HISTORIC LIGHTHOUSE IMPROVEMENT PROJECT

Committee on Recreation, tourism, Historical Objects
9/17/91

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PALMER'S ISLAND

BUTLER FLATS

prepared by: Dyer|Brown & Associates Inc. Architects
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for: The City of New Bedford
Mayor's Office of Housing & Neighborhood Development

August 1989

HISTORIC LIGHTHOUSE IMPROVEMENT PROJECT

New Bedford, Massachusetts

RESTORATION PLAN FOR: PALMER'S ISLAND LIGHT STATION
BUTLER FLATS LIGHTHOUSE

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I. INTRODUCTION

The work of The Historic Lighthouse Improvement Project is carried out for Mayor's Office of Housing and Neighborhood Development under the auspices of the Massachusetts Historical Commission and the National Park Service. The Scope of work includes: a review of historical documentation on the lighthouses; an historical summary; thorough analysis and review of existing conditions; development of a Restoration Plan to include recommendation for Restoration Dates, establishment of priorities for restoration, phases of restoration work, and concepts of use; development of Contract Documents for an initial phase of work; supervision of construction of that first phase of work.

This report summarizes the Scope of Work leading to the Contract Documents phase for the initial restoration work. Dyer/Brown's work began with a comprehensive review of historical data on both lighthouses. That effort was rewarded with the discovery of the complete drawing and report files on both lighthouses going back to their construction held by the U. S. Coast Guard's Shore Maintenance Detachment in Governor's Island, New York.

The historical review was supplemented with several visits to both lighthouses to evaluate physical conditions. Structural and Mechanical Engineers analyzed the structural integrity and condition of mechanical and electrical systems.

These parallel research efforts formed the basis of a phased Restoration Plan for each lighthouse grounded in a Restoration Date recommendation that combines historical accuracy with the realities of present conditions and fiscal possibilities. The concepts of future use and adequate long-term maintenance are integral parts of this Restoration Plan.

This Project has been financed in part with Federal funds from the National Park Service, Department of the Interior through the Massachusetts Historical Commission, Secretary of State, Michael Joseph Connolly, Chairman.

PALMER'S ISLAND LIGHT STATION

II. PALMERS ISLAND LIGHT STATION

A. OVERVIEW

As one of the few mid-nineteenth century lighthouses remaining in this country, Palmer's Island Lighthouse is significant both architecturally and historically. It was built at the height of the whaling industry in 1849 and oversaw the decline of that fishery, staying in service for over 100 years. The lighthouse appears on the City Seal (1851). It survived the major storms of 1869 and 1938. Storms which changed the shape of the island and carried off the Keeper's house and outbuildings. The end of the nineteenth century began a period of physical changes to the light station which included a covered walkway, separate pyramidal fog bell structure, an attached fog bell structure and changes to the light apparatus and interior stairs. More recent changes in this century were driven by changes in technology towards efficiency and automation as well as by storm damage. The record of these changes is remarkably complete, often including the original documents.

The post-World War II decline of the lighthouse, aggravated by its increased accessibility due to the adjacent hurricane dike, as well as its decreasing importance as a navigational aid, reached a low point in 1966 with a fire that gutted the interior.

The physical condition continued to deteriorate until local volunteer groups in the late 1970's and early 1980's began rescue efforts. Those efforts have led to public support and awareness, some important restoration measures, and a place in 1981 on the National Register of Historic Places.

The Palmer's Island Lighthouse we see today is, in its exterior appearance, similar to its original simple design as shown in the 1863 drawing. It has significant physical problems brought on by neglect, vandalism and exposure to the elements. The original stone tower, however, coupled with other physical evidence and the extensive historic documentation, form a solid base for a realistic Restoration Plan.

B. HISTORICAL SUMMARY

Palmer's Island is located in the middle of New Bedford harbor, immediately north of the 1962 hurricane barrier. Historic resources indicate that the island was used as a prison for Indians during King Phillips War (1676) and briefly as a garrison during the Revolutionary War. The island was heavily treed and was considerably larger than at present. Fires and erosion from major storms such as the 1938 Hurricane have left a smaller, barren island with scant evidence of over three hundred years of occupation.

Palmer's Island Light Station was built in the summer of 1849 by Charles Pierce under a contract to the Superintendent of Lights. The 24' high round stone tower was capped with an eight (or nine)

sided lantern housing a fixed white light fueled by whale oil. Three flights of wooden steps with landings spiraled up the interior of the stone tower, ending in an iron ladder to the lantern room. The Keeper's Dwelling was built at this time along with a fuel house (wood) and privy. 1862-3 drawings confirm the presence and appearance of these structures. The 1863 lighthouse plan also shows the stone dike leading from the Keeper's house.

The first fifty years of service saw little recorded physical change except for a replacement of the light lenses in 1857, replacement of the lantern in 1863, and the refurbishing of the iron railing on the stone causeway in 1883.

In 1900, a new pyramidal fog bell tower was constructed to the south of the lighthouse. A 1902 storm destroyed this new structure and probably carried away the new covered walkway on the stone causeway as well. In 1907, plans were drawn for a new fog bell tower attached to the south side of the lighthouse. Apparently before construction, the location of this tower was changed to the east (channel) side, possibly because of better ledge to support the structure. All photos of this era show the bell tower on the channel side.

The year 1900 also saw the replacement of the original interior tower stairs with a new wooden spiral stair. The original 5th order fixed white light was replaced with a 4th order light in 1908. This light may have been a revolving red which was changed

to fixed green by 1931.

A 1905 fire destroyed the hotel/casino on the south end of the island, leaving just the buildings of the light station. By 1916, plans of the island show the addition of a boathouse and oil storage house. The physical appearance of the station remained stable until the 1938 hurricane, which carried away most of the outbuildings, Keeper's House and the attached fog bell tower. The storm eroded a significant part of the island, injured the Keeper, Captain Arthur Small, and drowned his wife.

After the hurricane, a portable garage was moved on to the island, apparently for the use of the light keeper. The hurricane marks an event of great physical change, but also the beginning of the modern era. In 1940, a submerged electrical cable was laid to the tower, and in 1941 the lighthouse was automated to operate from Butler's Flat lighthouse in the outer harbor. At the same time, the remains of the old fog bell tower were removed and a new exposed fog bell was installed on a new concrete platform, controlled from inside the stone tower. A new steel door was installed at the causeway entrance, and the 4th order lens was replaced with a 300 mm duplex lens. Documents show further electrical work for an antenna in 1942, and wiring/controls changes in 1944 and 1954.

The U.S. Army Corps of Engineers bought the lighthouse in 1962 followed by a devastating fire in 1966 which gutted the interior of the stone tower. The advent of the hurricane dike to the

immediate south of Palmer's Island in the 1960's suddenly made access to the island easy. The resulting vandalism accelerated the decline of the structure, a decline only partially arrested by the intervention of volunteer groups in the late 1970's and early 1980's. The Friends of the Lighthouses, Port Support, Inc., and Coast Guard Commemorative Inc. were able to mobilize support to secure the structure, install a temporary iron spiral staircase and repair and paint portions of the structure. That period culminated in 1981 with the installation of a totally rebuilt lantern structure and parapet, the rebuilding of the lantern room floor, reactivation of the light as a privately maintained aid, and a place on the National Register of Historic Places.

Since the early 1980's, support has weakened and, except for determined efforts by a few dedicated individuals, the light tower has deteriorated further.

C. CHRONOLOGICAL SUMMARY

1849 Lighthouse and Keeper's House built.

1857 Replacement of light lenses.

1863 Lantern replaced with 9-sided design. (probably existing)

1883 Causeway Railing refurbished.

1889 Island plan shows no bell tower, attached or separate.

1900 Pyramidal fog bell tower constructed. Wood spiral stairs installed in lighthouse.

1902 Wood frame causeway structure constructed. Pyramidal fog bell tower destroyed by storm.

C. CHRONOLOGICAL SUMMARY (Continued)

1905 Hotel/casino burned down.

1907 Plan of fog bell tower on south side of lighthouse, rather than existing east (channel) side with notation"..... bell tower changed to side opposite entrance door ....."

Separate drawing of concrete foundation for attached bell tower.

Postcard dated 1907 shows pyramidal bell tower, probably used pre-1902 photo.

1908 Annual Report - fog signal is in a "wooden bell tower ..... along side the light tower on the channel side." Original 5th order fixed white light replaced with 4th order (revolving red?).

1910 Photo shows no attached bell tower or pyramidal bell tower, but shows no attached bell tower or pyramidal bell tower, but shows hotel/casino which burned in 1905. These facts would suggest a correct date for the photo of between 1902 and 1905.

1916 Boathouse and oil storage house installed.

1929 and 1930 Photos show bell tower attached to east side (channel side).

1931 Annual Report lists "square wooden structure attached to tower on channel side ....." Light is now fixed green.

1938 Hurricane destroys Keeper's House, outbuildings, bell tower, erodes island.

1939 Site Plan shows bell tower attached on channel side.

1940 Plans show construction drawings to build the existing concrete bell tower platform as an "alteration and improvement." Electric cable installed, new steel door, new 300 mm. duplex lens.

1941 Light automated from Butler's Flat Lighthouse.

1942 Antenna and wiring installed.

1944 Electrical revisions.

1945 Plans show details of bell tower and foundation.

C. CHRONOLOGICAL SUMMARY (Continued)

1954 Electrical changes.

1962 Purchased by the U.S. Army Corps of Engineers.

1962-64 Hurricane barrier erected adjacent to Palmer's Island.

1966 Fire guts interior of lighthouse.

1980 National Register of Historic Places.

1981 New door, temporary spiral stair installed. Refurbished lantern installed. Light reactivated as a privately maintained aid.

D. EVALUATION OF EXISTING CONDITIONS

The light tower on Palmer's Island is the only structure remaining of the various components of the light station which evolved over the years. As a result of fires, storms and vandalism, only traces of the foundations of the Keeper's House and outbuildings survive. The island has been severely eroded by storm action, changing both the topography and vegetation. Sections of the stone causeway to the tower have been damaged by wave action. Sections of the iron causeway railing refurbished in 1863 lay in the water where they fell, with some base brackets still in place on the stone walkway.

The original 1849 stone tower structure remains intact with the remains of the 1940 concrete fog bell platform hanging unsupported on the channel side. Storm action removed the underpinnings of this platform, and it cantilevers out from the tower base, held in place by a concrete key back into the

original stone. This stress to the tower base along with serious erosion of the mortar securing the stonework, has caused stress cracks in the tower and threatens the stability of the structure. (See Appendix for Structural Engineers comments.)

As a result of vandalism and fire, all of the wood door and window frames are gone. Charred ends of the interior stair supports are evident in the masonry notches. The windows have been blocked up and access to the tower is by a deteriorated steel door and frame installed in the early 1980's. The interior brick floor has a concrete post in the center, probably a support for the 1900 spiral stair.

The granite lintel over the door is cracked. The interior tower stone is relatively sound, but needs some repointing and replacement of missing stones. Above the tide line, the exterior masonry parging is mostly intact and needs minor repair. There is evidence of the shape and size of the old covered entrance structure.

The lantern from the 1981 rebuilding is intact with the light in place on the makeshift Lantern Room floor. Portions of the 1863 lantern frame and parapet railing were apparently incorporated into the rebuilt lantern, but the parapet walkway construction and concrete block stub walls below the lantern glass are not historically accurate. The entire lantern structure is not anchored to the tower, but rather rests on its own weight. The 1981 glass panels have bullet holes. The roof and ventilator are

intact, but require some repair.

There is no power to the lighthouse, the light operating on batteries. Additionally, there is no plumbing or other utilities on site.

E. RESTORATION PLAN

1. **CONCEPT OF USE.** With renewed interest in Palmer's Island and the Light Station in the 1970's and 1980's, several plans were put forward, focusing on Palmer's Island as a possible recreational site with public access. It is worth noting that none of these visions address in detail the specifics of use, administration and maintenance of the lighthouse, except as the general concept of a restored, privately maintained aide to navigation under the operational control of a private volunteer group.

   The New Bedford Harbor Master Plan lists in its objectives the goal of dedicating 5% of public waterfront land to passive recreation and/or landscaped space. The Plan discusses the "development potential" of Palmer's Island, capitalizing on its historic past. Coastal Zone Management (CZM) policies support this concept of public recreational use of coastal land within an environmentally sound master plan.

The Palmer's Island Park Plan (1977) speaks of the island as a "...local recreational resource....and regional multi-use resource..."accommodating car and boat traffic as a tourist attraction and educational facility. The plan lists as possible developments the installation of water and sewer service either overland or underwater, power, new landscaping and the construction of a new bulkhead for water access.

The City's Comprehensive Space Plan (1978) calls for acquisition as a recreational site for public access. That scenario projects a facility that would not produce income. It would be maintained by the Conservation Commission and the DPW.

The City's 1979 Application to GSA to acquire Palmer's Island for recreational use as an historic property integrates the island with the Moby Dick Trail and refers to a walking bridge to the hurricane dike, walking trails, and new vegetation. The lighthouse would be restored and operated by Port Support, Inc.

2. **REALITIES OF USE.** A plan to restore and preserve Palmer's Island Lighthouse must take into account the realities of the unrelenting effects of weather, the need for continuing maintenance and the constant threat of vandalism. Success will depend not just on financial support, but more on the establishment of a program of real use which continually sustains public interest and support, ensures the security of

the facility, and enforces a systematic plan of preventive maintenance. That framework might include public school educational programs, ties to historic groups such as the Whaling Museum and the tourism industry.

The concept of continual awareness and use infers the regular if not continual presence of staff to oversee security, maintenance and to tell the story of the lighthouse to the public whose support we seek. As an inaccessible, functioning aide to navigation, the lighthouse might have limited interest to the general public. As a carefully restored part of New Bedford's history with artifacts, documents, photographs and a story to tell, it is far more interesting and stands a better chance of sustaining public interest. A place within the matrix of a "Heritage Park", the Moby Dick Trail, and the visible history of the City must be important elements for the survival of the lighthouse.

The physical realities of that concept of use are bound by the meager surviving remnants of a rich physical history. The issue of what to restore and how to restore it is guided principally by the Restoration Date decided upon, as discussed below. At issue also is the small size of the interior of the lighthouse, which limits what can be done other than effecting access to the light itself. That restriction implies display space elsewhere to display artifacts such as the fog bell mechanism, now housed in the

lightship, earlier light mechanisms and the many photographs and documents relating to the lighthouse. For a remote site to succeed, there must be a strong program to tie the history to the physical reality and give meaning to the restoration.

The lightship exhibit now on the waterfront may be the proper venue for Palmer's Island Light Station exhibited history for the immediate future. Another scenario tied to the grander plans for the island put forth in the late 1970's might include a new Visitor's Center in the form of a reconstructed Keeper's House. A real presence on the island such as a staffed facility would facilitate security, on-site administration and maintenance as well as provide a vehicle to receive the public and tell the story of the Light Station. That possibility assumes the previously discussed improvements to access from the mainland, power, water and other utilities.

It would seem, then, that a phased plan to accurately restore the tower to a specific period as a working lighthouse makes sense. Exhibits, documents, artifacts and the like relating to the Light Station could be at another site, preferably on the island.

The operation and maintenance of the light as a privately-maintained aide to navigation might be under the auspices of the dedicated volunteer groups so critical in the past,

combined with the support of City agencies and public funding. The success of the public aspects of that arrangement will depend on an organized program of public awareness and events focused on the lighthouse,its condition and history.

The compliment to the pragmatic operation and maintenance of the light is the communicated history of the Light Station through exhibits as described above, tours and educational programs. A program with both public and private support which is linked to the public school system, local museums, historic preservation groups, and the tourism industry could sustain an awareness capable of generating continual support.

F. RESTORATION DATE

The physical remains of the tower and its surroundings today resemble most closely its original 1849 appearance with a few qualifications. The Keeper`s House and first outbuildings were also built around 1849 no longer exist. The present lantern, substantially rebuilt in 1981, was probably installed in 1863, and the remains of the iron causeway railing date from 1883.

Beginning in 1900, the lighthouse experienced many physical changes and additions including the covering of the stone causeway, successive constructions of a separate pyramidal bell tower and then attached bell tower, changes to the light configuration and the interior stair construction. All of those changes have been carried away by storm and by technological

change, leaving the present simple structure.

Those facts suggest a Restoration Date of a period around 1885. That date would accommodate the present simple tower, revised lantern and iron causeway railing. The future presence of the Keeper's House and outbuildings, not including the boathouse, oil house or garage, would be historically accurate and be consistent with a plan to develop other structures on the island for recreation/visitor center use.

The difficulties in finding funding for the project support a simpler restoration plan. The more elaborate and therefore expensive configurations of the Light Station in later period would also be more at risk to vandals and more costly to maintain.

The physical components of a restoration plan based on 1885 might include: removal of the 1940 fog bell tower base; repair, regrouting and painting of the tower; reconstruction of the late 19th century wood entrance structure and door; reconstruction of the original ladder/platform design inside the tower; restoration of the iron causeway railing; and repair of the causeway stonework.

Those basic restoration measures could be augmented in the future with accurate rebuilding of the lantern and parapet from original drawings and consideration of a more accurate creation of lantern room and light apparatus. The latter will depend on the realities of Coast Guard needs and requirements for a functioning aide to navigation.

Master plan components for the future as discussed above might include the Keeper's House and outbuildings, power, water, utilities and physical access from the mainland.

G. PRIORITIES/PHASES

PHASE I - EXTERIOR IMPROVEMENTS TO STABILIZE STRUCTURE

Power wash tower	
Point and grout tower	
Miscellaneous metal work	
Paint exterior of tower	
Contract Price	$22,000
(contract to be signed September 1989)	

PHASE II - NEW ENTRANCE DOOR AND ENCLOSURE ASSEMBLY

Demolition of existing door and frame	$ 500
New stainless steel door, frame & hardware	4,500
New entry enclosure	11,000
Estimated Price	$16,000

PHASE III - REMOVAL OF CONCRETE FOG BELL BASE ASSEMBLY

Demolition of existing concrete fog bell platform	$ 5,500
Patching of masonry	5,000
New stainless steel door, frame & hardware	4,500
Estimated Price	$15,000

PHASE IV - RECONSTRUCTION OF INTERIOR LADDER ASSEMBLY

Demolition of existing spiral staircase assembly	$ 4,000
New wood ladder/platform assembly (fire treated lumber)	9,500
Estimated Price	$13,500

PHASE V - REPAIR OF CAUSEWAY & INSTALLATION OF NEW RAILING

Adjustment of stones in causeway structure	$ 3,000
New railing (two pipe)	7,000
Estimated Price	$10,000

BUTLER FLATS LIGHTHOUSE

III. BUTLER FLATS LIGHTHOUSE

A. OVERVIEW

Built in 1898, in New Bedford's outer harbor on New Bedford Channel, Butler Flats Lighthouse is a significant example of the caisson-type lighthouse of which there are similar examples off Sakonnet Point, R. I., Borden Flats Light in Fall River and Hog Island Light in Narragansett Bay. Butler Flats is unusual in that it has brick structure in and above the steel base caisson rather than steel or wood.

With the deactivation of the Clark's Point Light at Fort Taber in 1897, the new Butler Flats lighthouse became the principal beacon for the entrance to New Bedford Harbor. It has remained in continuous service since its construction, presently as an automated, privately maintained aide to navigation. Up until its automation in 1978, it was a manned lighthouse, beginning with Captain Amos Baker whose family manned the light for three generations. As a Coast Guard aide in its later years, it was manned by two officers and five enlisted men.

This lighthouse has survived many ferocious storms without serious damage. Its intact appearance today most closely resembles the post-World War II period, without the original attached fog bell tower, oil casks and other equipment once

arrayed on the fog deck. The 1962 accommodation ladder and boat fender survive in damaged condition. With the exception of the badly corroded iron fog deck roof, and the absence of utilities, the lighthouse is in generally excellent condition. It is partly furnished as it was last manned in the 1970's. Its isolation and difficult access have kept vandalism down, if not eliminated altogether.

