and mariners, the Massachusetts General Court authorized construction of the Boston Light on Little Brewster Island. Other lights constructed in the colony during the eighteenth century were Brant Point, Nantucket (1746); Plymouth (1768); Cape Ann, Rockport (1771); Great Point, Nantucket (1784), and Newburyport Harbor (1788).³

The history of the Highland Light Station traces to the earliest period of federal lighthouse management. On August 7, 1789, President George Washington signed the ninth act of the United States Congress that created the U.S. Lighthouse Establishment under the Department of the Treasury and provided that the states turn over their lighthouses to the central government. At that time, the six existing Massachusetts lighthouses comprised 40 percent of the total number of 15 then standing or under construction in the country. As the fledgling government wrestled with resolving larger issues associated with establishing the nation, responsibilities for lighthouse management passed back and forth between the Secretary of the Treasury and the Commissioner of Revenue before finally being taken over by Stephen Pleasonton, Fifth Auditor of the Treasury in 1820. The administration of lighthouses on the local level was done by the collector of customs for ports and the construction of new lighthouses was largely dependent on the success of lobbying efforts by local groups in securing funding from Congress. Lacking standardized construction plans and qualified engineers that could directly oversee lighthouse projects, Washington officials offered little to the design process other than insisting that new lighthouses be built in the most economical way possible to keep costs down for the financially strapped Treasury. Accordingly, the lighthouses of the period varied widely in terms of their design, materials, and effectiveness.

In 1792, two years after Massachusetts ceded control of its lighthouses to the federal government, the Humane Society of the Commonwealth of Massachusetts and the Boston Marine Society petitioned Governor John Hancock to represent to Congress the necessity of constructing a light "on some part of Cape Cod, in order to preserve the lives and property of those who navigate the Bay of Massachusetts . . ." The Boston Marine Society was formed as a fellowship group by a number of active and retired ship captains in 1742. It was chartered by the Royal Governor in 1754 for the purpose of promoting safe navigation and providing for the welfare of members and their families in the event of accident or loss. The Humane Society was established in Boston in 1786 on the model of the Royal British Humane Society and was a forerunner of the U.S. Life-Saving Service and ultimately the U.S. Coast Guard. It offered a variety of programs to fulfill its mission to prevent needless deaths due to shipwrecks and drowning. Among its founding members was Reverend James Freeman

³ Except where noted, information about the history of the Highland Light Station was compiled from Peggy A. Albee, Regina Binder, Millan Galland, and Larry Lowenthal. *Highland Lighthouse and Keeper's Dwelling, Historic Structure Report, North Truro, Massachusetts*. Report prepared by The Building Conservation Branch, Cultural Resources Center, North Atlantic Region, National Park Service, U.S. Department of the Interior, Lowell, Massachusetts in conjunction with the United States Coast Guard, May 1994.

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(1759–1835), a prominent Unitarian minister in Boston whose parents were born in Truro on Cape Cod. In 1794 Freeman published the results of a study of the community in the *Collections of the Massachusetts Historical Society*. In the work entitled “A Topographical Description of Truro, in the County of Barnstable, 1794,” Freeman noted:

The Eastern Shore of Truro is very dangerous for seaman. More vessels are cast away here than any other part of the county of Barnstable. A light house near the Clay Pounds, should Congress think proper to erect one, would prevent many of these fatal accidents (Whalen 2002:153).

The initiative by the Boston-based maritime organizations in lobbying for the Cape Cod light clearly indicates that it was meant to function as part of the Boston Harbor navigation system. The existing light at Thatcher’s Island off Cape Ann marked the northern limit of Massachusetts Bay and the Cape Cod light would do the same for the southern limit. The light was also needed to provide notice to mariners that they were approaching one of the most infamous “graveyards of the Atlantic.” With Boston to the north and the approaches to New York City to the south, a high volume of traffic regularly passed along shores of Cape Cod. Danger lurked in the form of swift currents and constantly shifting sand bars that stretched as far as a mile off shore and confounded efforts to chart them. Frequent storms, especially the notorious “nor’easters,” regularly tossed ships upon the bars where they were defenseless against the pounding surf. The true number of shipwrecks off Cape Cod cannot be determined, but most estimates range into the thousands (Whalen 2002:220–221).

In February 1796, after having received no action on its initial attempt, the Boston Marine Society, in consultation with the Humane Society and with the backing of the Boston Chamber of Commerce, forwarded a petition in support of the lighthouse on Cape Cod directly to Congress. On May 17, 1796 Congress approved a bill appropriating funds for erection of a light at Cape Cod. The following month, the Massachusetts Legislature ceded jurisdiction of up to 10 acres of land at Cape Cod to the federal government for the light. At that time, supervision for lighthouse planning and construction was placed with the Treasury Department’s Commissioner of Revenue, Tench Coxe (1755–1824). Coxe relied on his collectors of ports, who also held the title of superintendent of lighthouses within their districts, to oversee site selection and construction. For Boston, the collector post was held by Benjamin Lincoln (1733–1810), a native of Hingham, Massachusetts who served as Major General in Washington’s Continental Army during the Revolutionary War and later led a detachment of the militia in putting down an uprising of disaffected western Massachusetts farmers during Shay’s Rebellion (1786–1787).

The bill authorizing the construction of the light was not specific about its location, only requiring that it be erected somewhere on Cape Cod. In his instructions to Lincoln regarding the selection of the site, Coxe provided a list of general factors that were important to the construction and subsequent operation of the light. They included soil appropriate to support the foundation, availability of fresh water and fuel, arable land for

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farming activities to support the keeper, the elevation of the tract, and price. The latter consideration was important because of the severe financial constraints faced by the federal government at the time and Coxe requested that Lincoln explore the potential that the "sandy nature of the land at Cape-Cod may render it of as value as that of other sites, which have been granted for only a formal consideration." Faced with the daunting task of finding an appropriate location on the expansive shoreline of Cape Cod, Lincoln sought the advice of mariners in Boston. He was well connected in this area, having been a founding member of the Humane Society and an honorary member of the Boston Marine Society. He made a visit to Cape Cod with several "marine gentlemen" from Boston and was joined in the survey for locations by a contingent from Provincetown. The investigation resulted in complete agreement among the party that the "Clay Pounds" area of Truro offered the most advantageous location for the light. He reported to Coxe that the group was:

... induced to adopt this opinion from the height of the land, being one hundred and fifty feet above the highwater mark. Because vessels coming in from sea attempt to make high land. Because it has a bold shore. Because here is the greatest projection of the land eastward and a vessel off one league from the land may shape her course for Boston lights or for entering the shoals of Nantucket without a hazard of being taken up by any shoals whatever.

During his visit to Clay Pounds, Lincoln took it upon himself to act decisively after identifying a property that seemed to meet all of the requirements indicated by Coxe. On behalf of the U.S. Government, he purchased a roughly square 10-acre oceanfront parcel from local farmer Isaac Small on August 6, 1796 for a total of \$110.00. The land was subdivided from Small's farmstead, which thereafter bordered the lighthouse tract to the west. The northern and southern boundaries were defined by abutting properties. Small received \$100.00 for the tract and an additional \$10.00 in consideration for allowing the government the right to traverse his land to reach the lighthouse tract. The purchase came with the additional benefit of Small's agreeing to accept the position as the first keeper of the light. His farm contained some of the most productive land in Truro and he was therefore capable of supporting himself, thereby justifying a lower government salary than otherwise would be necessary to support a keeper in what was still a remote location. In addition, the government would save on construction costs associated with housing the keeper and fencing the lighthouse tract. Small already had a house on the adjoining land, so a smaller than normal cottage was all that was needed. The longest boundary of the lighthouse abutted Small's property and therefore would not need to be enclosed. In considering these factors, Coxe acknowledged that Lincoln's choice of the site and his desire to make Small the keeper made sense because of the "economy in regard to fencing and salary that may be made by appointing him."

The events surrounding the construction of the first Cape Cod light were irregular even by the standards of the informal administrative processes employed by the Lighthouse Establishment at the time. After advertising for bids, Lincoln let the contract to his son, Theodore Lincoln. U.S. Congressman Nathaniel Freeman, in whose district the light was to be constructed, questioned the propriety of the selection, but Coxe ultimately supported

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Lincoln's proposal of \$6,500 because it was less than two others received for \$7,000 and \$9,000. President John Adams formally approved the contract on March 27, 1797. The original specifications for the lighthouse called for the construction of a 45-foot (ft)-tall, wooden, octagonal tower topped by an 8-ft-tall by 6-ft in diameter lantern. Also included in the contract were a one-story keeper's dwelling measuring 25 by 27 ft, a 12 by 16 ft oil vault covered by a wood shed, a well, and a small barn 15 ft square. Theodore Lincoln's actual involvement in the construction of the lighthouse appears to have been limited to securing and shipping wood materials, which largely came from Benjamin Lincoln's extensive timberland holdings in Maine. Benjamin Lincoln served as the general contractor, personally supervising the erection of the tower in July 1797 and managing the workers and logistical problems arising from transporting materials to the remote site. The lighthouse was essentially completed by November 8, 1797, but was probably not illuminated until January 15, 1798 due to delays in securing workable "eclipser," or blind, that would interrupt the beam of the light at regular intervals in order to distinguish it from other fixed lights along the Massachusetts coast. While such devices had been employed in European lighthouses, the eclipser was the first such self-regulating mechanism of its kind installed in an American lighthouse.

When it was completed, the Cape Cod light was one of 20 lighthouses in the country. While the tower was only about 53 ft tall to the top of the lantern, the light was among the highest then in existence due to its location on the elevated highland bluff. The light, however, was not entirely satisfactory to its purpose and almost immediately after its illumination, inspection reports noted problems caused by poor workmanship in its construction and the faulty operation of the eclipser, which had a tendency to revolve irregularly and served to further dim the already weak original second order light. One visitor, Edward Augustus Randall, wrote that "the light is full only for a single moment in the course of each revolution; it is also only eclipsed for a single moment; but during all the time in between, it is no more than obscure and imperfect light." There were also complaints from mariners that the light could not be seen while approaching from the south because of higher intervening hills south of the light.

In April 1811 Winslow Lewis proposed to address some of the deficiencies of the light by installing one of his Argand lamps to increase its illumination. Lewis (1770–1850), a sea captain and member of the Boston Marine Society, was a dominant personality in the development of the nation's lighthouse system during the first half of the nineteenth century. He was successful in gaining the backing of General Henry Dearborn (1751–1829), who replaced Lincoln as collector for the port of Boston in 1809, and ultimately became Stephen Pleasonton's most influential advisor after the nation's lighthouse system was placed under his office of Fifth Auditor of the Treasury in 1820. With assistance from Dearborn, Lewis received a U.S. government contract to install his Argand lamp system, which he adapted from European precedents and patented in 1812, in all the nation's lighthouses. In June 1812 Lewis signed an agreement to make the necessary modifications, including removing the upper 17 ft of the tower, constructing a new 10-ft-tall lamp room, and installing the light, for a price of \$2,000.

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Lewis's modifications improved the function of the light and extended its life, but it was only a matter of time before its full replacement in favor of a masonry tower that could better withstand the often harsh New England coastal climate would be necessary. By 1828, the Boston lighthouse superintendent reported that "The whole structure is very imperfect—is easily wracked by the winds, which shakes the lantern so much as to break out the glass [panes in the lantern room] frequently." David Henshaw, who was the Boston superintendent in 1829, reported to Pleasonton in July of that year that the lighthouse should be replaced by a brick structure. On July 22, 1831 Henshaw contracted with Lewis to construct a new brick lighthouse and a keeper's dwelling for \$3,993. The second Cape Cod light was located very near the first light and consisted of a round brick tower 35 ft in height and 22 feet in diameter at its base. The keeper's dwelling, which was attached to the light tower via a covered brick passageway, measured 26 by 28 ft. Based on the specifications, it is apparent little consideration was given to addressing the major complaint against the light regarding its visibility from the south. In fact, the new tower was apparently several feet shorter than the wooden tower it replaced.

During his 32 years (1820–1852) of administration of the U.S. Lighthouse Establishment, Pleasonton oversaw a dramatic expansion of the nation's system of aids to navigation. More than 300 lighthouses and lightships were added along America's coastlines, which themselves were expanded considerably due to territorial annexations. While the numbers were great, the quality of the lighthouses was suspect and little progress was made under Pleasonton's tenure to improve construction practices or adopt available technology that would make them function better. Pleasonton derived pleasure in returning funds earmarked for lighthouses to the general treasury and is perhaps most remembered for eschewing the adoption of French scientist Augustin Fresnel's lens for lighthouses in favor of the inferior Argand lamp system, which Lewis had derived from European precedents and patented in the U.S. in 1812. Beginning in the 1830s, Pleasonton was assailed by members of Congress, mariners, and local governments for his lack of responsiveness to the needs of the lighthouse system. In 1838, in an effort to obtain better information than Pleasonton was able or willing to supply, Congress passed legislation dividing the nation's lighthouses into eight districts and assigned a naval officer to each for the purpose of reporting on existing conditions. The findings were discouraging as a large percentage of lighthouses were found to have faulty construction, an inadequate lighting system, and/or were poorly placed. With no formal structure for regulating light keepers, discipline was often lax and the lights poorly maintained.

U.S. Navy Lieutenant Edward W. Carpender, who was the officer placed in charge of inspections for lighthouses on the North Atlantic coast, witnessed some of these conditions at the Cape Cod light during an inspection conducted in 1838:

I visited this light a few minutes before sundown, and found the keeper (alarmed at the sight of the revenue cutter) stolen into his lantern to make a hasty rub-up against the expected visit. Time did not admit of the necessary preparations being made before the hour of lighting. But few of

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the lamps were trimmed. Such chimneys as had been touched were imperfectly cleaned. The reflectors had no appearance of having been recently burnished, and the glass of the lantern was smoked. This light, on account of its magnitude and elevation, would, if properly kept and attended, illuminate this whole coast all the way down to Chatham, a distance of 25 miles; at all events until it intersected that light, which is itself 70 feet above the level of the sea . . . This tower is of brick, 30 feet high. The walls, at the base, are 3½ feet thick . . . The furnishings (as steps, doors, sills, &c.) are of wood, exhibiting, though only built seven years, some signs of decay.

While Congress did nothing immediate to address the concerns raised by the inspections, the reports may have moved Pleasonton to make improvements to correct problems identified. In 1840 he authorized the replacement of the lantern in favor of a more powerful one that incorporated a Fresnel lens. Winslow Lewis's nephew, I.W.P. Lewis, was contracted to do the work. A trained civil engineer, Lewis had followed his uncle in the profession of lighthouse construction and had already executed a number of other contracts under Pleasonton. Lewis found that the lighthouse was poorly designed and its structural integrity was questionable due to shoddy workmanship and materials used in its construction. In a later 1842 report to the Secretary of the Treasury on the results of a general inspection of lighthouses in New England he recounted the conditions he was faced with during the refitting of the tower:

. . . in the original construction, the door and window frames, of wood, were set flush with the exterior surface, and at the same angle of inclination. These, with the wooden staircase . . . were all rotten. The window frames and staircase were pulled out by hand; and the removal of the latter brought down a portion of the inner face wall, when it was discovered that the interior of the walls was laid without mortar, the brick being loosely thrown in, and the interstices filled with sand. . . On removing the lantern, the mortar of this superstructure was found to have so little cohesion, that the masons, to save time, shovelled off the bricks; and thirteen feet of the tower were taken down in this manner, before arriving at a part that presented sufficient surface and stability to justify a reconstruction.

Lewis's improvements consisted of reconstructing the tower and setting new wooden doors and windows into the walls to better protect them from the elements. The work, including the installation of the new lantern, totaled \$5,919. Pleasonton was extremely critical of the work, noting that his uncle Winslow Lewis required only \$3,600 to refit the similar Cape Henlopen light in Delaware with a new lens. Furthermore the new lamps at Cape Cod light used more oil, so Pleasonton ordered them removed and replaced them with the original Argand lamp. The criticism and subsequent undoing of I.P.W. Lewis's work almost certainly contributed to the growing antipathy he felt for Pleasonton. In 1842, when Congress again undertook a review of the system, Lewis was

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placed in charge of conducting lighthouse inspections. His scathing report on the poor conditions he encountered added to the growing agitation for ending Pleasonton's control of the lighthouse system.