The intention of the Coast Guard in 1975 to dismantle the lighthouse and replace it with a day beacon galvanized local support to save and restore the historic structure. The resulting 1978 automation and moving of the fog signal to the hurricane dike signaled a new era of private support and maintenance which continues to this day. Its sound physical condition and survival of key elements are a good starting point for a realistic restoration plan.

B. HISTORICAL SUMMARY

Butler Flats Lighthouse, in New Bedford's outer harbor off Clark's Point, was begun in the summer of 1897. The original harbor entrance light on Clark's Point, dating from 1842, was deactivated in 1869 when the lens was relocated to a new lantern on top of the new stone Fort Taber, then in its eighth year of construction. F. Hopkinton Smith, "famous writer-architect-builder", designed and built the lighthouse, completed April 30, 1898. The original drawings for lighthouse survive and form the core a comprehensive archive of documents.

The circular iron plates of the caisson were bolted together on a nearby island, fitted with a heavy timber wood bottom and floated into position "like a tub." This ninety ton base was sunk to the muddy bottom which had been dredged five feet to receive it. After blasting out the wooden bottom with dynamite, the caisson was pumped out with steam pumps and filled with concrete. Two cisterns for water were built into the lowest level. The bell shaped top of the caisson increased the diameter of the tower to 39 feet across. The successive upper rooms were added in brick including the Kitchen Level, Keeper's Room, Assistants Room, Watch Room, and finally the Lantern Room. The original light had "six bulls eyes with five prisms above and three below", revolving at two revolutions per minute. The light was driven by a clockwork mechanism operated by a sixty pound weight running in a hollow column through the center of the lighthouse to the basement. The light was probably the 5th order flashing white light (Barbier & Benard 1896, Paris) referred to in the 1922 annual report.

On the east side, a wooden fog bell structure was built alongside the brick tower to house the bell clockwork mechanism and the 700 lb. weight which drove the bell to strike a double blow every fifteen seconds. The fog deck was contained by a cast iron railing which also held the boat davits. A cast iron roof of pie-shaped sections completed the enclosure of this exposed deck.

Captain Amos Baker, Jr. activated the light on April 30, 1898 and

remained the Keeper until his death in 1911 at the lighthouse. His son, Assistant Keeper, took over. Records of the lighthouse show very little physical change over the years. A new fog signal clock and lens fittings were added in 1925, a new oil tank cradle was installed on the fog deck in 1928, a new access ladder in 1935, electrical cable in 1940, electric service and heating system improvements in 1954-5, new sanitary facilities in 1962, and new accommodation ladder/boat fender in 1962. The only recorded damage to the lighthouse occurred during the 1938 hurricane when bolts in the caisson at the fog deck level were started out of their holes and a crack appeared in the 1-1/4" thick iron caisson shell.

During the era of Coast Guard operation, various technological changes were instituted involving the electrical systems, operation of fog bell and light, heating and plumbing systems. The crew quarters were "renovated" with paneling, cabinets and other furnishings, probably in the 1960's. Those changes survive today, in most cases covering rather than replacing, the original fine woodwork.

In 1975, the Coast Guard, in a modernization and cost-cutting effort, proposed to dismantle the lighthouse and replace it with a day beacon, reasoning that new hurricane barrier further inshore was a more effective location for the entrance beacon. A local campaign was launched to stop this action and save the historic lighthouse. That effort was successful and culminated

in unmanning and automation of the lighthouse in 1978. The fog signal was moved to the hurricane dike, and in 1979 the City of New Bedford was given license to operate the light as a private aid.

By 1981, volunteer efforts led by Coast Guard Commemorative, Inc. generated plans to operate and maintain the lighthouse. That support, as with Palmer's Island, has been led by a dedicated few who have donated time, labor and materials to ensure limited repair, maintenance and operation of the light to this day. Butler Flats Lighthouse today possesses most of its original components with sufficient documentation to form the basis of a straight forward, historically accurate restoration.

C. CHRONOLOGICAL SUMMARY

1897 Construction on lighthouse begun.

1898 Light Activated on April 30 by Capt. Amos Baker.

1899 Fog bell structure built.

1922 Annual report lists 5th order revolving white light.

1925 New fog signal clock, new lens fittings.

1928 New oil tank cradle on fog deck.

1935 New access ladder

1938 Hurricane starts bolts, cracks caisson shell.

1940 New submarine electrical cable laid to lighthouse.

1954 Electrical service upgrade.

1955 Heating system alterations.

C. CHRONOLOGICAL SUMMARY (Continued)

1960 New sanitary facilities.

1962 New accommodation ladder/boat fender.

1975 Coast Guard proposes dismantling of lighthouse.

1978 Lighthouse unmanned, automated.

1979 City given license by DOT to operate as private aid.

1981 Operation and maintenance by volunteer groups.

1987 National Register of Historic Places.

D. EVALUATION OF EXISTING CONDITIONS

Given the long history of Butler Flats Lighthouse through major storms, changes in administration and technological changes through this century, it is remarkably sound. At the same time, its isolation and difficult access have contributed to the preservation of its historical integrity while keeping vandalism to a minimum. The logistical difficulties of transporting materials to and from the lighthouse have kept change to a practical minimum. Material, once at the station, has tended to remain behind through change rather than being removed. Maintenance rather than replacement seem to have been standard practices.

The present lighthouse has all of its original architectural elements intact with the exception of the attached wood fog bell room and tower on the east side, the original light mechanism and lens, and some interior finishes. The access ladders have been modified through the years, most notably in 1935 and the present

1962 ladder/boat bumper. The boat davits on the fog deck rail are in place but frozen by corrosion. The windows have been blocked up with glass block for protection, but retain original wood window frames, and in some cases sash, on the inside. All of the later additions to the fog deck such as oil casks and tanks are gone.

The steel caisson shell shows rust and some previous repairs, but appears to be in satisfactory condition. The access ladders are bent and damaged, but repairable. In the basement level below the fog deck level, there are some cracks in the exterior masonry walls and lintels within the steel shell, but these do not appear serious (see Structural Engineer's notes). The paint on the interior brickwork here and on the upper levels is peeling off in sheets due to the lack of heat. The cisterns below the basement level appear clean and sound. There are inactive pieces of mechanical equipment in the basement including a generator .

The concrete fog deck slab is in fair condition with some cracking and spalling. Sealing and repair of this slab will eliminate further water infiltration to the interior, freeze/thaw damage and further damage at this level.

The iron railings, hatches and davits on the fog deck are in fairly sound condition, but the iron parapet roof has been badly damaged by rust and salt water corrosion. Above this level, all of the exterior surfaces, railings, grates and the like are in excellent condition as a result of good maintenance and height

above the water. The lantern roof needs some repair with rust and moisture under the paint causing peeling. The lantern glass has been damaged with bullet holes.

The light apparatus is contemporary and operational with no original or earlier equipment in the lantern room. All of the fog bell apparatus have been removed with the exception of some original iron framing members of the fog deck that held the bell.

The interior finishes in most of the spaces suggest a 1960's renovation with paneling that concealed rather than replaced the original woodwork. In places, that woodwork remains along with original doors and parts of windows. The kitchen cabinets on the fog deck-level kitchen seem to date from that renovation as well.

Although a submarine cable was laid in 1954 to bring power to the lighthouse, there is not now electrical service in the lighthouse. That system will require extensive overhaul. The plumbing systems which were upgraded in 1960 need considerable renovation work to be activated. More problematical is the issue of sewage. The current system discharges directly into the harbor. A holding tank or treatment system will have to be devised, possibly utilizing the existing cistern space. Delivery and storage of fresh water will also be difficult to resolve.

The existing, inactive heating system is an oil-fired hot water system that is thirty years old. It will require extensive renovation to reactivate and creates the problem of delivery and

storage of oil. Ceiling hung electric unit heaters on each floor with a low range thermostat could control minimal heat as well as humidity as an interim solution.

E. RESTORATION PLAN

1. CONCEPT OF USE. The remote location of and difficult access to Butler Flats Lighthouse is a dominant factor in any concept of use. Accessibility must be tied to an organized program which could combine public and private support to bring the story of the lighthouse to public school systems, museums, historical group, tourists and the interested general public. The success of such a program, and indeed the survival of the lighthouse, will depend on sustained public awareness and interest. As with Palmer's Island, the lighthouse must be perceived as a valued part of a larger history of the City and the coastline. Without that constantly reinforced frame of reference, the lighthouse is only an isolated relic of periodic interest.

   One scenario might include tours of the lighthouse led by key members of the volunteer groups who have been so important in the rescue and maintenance of the lighthouse, with the City providing water transportation as they have done for this restoration project. Public funding, when available could be devoted to range of important areas from maintenance, repair and restoration projects to education programs, exhibits,

acquisitions and staff training.

Another alternative might have one or more people living on the lighthouse full time in the summer months. College students or teachers with free summers could "run" the lighthouse as combination of caretaker, security guard, tour guide and maintenance person. That alternative infers completely refurbished mechanical and electrical systems and a financial investment that may not be feasible in the near future, but is certainly worth consideration as a long range goal.

A third alternative might be that of a commercial venture, that is, renting out the restored lighthouse for a weekend or longer as an unusual inn or bed-and-breakfast facility. That vision would involve even greater investment as well substantial logistical problems.

It would seem that first scenario of an unmanned lighthouse with organized and regular access, if only during the warm weather, would be a more realistic goal and more financially viable. It would not require full restoration of all systems and utilities to function and could occur during restoration projects.

Whatever the chosen concept of use, the lighthouse will continue to operate as a privately-maintained functioning aid to navigation with maintenance needs. That role may continue

to depend on volunteer efforts, but increased awareness within an organized program of access and education can swell the ranks of workers. With the Coast Guard's cooperative support to date of lighthouse restoration and preservation efforts, it may be possible to enlist Coast Guard Reserve units to work on and/or man the lighthouse.

The issue of maintenance, once the major repair items have been accomplished, should a based on a systematic preventive program rather than a response to problems as they arise. The Coast Guard has evolved standard procedures and materials to properly maintain their lighthouses, and Butler Flats would benefit from following that program. The Coast Guard has made available their interior to a specific period as a working lighthouse while at the same time having enough space for displays, exhibits and documents. For instance, the empty Watch Room below the Lantern Room could display period lens and light apparatus and appropriate documents on the walls. If the actual equipment cannot be found, it might be possible to get the Coast Guard Museum in New London to donate or loan items from their undisplayed stockpile of lights and lens gathered from around the country. Additional artifacts and displays could be arrayed on various levels within the restored shell.

F. RESTORATION DATE

The recorded history of Butler Flats Lighthouse is not as complete as that of Palmer's Island, and the sequence of physical changes is not clearly documented. A recommendation for a restoration date must be guided by some interpretation of the available evidence, the concept of use and by the fiscal realities of the present day.

The architectural integrity of the exterior is virtually intact except for the wood fog bell structure and the 1962 ladder/boat fender. The later addition of oil cask and tanks to the fog deck are gone. Most of the interior reflects a much later period because of being manned into the 1970's. The paneling and kitchen cabinets, probably dating from the mid-1960's or later has generally covered, rather than replaced the original woodwork. The plumbing and heating, dating from the 1950's has made a significant impact on the interior, and may be able to be renovated for use. These interior realities, keeping in mind limited budget, suggest a restoration date between the improved utilities of 1954-5 and the probable date of paneling modernization in the 1960's. That choice would permit staffing of the lighthouse with adequate plumbing, heating and electric systems and also support removing of the paneling and restoration of the earlier woodwork. The removing of the paneled renovation entails removing of the present kitchen cabinets, which will make more difficult the creation of an viable as well as historically accurate kitchen facility. The 1939 plan of the kitchen deck

level shows simple appliances, cupboards of the earlier period, and so could guide the restoration of that level. The practicalities of a manned concept of use might require compromise on this issue.

The exterior, with the absence of equipment and fog bell tower on the fog deck supports this more contemporary period. If we push the date to 1962 to include the present access ladder/boat fender, there is a case for a consistent and financially viable restoration date.

We suggest, then, a restoration date of 1963 based on the reasons presented above. That date will preserve economically the excellent intact architecture of the lighthouse without the threat of vandalism or need for additional maintenance to newly created, costly architectural elements from an earlier period. That date also supports the refurbishing of the existing ladder/boat fender, to maximize safe access to the lighthouse.

G. PROPOSED PHASES/SCOPE OF WORK

PHASE I: IRONWORK

Remove and replace fog deck promenade roof ($30,000)

Repair, restore promenade railing and davits (7,000)

Repair/replacement of access ladders/fenders ($12,000)

PHASE II: CONCRETE/MASONRY

Repair and sealing of fog deck concrete slab ($3,000)

Brick repair, repointing ($3,000)

PHASE III: PAINT EXTERIOR

Power wash exterior of structure,

Paint miscellaneous iron and steel,

Paint caisson,

Paint exterior masonry walls ($20,000)

APPENDICES & ENCLOSURES

Engineers Design Group, Inc.

Thomas E. Arthur P.E.
Luigi R. Di Napoli P.E.

PALMER ISLAND LIGHTHOUSE

OBSERVATIONS

- Constructed of granite rubble stones of irregular shapes and parged on the exterior.
- Inside the walls are in need of repointing and replacement of some stones. Cracks were observed in the lintels above the entryway and the door to the bell tower platform.
- Outside, above the waterline the parging is intact and is in need of only minor repair. Below the waterline much of the mortar does not exist and some stones are missing. Mortar and stone replacement are necessary to insure future stability.
- The concrete base below the concrete bell tower platform has been washed away. This platform now hangs from the lighthouse walls and its weight has caused stress cracks in these walls and threatens to collapse in the future. A base must be installed to support this weight and insure stability of the adjacent lighthouse wall.
- The light deck/observation deck is constructed of radial steel arms supporting a wood deck. The construction looks relatively new and is in good shape, but is not protected from the elements or seagull droppings. Further protection is recommended.
- The frame of the lantern windows which also supports the roof rests upon a circular masonry wall, but is of a slightly different radius and some gaps exist. In addition, the window frame is not mechanically fastened to this wall, but depends only on its weight for stability.
- The roof construction appeared sound structurally, but in need of new roofing.

RECOMMENDATIONS

Given the limited funding for repairs, priorities must be given to those items which threaten the immediate integrity of the lighthouse. Our recommendations for structural repairs in their order of importance are as follows.

1. Support below the existing bell tower platform. The lack of support has caused severe overstressing of the rubble wall jeopardizing the integrity of a portion of the lighthouse wall as well as the platform itself. A foundation either temporary or permanent must be installed to insure the platforms stability.

48 Inman Street • Cambridge, MA 02139 • Telephone: (617) 492-0100 • Telex: 92-1450

2. That portion of the lighthouse wall which rests below the waterline appears to have lost all of its mortar and some stone. Since this is the foundation of the lighthouse itself, the integrity of this portion of the wall must be restored to guard against further deterioration and potentially greater damage to the lighthouse. The stones must be cleaned and replaced where necessary and mortar packed into the voids to bind and strengthen the wall.

3. Although the roof and window frames do not show outward signs that they have shifted, they are not mechanically tied to the lighthouse itself, relying only on its weight. We recommend that this be bolted to the lighthouse walls low enough to insure its stability under the worst storms.

4. The wall on the interior of the lighthouse needs repointing to prevent future loss of stone and mortar and further deterioration. In addition, the cracks at the doorway lintels should be addressed.

5. The observation deck as well as those areas above this deck should be weather proofed to prevent over exposure to the elements and seagull droppings.

6. A system of periodic maintenance is required in the future to guard against major structural repairs being necessary in the future.

BUTLER FLATS LIGHTHOUSE

OBSERVATIONS

- Steel shell around masonry walls at the base of the exterior shows some rusting and previous repairs, but appears to be in satisfactory condition.

- The main deck consists of a concrete slab with some cracking and spalling but otherwise in fair condition on the exterior but in good condition inside the lighthouse itself.
- The steel plate roof above the main deck is corroded beyond repair and is in need of replacement. The posts supporting this roof as well as the rails between them appear in reasonable condition although a few members are missing.

- The exterior masonry walls appear in excellent condition.

- The observation and light deck appeared in good condition including the railings.

- The interior spaces on the upper floors and main deck appeared in sound condition structurally.

- In the basement some vertical cracks were observed in the exterior masonry walls and lintels, however, none appeared serious.

- The storage vaults below the basement appeared clean and sound.

In general, the structure was in sound and satisfactory condition with the notable exception of the steel plated roof over the main deck.

Recommendations

Our recommendations would be as follows:

1. We would recommend that the steel plated roof be replaced in full. Although failure of this roof would not affect the integrity of the main structure, its failure would seriously alter the appearance of this lighthouse.

2. We recommend that the exposed concrete floors be sealed and cracks repaired to eliminate water infiltration, freeze/thaw damage and further deterioration.

3. We would recommend a periodic maintenance to correct minor structural deficiencies as they occur which will avoid major structural rehabilitation in the furure.

89009

Tel. 636-8319

Gerald W. Monjeau

REGISTERED PROFESSIONAL ENGINEER

1107 Russells Mills Road
South Dartmouth, Mass. 02748

7-10-89

Dyer/Brown Associates
65 William Street
New Bedford, Ma.
02742

re: Mechanical systems, Butler Flats Lighthouse, New Bedford, Ma.

Gentlemen,

I have inspected the above systems and the following are my comments and recommendations.

1.The plumbing needs considerable restoration. However, since it discharges sewage into the Acushnet river, a sewage treatment system or a holding tank system would have to be installed along with the delivery of fresh water would make the system economically unfeasable to restore.

2. The existing heating system is an oil burning hot water system installed 30 years ago. Much restoration would be required plus the problem of oil delivery.

I recommend that a ceiling hung electric unit heater be installed on each floor and each connected to a low range thermostat. These would be set at minimum temperature to prevent freezing. In addition, a humidistat shall be connected to all the unit heaters through a proper relay. The humidistat would operate the unit heaters to maintain a proper relative humidity to prevent deterioration.

Sincerely,

Gerald W. Monjeau

AN ARCHAEOLOGICAL RESOURCE RECONNAISSANCE

OF

GOVERNMENT PROPERTY

ON

PALMERS ISLAND

NEW BEDFORD, MASSACHUSETTS

Prepared for:

New England Division
U.S. Army Corps of Engineers
Waltham, MA 02154

By: John S. Wilson
Division Archaeologist
Principal Investigator

Meredith Weiss Belding
Co-investigator

TABLE OF CONTENTS

FIGURES

A. Introduction

In 1962, the U.S. Army Corps of Engineers purchased the Palmers Island Light Station from the U.S. Coast Guard, for use as a temporary navigational beacon. In January 1979 the Corps, through the General Services Agency, announced an intention to dispose of legal title on the property to other Federal, State or local agencies or interests.

A comment was received from the Massachusetts Historical Commission (Appendix 1) stating that the property might contain historic features (the lighthouse) or archaeological resources eligible for inclusion in the National Register of Historic Places. Therefore, in accordance with the Corps responsibilities under Executive Order 11593 and the National Historic Preservation Act of 1966 (P.L. 89-665), a cultural resource reconnaissance was performed on 12 June 1979 by Mr. John S. Wilson, the Division Archaeologist and his assistant, Mrs. Meredith Weiss Belding, accompanied by Mr. Robert Batt of the New England Division's Real Estate Division.

This study resulted in the following report on archaeological resources and a National Register nomination for the lighthouse structure and adjoining property. This report serves as an attachment to the nomination form.

B. Background Research

Palmers Island is located in New Bedford Harbor immediately north of the hurricane barrier (built in 1962-66) (UTM: N 4609800; E 340900). Government Property consists of about one acre on the north end of the island (Figs 1 & 2).