Finally in 1851, complaints regarding the country's system of aids to navigation grew so intense that Congress ordered a sweeping investigation. A panel consisting of distinguished military officers and civilian scientists was appointed and their exhaustive report and recommendations led to the creation of the U.S. Lighthouse Board in 1852. Essentially composed of the experienced and knowledgeable men who had overseen the earlier investigation, the Lighthouse Board attracted others of similar quality to lighthouse duty. The country was organized into 12 lighthouse districts, each having an appointed naval officer to serve as inspector in charge of building and maintaining lighthouses. It developed standardized designs and materials to be used in the construction of federal lighthouses and instituted a regimented program for training and supervising light keepers.

The Lighthouse Board immediately undertook an intensive campaign to transform the nation's system of aids to navigation. One of the key components of the program was the assignment of U.S. Corps of Topographical Engineers to lighthouse duty. Established in 1836 as a branch of the U.S. Army Corps of Engineers, the Corps consisted entirely of officer graduates of the U.S. Military Academy and was used during peacetime to survey newly acquired territories in the south and west and to supervise construction of federal civil works. Three seats on the Lighthouse Board were held by members of the Corps and other engineers were stationed in the lighthouse districts where they supervised inspections, planning, design, and construction of lights. The result was a vast improvement in the quality of the lights built during the second half of the nineteenth century through the application of innovative engineering solutions to meet particular site conditions. The Lighthouse Board gave extensive thought to how the various lights functioned as a system and many of the poorly constructed and sited lighthouses were razed and reconstructed. During the period leading up to the Civil War, all lighthouses in the system were fitted with Fresnel lenses and many of the primary Atlantic seacoast lights were replaced with new and taller masonry towers, nine of which soared to more than 150 ft. The quality of the lighthouses constructed far surpassed that of those constructed under the Pleasonton regime. More than 80 lights constructed during the period are still standing while less than 50 of the more than 300 constructed under Pleasonton's 32 years of supervision survive (NPS 2001a).

Development of the Highland Light Station, 1852-1898

The importance of the Cape Cod light made it the subject of great scrutiny by the Lighthouse Board in its deliberations about how to best provide for safety along its dangerous coast. The Board recognized the light was unsatisfactory, especially since it could not be seen from the south. In its 1852 annual report the Board recommended that \$15,000 be appropriated "to elevate, improve, and fit with first order illuminating apparatus the light-house at Truro Highlands, Cape Cod, being an important seacoast position to mark the approaches to

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Boston bay." The following year, the Board recommended that the Cape Cod light be repositioned to the higher ground to the south, which blocked its view from that direction. Doing this, the Lighthouse Board hoped, would allow the closing of the Three Sisters Light located approximately 10 miles south of the Cape Cod Light on Nauset Beach in Eastham. Constructed by Winslow Lewis in 1837, the lights consisted of three squat towers 15-ft towers designed in that fashion to distinguish them from the Cape Cod and Chatham lights that flanked them on the coast. As coastal navigational aids they were of marginal value and their three lamps consumed an excessive amount of oil.

On August 3, 1854, Congress appropriated \$25,000 for the removal of the Cape Cod light and its relocation "to a proper site, and for fitting the same with the most approved illuminating apparatus, and to serve as a substitute for three lights at Nauset Beach." The following year, the State of Massachusetts ceded jurisdiction over additional land in Truro for the construction of the new lighthouse. In March 1856 the Board instructed its agent, Major C.A. Ogden, Corps of Engineers, Boston, 2nd District, to search for a suitable site on the higher elevations south of the existing light and enter into negotiations for its purchase. The search continued throughout the spring and summer with Ogden supplying sketches of surveys of the coast indicating potential locations. By September 3, however, the Board had reversed its decision in favor of building a tower of sufficient height to be visible from the south on the existing lighthouse property. The reasoning behind the reversal is not known, but factors such as the difficulty of finding an appropriate available site and the potential safety hazard of moving the tower to ships returning from long voyages that could not be notified in advance of the move probably figured in.

William Buell Franklin (1823-1903) of the 1st and 2nd Districts (Maine and Boston) served as the superintendent of construction for the third Cape Cod light and its associated facilities, which collectively became known as the Highland Light Station. Franklin was representative of the high level of expert talent that was assigned by the U.S. Corps of Topographical Engineers to serve the Lighthouse Board in its efforts to improve the nation's lighthouse system. He graduated at the head of the U.S. Military Academy's class of 1843 and after graduation joined the Corps of Topographical Engineers. During the Mexican-American War (1846-1848) he received a brevet promotion to first lieutenant for meritorious conduct at the Battle of Buena Vista. After returning from Mexico he served as an instructor at West Point for three years before leaving to supervise construction of lighthouses in the Maine and Boston districts for the Lighthouse Board. In 1859 Franklin was stationed in Washington where he oversaw aspects of the construction of the Capitol, Treasury, and Post-Office buildings. During the Civil War he served with the Army of the Potomac and was promoted to the rank of major general of volunteers in 1863. He resigned from the Army on March 15, 1866 and became president of the Colt's Firearms Company of Hartford, Connecticut. He later served as adjutant-general of the State of Connecticut from 1877 to 1878, was the commissioner general for the United States to the Paris Exposition of 1888, and presided over the Board of Managers of the National Home for Disabled Volunteer Soldiers for 20 years. He died March 8, 1903 (*New York Times* 1903).

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The available documentary record indicates that the extant **Keeper's Quarters (LCS No. 040463, MHC No. TRU.354)** was the first building erected as part of the new light station complex. The Lighthouse Board's annual report for 1856 stated that "a new dwelling has been built for the keeper at Cape Cod Highlands lighthouse." Additional evidence is supplied by an illustration that appeared in Gleason's Pictorial magazine in 1856. The illustration pictures the keeper's house in its original location relative to the second light tower, which was still in place at the time. On April 15, 1857 Franklin forwarded to the Lighthouse Board a special estimate for the construction of the remaining components of the light station, including the extant **Highland Light Tower (LCS No. 040462, MHC No. TRU.LH)** and **Connector (LCS No. N/A, MHC No. N/A)**, along with the double assistant keeper's quarters (demolished). Demolition of the second Cape Cod light and construction of its replacement proceeded throughout the summer and early fall. Since the light tower was constructed on or very near the spot of the second light, some provision for a temporary light must have been made. Isaac M. Small, grandson of the original property owner who had inherited the tract of land adjacent to the light house property, wrote later that a temporary light structure was erected near the edge of the cliff overlooking the ocean during construction. In mid-October Franklin received notice from an N. Libby, presumably the contractor hired to construct the tower, that he expected to complete the tower by the 20th and that he would need about "\$1,000 or \$1,200 to pay up all bills." The Board's annual report for 1857 confirms that the light station had been completed. The money spent on the project during the year amounted to more than \$17,000.

The original layout of the Highland Light Station consisted of the keeper's quarters as the northernmost building with the light immediately to the south and the assistant keeper's double quarters to the southeast. The light tower measured 66 feet high to the top of the lantern and 18 ft in diameter at its base and consisted of three visually distinct sections: a long tapering, cylindrical brick shaft; straight sided brick watch deck and gallery; and a straight-sided metal and glass lantern and lantern gallery. The lantern room housed a first order Fresnel lens. A one-story, gable roof, brick workroom, measuring approximately 17 by 14 ft extended from the northern base of the tower. The keeper's quarters consisted of an approximately 22 by 34-ft, one and one-half-story, gable roof, wood frame building on a brick foundation. The exterior walls were originally sheathed with board and batten siding and the windows were six-over-six double-hung sash with slightly pedimented lintels. The assistant keeper's quarters had a 28.5 by 36.5-ft, one-and-one-half-story, side gable, main block and a 14.5 by 24.5-ft rear (north) extension. Its exterior materials and design features were similar to that of the keeper's quarters. The keeper's and assistant keeper's quarters were connected to the light tower's one-story work room by covered brick passageways measuring 13.5 ft and 44 ft in length, respectively.