There are no recorded prehistoric sites on Palmers Island, and the rather exposed location at the harbor mouth probably made it a less desirable habitation area than more sheltered mainland portions of the inner harbor. However, historic background indicated a high probability of contact period occupation features. During King Philips War (1676) the island was used as a prison for Indians, as was done at similar locations in Boston Harbor (Bertram 1978) (see Appendix 2). It is unlikely that frame structures were built at that time, and any archaeological features present would be expected to resemble those at prehistoric habitation sites.

Examination of historic maps indicates that the shoreline of the island was considerably altered during the last quarter of the 19th century, presumably through storm wave action. An 1871 map (Beers 1871) shows a considerable area of land to the northwest of the lighthouse, and a small pond, presumably of saltwater. The city seal, adopted in its original form in 1851, also shows the lighthouse on land though the pond is not visible (Fig 3). By 1895 however, Palmers Island appears to have approximately the

same configuration as at present, with the lighthouse at the end of a causeway (Everts & Richards 1895).

Initial historic occupation of the island appears at the time of the American Revolution, when the island was briefly garrisoned (Bertram 1978). Again, no permanent structures appear to have been built.

The first permanent structures built on Palmers Island were the masonry lighthouse and frame keeper's dwelling built by the U.S. Government in 1849. The lighthouse structure is more fully described in the National Register nomination form.

The dwelling was a 1-1/2 story frame structure of 7 rooms, measuring 32 feet 3 inches x 23 feet 5 inches, with an ell on the northeast side, measuring 16 feet 4 inches x 12 feet 5 inches (Figs. 4 & 5). It had 3 doors, including a cellar entrance, and 15 windows, including 3 in the cellar. There was a single chimney with 2 stove flues and 3 fireplaces. The cellar was a full cellar of stone with brick above ground level, and contained a 2,500 gallon capacity brick cistern, measuring approximately 8 feet x 7 feet, which collected drinking water from the roof (U.S. Coast Guard Rg-26). Early 20th century photographs show that the house was a typical small vernacular Greek Revival structure (Figs 6 & 7).

A privy, measuring 5 feet 2 inches x 4 feet 11 inches was also built slightly northwest of the house in 1849 (U.S. Coast

..., Figs 4 & 5). A plank walk from the house to the light tower was also built about this time.

During the nearly 100-year history of the light station, ...eral other outbuildings were constructed, and alterations made ...he house (U.S. Coast Guard Rg-20).

The gale of September 8, 1869 destroyed portions of the plank ... noted above, and damaged the keeper's boat. Later in that ... the walk was rebuilt and a frame boathouse constructed. The ...er structure measured 14 feet 4 inches x 27 feet 4 inches and ... 54-foot way with hand operated winch and fall (Figs 4, 5 &

In 1885, a barbed wire fence was built along the Government ...perty line (Figs 4 & 5).

In 1887, a brick floor was laid in the house cellar and the ... repaired. This is the only reference to a wharf in ...ulted documents. It is not shown on the 1889 maps of the ...ght station. A new 155-foot long walk was built at this time, between the dwelling and lighthouse (Fig 4).

The 1889 maps noted above (Figs 4 & 5) show a frame fuel house, measuring 14 feet 5 inches x 10 feet 5 inches, immediately north of the dwelling. This was probably built at an earlier ...te, as the large quantities of fuel necessary for the light ...eration would have needed more storage space than the dwelling ... light tower could provide. A brick well is also shown near the

rear entrance of the dwelling, where a porch has also been added. The well appears to have gone out of use by 1931.

In 1901, 75 tons of riprap were laid down on the eastern beach, opposite the house (Figs 8 & 9) (U.S. Coast Guard 1939).

In 1905, a brick oil house was built on the property line south of the dwelling. This structure measured 8 feet 8 inches x 10 feet 8 inches and contained a 257 gallon kerosene tank to hold fuel for the light (Fig 8). The old fuel house may have been converted to a storage shed at this time.

On September 21, 1938, a hurricane destroyed the dwelling, and presumably all other frame structures on the island except the lighthouse. A portable 2 car garage was moved to the island, and served as operator's quarters until the light was wired for automatic operation in 1941.

A map of Government property drawn in 1939 (U.S. Coast Guard 1939) (Fig 8) shows the dwelling cellar with cistern, the well, the oil house, the riprap on the eastern beach, as well as brick and concrete retaining walls on the west beach, and concrete walk sections from the front to back doors of the house site and in the vicinity of the boathouse location. The boathouse, fuel house, and privy, which probably had no substantial foundations, are not indicated, and presumably had no visible remains after the hurricane.

C. Field Investigation

The field investigtion involved two components: surface examination of Government property on the island and subsurface testing with shovel and 40 cm. soil corer.

Most of the island was found to be covered with dense vegetation, primarily overgrown domestics such as asparagus, roses, and laurel, or field varieties such as poison ivy, daisies, and varied grasses. The east shore is primarily open beach, while the western shore has several rocky points (Figs 9-24). Tidal range averages 3.7 feet.

No prehistoric material was observed on the exposed shoreline or the few relatively open areas above the beach. A considerable quantity of historic period debris was evident on the beach, particularly on the western shore. Most of this material is recently deposited wood or plastic flotsam, but some steel scrap probably dates from the latter end of the lighthouse operation period. The beachline location and poor preservation of this debris severly limits any analytical value it might have in interpreting activity at the lighthouse or keeper's dwelling.

An effort was made to locate the keeper's dwelling site and other structures associated with it. The dwelling foundation's northern ell is entirely overgrown with laurel and roses and could not be defined, nor could the well at its eastern side. Portions of the concrete walk which followed the eastern and northern walls

of the house foundation were discernible. As expected, the privy and fuel house have no visible remains.

The main portion of the dwelling foundation was readily visible, and is constructed of dry laid fieldstone, as was typical of the period. This feature was filled in - 1962. The remains of the brick cistern are readily identifiable, but it was apparently demolished in the foundation filling, and now consists of several large sections of mortared brick lying haphazardly within the foundations (Figs 13 & 14).

The 1.5-foot high brick wall to the west of the house site is not visible, and was apparently demolished in the foundation filling, or by subsequent storm waves. Numerous brick fragments line the western shores. The abutting concrete wall, however, remains intact. The oil house at the southern Government property boundary is now gone, though the badly rusted remains of a steel tank lying on the western beach may be from this feature. A concrete platform with mortared brick floor is evident at the former oil house location. Its western end is eroded, presumably by undermining due to storm waves. This feature probably supported the building's superstructure. The section of concrete walk near the boathouse location could not be located. As expected, the boathouse and the 1939 temporary keeper's quarters have left no remains.

Subsurface testing consisted of random coring in areas

sufficiently distant from observed historic features to present possibly undisturbed horizonation. Extremely loose gray sand was found throughout and rock was generally encountered at 30-40 cm depths. Two 0.5 m square shovel test pits (TP-A & TP-B) were excavated near the southern property boundary in areas of greatest elevation (4.3 feet above mhw) within the Government property and also fairly distant from the filled dwelling foundation (Figs 8, 15 & 16). TP-A revealed loose gray sand to 2.0 cm depth with dark brown sandy loam to bedrock at 35 cm depth, while TP-B revealed gray sand to bedrock depth at 30 cm. Brick and mortar fragments were present within the gray sand horizon, indicating that this level is either fill or bulldozer disturbance from the foundation filling activity. The dark horizon may be original ground level, or more probably a truncated surface left after the disturbance above.

D. Interpretation

The presence of intact prehistoric or contact period cultural resources, or of identifiable remains of the Revolutionary War occupation of the island is extremely remote within the Government property bounds. Historic maps indicate that extensive landscaping was done in the area around the lighthouse keeper's dwelling. This activity may have disturbed any resources in the area. Comparison of 1871 and 1895 maps of the island, though both are sketchy, indicates that a considerable area of land north of

the lighthouse eroded during the last quarter of the 19th century. Any sites along that part of the shoreline have obviously been destroyed. Finally, the filling of the dwelling foundation in the 1960's disturbed virtually the entire surface of the island within Government property bounds, leaving approximately 20-30 cm depth of fill or disturbed material. The probability of intact cultural resources remaining in the 0-15 cm below this depth is extremely unlikely in view of the extent and degree of disturbance observed.

At the time of topographic mapping of the island in 1939, the dwelling ruins and associated features were readily identifiable and could have constituted an historically and archaeologically valuable site. However, the action of storm waves and the heavy disturbance of terrain throughout the Government property during filling of the foundation has probably destroyed the scientific interpretive value of any subsurface features at the site. In the case of features visible on the surface, the historic maps, documents, and photographs provide much more information than could be obtained by examination of these features in their present condition.

E. Recommendations

With the exception of the lighthouse, there appears to be no cultural resources within the Government property bounds on Palmers Island of sufficient physical integrity to be eligible for nomination to the National Register of Historic Places.

Obviously, the lighthouse and keeper's house constitute a unit in the historic sense. Though the keeper's house would not be eligible for the National Register by itself, it could be legitimately linked to the lighthouse's eligibility, on historic grounds, and it might be desirable to include it in a restoration or preservation plan for the lighthouse, by clearing the foundation of loose debris and brush and providing interpretive signs.

REFERENCES CITED

Beers, D.G. & Co.
1871 Atlas of Bristol County, Massachusetts. New York, D.G. Beers & Co.

Bertram, C.
1978 Background collected for historic inventory form. City of New Bedford Office of Historic Preservation. (Unpublished ms).

Everts, L.H. & L. J. Richards
1895 Atlas of Bristol County, Massachusetts Philadelphia, Everts & Richards.

New Bedford Standard Times
(n.d.) Early photographs in files

U.S. Coast Guard RG-26 (Unpublished records in National Archives)

a. Construction contract for Palmers Island Light Station - 1849.

b. Map of Palmers Island Light Station - 1889.

c. Map of buildings: Palmers Island Light Station - 1889.

d. Records of alterations to Palmers Island Light Station.

e. Description of Palmers Island Light Station - 1931.

U.S. Coast Guard
1939 Map of Palmers Island Light Station - 1939, with revisions of 1962 by U.S. Army, Corps of Engineers.

U.S. Geological Survey
1964 New Bedford, North 7.5 min. Quadrangle

APPENDIX 1

Correspondence

PAUL GUZZI
Secretary of the Commonwealth

The Commonwealth of Massachusetts
Office of the Secretary
Massachusetts Historical Commission
294 Washington Street Boston, Massachusetts 02108
(617) 727-8470

RV
1/5

January 3, 1979

A.A. Ausiello, Realty Specialist
Real Property Division
Federal Property Resources Service
General Services Administration
Region One
John W. McCormack Post Office and Courthouse
Boston, Massachusetts 02109

Re: Disposal of Tract "A"-Palmer Island, New Bedford, Massachusetts

Dear Mr. Ausiello:

My office has consulted with the New Bedford Office of Historic Preservation. That office is currently researching the history of the Palmer Island Light. From their information and information you have supplied us with, it appears that the Light may be eligible for listing in the National Register of Historic Places.

I suggest, in accordance with 36CFR 800, that GSA request a determination of eligibility for the structure and parcel. As you know, should the Light be eligible it will be necessary to comply with the Advisory Council's Procedures for the Protection of Cultural Resources before completing this disposal.

If you should have any questions please contact Joe Orfant of my staff.

Sincerely,

Patricia L. Weslowski

Patricia L. Weslowski
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

cc: Antone Souza
Sharon Conway

PLW/JHO/ts

General Services Administration, Region 1
John W. McCormack Post Office and Courthouse
Boston, MA 02109

Date January 16, 1979

Reply to Attn of 1DR

Subject Tract "A" - Palmer Island
New Bedford, Massachusetts
D-Mass-675

To

M. S. Phillips, Chief
Real Estate Division
New England Division, Corps
of Engineers
Department of the Army
424 Trapelo Road
Waltham, Massachusetts 02154

By letter dated January 3, 1979 (copy enclosed), the State Historic Preservation Officer for the Commonwealth of Massachusetts has advised this office that, based upon currently available information, the subject property may be eligible for listing in the National Register of Historic Places.

Although the letter requests that GSA seek a determination of eligibility for the property, this responsibility rests with the holding agency which, in this case, is the Department of the Army.

It is requested, therefore, that your Department take appropriate action to comply with the State Historic Preservation Officer's request on this matter.

For your information, we expect that the City of New Bedford will apply to acquire this property for historic monument purposes.

A. AUSIELLO
Realty Specialist
Real Property Division
Federal Property Resources Service

Enclosure

APPENDIX 2

City of New Bedford Historic Commission
Historic Survey Form

City of New Bedford · Office of Historic Preservation

Room 13 · City Hall · 133 William Street
New Bedford, Massachusetts 02740
(617) 999-2931

February 26, 1979

Mr. John S. Wilson
Environmental Analysis Branch
Planning Division, New England Division
Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

Dear Mr. Wilson:

As we discussed on the phone, I am enclosing a copy of our office's research on Palmer's Island, New Bedford. As you will see the prepared form is actually for the lighthouse located on the island; however, the attached historical significance covers the entire island.

I hope this information will prove useful to you in your archaeological survey. If we may be of any further assistance, please do not hesitate to contact us.

Our office would, of course, be very interested in the results of your survey and would appreciate a copy of any information you compile.

Very truly yours,

Peter M. Jacobsen

PETER M. JACOBSEN
Financial Technical Advisor

PMJ/maa

Enclosure

north.

In Area no.	Form no.
32	1

1. Town New Bedford

Address Palmer's Island

Name Palmer's Island Lighthouse

Present use Abandoned

Present owner United States Government

3. Type of structure (check one)

bridge	___	pound	___
canal	___	powder house	___
dam	___	street	___
fort	___	tower	___
gate	___	tunnel	___
kiln	___	wall	___
lighthouse	X	windmill	___

other ___

5. Description

Date 1849

Source Registry of Deeds

Construction material Stone - rubble

Dimensions Approximately 35 feet high

Setting ___

Condition Poor

6. Recorded by Christine Bertram

Organization Office of Historic Preservat

Date December 29, 1978

DO NOT WRITE IN THIS SPACE
USGS Quadrant ___

MHC Photo no. ___

7. Original owner (if known) United States Government

Original use Lighthouse

Subsequent uses (if any) and dates None

8. Themes (check as many as applicable)

Aboriginal	____	Conservation	____	Recreation	____
Agricultural	____	Education	____	Religion	____
Architectural	X	Exploration/ settlement	____	Science/ invention	____
The Arts	____	Industry	____	Social/ humanitarian	____
Commerce	X	Military	X	Transportation	X
Communication	X	Political	____		
Community development	____				

9. Historical significance (include explanation of themes checked above)

SEE ATTACHED.

10. Bibliography and/or references such as local histories, deeds, assessor's records, early maps, etc.

New Bedford Registry of Deeds: Assessor's Office - Maps of 1871, 1881, 1885.
New Bedford Public Library: Genealogy Room: "Pioneer Popes", "The Pope Family" "Thomas Pope", "History of New Bedford", Standard-Times Microfilm.

PALMER'S ISLAND
Plat 32 Lot 1

HISTORICAL SIGNIFICANCE

Palmer's Island is a six acre island at the base of the Acushnet River. The island was named in the 1650's in honor of William Palmer after he was scalped by the Indians. He was one of the first of seven freemen to settle in the territory of Dartmouth.

The island, which was once covered with cedar trees, was first used as a prison for Indians awaiting trial in Plymouth. One Indian in particular who awaited trial on the island in 1676 was named "Little Eyes." Another Indian "Rightfoot", who proved himself friendly to the settlers, was appointed as guardian.

During the 1700's there is mention in deeds of three owners of Palmer's Island. The first two were Captain Seth Pope and Jonah Hathaway, who purchased land on the southern portion of the island on March 30, 1710. No history could be found of Jonah Hathaway, but Seth Pope was quite influential in the community.

Seth Pope was the son of Thomas Pope who came to Plymouth on the ship "Mary and John" in 1627. Thomas served in the colonial army, was the town surveyor and constable, and served on the jury. But his tendency to express his opinions freely together with his ready temper involved him in disputes which led to arrests and fines on several occasions. In 1673 he moved his family to Dartmouth Territory. When he landed on the Acushnet River he negotiated with the Wampanoag Indians for 172 acres of land which today comprise a large portion of the town of Fairhaven.

Seth Pope was born in January of 1648. When he was a young man he was ordered to depart from the town of Sandwich for pedaling goods. When he left he vowed he would eventually come back and buy the town. In 1685 he was chosen Selectmen for Dartmouth. Four years later he was re-elected and was also chosen as a representative for the Plymouth General Court. By 1691 he was made Justice of the Peace for Dartmouth. In 1700 he made his promise a reality by purchasing a large portion of Sandwich including a grist mill, fulling mill and a weaving shop.

The third owner of the island in the eighteenth century was named in a deed dated January 17, 1736. In this deed Joseph Russell, Jr. willed his share of Palmer's Island to his son Caleb Russell. Joseph Russell, Jr. had arrived in Dartmouth in 1711 and purchased most of the land south of Union Street along the Acushnet River.

Palmer's Island was used as a garrison during the Revolutionary War.

Although the property on Palmer's Island passed through many hands, it was not until 1849 that the first building appeared. At that time one acre of land was purchased on the northern tip of the island by the United States Government for the construction of a lighthouse and home for the lighthouse keeper. In this period the whaling industry was still growing and New Bedford had one of the busiest harbors in the

For almost a hundred years lighthouse keepers lived in the home and kept the waters illuminated for safe travel. In September of 1938 a hurricane destroyed the house and the keeper's wife, Sara Small, was washed away by a wave. She had been trying to reach her husband in the lighthouse. The keeper, Captain Arthur A. Small, was injured and took a leave of absence. While Captain Small was keeper, the light was changed from a revolving red beam to a fixed green light.

During Captain Small's leave a substitute keeper was hired and a portable two car garage was moved to the island and equipped for living quarters. The substitute keeper's name was Martin Maloney. He had become a hero during the 1938 hurricane: He had been stationed at Bullock's light in Providence and had miraculously kept the light going as waves crashed into the lower part of the lighthouse. Captain Maloney was still tending the lighthouse on Palmer's Island in August of 1939 when the country celebrated the 150th anniversary of National Lighthouse Week. He invited anyone interested to visit the lighthouse where he explained its operation.

The lighthouse no longer required a keeper when it was wired for operation from the Butler's Flat lighthouse (located on the west side of the channel in the outer harbor). In 1966 the lighthouse caught fire and the inside was completely destroyed.

In 1866 the other five acres of the island were owned by George W. Furber who, together with Hutching Tillinghast, built a summer home. A few years later the building was altered and made into Furber's Hotel. The hotel soon gained a questionable reputation because of the entertainment provided for the whalers between trips. In 1890 a dance hall and bowling alley were added. Many passengers were carried from the mainland on the steamer "Genevieve."

In 1888 the property was acquired jointly by Abbot P. Smith and J. Arthur Beauvais who were often referred to as members of a syndicate. Rumors spread of the operation of a gambling casino on the island.

In 1893, Dr. Ezekiel H. Noble acquired the property and converted it back into a summer home. Not long afterwards the property reverted back to Mr. Smith and Mr. Beauvais who in turn sold it to the Hathaway Mill Corporation and the Acushnet Mill Corporation.

On August 30, 1905, the house - which had just been repaired for a tenant - caught fire and burned to the ground. The spectacular blaze, which was viewed by people on both shores of the Acushnet River, may have been caused by youngsters seen playing in the area.

Before the old hotel was destroyed several proposals had been made for its use. One summer Dr. Immanuel P. Feiffer, who claimed to have invented a cure for rheumatism, rented the hotel for use as a sanitarium; however, his plans never materialized. The City had also proposed to

buy the building for an infirmary.

Joseph B. C. Tuell was the only child ever born on Palmer's Island. He was the son of one of the lighthouse keepers. When he died in 1935 at the age of 77 he had his ashes sprinkled over the island. His sister Sarah was married to Henry Worth, the famous New Bedford lawyer and historian.

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FIGURES

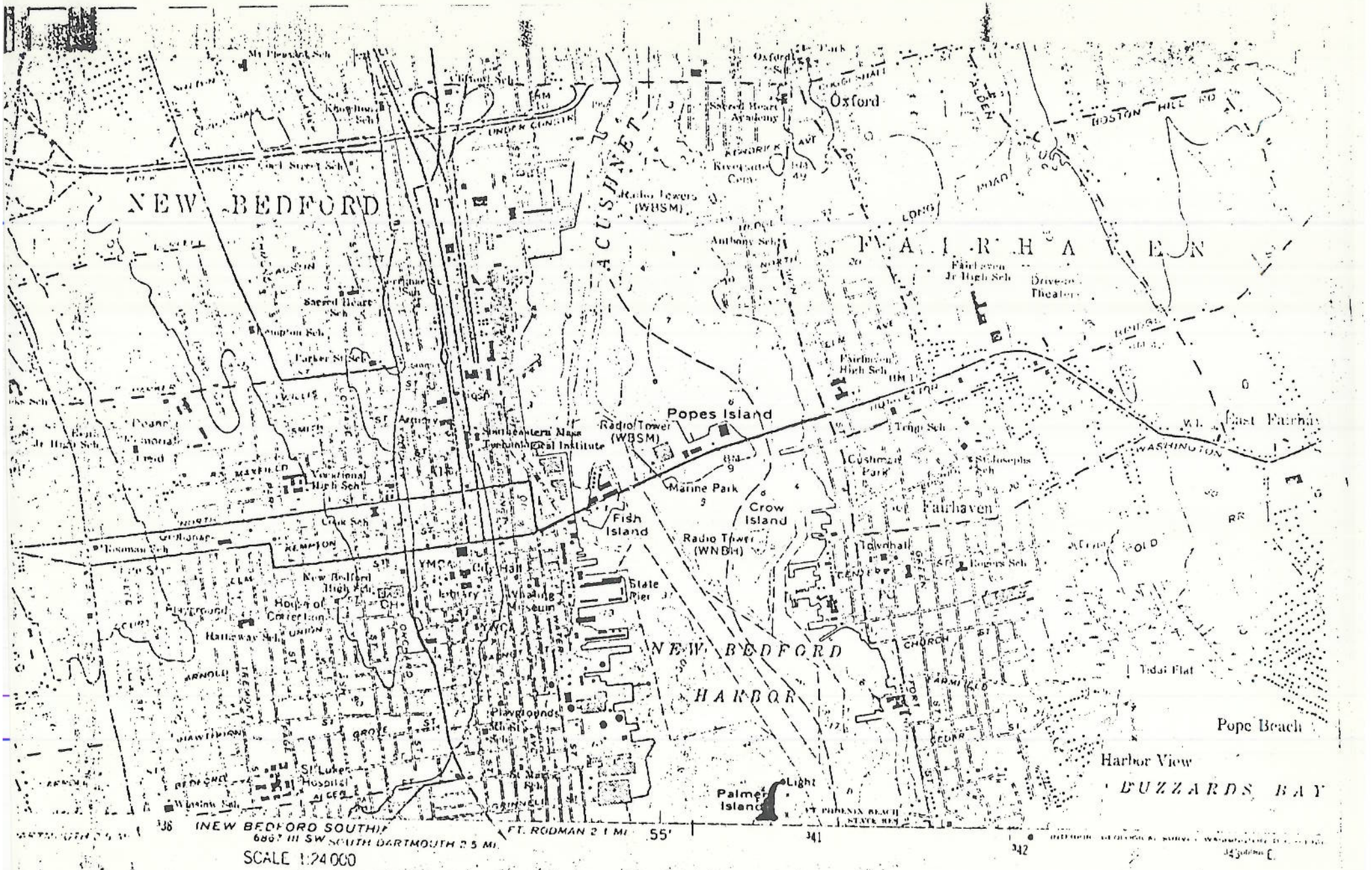


FIG. 1 - 1964 U.S.G.S. NEW BEDFORD 7.5 MIN. QUADRANGLE

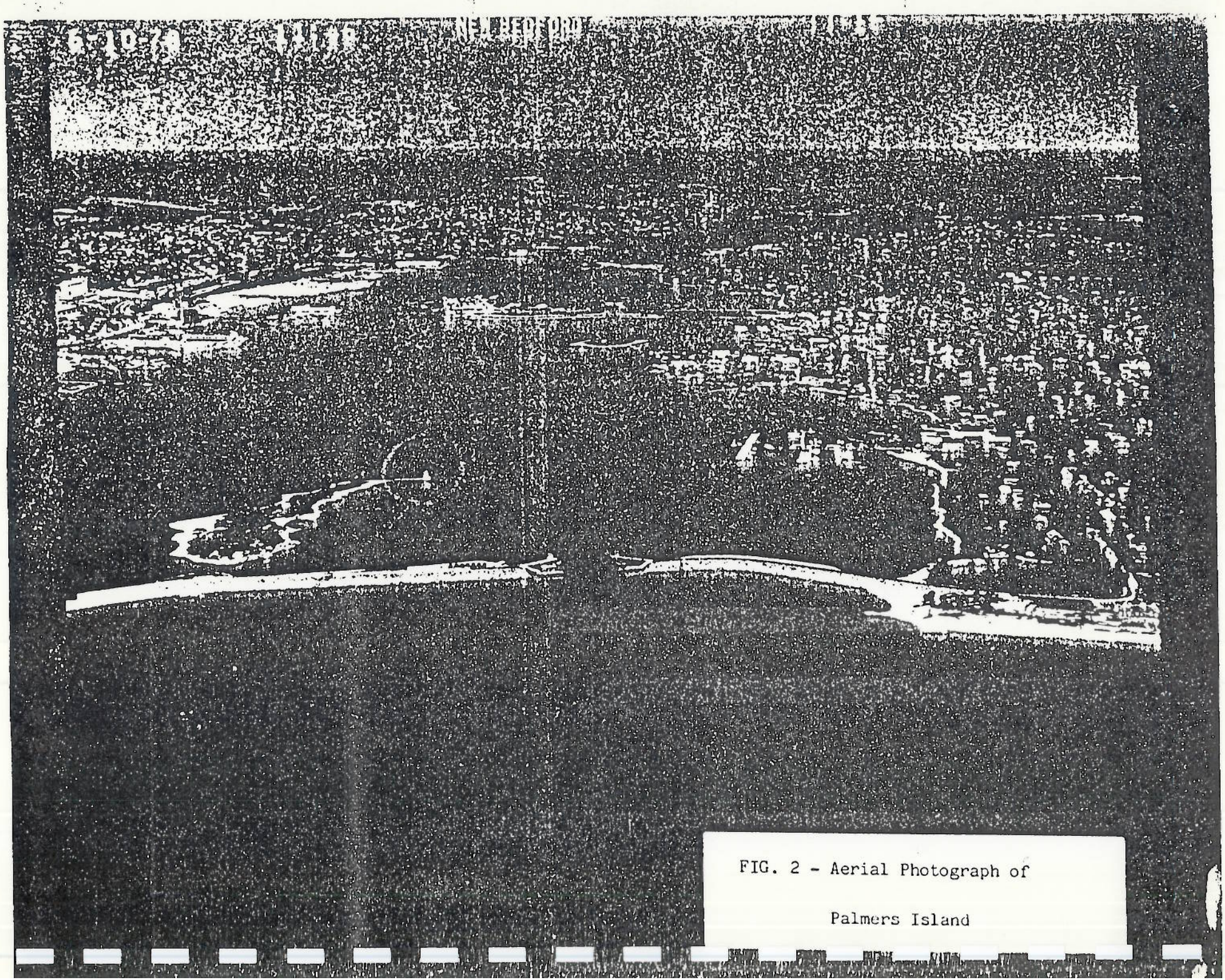


FIG. 2 - Aerial Photograph of

Palmers Island

FIG. 3 - 1851 CITY SEAL OF NEW BEDFORD

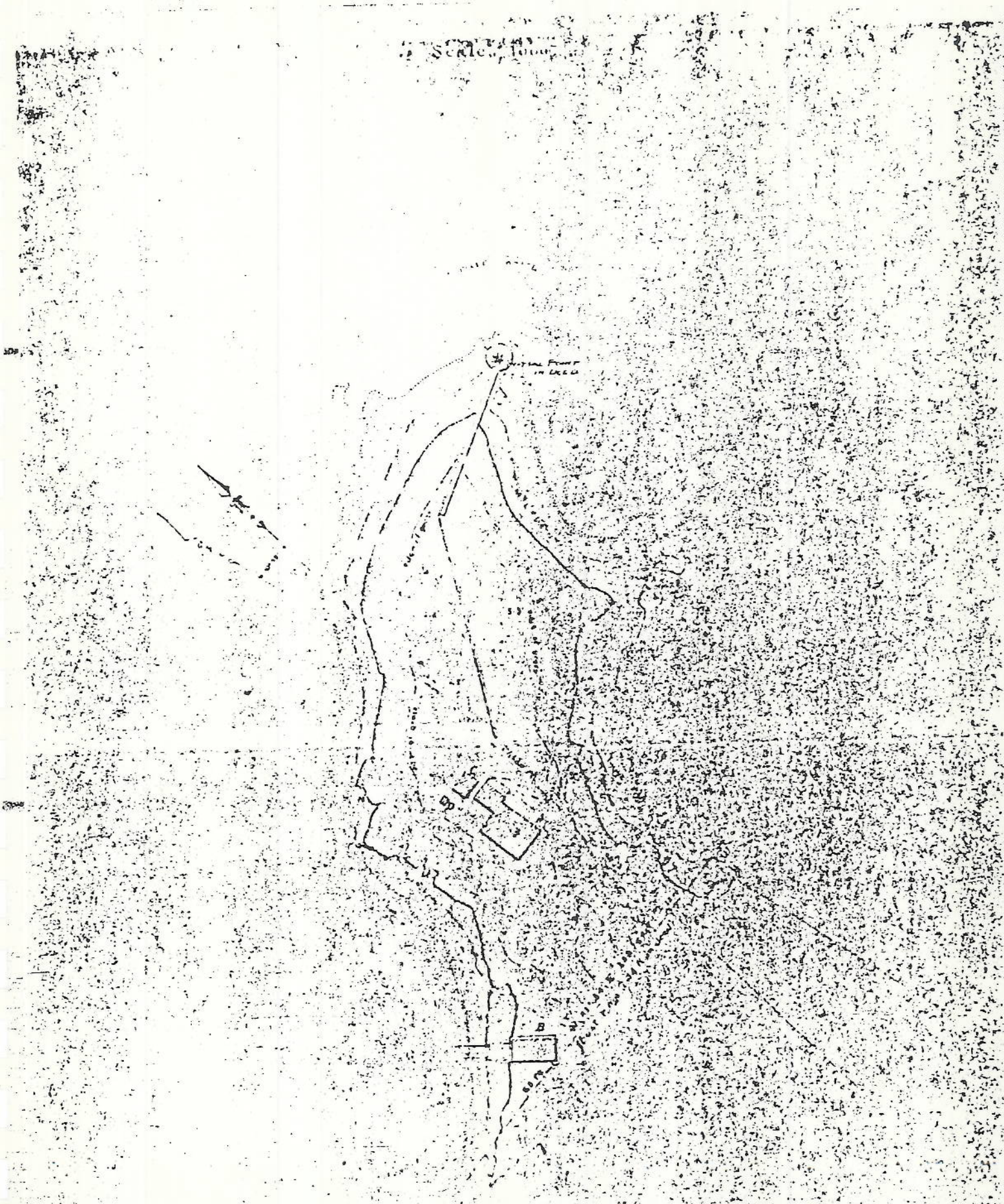
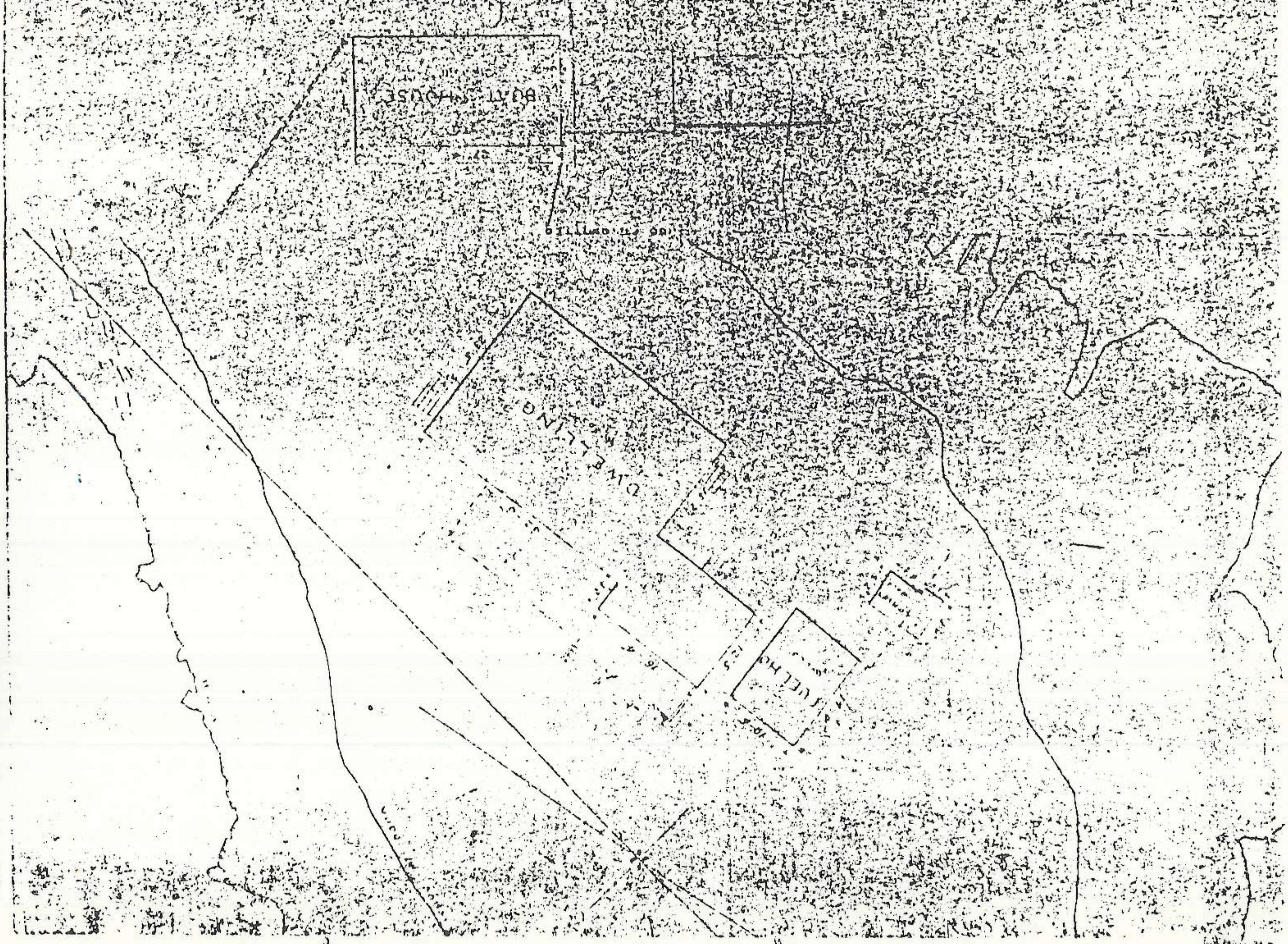


FIG. 4 - 1889 MAP OF PALMER'S ISLAND LIGHT STATION

FIG. 5 - 1889 MAP OF BUILDINGS



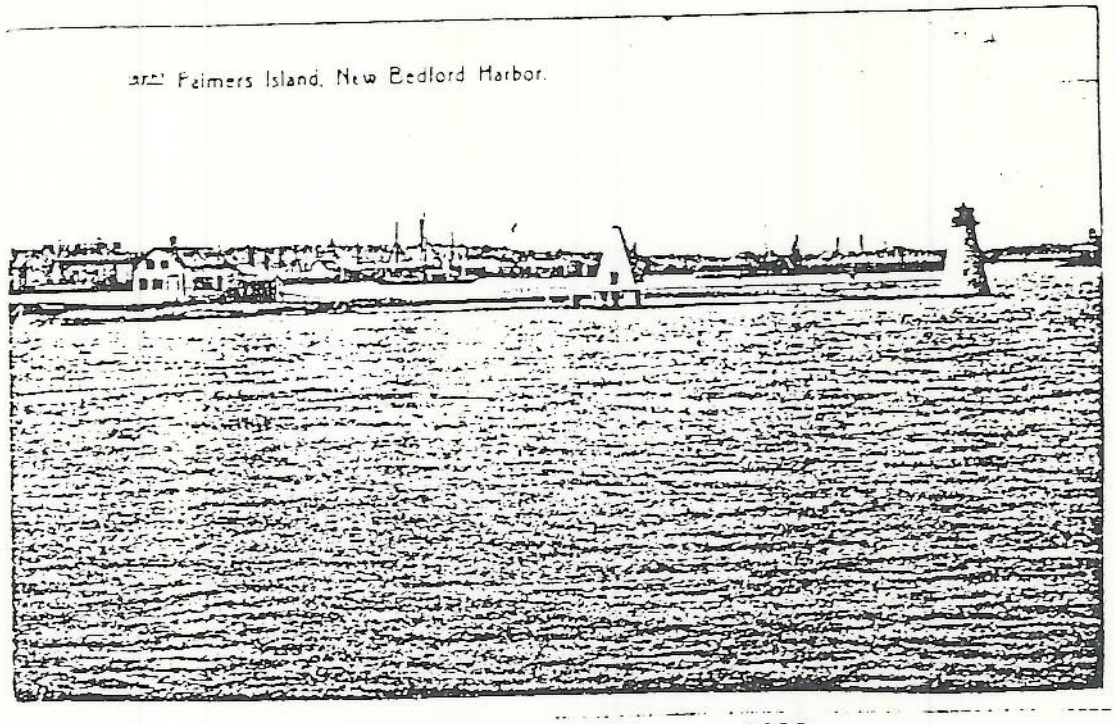


FIG. 6 - POSTCARD PHOTOGRAPH, ca 1900:
SHOWING KEEPER'S HOUSE TO LEFT

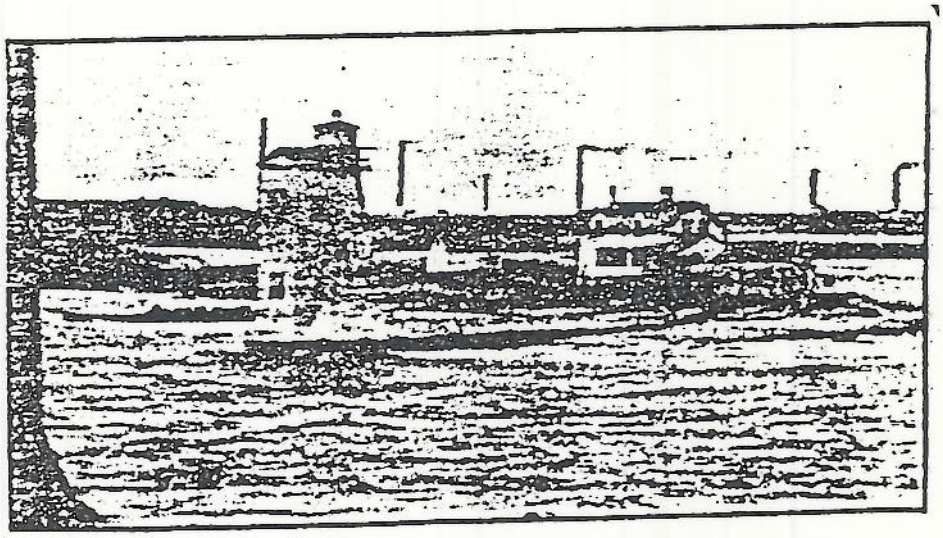


FIG. 7 - 1929 PHOTOGRAPH: SHOWING KEEPER'S HOUSE
& FUEL HOUSE TO RIGHT & BOATHOUSE IN CENTER REAR

FIGURE - 8

1939 Map of Palmer's Island

Light Station

with 1962 Revisions

&

1979 Test Pit Locations

(See Original for Map)