The provision for both 1st and 2nd assistant keepers was representative of the importance of the Highland Light Station within the Atlantic coastal system. It was classified by the Lighthouse Board as a primary seacoast light and its continuous nighttime operation was deemed critical to protect international and coastal shipping. While

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keeping the light burning was generally not an onerous or physically demanding job, it commanded the constant attention of the keepers for fear that some circumstance due to weather or other causes might put it out or diminish its efficiency. Isaac M. Small described the existence of the Highland Light Station keepers in a tourist publication he published on the light in 1891:

The routine of their duties is regular and systematic. Promptly, one half hour before sunset the keeper whose watch it may be at the time repairs to the tower and makes preparations for the lighting of the lamps. At the moment the sun drops below the western horizon the light flashes out over the sea; the little cog wheels begin their revolutions; the tiny pumps force the oil up to the wicks and the night watch has begun. At 8 o'clock the man who has lighted the lamp is relieved by No. 2, who in turn is also relieved at midnight by No. 3, No. 1 again returning to duty at 4 a.m. As the sun shows its first gleam above the edge of the eastern sea the machinery is stopped and the light is allowed to gradually consume the oil remaining in the wicks and go out. This occurs in about fifteen minutes. As night comes on again No. 2 is the man to light the lamp, the watches are changed at 8, 12 and 4, and so go on as before night after night (D'Entremont 2007).

The post-Civil War period was characterized by tremendous expansion in the numbers of and types of aids to navigation and the professionalization of the workforce responsible for their operation and upkeep under the U.S. Lighthouse Service. While important improvements continued to be made along the Atlantic Coast, most attention focused on facilities for underserved coastlines, including the Pacific, Great Lakes, and major interior rivers. In order to better manage these far flung projects, the lighthouse districts were reorganized and their number increased from 12 to 16. Advanced engineering techniques, including the introduction of cast iron caisson, crib foundation, and coffer dam construction, were applied to meet challenges posed by differing and often difficult site requirements. Kerosene replaced lard oil as the dominant fuel and by the end of the nineteenth century the first experiments in electrification were conducted. The expansion in the number of lighthouses, lightships, and light tenders required a significant increase in personnel and the Lighthouse Board redoubled its efforts to professionalize the Lighthouse Service. Shortly after the war, the maximum salary for keepers was raised to \$600. In the early 1880s, new expanded instructions were disseminated to employees of the service that governed all aspects of lighthouse tending and maintenance as well as expectations regarding the personal comportment of the keepers. In 1884, uniforms denoting the branch and rank were distributed to the 1,600 employees then in the service in an effort to raise its image of professionalism and instill pride in the performance of its duties. In 1896 President Grover Cleveland placed the Lighthouse Service within the federal Civil Service (Pepper 2004; USCG 2008).

A number of changes and additions were made to the Highland Light Station complex during the last three decades of the nineteenth century. In 1872 the 2nd District lighthouse engineer forwarded to the Lighthouse

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Board a request by the merchants and ship masters of Boston to have a fog signal installed at Cape Cod to supplement the light during frequent foggy weather. In 1877 a first class Daboll Trumpet-model, steam-powered fog signal was placed in a 22-ft square, one-story, wood frame building located east of the assistant keeper's quarters. The steam engine and coal used to fuel it were stored in a 16-by-16-ft shed located immediately north of the fog signal house. In the early 1880s, it was reported that the quarters for both the keeper and assistant keepers were in a serious state of disrepair due to weather damage. In 1881 the buildings were renovated with the most significant change being the replacement of the original board and batten siding with wood shingles. A survey conducted in 1885 shows other buildings that were erected during the 1870s and 1880s, including wood sheds for each of the keepers, a new barn, and henhouses. The survey also indicates the presence of the Highland Life-Saving Station, seven-eighths of a mile northwest of the light and a privately operated Merchant Marine Telegraph building abutting the northwest corner of the lighthouse tract. Telegraph equipment was first installed in the 1840s in the original keeper's house and was later moved to the third keeper's apartment in 1857. In 1880 Isaac M. Small, who served for much of his adult life as the "Marine Observer," constructed the Cliff House on his father's property and the telegraph was moved there shortly afterwards. Small's home was also connected by government telephone with the lifesaving stations along the length of the Cape Cod coast. The telephone and telegraph systems were important technological advancements in the areas of maritime commerce and safety, providing for rapid communication of ship dispositions and maritime disasters.

Physical Alteration of the Highland Light Station, 1898-1903

Major changes were made to virtually all components of the Highland Light Station around the turn of the century. After an inspection in August 1898, the major of engineers for the 2nd Lighthouse District noted some deficiencies in the arrangement and conveniences of the keeper's quarters. In a letter dated October 1 to the Lighthouse Board, the major noted:

... the keepers dwelling has only two sleeping rooms, each lighted by only one window facing north. The kitchen has not enough closet room and is in the ell, which has only one story. The ell ... should be extended three feet to give more closet room, a second story should be built upon it to provide another sleeping room, and four dormer windows should be built to give the present sleeping rooms more light, and to give them sun.

Plans incorporating most of those recommendations were drawn and were approved by the Lighthouse Board on April 25, 1899. Work on the project commenced shortly thereafter. The alterations radically changed the interior plan of the keeper's quarters. The main doorway was switched with the window at the north end of the main block's west elevation. A vestibule and closet were created at that entrance, and the stairways were relocated behind the vestibule. The stairway to the second floor was changed from a straight run to U-shaped

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and required the removal of a window opening at the first-story level of the main block's north elevation. The parlor and dining room were shifted to the south and a closet was created along the south wall of the dining room. On the second floor, the ell was heightened to accommodate a third bedroom and gable wall dormers were added to both slopes of the main block's roof. Exterior changes to the building that occurred at about the same time as the interior renovation were the addition of a bulkhead to the basement and the construction of a veranda porch with a hip roof, tapered wood columns, and a shingled knee wall that extended from the north elevation of the main block around the west and north elevations of the ell. The result of these alterations, which were all completed by the end of 1901, gave the keeper's quarters the appearance it largely retains today.

While the improvements to the keeper's quarters were being made, another project was proposed to change the characteristic of the Highland light from a fixed to a flashing beacon. On June 6, 1900 Congress appropriated \$15,000 for purchasing and installing a new lens and its associated revolving mechanism. The cost of the new light, which was manufactured by the firm of Barbier & Bernard of Paris, was \$9,500 and the estimate for delivery, installation, and contingencies was estimated by the engineer in charge to be \$5,250. The light was ordered on March 31, 1901 and was delivered to Provincetown the following September 16. During the work to remove the existing light and make minor modifications for the installation of the new light, a temporary skeleton light tower with a third order flashing light was installed.

The new light was first put into operation on October 10, 1901. It consisted of a first order lens with four 90 degree panels, nine dioptrics, 18 superior and eight inferior catadioptrics, and a focal distance of 92 millimeters. It revolved on a float of mercury and took 20 seconds to complete one revolution, during which its four panels cast an intense flash equal to 192,080 c.p. (candle power) every 5 seconds. The mercury bed allowed for free movement of the light, which was accomplished through a winding mechanism installed in the bellow of the bed. A gravity weight was attached to the winding mechanism and provided the force necessary to turn the light. The weight hung from the center of the mechanism and traveled downward through the tower. This necessitated changes in the interior stair configuration of the light tower. The original stairs consisted of a winding metal staircase around a center cast-iron pole. The existing ornate cast-iron staircase that is attached to the inner walls of the tower was added in 1903 to create the necessary free space in the center of the tower for the weight to drop.

Highland Light Station in the Twentieth Century, 1904-1992

In 1903, the Lighthouse Board was transferred from the Treasury Department to the newly created Department of Commerce. The Board was abolished in 1910 in favor of the creation of a civilian-controlled Bureau of Lighthouses, which was initially headed by George R. Putnam. During the period of the Lighthouse Board's existence, the number of aids to navigation grew from about 1,500 in 1852 to more than 12,500 by 1910. The number of lighthouses grew in the same period from 331 to about 1,460. Putnam's tenure, which lasted until

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1935, was marked by a large number of new aids and the application of rapidly advancing technologies in the areas of electrification, automation, and the introduction of radio beacons. In 1939 the Bureau of Lighthouses was abolished and the responsibilities for administering the nation's aids to navigation were placed with the U.S. Coast Guard where they remain today.

The history of the Highland Light Station in the twentieth century is characterized by moves to adapt the light to changing technologies, demolition and construction to restructure the complex to accommodate U.S. Coast Guard personnel, and ultimately the effects of erosion that nearly doomed its existence. In 1904 the Navy erected one of the first land-based wireless telegraph stations in the nation on the lighthouse tract north of the light station complex. The station thus played a pioneering role in the evolution of radio technology and was an important component of an evolving system of ship-to-shore communications throughout most of the twentieth century. In 1914 it was chosen by the Navy as one of two sites to test the first radio compasses installed in the U.S. None of the buildings and structures associated with the naval wireless telegraph station or subsequent navy development of the site survives (US Navy Department 1904, 1914).