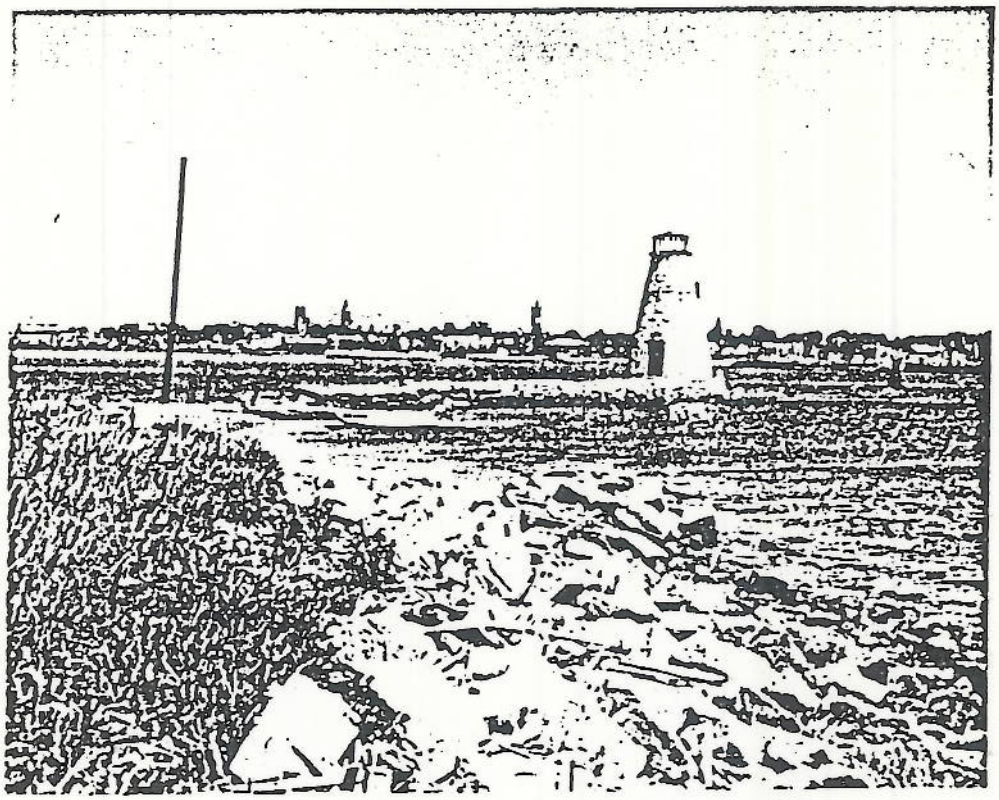


FIG. 9 - EASTERN BEACH, LOOKING N. TOWARD LIGHTHOUSE: SHOWING RIPRAP

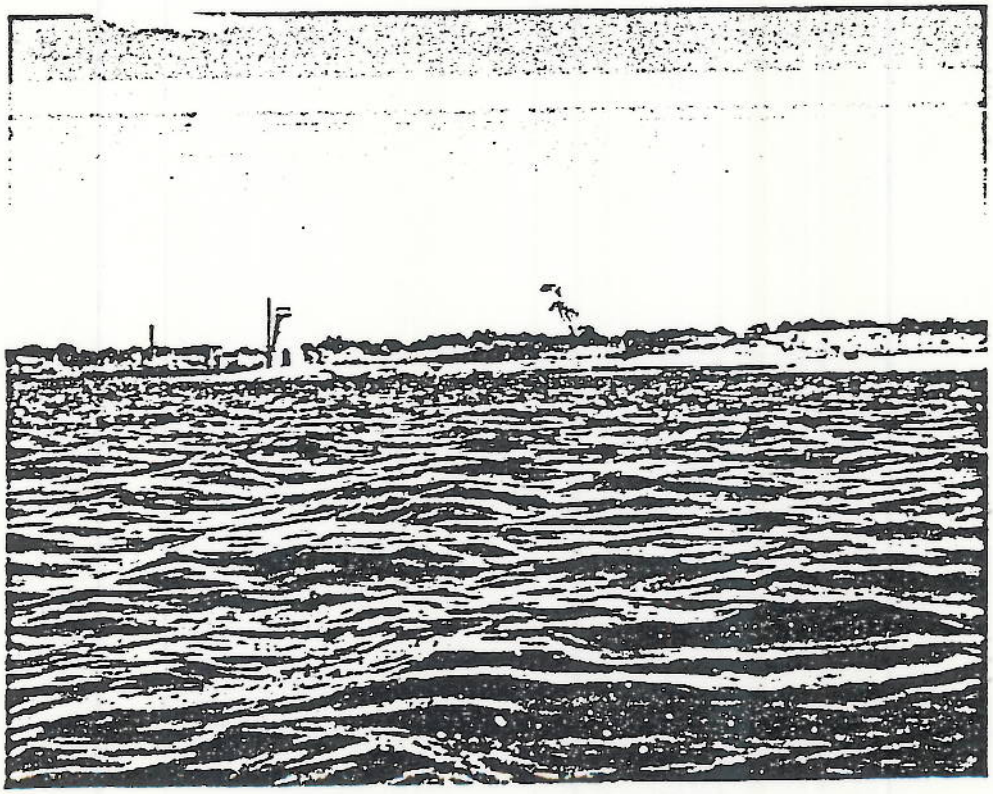


FIG. 10 - WESTERN BEACH: HOUSE WAS IN AREA OF TREE

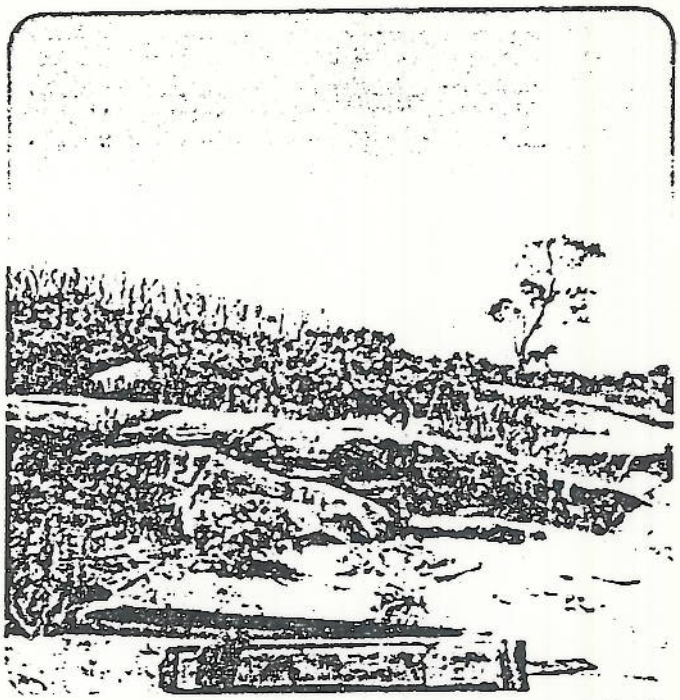


FIG. 11 - ROCKY AREA ON WESTERN BEACH

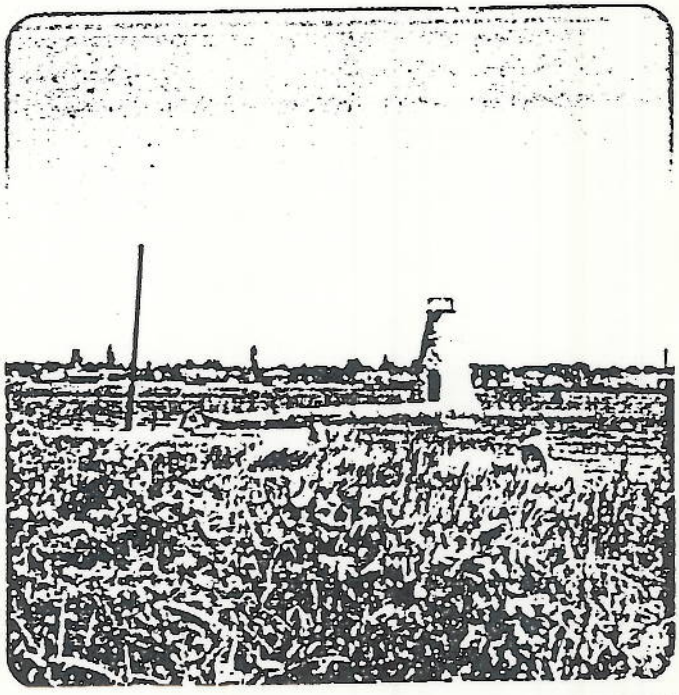


FIG. 12 - VIEW N.E. FROM DWELLING CELLAR

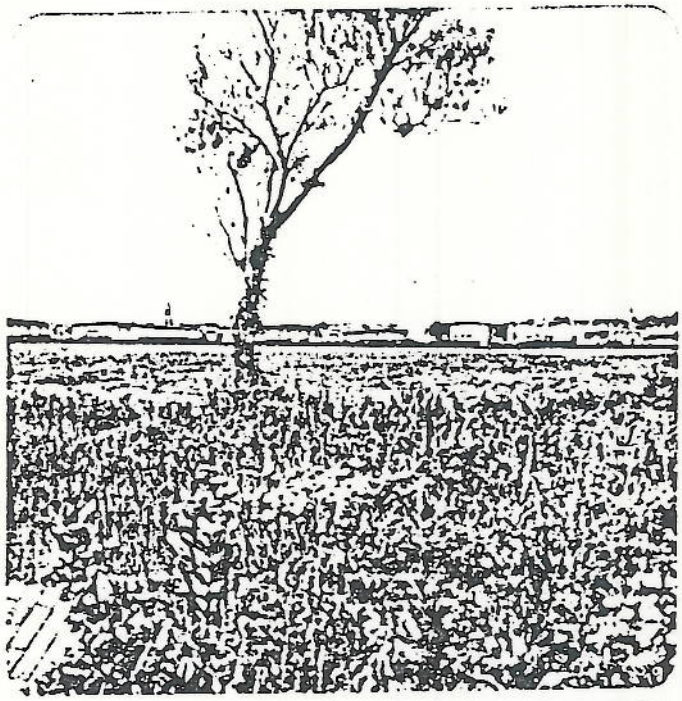


FIG. 13 - VIEW E. FROM DWELLING CELLAR: CISTERN FRAGMENT IN LOWER LEFT

FIG. 14 - CISTERN FRAGMENT: VIEW TO E.

FIG. 15

FIELD NOTE FORM

PROJECT: Palmer's Island Light Station

UNIT #: TP-A

DATE: 6/12/79

LOCATION: Slightly N of property line, W of oil house site

PROFILE #:

TOTAL DEPTH: 35 cm., 1/2 m. sq.

PHOTO #:

SOIL DESCRIPTION:

Loose gray sand, to 20 cm, dark brown sandy loam below 20 cm., bedrock at 40 cm. depth

ARTIFACTS:

None

INTERPRETATION/ADDITIONAL COMMENTS:

Area appears heavily disturbed by storn waves, and mechanical filling of the dwelling cellar to the North.

FIG. 16

FIELD NOTE FORM

PROJECT: Palmer's Island Light Station

UNIT #: TP-B

DATE: 6/12/79

LOCATION: Approx. NNW of TP-A, rear edge of obvious surface disturbance around dwelling site.

PROFILE #:

TOTAL DEPTH:

PHOTO #:

SOIL DESCRIPTION:

Gray sand to 30 cm. (bedrock)

ARTIFACTS:

Brick and Mortar fragments in upper 10 cm., brick fragment at approx. 20 cm. depth.

INTERPRETATION/ADDITIONAL COMMENTS:

Disturbed in dwelling cellar filling.

FORM F - STRUCTURE

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

In Area no.	Form no.
32	1

2. Photo (3x3" or 3x5")
Staple to left side of form
Photo number_____

4. Map. Draw sketch of structure location in relation to nearest cross streets, buildings, other structures, natural features. Indicate north.

1. Town New Bedford

Address Palmer's Island

Name Palmer's Island Lighthouse

Present use Abandoned

Present owner United States Government

3. Type of structure (check one)

bridge	____	pound	____
canal	____	powder house	____
dam	____	street	____
fort	____	tower	____
gate	____	tunnel	____
kiln	____	wall	____
lighthouse	X	windmill	____

other_____

5. Description

Date 1849

Source Registry of Deeds

Construction material Stone - rubble

Dimensions Approximately 35 feet high

Setting_____

Condition Poor

DO NOT WRITE IN THIS SPACE
USGS Quadrant_____

MHC Photo no._____

6. Recorded by Christine Bertram

Organization Office of Historic Preservation

Date December 29, 1978

(over)

PALMER'S ISLAND
Plat 32 Lot 1

HISTORICAL SIGNIFICANCE

Palmer's Island is a six acre island at the base of the Acushnet River. The island was named in the 1650's in honor of William Palmer after he was scalped by the Indians. He was one of the first of seven freemen to settle in the territory of Dartmouth.

The island, which was once covered with cedar trees, was first used as a prison for Indians awaiting trial in Plymouth. One Indian in particular who awaited trial on the island in 1676 was named "Little Eyes." Another Indian "Rightfoot", who proved himself friendly to the settlers, was appointed as guardian.

During the 1700's there is mention in deeds of three owners of Palmer's Island. The first two were Captain Seth Pope and Jonah Hathaway, who purchased land on the southern portion of the island on March 30, 1710. No history could be found of Jonah Hathaway, but Seth Pope was quite influential in the community.

Seth Pope was the son of Thomas Pope who came to Plymouth on the ship "Mary and John" in 1627. Thomas served in the colonial army, was the town surveyor and constable, and served on the jury. But his tendency to express his opinions freely together with his ready temper involved him in disputes which led to arrests and fines on several occasions. In 1673 he moved his family to Dartmouth Territory. When he landed on the Acushnet River he negotiated with the Wampanoag Indians for 172 acres of land which today comprise a large portion of the town of Fairhaven.

Seth Pope was born in January of 1648. When he was a young man he was ordered to depart from the town of Sandwich for pedaling goods. When he left he vowed he would eventually come back and buy the town. In 1685 he was chosen Selectmen for Dartmouth. Four years later he was re-elected and was also chosen as a representative for the Plymouth General Court. By 1691 he was made Justice of the Peace for Dartmouth. In 1700 he made his promise a reality by purchasing a large portion of Sandwich including a grist mill, fulling mill and a weaving shop.

The third owner of the island in the eighteenth century was named in a deed dated January 17, 1736. In this deed Joseph Russell, Jr. willed his share of Palmer's Island to his son Caleb Russell. Joseph Russell, Jr. had arrived in Dartmouth in 1711 and purchased most of the land south of Union Street along the Acushnet River.

Palmer's Island was used as a garrison during the Revolutionary War.

Although the property on Palmer's Island passed through many hands, it was not until 1849 that the first building appeared. At that time one acre of land was purchased on the northern tip of the island by the United States Government for the construction of a lighthouse and home for the lighthouse keeper. In this period the whaling industry was still growing and New Bedford had one of the busiest harbors in the world, exporting almost half of the nation's supply of oil.

For almost a hundred years lighthouse keepers lived in the home and kept the waters illuminated for safe travel. In September of 1938 a hurricane destroyed the house and the keeper's wife, Sara Small, was washed away by a wave. She had been trying to reach her husband in the lighthouse. The keeper, Captain Arthur A. Small, was injured and took a leave of absence. While Captain Small was keeper, the light was changed from a revolving red beam to a fixed green light..

During Captain Small's leave a substitute keeper was hired and a portable two car garage was moved to the island and equipped for living quarters. The substitute keeper's name was Martin Maloney. He had become a hero during the 1938 hurricane: He had been stationed at Bullock's light in Providence and had miraculously kept the light going as waves crashed into the lower part of the lighthouse. Captain Maloney was still tending the lighthouse on Palmer's Island in August of 1939 when the country celebrated the 150th anniversary of National Lighthouse Week. He invited anyone interested to visit the lighthouse where he explained its operation.

The lighthouse no longer required a keeper when it was wired for operation from the Butler's Flat lighthouse (located on the west side of the channel in the outer harbor). In 1966 the lighthouse caught fire and the inside was completely destroyed.

In 1866 the other five acres of the island were owned by George W. Furber who, together with Hutching Tillinghast, built a summer home. A few years later the building was altered and made into Furber's Hotel. The hotel soon gained a questionable reputation because of the entertainment provided for the whalers between trips. In 1890 a dance hall and bowling alley were added. Many passengers were carried from the mainland on the steamer "Genevieve."

In 1888 the property was acquired jointly by Abbot P. Smith and J. Arthur Beauvais who were often referred to as members of a syndicate. Rumors spread of the operation of a gambling casino on the island.

In 1893, Dr. Ezekiel H. Noble acquired the property and converted it back into a summer home. Not long afterwards the property reverted back to Mr. Smith and Mr. Beauvais who in turn sold it to the Hathaway Mill Corporation and the Acushnet Mill Corporation.

On August 30, 1905, the house - which had just been repaired for a tenant - caught fire and burned to the ground. The spectacular blaze, which was viewed by people on both shores of the Acushnet River, may have been caused by youngsters seen playing in the area.

Before the old hotel was destroyed several proposals had been made for its use. One summer Dr. Immanuel P. Feiffer, who claimed to have invented a cure for rheumatism, rented the hotel for use as a sanitarium; however, his plans never materialized. The City had also proposed to

buy the building for an infirmary.

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PALMER'S ISLAND (Map #21)

SITE ANALYSIS

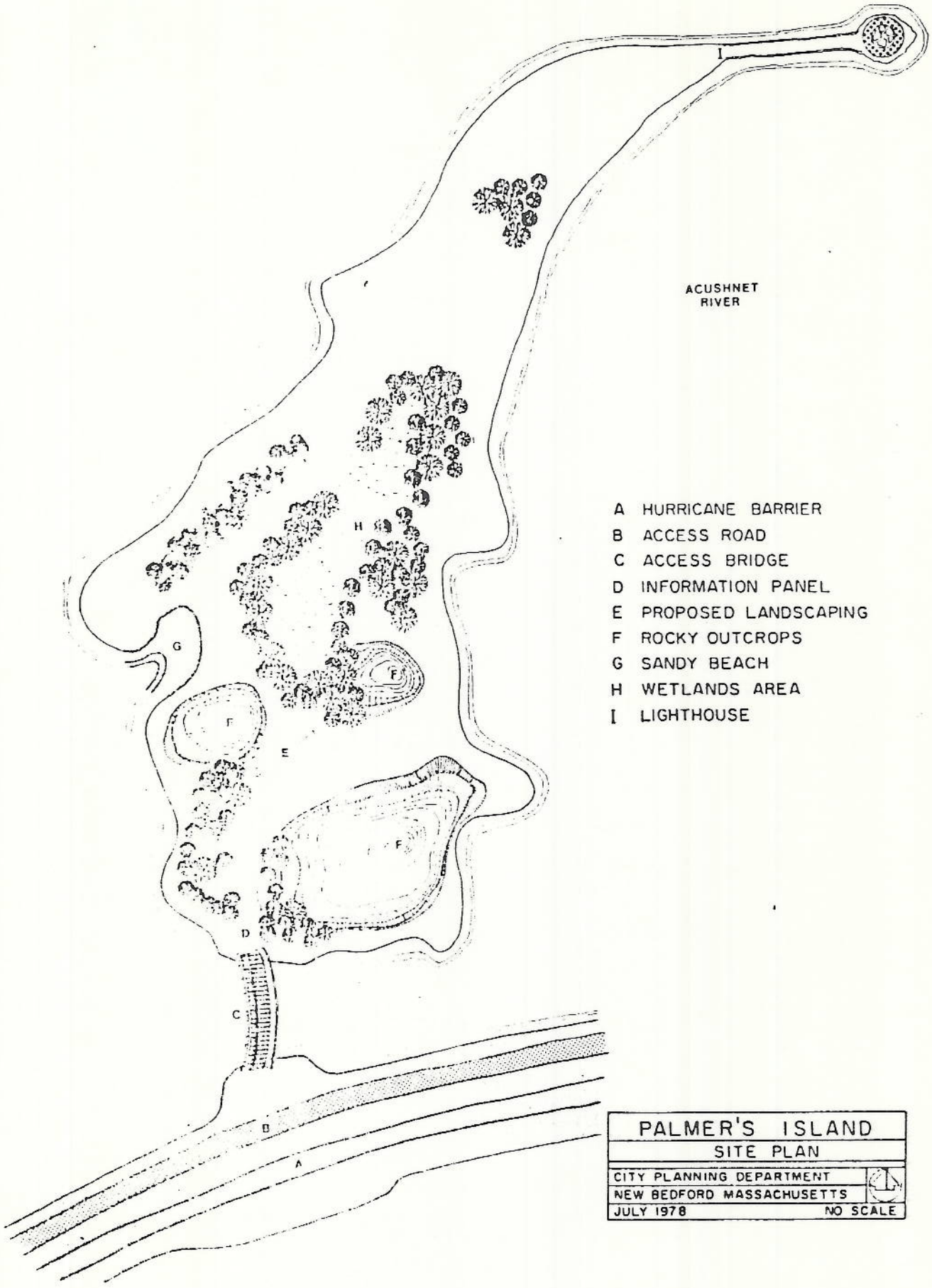
Located in the outer reaches of New Bedford Harbor, Palmer's Island is closely linked to New Bedford's maritime history. Several 19th and 20th Century paintings show the Island as a verdant, peaceful outpost amid the Harbor's activity. The Island is the site of the now abandoned Palmer's Light.

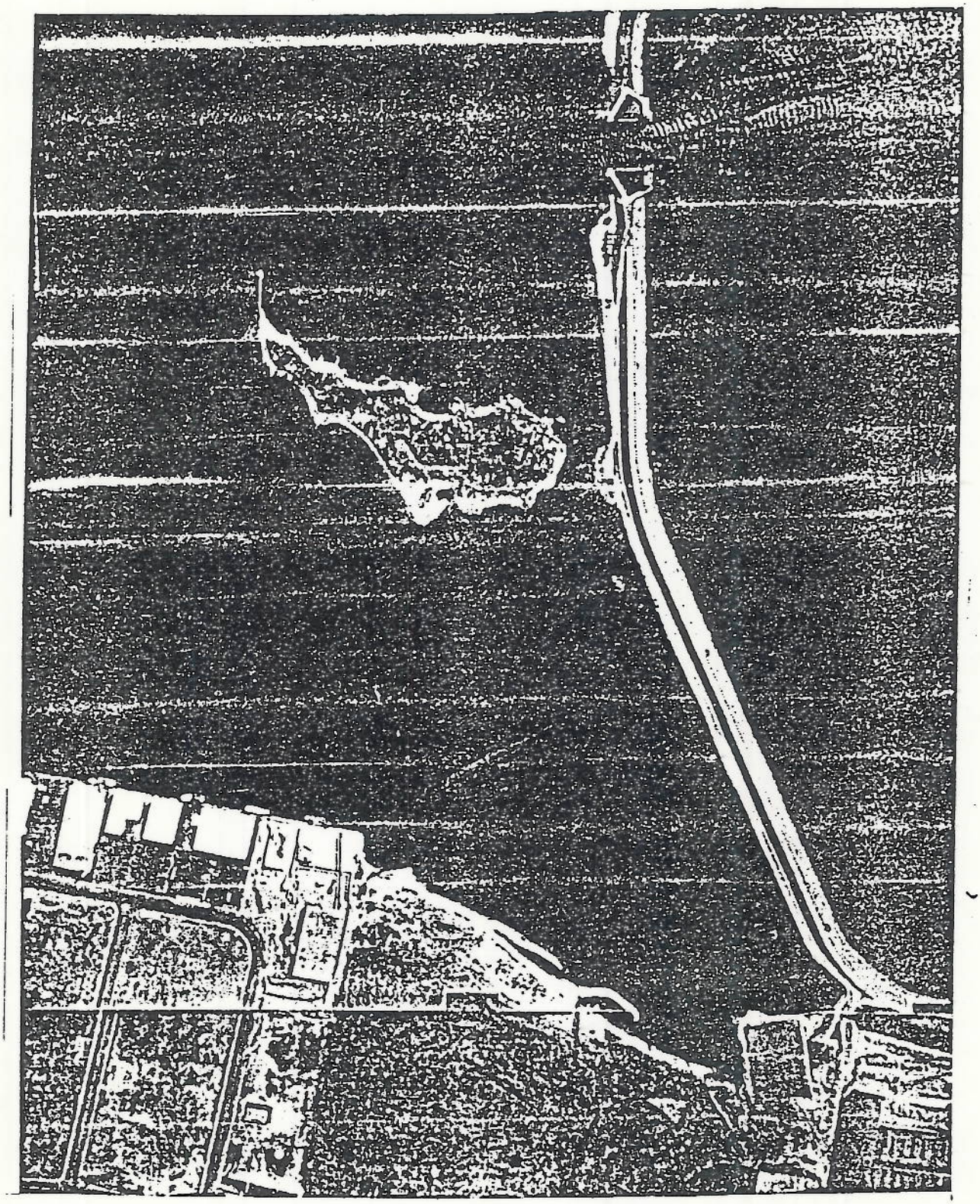
The Island's significance is incorporated into the City Seal, which presents a view of the northerly end of Palmer's Island, with its lighthouse, of a steamboat passing Palmer's Island, and the City of New Bedford in the distance.

At present, the 6-acre Island supports little vegetation other than grass, cattails, briars, stump cabbage and ailanthus trees. The region's geological history dates the Island to glacial origin. Granite outcroppings dominate the Island's topography. The highest outcropping, on the southeastern corner of the Island, offers an outstanding view of Buzzards Bay and the Elizabeth Island chain to the south, New Bedford's shipping lane to the east, and the New Bedford/Fairhaven Harbors to the north and northwest.

The northern two-thirds (2/3's) of the Island is low-lying and gently rolling.

A distinctive feature is the sedimentary-like mixture of sand and shells forming a distinct layer beneath the sandy top soil which dominates the western shore. It is theorized that this layering, several feet above sea level, is a remnant of one of the area's most destructive hurricanes. The Island's western shore is dominated by both a linear and


ACUSHNET
RIVER
A HURRICANE BARRIER
B ACCESS ROAD
C ACCESS BRIDGE
D INFORMATION PANEL
E PROPOSED LANDSCAPING
F ROCKY OUTCROPS
G SANDY BEACH
H WETLANDS AREA
I LIGHTHOUSE
PALMER'S ISLAND
SITE PLAN
CITY PLANNING DEPARTMENT
NEW BEDFORD MASSACHUSETTS
JULY 1978
NO SCALE



PALMER'S ISLAND (CONT.)

tidal beach. Prevailing summer winds, harbor noise and sun orientation would make this area highly attractive for picnicking and sunbathing.

DEVELOPMENT

While Pope's Island's importance as a recreational resource is evidenced by Marine Park, the recognition of Palmer's Island's importance is more recent.

In its statement of goals and objectives, the Harbor Master Planning Committee established several long- and short-term policies which relate to the acquisition of Palmer's Island.

First, in its initial goal statement, the Committee noted that long-term harbor development should be aimed at "affording the people of New Bedford and Fairhaven with a pleasant and healthy community in which to be." Advancing towards this end, the Committee established the goal of:

> "dedicating approximately 5% of the public waterfront land area (excluding Marine Park) to passive recreation and/or landscaped space. Such open spaces should be in proximity to, but not in competition with, high activity areas."

Another of the long-term goals was:

> "to enhance the community's economic development goal of providing ample opportunities for stable employment, by either maintaining or expanding existing harbor industries, retaining and protecting existing fishing industries, or introducing new harbor-related industries."

In addition to the traditional means of economic development through promoting New Bedford's fishing, cargo or waterfront industrial potential,

PALMER'S ISLAND (CONT.)

the Committee endorsed a policy of "promoting tourism which takes advantage of the harbor's historic character and its contemporary activities."

Furthermore, the Committee recommended that Palmer's Island be given "special consideration and study for development which will be sensitive to the Island's history and its recreational potential."

RECOMMENDATIONS

The City's recreation plan calls for the acquisition of Palmer's Island, the enhancement of the Island's landscape and the eventual acquisition of surplus government property, including the restoration of the historic Palmer's Island light. The plan recommends the following steps over the next five-year period:

1) Island acquisition and development through the use of urban self-help and land and water conservation funds.

2) Island cleanup arranged through the Conservation Commission and its quota of summer help.

3) The installation of Moby Dick Trail panels at prominent points on the Island, explaining significant features within New Bedford Harbor.

4) Design and installation of a walking bridge to connect the Island with the Hurricane Dike.

5) Landscape design implementation.

6) Palmer's Island light acquisition through the General Services Administration (GSA).

7) Historic Register proceedings of Palmer's Light, initiated by the Planning Department, endorsed by the New Bedford Historic Commission and reviewed by the Massachusetts Historic Commission.

Not Listed

Form No. 10-306 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

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

1 NAME

HISTORIC: Palmer Island Light Station

AND/OR COMMON:

2 LOCATION

STREET & NUMBER:

CITY, TOWN: New Bedford — X VICINITY OF — NOT FOR PUBLICATION

CONGRESSIONAL DISTRICT: Twelfth

STATE: Massachusetts — CODE: 25 — COUNTY: Bristol — CODE: 005

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	__OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	X UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	X YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	X OTHER: None

4 AGENCY

REGIONAL HEADQUARTERS (*If applicable*): New England Division, U.S. Army, Corps of Engineers

STREET & NUMBER: 424 Trapelo Road

CITY, TOWN: Waltham — VICINITY OF — STATE: Massachusetts 02154

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC: Bristol County Registry of Deeds, Southern District

STREET & NUMBER: 25 North Sixth Street, (Deed to U.S. dtd 14 March 1849, Bk 25 Pg. 105

CITY, TOWN: New Bedford — STATE: Massachusetts 02740

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: Map of Palmer's Island Light Station

DATE: March 1977 — X FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS: New England Division, U.S. Army Corps of Engineers - Real Estate

CITY, TOWN: Waltham — STATE: Massachusetts

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X DETERIORATED	X UNALTERED	X ORIGINAL SITE
_GOOD	_RUINS	_ALTERED	_MOVED DATE _____
_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Historical Description: Built between 9 June and 22 September, 1849 by Charles M. Pierce, Masonry, under contract to the Superintendent of Lights, at a cost of $1951. Though originally specified to be octagonal, the tower appears to have always been circular in plan, as it is today. Pertinent dimensions are as follows: (U.S. Coast Guard RG-26(a)).

Foundation: 3 ft. high rubble masonry

Tower: Rubble masonry 24 ft. high with 18 ft. 4 inch diameter and 3 ft. thick walls at base, and 10 ft. diameter and 18 inch thick walls at top (Exhs. A-D).

Floor: Brick

Stairs: Three flights of wooden stairs spiraling the inner face of the wall, and an upper flight of iron steps.

Entry: Two 6 ft. 10 in. x 3 ft. doors

Windows: Three 19 in. x 21 1/2 in. windows of twelve 8 in. x 6 in. lights (Exhs. A-D).

Lantern: Deck - 10 ft. diameter, of copper sheathed wood with iron railing, and tower access via scuffle.
Lantern - Specified as octagonal, iron with 6 plate glass lights of 24 in. x 15 in. on each face; 4 ft. x 2 ft. copper sheathed door in ventilator in dome top 15 in. high x 12 in. diameter with 2 ft. x 1 ft. copper sheathed vane above. The light may have been fueled by whale oil produced at this time, and was probably of the fixed white form noted in 1889.
Note: The 9 sided lantern now present (1979) may be original.

Lightning Rod: On tower exterior, from ledge to 1 ft. above vane on lantern.

A keeper's dwelling was built, and other buildings constructed on the island in later years. Their history and present condition are assessed in the attached Archaeological Reconnaissance Report. Various alterations were made to the structure during its use (U.S. Coast Guard RG 26(b)),

1857: The lenses of the light were replaced.

1863: A new "lantern" was installed. This may refer to either a new lamp in the structure, or replacement of the supposed octagonal lantern described above, with the 9 sided one now on the structure (Exhs. A-D). As noted

UNITED STATES DEPARTMENT OF THE INTERIOR
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above, the lantern may have not been built in octagonal form as described in the original construction specifications. By 1931, the lantern had a single large pane of glass in each face, measuring 36 in. x 28 in. x 1/4 in., rather than the small panes of mid 19th century form. The ventilator was in the parapet. Lantern door has dimensions of 6 ft. 8 in. x 2 ft. 8 in. located on tower's N side.

1883: The iron hand rail on the dike to the tower was renewed (Exhs. A-D). If the island's form on Beer's map 1871 is accurate (see Archaeological Reconnaissance, attached) this dike may not have been built until after 1871.

By 1889: The light is a fixed white type.

May 31, 1900: A fog bell was installed in a frame pyramidal tower adjoining the island end of the dike (Exh. A). New stairs and deck were built.

1902: A frame covered way was built on the dike (Exh. B). The 1900 bell tower was apparently destroyed by storms or removed at about this time.

By 1929: (New Bedford Standard Times) A frame bell tower on a concrete platform was attached to the lighthouse side opposite the dike. Access was provided by a small door and two rung ladder in the lighthouse (Exhs. C & D). The bell was mechanically rung at 10 second intervals and hung in an upper window of the tower. It was 3 ft. 4 in. diameter x 2 ft. 6 in. high, weighed 1260 lbs. and was made by Henry McShane in 1901. Though a vestibule remained, the covered way on the dike was gone by this time (Exh. C). A revolving red light may have replaced the fixed white one by this time, to be replaced by a fixed green one during the tenure of Captain Arthur Small.

By 1931: The following additional features are noted as existing by this time (U.S. Coast Guard RG-26(c)).

In Lantern: A fixed light with green shade (replacing the revolving one noted above), of 870 candle power operated off a kerosene mantle of 1-1/4 in. diameter. The drum had 4 panels of 5 elements each with 5 upper and 3 lower prisms in each panel, all mounted on an iron pedestal. Focal plane was at 35.66 ft. m.s.l. and the light was classified as 5th order.

Tower: Contains a closet with shelves, for spare lamp parts. Tower is whitewashed.

1941: The lighthouse was automated to operate from Butler's Flat Lighthouse.

1962: Purchased by U.S. Army Corps of Engineers.

1966: Vandals set fire to the building, gutting the interior. The bell tower may have been destroyed on this date or some time after 1939.

Present Condition:

Tower: Intact in 1849 form with pre 1929 concrete base at bell tower (Exhs. E-K).

Stairs: Charred ends of supports are present in notches within the interior masonry (Exh. F).

Floor: Sand covered, concrete post in center probably stair support 1900 (Exh. G).

Entry: Doors missing, evidence at door frame and roof of former covered way are visible around doorway. (Exh. E).
Entry to bell tower site remains, with rungs (Exhs. G, I, & J).

Windows: Lower window, on S side is bricked closed (Exh. H). No window frames remain (Exh. F).

Lantern: Iron frame remains, slightly displaced; roofing and ventilator gone (Exhs. E, F, I, & K). Floor of tower is littered with 3/8 in. thick broken glass, probably from lantern windows; doorway is bricked shut (Exh. I); platform gone, railing has slid down tower sides (Exhs. E, H, I & K).

Dike: Made of rubble stone with quarried block upper course, island end washed away (Exhs. E, I & K). Bases of iron railing visible, railing fragments remain in water to either side of the dike.

8 SIGNIFICANCE

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

SPECIFIC DATES Built: 1849 BUILDER/ARCHITECT Charles M. Pierce

STATEMENT OF SIGNIFICANCE

The significance of Palmer Island Light lies in two factors, its historic association and its architecture.

At the time of the light's construction, New Bedford was the major home port of the world's whaling fleet, supplying nearly 50% of the American oil supply. This prosperity was probably a major impetus for the lighthouse construction.

The whaling industry collapsed during the second half of the century, but considerable commercial and fishing traffic continued to operate out of the harbor throughout the late 19th and 20th century. The light was kept burning for nearly 100 years, through several major storms, including a gale which damaged the plank walk from the keeper's house to the tower on September 8, 1869, and the 1938 hurricane which destroyed the keeper's house. The keeper, Captain Arthur A. Small, was injured and his wife was drowned while attempting to reach the light.

An 1851 representation of the lighthouse is a prominent feature of the seal of the City of New Bedford (Fig. 3 of attached Archaeological Report).

The remaining features of the lighthouse are primarily those which date from its original construction in 1849, as the 1966 fire destroyed the wooden additions and modifications of the late 19th and early 20th century.

The tower, itself, has only been modified by the bricking of one window and the parapet door and cutting of the early 20th century bell tower door. Remains of the latter feature also include the concrete platform which supported it.

The iron lantern frame and parapet railing appear to date from at least 1863, and possibly from 1849.

The dike, though damaged, is substantially as built in the 19th century, with most of the railings remaining in broken condition nearby.

The hurricane damaged and fire gutted condition of the structure, though destroying much evidence of the 20th century interior and light mechanism, provides potential for restoration of the structure to any of the earlier

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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periods of operation. As records of the structure appear to be fairly complete, a fairly accurate reconstruction to 19th century condition may be possible. The City of New Bedford has expressed strong interest in acquiring the property with the intention of performing such a restoration as a major component of a proposed park on Palmer's Island.

As one of the few early 19th century lighthouses remaining in the United States, this structure is representative of its type. Its present overall appearance suggests the 1849 form, due to loss of later additions. Further, the lighthouse has important historical associations as an important local feature of the local "made" landscape, reflected by its appearance on the city seal and in numerous photo essays in local newspapers. Because of these factors, Palmer's Island Light appears eligible for inclusion in the National Register of Historic Places. The potential restoration of the structure to operating condition would provide the modern visitor with a highly visible link to New Bedford's maritime past.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

"New Bedford Standard - Times" library & microfilm (photographs)

U.S. Coast Guard RG-26
a. 1849 Construction Contract
b. Alterations to Palmer's Island Light
c. 1931 Description of Palmer's Island Light

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1 Acre

UTM REFERENCES

	ZONE	EASTING	NORTHING
A		3,4,0,9,0,0	4,6,0,9,8,0,0
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

As shown in red on map, being Exhibit M of attached Archaeological Report, entitled "Map of New Bedford - Fairhaven Barrier," dated April 1963.