Changes to the light station during the period between 1903 and 1946 were relatively minor with the most significant alteration occurring in 1932 when the light's kerosene lamps were replaced with two 1,000-watt electric bulbs. With that improvement, the light was for a time the most powerful on the Atlantic Coast. The 4,000,000-c.p. light could be seen for 45 miles, and reportedly under ideal conditions as far as 75 miles. Also in 1932, a radio beacon tower (not extant) was erected, adding another significant aid to navigation to the grounds.

After World War II, the Coast Guard began reconfiguring the light station to meet its operational and personnel requirements. In 1946 the entire 1901 lens was replaced with an electric first order, 36-in drum, rotating Crouse Hinds beacon. A garage (not extant) was added to the grounds in the 1940s, and in the 1950s both the 1877 fog signal building and the barn were removed. The assistant keeper's quarters and its connector to the light tower were demolished in 1962. The following year a modern detached family quarters (not extant) for Coast Guard personnel was erected. In 1988 the Coast Guard removed the Drouse Hinds beacon and installed a pair of fully automated aerobeacons in its place. The final major alteration of the keeper's quarters occurred in 1992 when a water pipe burst causing extensive damage to the interior. The Coast Guard was forced to remove and replace most of the walls of the first floor, removing nearly all of its historic finishes in the process.

Moving the Highland Light Station 1992-1996

Thoreau described at great length the forces of erosion and replenishment that shaped the rapidly evolving outer Cape Cod coastline. In observations he made between several visits in the mid-1850s, Thoreau estimated that the cliff near the Cape Cod light was losing about 6 ft per year and wrote that "According to the light-house keeper, the Cape is wasting here on both sides, though most on the eastern. In some places it had lost many rods

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within the last year, and, ere long, the light-house must be moved" (Thoreau 1865). While he overestimated the rate of erosion, he was ultimately correct that the retreating cliff face would ultimately threaten the lighthouse. The existing light station was located in essentially the same location as the first light built in 1797, which was at that time more than 500 ft from the edge of the 125-ft cliff above Highland Beach. Throughout the nineteenth and twentieth centuries the cliff eroded at an average rate of about 3 ft per year until, by the late 1980s, the light station stood about 143 from the edge of the cliff (US Army Corps of Engineers 1988:13).

Reminiscent of the events that led to construction of the first Cape Cod light, it was local agitation that prompted the federal government to take action to save the Highland Light Station. In the mid-1980s the Truro Historical Society approached the Coast Guard to voice concern over the future of the light. The Army Corps of Engineers conducted a study in 1989 that found that moving the light was more economically feasible than any attempt made at stabilizing the cliff against erosion. In response, the Historical Society began a campaign to raise funds and generate local support for the move. Ultimately, the Historical Society contributed more than \$150,000 and a petition with more than 140,000 signatures in favor of the project. This local resolve was instrumental in getting Massachusetts Senators Edward Kennedy and John Kerry, along with Congressman Gerry Studds, to sponsor legislation as part of the United States Coast Guard Authorization Act of 1991 mandating the preservation of both the Highland Light Station and the Sankaty Head Light on Nantucket, which was in similar danger. The resulting act required the Secretary of Transportation to consult with the Secretary of the Interior, appropriate state, local, and other governmental entities, and private preservation groups to develop a strategy for the relocation, ownership, maintenance, operation, and use of the lights. In June 1992, the Coast Guard issued a report outlining the strategy for the preservation of the Highland Light Station as called for in the act. The findings included the acknowledgement that the federal government was a legitimate source of funding for the project, that the most appropriate location for the light was on the adjacent property within the Cape Cod National Seashore (CACO) belonging to the National Park Service (NPS), and that the NPS would be the logical agency to assume ownership of the light after the move (D'Entremont 2007; US Coast Guard 1992).

A number of planning studies were prepared in advance of the move to study the feasibility of the project. The choice of an appropriate site for relocation of the light station was the subject of an extensive alternatives analysis conducted to assess the impact of the relocation project on the neighboring Highland Golf Links, private property, public access, recreational use, and other issues. The analysis resulted in the selection of a site 450 feet west of the location of the light station within the boundaries of the Highland Golf Links. The site was chosen because it had relatively little impact on the character defining features the historic and natural landscape and was sufficiently protected from the forces of erosion to meet established lifespan requirements for the move. In addition, the location of the light station relative to the cliff face more closely approximates the historic period appearance of the property. Other alternatives considered would have had an adverse impact on one or more of the character-defining features of the light station or other surrounding historic properties.

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In 1996 \$1 million in federal funds and \$500,000 in state funds were combined with the Historical Society's funds to pay for the move of the 404-ton light tower and keeper's quarters. ⁴The International Chimney Corp. of Buffalo, New York with assistance from its subcontractor Expert House Moving of Maryland conducted the operation, which began in June 1996. The companies had together recently accomplished the successful move of Block Island Southeast Light in Rhode Island. The move took 18 days to complete and required the excavation of the foundation of the light station, inserting four levels of criss-crossing beams beneath the tower, lifting it with hydraulic jacks and mounted on a rail system for transport to its present location. On November 3, 1996 Highland light was relit in its new location and continues to serve its original function as an aid to navigation. To commemorate the event, the Truro Historical Society placed a bronze tablet marking the original location of the light station. In 1998 the aerobeacons were replaced by a 110 watt automated beacon rated at 4 million c.p. with a visibility of 20 miles. The same year the light station was opened for public visitation and interpretation and has become a significant Cape Cod tourist destination. It is operated by Highland Museum and Lighthouse, Inc. through a concession contract with the National Park Service. The Coast Guard retains the responsibility for maintaining the optic in the light tower (D'Entremont 2007).

Archeology Statement

Archeological research for the Highland Light Station has been minimal. Two pre-contact period sites of unknown function or temporal affiliation (19-BN-152, 19-BN-153) were reported by the Massachusetts Archaeological Society immediately north and south of the original location of the light station, but no formal archeological investigations have been conducted in that area to determine their existence, nature, or extent (Johnson 1997; MHC site files). Archeological materials and records from site 19-BN-152 are located at the Robbins Museum in Middleborough, Massachusetts and the R.S. Peabody Museum in Andover, Massachusetts. Noted archeologist Ross Moffet recorded site 19-BN-153. The original lighthouse tract has the potential to contain intact remains associated with the three lighthouses and their ancillary facilities, but no investigations have been conducted to identify whether such remains exist.

In advance of the light station's move in 1996, a locational archeological survey was conducted in 1994 to identify archeological sites with four alternative relocation areas. The four alternatives were located within a 1.67-acre area straddling both sides of Highland Road and within the Highland Golf Links. The subsurface testing identified two building foundations dating to the early twentieth century and a small assemblage of historic period debris associated with the construction and demolition of those buildings. No pre-contact period cultural materials or features were identified. The soils across the project parcel were heavily disturbed and maintained little stratigraphic integrity relative to the identified late historic period foundations. Based on the results of the survey, the author concluded the proposed relocation project would not threaten any potentially

⁴ The move was made pursuant to Section 106 of the National Historic Preservation Act and 36 CFR 60.14(b)(5)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station	Truro	Barnstable, MA
Name of Property	City/Town	County and State
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significant archeological resources and recommended no additional survey work for the project area (Donta 1994:9).

It is important to note that a portion of the 1994 survey (Alternative 2) was conducted within the current National Register boundary for the Highland Light Station, namely the footprint of the station itself. The fact that the testing was conducted in the proposed relocation site for the light station rather than at its original location, however, means that the historic period cultural materials and features identified during the survey bear no direct relationship to the history or significance of the light station, regardless of the integrity of those deposits. As such, the results of the survey are not considered to be a contributing feature to the National Register status of the Highland Light Station.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station	Truro	Barnstable, MA
Name of Property	City/Town	County and State
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United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station	Truro	Barnstable, MA
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United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

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3

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Highland Light Station
Name of Property

Barnstable County, MA
County and State

10. Geographical Data

Acreage of Property less than one acre

UTM References

(Place additional references on a continuation sheet.)

1	1	9	4	1	2	0	8	0	4	6	5	4	6	6	0
	Zone			Easting						Northing					
2															

3															
	Zone			Easting						Northing					
4															

☒ See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Stephen Olausen and Laura Kline

organization The Public Archaeology Laboratory, Inc. date October, 2008

street & number 210 Lonsdale Avenue telephone 401-728-8780

city or town Pawtucket state RI zip code 02860

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name National Park Service, Cape Cod National Seashore

street & number 99 Marconi Site Road telephone (508) 349-3785

city or town Wellfleet state MA zip code 02667

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and amend listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reduction Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

Name of Property

City/Town

County and State

Section Number 10

Page 1

VERBAL BOUNDARY DESCRIPTION

The National Register boundary for the Highland Light Station encompasses the footprint of the historic light station structure and the attached accessibility ramp. It extends around the outside face of the foundation of the Highland Light and Connector and the foundation and porch footings of the Keeper's Quarters and the attached modern accessibility ramp. See the attached sketch map.

BOUNDARY JUSTIFICATION

The boundary is confined to the footprint of the Highland Light Station and attached accessibility ramp because there is no contiguous surrounding property that is historically associated the structure. The move of the Highland Light Station off the Lighthouse Tract in 1996 severed its connection with that property, which originally comprised 10 acres and contained a number of associated buildings and structures that were constructed during the period of significance. Due to erosion, the Lighthouse Tract has been reduced in size to approximately 4 acres and no longer contains any resources associated with the Light Station. No lot or other legal property boundary was established when the Light Station was moved onto the Highland Golf Links property and the lack of historical associations with the surrounding property precludes the expansion of the boundary outside the building footprint. The accessibility ramp, which extends from the veranda of the Keeper's Quarters, was is included in the boundary because it is attached to the Highland Light Station. It is not a historic feature of the structure and was added after the move.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station	Truro	Barnstable, MA
Name of Property	City/Town	County and State
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PHOTOGRAPH INFORMATION

1. Highland Light Station, Highland Light Road, Truro
2. Barnstable County, MA
3. Stephen Olausen
4. November 8, 2007
5. National Park Service, Northeast Region, 15 State Street, Boston, MA 02109
6. Context view facing west from near the original location of the Highland Light Station showing the current position of the Light Station (center), Highland Golf Links and Highland House cottages (left), and Highland House (right).
7. 1 of 10

Items 1-5 are the same for the remaining photographs

6. East elevation, facing west.
7. 2 of 10
6. Light Tower south elevation, facing north.
7. 3 of 10
6. West elevation, facing east from parking area.
7. 4 of 10
6. Keeper's Quarters north elevation, facing south.
7. 5 of 10
6. Connector east elevation, facing west.
7. 6 of 10
6. First level Light Tower stair, facing east.
7. 7 of 10
6. Light Tower watch room door, facing north.
7. 8 of 10

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Highland Light Station			Truro	Barnstable, MA
Name of Property			City/Town	County and State
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6.

Light Tower beacon, facing southeast.
7.

9 of 10
6.

Former living room in Keeper's Quarters, facing northwest.
7.