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

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
John S. Wilson, Division Archaeologist and Robert L. Batt, Realty Specialist

ORGANIZATION
New England Division, U.S. Army, Corps of Engineers

DATE
29 October 1979

STREET & NUMBER
424 Trapelo Road

TELEPHONE
(617) 894-2400 (X345)

CITY OR TOWN
Waltham

STATE
Massachusetts

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES____ NO____ NONE____

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

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

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

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

DATE

DIRECTOR OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

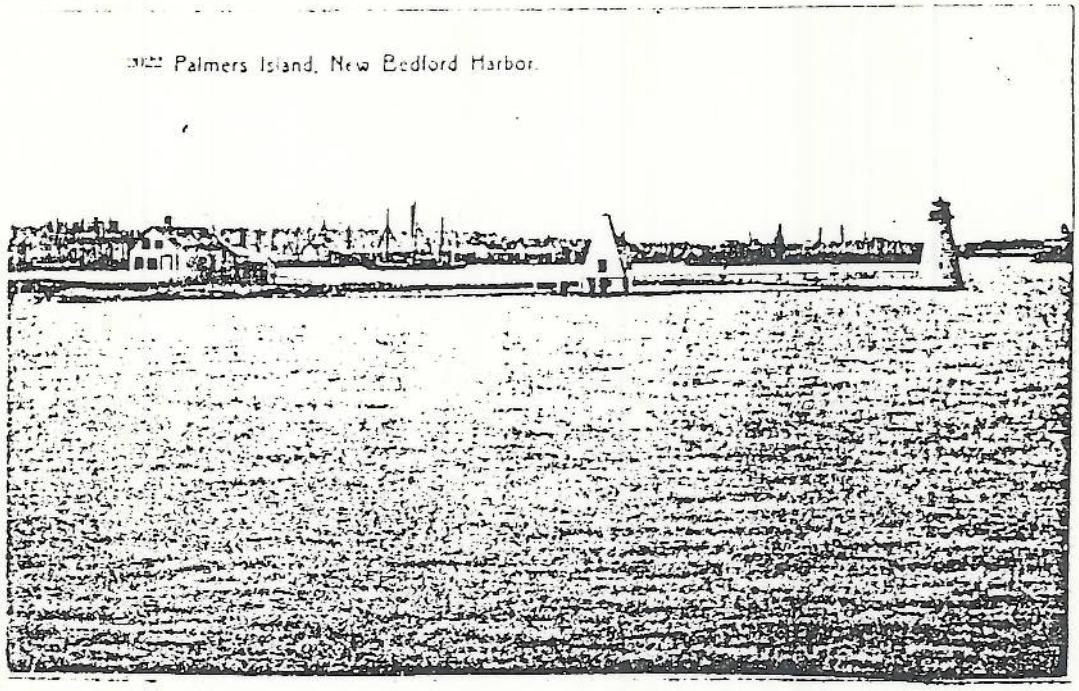
ATTEST

DATE

KEEPER OF THE NATIONAL REGISTER

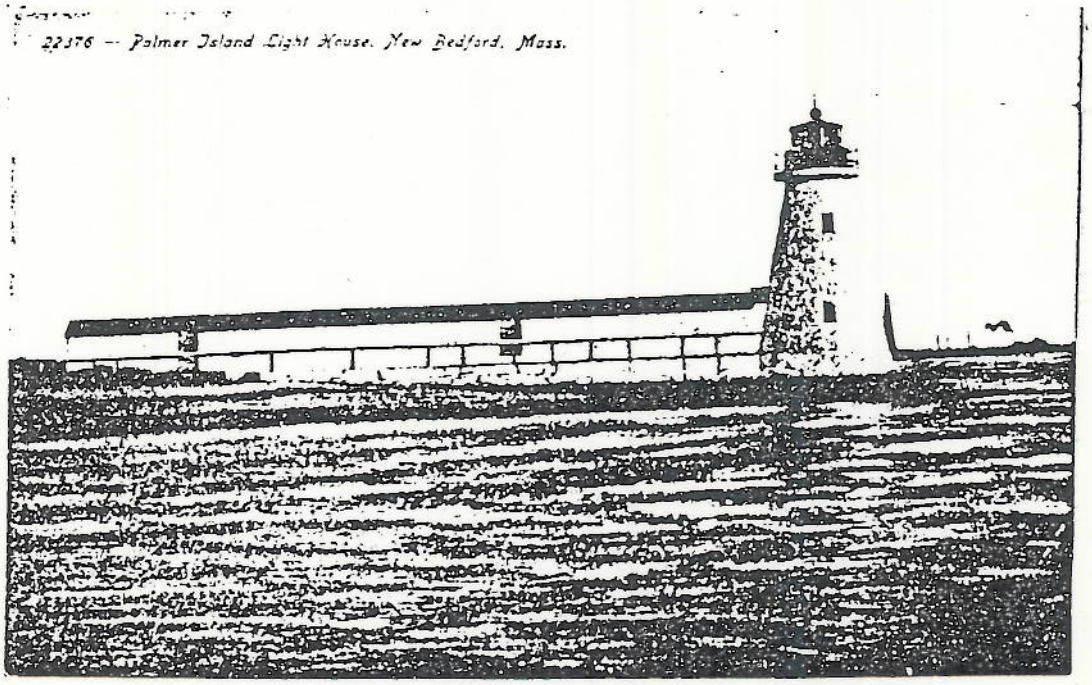
EXHIBITS

Exhibit	
A	Circa 1900 postcard showing lighthouse, bell tower and keeper's dwelling. View to NNW.
B	Circa 1902 postcard showing lighthouse with cover way. View to NNW.
C	Circa 1930 photograph showing lighthouse and bell tower. View to NNW.
D	Circa 1929 photograph showing lighthouse with bell tower and buildings on island. View to SW.
E	Palmer's Island Light, New Bedford, MA. Photog. - James McDevitt, 12 Jun 79 View to west of lighthouse.
F	Palmer's Island Light, New Bedford, MA. Photog. - James McDevitt, 12 Jun 79 View upward of lighthouse interior.
G	Palmer's Island Light, New Bedford, MA. Photog. - Robert Batt, 12 Jun 79 View of lighthouse interior from east doorway.
H	Palmer's Island Light, New Bedford, MA. Photog. - Robert Batt, 12 Jun 79 View of lighthouse interior from south window.
I	Palmer's Island Light, New Bedford, MA. Photog. - James McDevitt, 12 Jun 79 View to SSW
J	Palmer's Island Light, New Bedford, MA. Photog. - James McDevitt, 12 Jun 79 Interior view of bell tower hatchway.
K	Palmer's Island Light, New Bedford, MA. Photog. - James McDevitt, 12 Jun 79 View to north of lighthouse and dike.
L	U.S.G.S. Quad. Sheet, 64 Sec., New Bedford North, MA.
M	U.S. Army, Corps of Engineers Real Estate Map, entitled "New Bedford - Fairhaven Barrier," dated Apr 63.



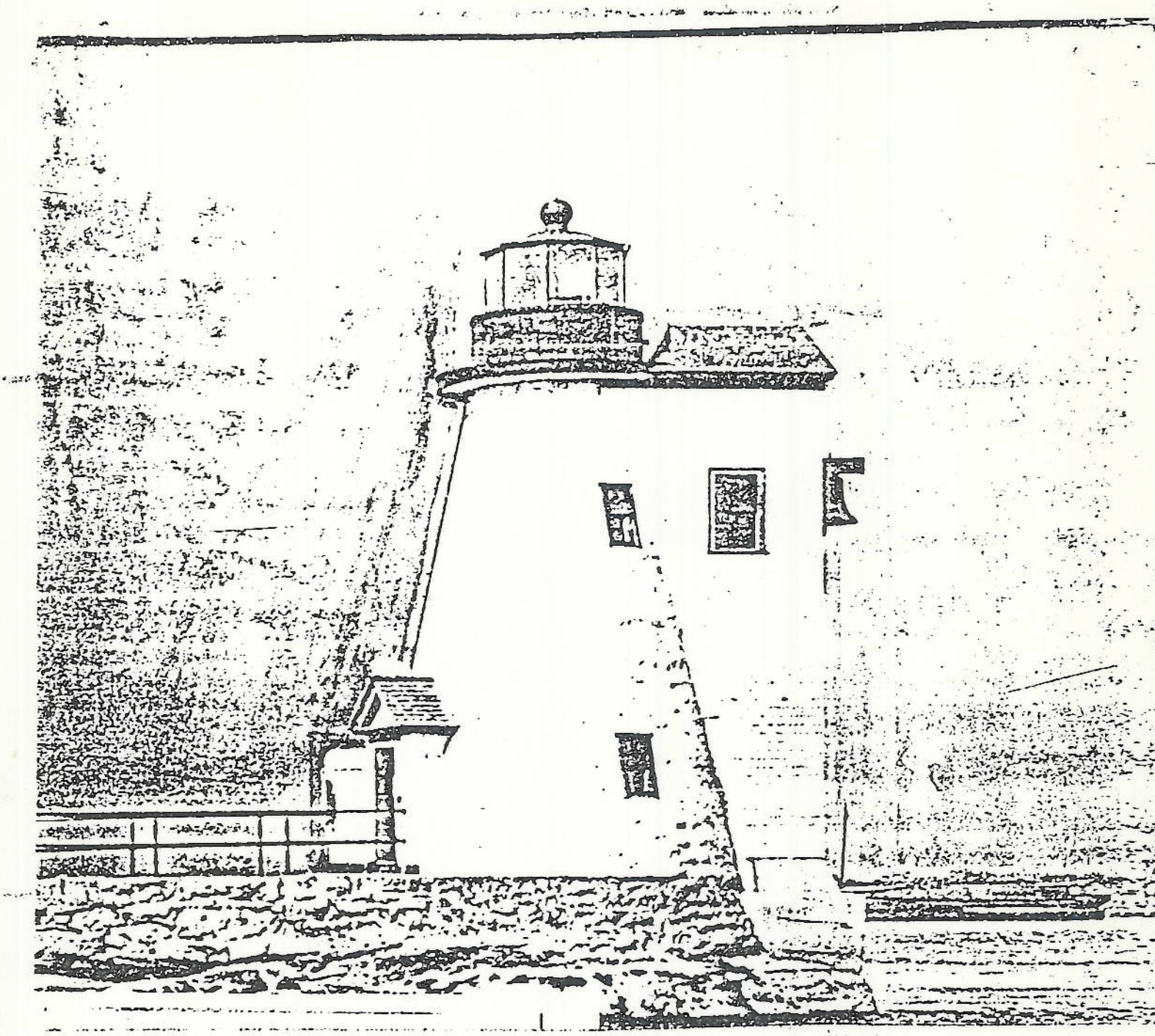
Circa 1900 postcard showing lighthouse, bell tower and keeper's dwelling. View to NNW.

Exhibit A



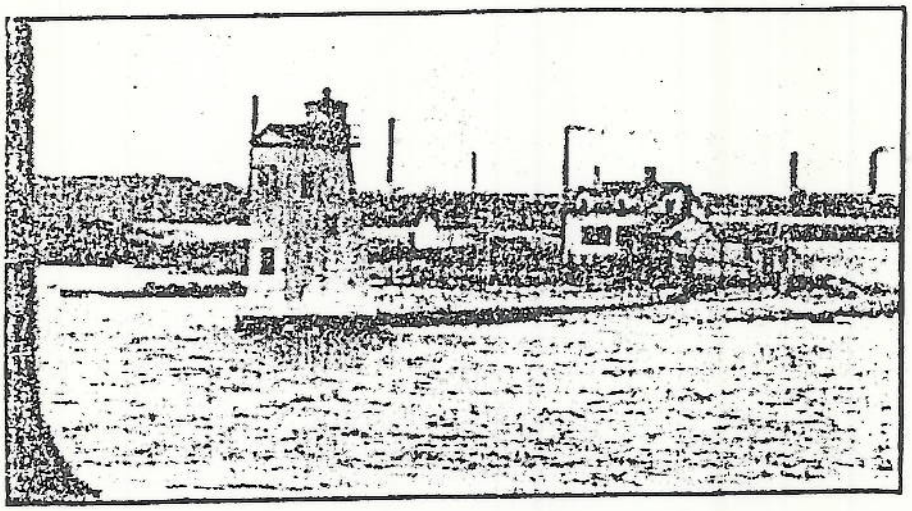
Circa 1902 postcard showing lighthouse with cover way. View to NNW

Exhibit B



Circa 1930 photograph showing lighthouse and bell tower. View to NNW

Exhibit C



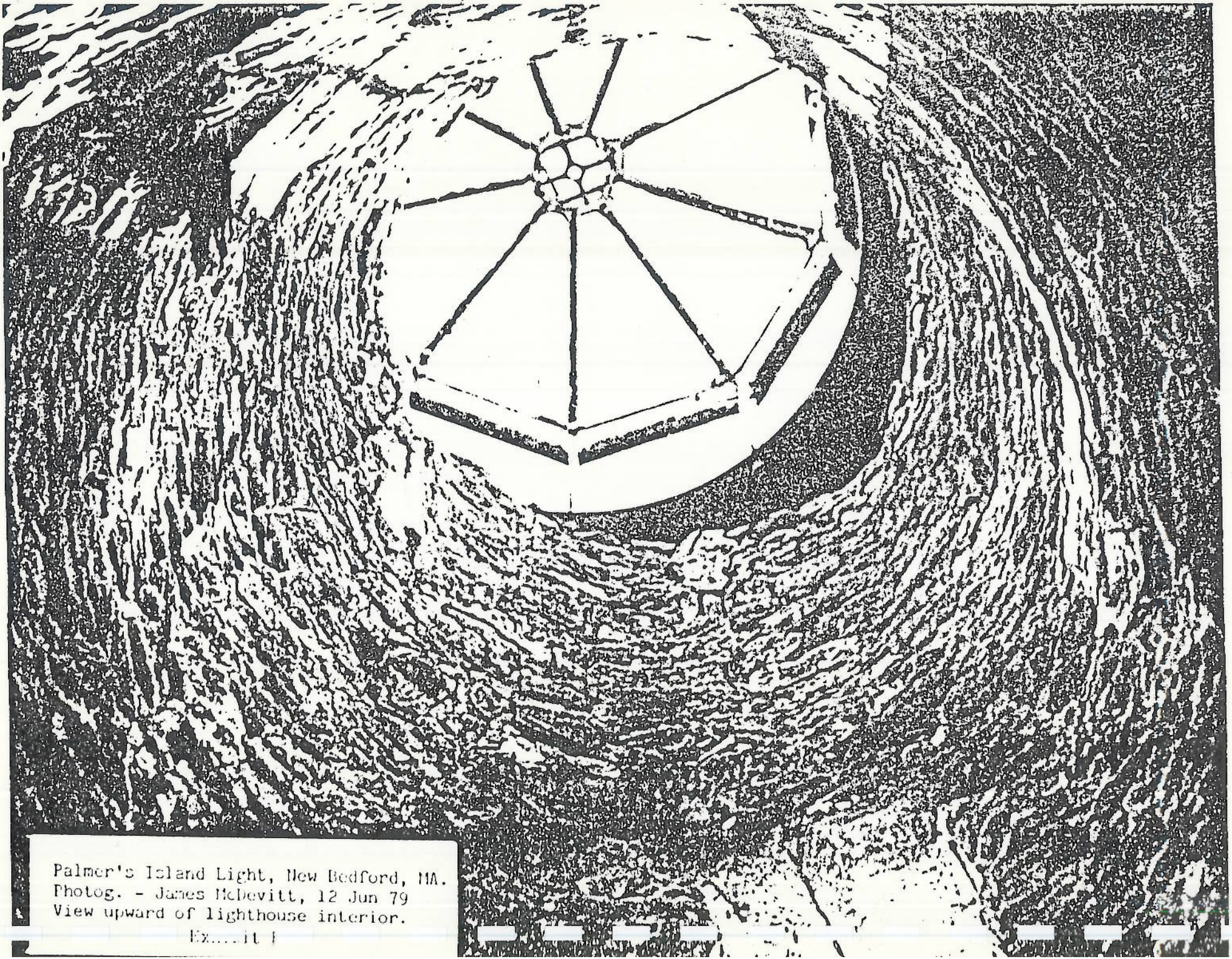
In 1929, this photo was labeled "an unusual view of Palmers island in the foreground, with mills of New Bedford behind, taken from a Martha's Vineyard Bound steamer."

Cira 1929 photograph showing lighthouse with bell tower and buildings on island. View to SW

Exhibit D

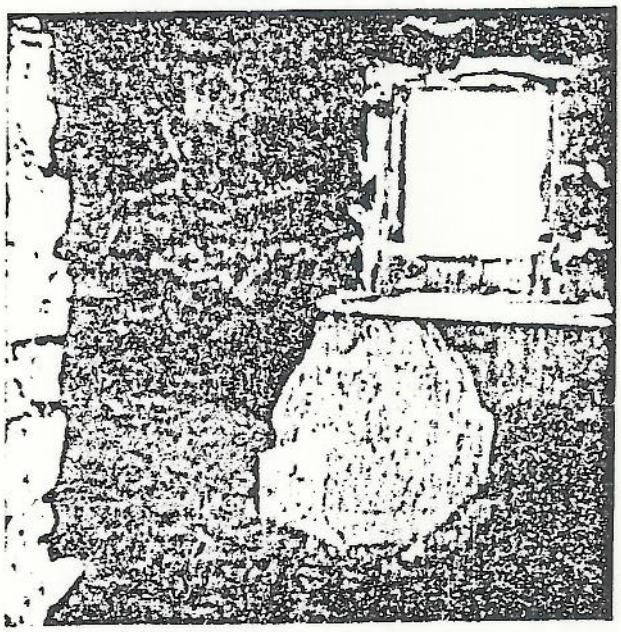
Palmer's Island Light, New Bedford, MA.
Photog. - James McDevitt, 12 Jun 79
View to west of lighthouse.

Exhibit E



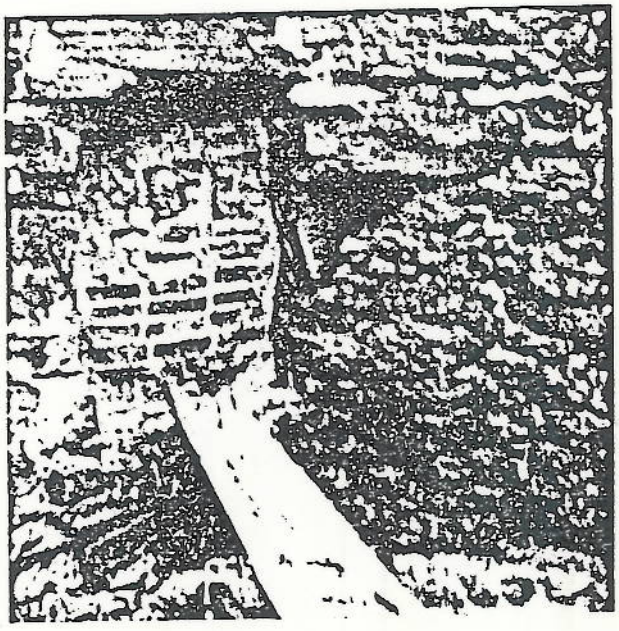
Palmer's Island Light, New Bedford, MA.
Photog. - James McDevitt, 12 Jun 79
View upward of lighthouse interior.