10 of 10

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Highland Light Station

Truro

Barnstable, MA

Name of Property

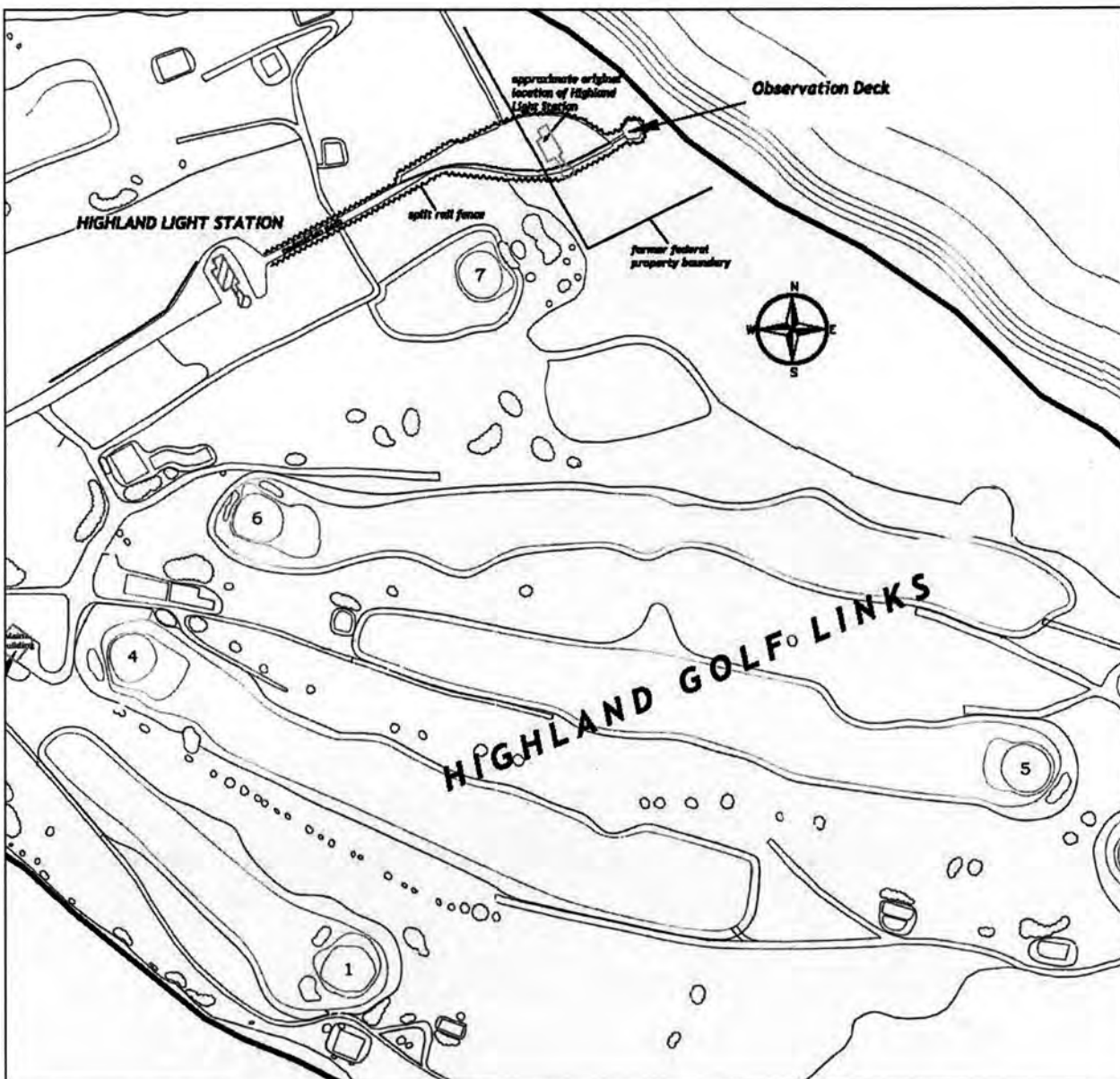
City/Town

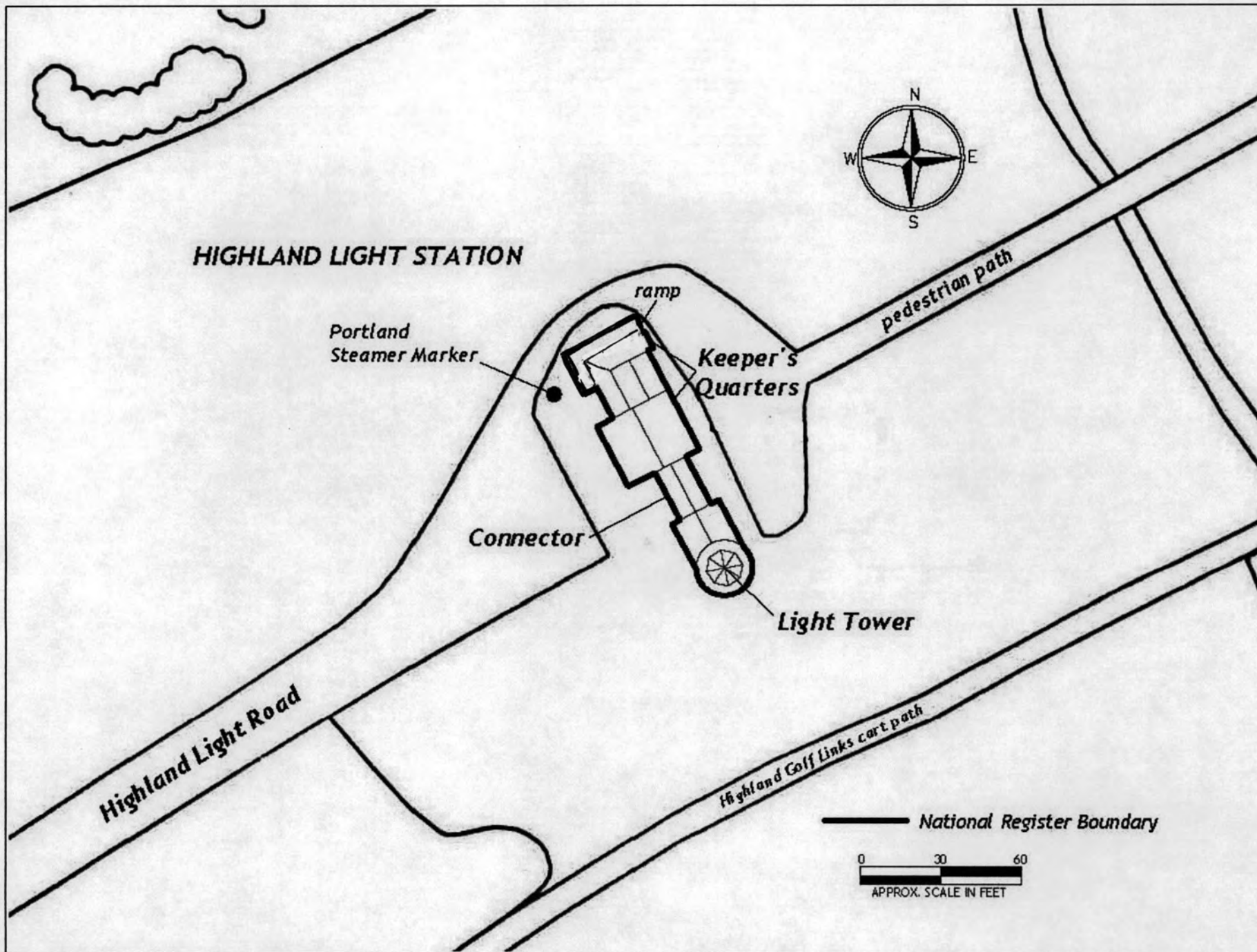
County and State

Section Number

Page

Map Showing Current and Original Locations of Highland Light Station





Highland Light Station National Register Map.

Barnstable County, MA

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: ADDITIONAL DOCUMENTATION

PROPERTY Highland Light Station
NAME:

MULTIPLE Lighthouses of Massachusetts TR
NAME:

STATE & COUNTY: MASSACHUSETTS, Barnstable

DATE RECEIVED: 10/07/11 DATE OF PENDING LIST:
DATE OF 16TH DAY: DATE OF 45TH DAY: 11/22/11
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 87001463

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: Y SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

☒ ACCEPT ☒ RETURN ☐ REJECT 12.1.11 12/25/2011 DATE

ABSTRACT/SUMMARY COMMENTS:

See attached comments

Hold for materials

New map & changes sent 11/30

Accept 12/1

Accept Return

RECOM./CRITERIA

REVIEWER

DISCIPLINE

TELEPHONE

DATE

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 1



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 2



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 3



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 4



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 5



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 6



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No 7



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 8



Highland Light Station
Truro, Barnstable County, Massachusetts
Photo No. 9



Highland Light Station
Thru, Barnstable County, Massachusetts
Photo No. 10



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS

NORTH TRURO QUADRANGLE
MASSACHUSETTS—BARNSTABLE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



CONVERSION
SCALES

Feet Meters

15000 4500

14000 4000

13000 3500

12000 3000

11000 2500

10000 2000

9000 1500

8000 1000

7000 900

6000 800

5000 700

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3000 500

2000 400

1000 300

0 200

0 100

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9 27432

10 30480

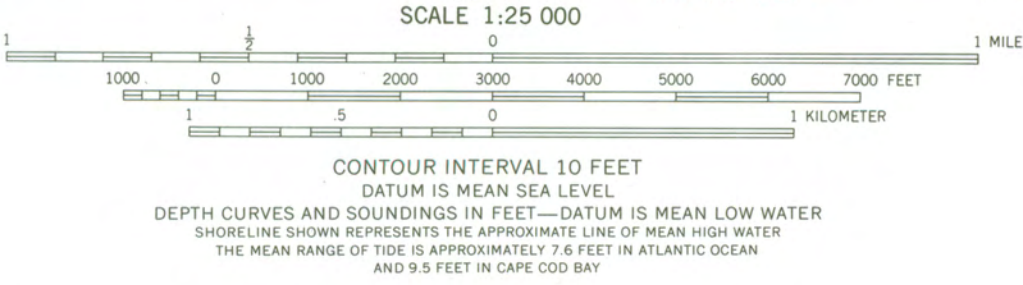
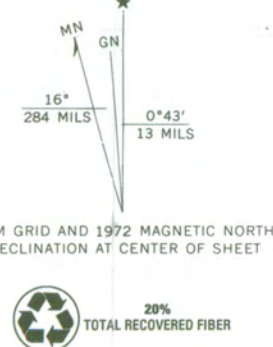
To convert feet to meters

multiply by 0.3048

To convert meters to feet

multiply by 3.2808

Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS and Massachusetts Geodetic Survey
Planimetry by photogrammetric methods from aerial photographs
taken 1938. Topography by planimetric surveys 1941–1942. Revised
from aerial photographs taken 1971. Field checked 1972
Selected hydrographic data compiled from USC&GS Charts 580
and 1208 (1972). This information is not intended for navigational
purposes.
Polyconic projection. 1927 North American datum
10,000-foot grid based on Massachusetts coordinate system,
mainland zone
1000-meter Universal Transverse Mercator grid,
zone 19
Map photinspected 1977
No major culture or drainage changes observed



ROAD CLASSIFICATION
Primary highway, hard surface ————
Secondary highway, hard surface ————
Light-duty road, hard or improved surface ————
Unimproved road ————
Interstate Route ————
U. S. Route ————
State Route ————

NORTH TRURO, MASS.
N4200—W7000/7.5
PHOTOINSPECTED 1977
1972
AMS 6968 II SE—SERIES V814





Truro Historical Commission

Truro Town Hall

Post Office Box 2030

Truro, Massachusetts 02666

Phone: (508) 349-7004

Fax: (508) 349-5505

August 1, 2009

Mr. Gary Palmer, Chair
Truro Board of Selectmen
Town of Truro
PO Box 2030
Truro, MA 02666

RE: National Park Service Nomination
of the Truro Highlands Historic District
and the Highland Light Station
to the National Register of Historic Places

Dear Gary:

At the request of Pam Nolan, Town Administrator, the Truro Historical Commission has reviewed the June 18, 2009 submission by the US Department of Interior National Park Service (NPS) for the above referenced nomination to the National Register.

As stated in the NPS documentation, "The Truro Highlands Historic District is located on Highland Light Road in the northeast corner of the village of North Truro.... The district consists of an area of approximately 85 acres of land within the boundaries of the Cape Cod National Seashore (Cape Cod NS) managed by the National Park Service. The district is comprised of eight contributing and two non-contributing resources. Contributing resources include five early-twentieth-century buildings that are representative of the tourist accommodations available at the Highland House resort during the period of significance [Highland House (Truro Historical Society Museum), Margaret Adams Cottage (Highland Golf Links Clubhouse), Beacon (Slade) Cottage, Rock Cottage, and Haven Cottage]; the Highland Golf Links, an important early example of an American links-style golf course, Highland Light Road, and the Highland Light Station."

August 1, 2009

National Park Service Nomination of the Truro Highlands Historic District
and the Highland Light Station to the National Register of Historic Places

Page 2 of 3

With the exception of two private residences, Rock and Haven Cottages, the National Park Service, which is the nominating party, owns all of the properties covered by the district nomination. Only two are already individually listed on the National Register [Highland House and Highland Light Station].

This district nomination is most likely an exercise in good federal stewardship. It will help the Park Service fulfill its obligation, under the National Historic Preservation Act, to identify properties within its control eligible for National Register listing and to avoid adverse impacts to their historic character where feasible.

National Register listing will automatically cause the district to be listed on the State Register of Historic Places, administered by the Massachusetts Historical Commission, and could also entail Cape Cod Commission review of demolition or major alteration. Although the federal government is not subject to state or local reviews for changes to federal property, these reviews would apply to property lessees. So, if the Town proposes changes to the golf clubhouse or the Historical Society proposes changes to Highland House, they would potentially be subject to these reviews. Since the Park Service presumably must approve these changes under the terms of their lease, and the Park Service already has the obligation to minimize impacts to historic resources within its control anyway, it's not clear that this District listing would impose any additional burden on the town. On the positive side, it would make the properties eligible for state and federal rehabilitation tax credits and MHC grants.

Substantial alterations to historic properties within a National Register District if not part of a Local Historic District, and if referred by the Town Building Inspector, Historical Commission, or other municipal agency, are subject to review by the Cape Cod Commission as a limited Development of Regional Impact (DRI). New construction in a National Register District is not subject to review. Substantial alterations typically include demolition or additions that are greater than 25% of the original historic building size that would impact the historic character-defining features, and does not include ordinary maintenance and repair or changes to non-contributing structures. As stated above, since the National Seashore Park already controls the

August 1, 2009

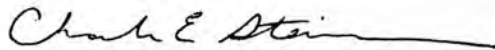
National Park Service Nomination of the Truro Highlands Historic District
and the Highland Light Station to the National Register of Historic Places
Page 3 of 3

properties of concern to the Town, the Cape Cod Commission's jurisdiction should not be an issue for this district.

The exceptionally thorough historical documentation provided by the National Park Service in their Nomination is a great resource of information to the Town and well timed to coincide with our Tercentenary Celebration. It describes the historic and cultural significance of the sites and of the Highland Links as one of the earliest American golf links. Nomination will also enhance the tourist attraction of the site, bringing more visitors to the Town and helping support the operation of the Highland Light, the Highland House Museum, and the Highland golf links.

As such, we endorse the nomination of this district to the National Register of Historic Places and urge the support of the Board of Selectmen.

Sincerely yours,



Chuck Steinman, Chair
Truro Historical Commission

cc. Pam Nolan, Town Administrator



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

December 2, 2009

Dennis R. Reidenbach
Regional Director
National Park Service
Northeast Region
United States Custom House
200 Chestnut Street
Philadelphia, PA 19106

RE: Highlands Light Station, Truro
Truro Highlands Historic District, Truro
Atwood Higgins Historic District, Wellfleet

Dear Mr. Reidenbach:

Thank you for providing us with the opportunity to comment on the National Park Service nominations for the above three properties, which are all within the Cape Cod National Seashore. These comments are provided in accordance with 36 CFR 60.9(c).

MHC staff have reviewed all three nominations. In general, we found them to be quite thorough in documenting the significance and integrity of the properties in question. We did have several comments and concerns, however, which we have enumerated on the enclosed memorandum. Please note that several comments arise from the Massachusetts SHPO convention for National Register nominations, and may not be your preferred method of organizing and presenting the nomination. Other questions relate to issues of clarity. If you have any questions regarding any staff concerns, please contact Betsy Friedberg, National Register Director, here at the MHC.

Sincerely,

A handwritten signature in cursive script that reads "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

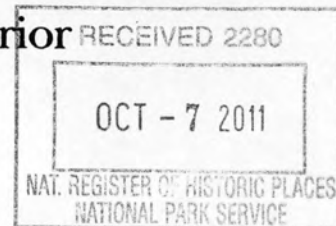
Cc: George E. Price, Jr., Superintendent, Cape Cod National Seashore
Elizabeth Igleheart, National Park Service History Program, Boston
Dr. Janet Matthews, Keeper, National Register of Historic Places
Steven Olausen, PAL



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.
Washington, D.C. 20240



Memorandum

To: Keeper, National Register of Historic Places, National Park Service

From: Chief Historian, National Park Service, Designated the Federal Preservation Officer *ADW r k MWR*

Subject: Highland Light Station National Register Nomination (additional documentation), Cape Cod
National Seashore, Barnstable County, Massachusetts *10/7/2011*

Enclosed please find the National Register of Historic Places additional documentation for the Highland Light Station. . This information replaces and updates documentation from 1987. The new documentation adds commerce as an area of significance and extends the period of significance to 1958.

Please contact Alexis Abernathy (202)-354-2236 or Betsy Igleheart (617)223-5018 for further information

Enclosure



IN REPLY REFER TO:

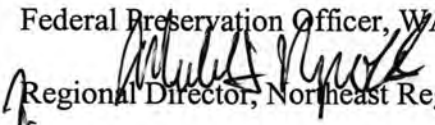
H32 (NER-HPPC)

United States Department of the Interior

NATIONAL PARK SERVICE
Northeast Region
United States Custom House
200 Chestnut Street
Philadelphia, PA 19106

OCT 13 2010

Memorandum

To: Federal Preservation Officer, WASO
From:  Regional Director, Northeast Region
Subject: National Register Documentation for the Highland Light Station

We are forwarding, for your approval, a National Register of Historic Places documentation form for the Highland Light Historic Station. The proposed listing is located at Cape Cod National Seashore in Barnstable County, Massachusetts. This document was reviewed by the Northeast Region's cultural resource specialists in the relevant disciplines.

The documentation was submitted to the Massachusetts Historical Commission for review and comment. A copy of their letter with comments, and a chart indicating how the comments were addressed by the National Park Service in the documentation is included with this submittal.

The chief elected officials in Truro were also notified and invited to comment. Their response is attached.

If you have any questions please contact Elizabeth Igleheart, National Register Coordinator, Northeast Region, National Park Service, 15 State Street, Boston, Massachusetts 02109.
Elizabeth_Igleheart@nps.gov, 617-223-5018.

Attachments

HIGHLAND (CAPE COD) LIGHTHOUSE RELOCATION PROJECT
MEMORANDUM OF AGREEMENT
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
PURSUANT TO 36 CFR PART 800.6(A)

WHEREAS, The United States Coast Guard (USCG) and National Park Service (NPS) has determined that long-term preservation requires the relocation of Highland (Cape Cod) Lighthouse, a property included in the National Register of Historic Places and the NPS and USCG have agreed by an MOA of 25 January 1994 that the USCG will be the agency responsible for performance of all Historical Consultation.

WHEREAS, the USCG has consulted with the Massachusetts Historical Commission (MHC) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and the relocation of the existing light tower and keepers dwelling will have an effect upon the lighthouse and keepers dwelling;

NOW, THEREFORE, the USCG and the Massachusetts Historical Commission agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

The USCG will assure that the following measures are carried out:

- 1) The USCG through contract with the NPS shall document the present appearance of the Highland Light complex through HABS/HAER recordation in its original setting prior to the relocation.
- 2) The Highland Light complex shall be moved in accordance with the approaches recommended in "Moving Historic Buildings" (John Obed Curtis 1979, American Association for State and Local History), in consultation with MHC, and by a professional mover who has the capability to move historic structures properly. Design plans and specifications for the move shall be submitted to MHC for review and comment during the design process.
- 3) Rehabilitation of the Highland Light complex shall follow the Secretary of the Interior's Standard for Rehabilitation of Historic Properties. Rehabilitation and Renovation plans shall be submitted to MHC for review and comment during the design process.
- 4) An archaeological locational survey shall be conducted in the

project areas that are designated for development of the proposed parking areas. The survey shall meet the standards in the Secretary of Interior's Standards for the Identification of Historic Properties. The results of the archaeological survey shall be submitted to the MHC for review under 36 CFR 800.4, and further consultation shall occur under 36CFR 800.5, if necessary.

Execution of this Memorandum of Agreement by the USCG and the Massachusetts MHC, its subsequent acceptance by the Council, the implementation of its terms, serves as evidence that the USCG has afforded the Council an opportunity to comment on the relocation of the Highland Lighthouse and its effect on historic properties, and that the USCG has taken into account the effects of the undertaking on historic properties.

UNITED STATES COAST GUARD

By: J. A. Florin

Date: 10/15/94

J. A. Florin, Commanding Officer,
Civil Engineering Unit Providence, Rhode Island

MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER

By: Brona Sumin DSHPO

Date: 10/11/94

for Judith B. McDonough
Executive Director
State Historic Preservation Officer

ACCEPTED for the Advisory Council on Historic Preservation

By: Robert D. Bush

Date: 11/25/94

Robert D. Bush
Executive Director