Ex....it 1



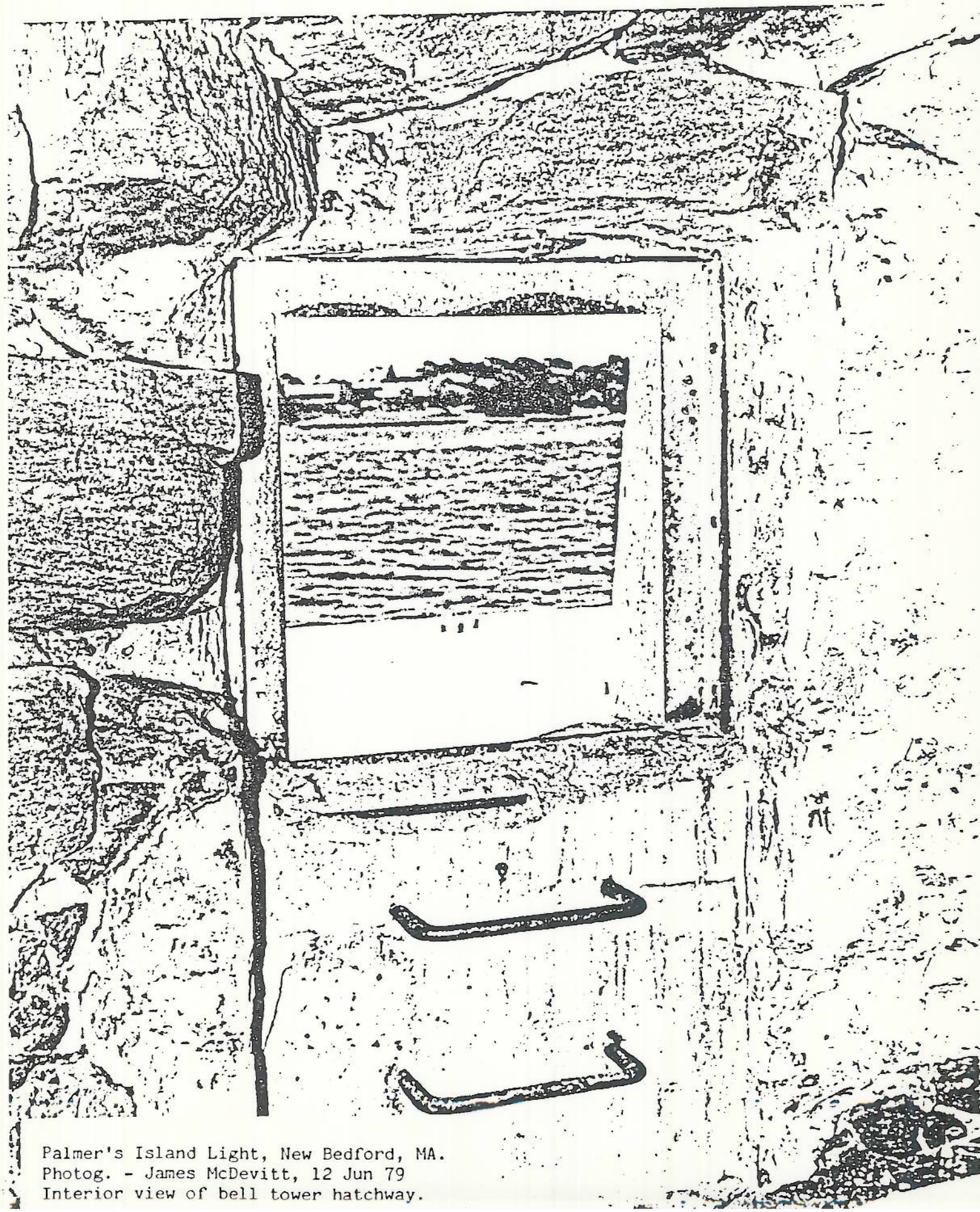
Palmer's Island Light, New Bedford, MA.
Photog. - Robert Batt, 12 Jun 79 View
of lighthouse interior from east doorway.

Exhibit G

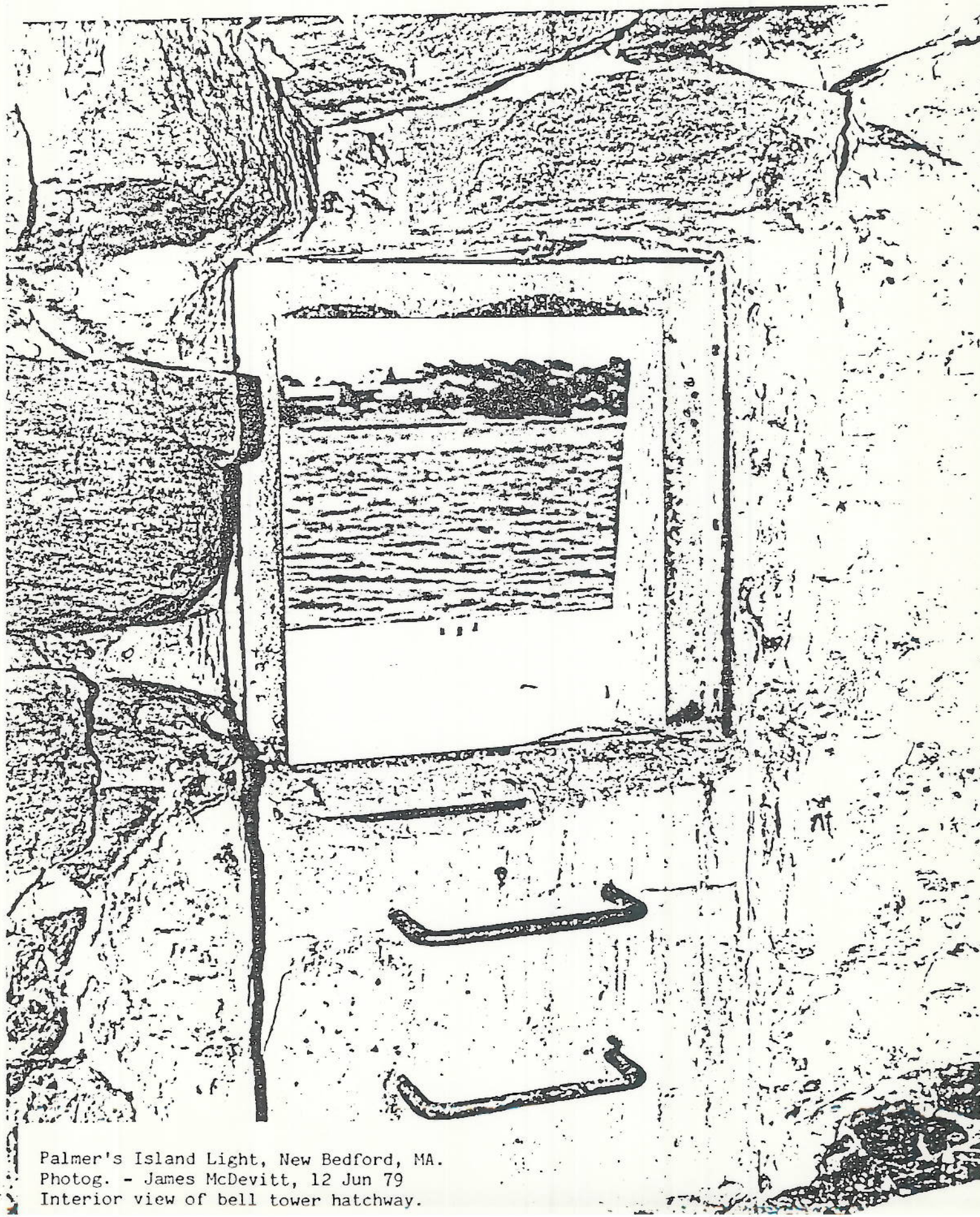


Palmer's Island Light, New Bedford, MA.
Photog. - Robert Batt, 12 Jun 79 View
of lighthouse interior from south window.

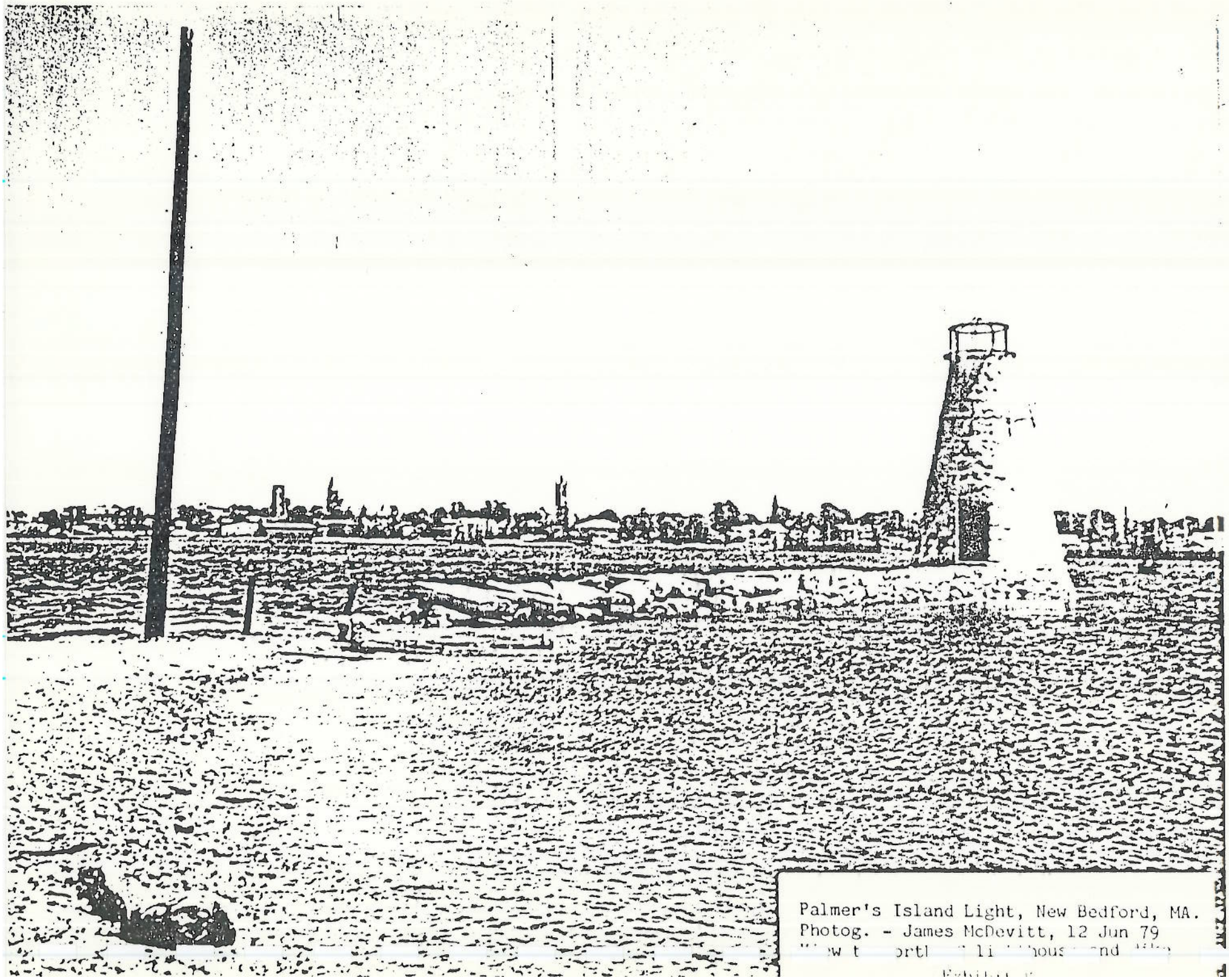
Exhibit H



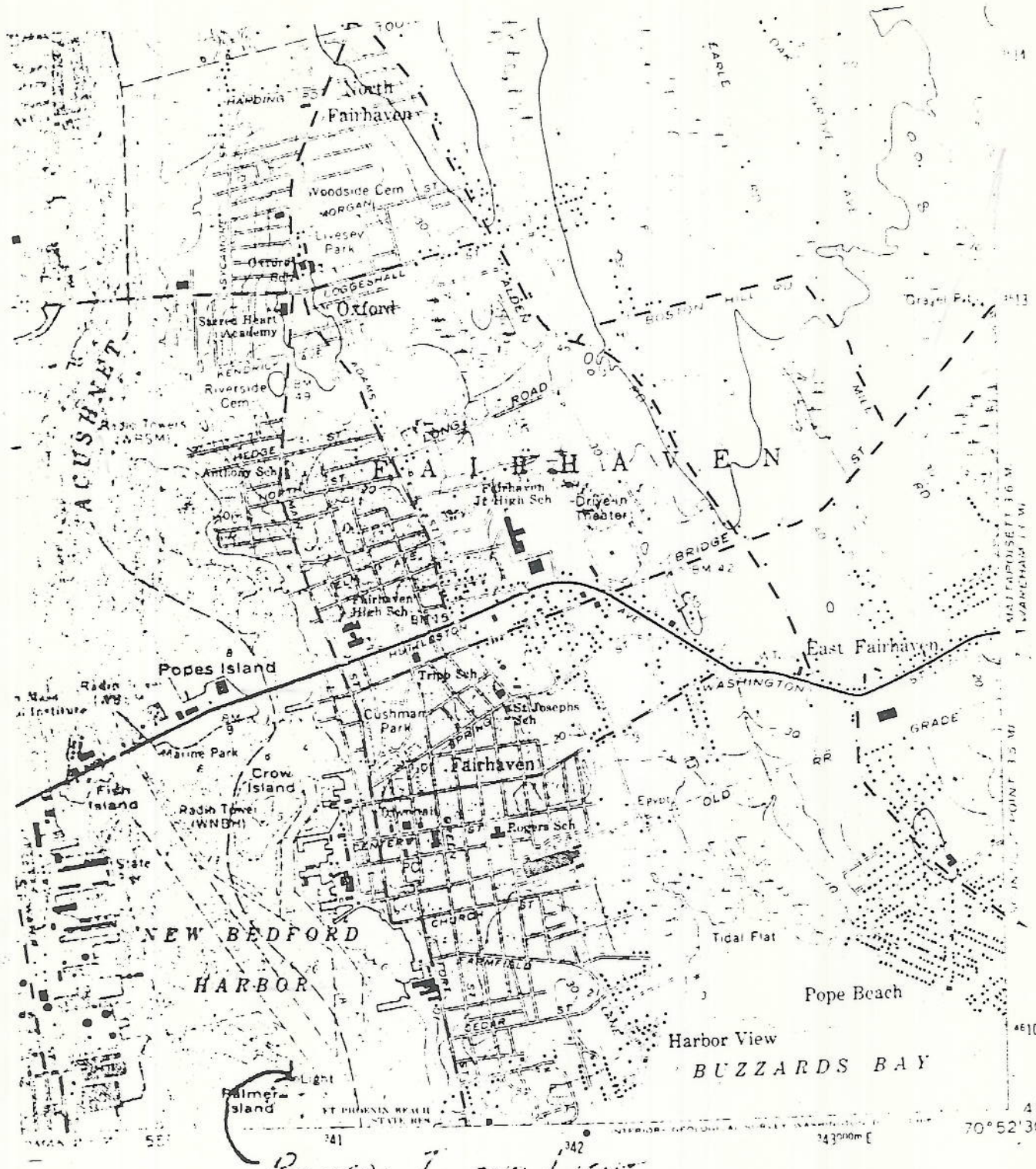
Palmer's Island Light, New Bedford, MA.
Photog. - James McDevitt, 12 Jun 79
Interior view of bell tower hatchway.



Palmer's Island Light, New Bedford, MA.
Photog. - James McDevitt, 12 Jun 79
Interior view of bell tower hatchway.



Palmer's Island Light, New Bedford, MA.
Photog. - James McDevitt, 12 Jun 79



NEW BEDFORD NORTH, MASS.

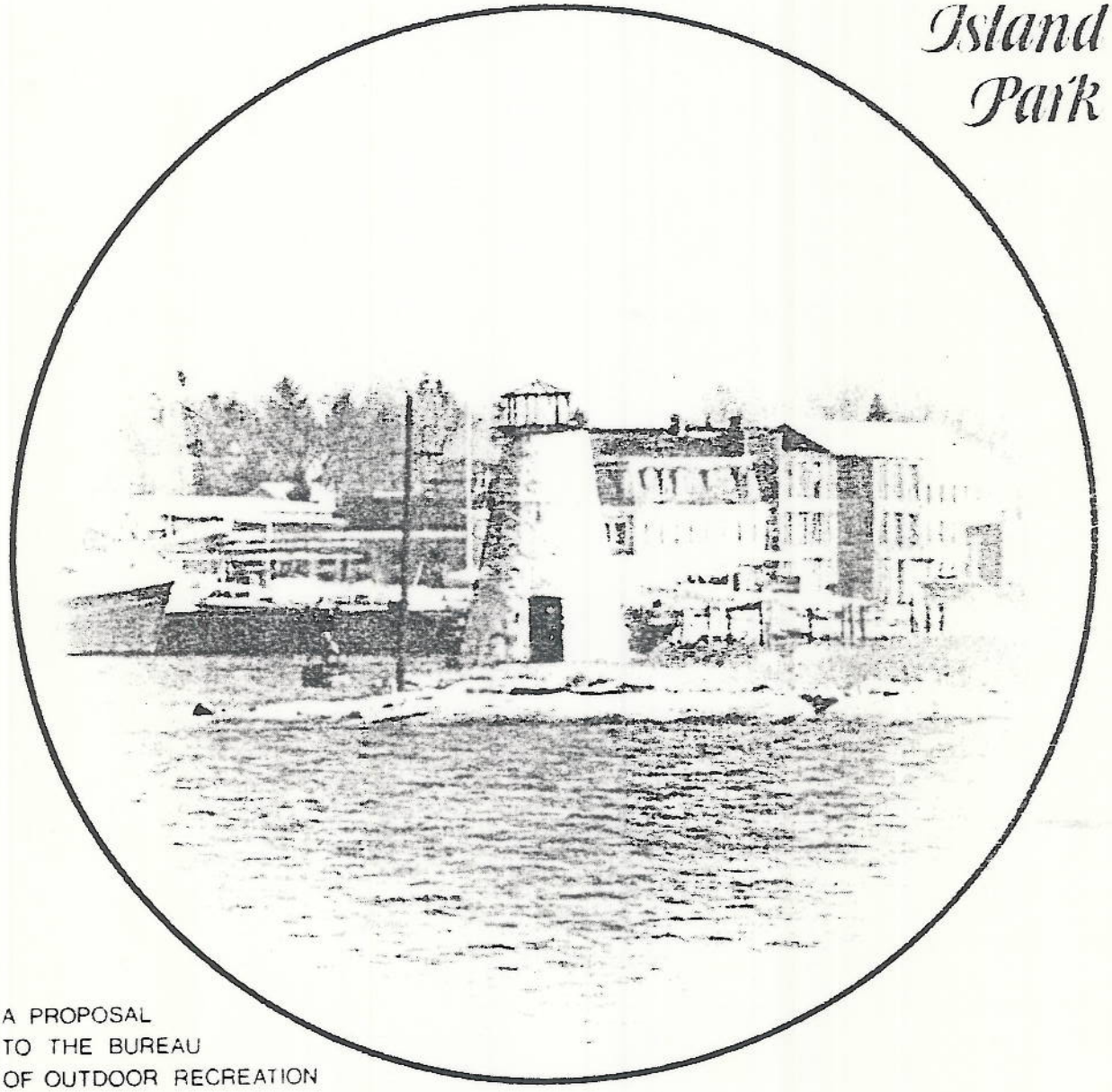
1964

AMS 5867 III NW-SE

U.S.G.S. Quad. Sheet, 64 S
New Bedford North, MA.

Exhibit L

Palmer's Island Park



A PROPOSAL
TO THE BUREAU
OF OUTDOOR RECREATION

City Of New Bedford, Massachusetts
John A. Markey, Mayor July, 1977

New Bedford City Planning Department

INTRODUCTION

Efforts to redevelop harbor islands as urban recreation centers have recently been implemented in such cities as Boston and San Francisco. The contact with fresh salt air, the proximity to crystal blue waters and the promise of colorful vistas has made such islands as Castle and Alcatraz attractive, if not viable, pieces of urban real estate.

Though much attention is focused on larger cities, the fact is that many smaller seaside communities have similar opportunities to develop unique centers of relaxation. Such is the case in New Bedford, Massachusetts, with Palmer's Island which sits vacant and littered astride New Bedford's Hurricane Dike at the southern end of the protected harbor.

In New Bedford's Industrial and whaling heyday, the island was used for various forms of recreation. During the same period, a succession of local artists recognized it as a center of serenity, stability and guidance amid a growing center of merchant and fishing activity. (See illustrations, pp. 4,5).

Throughout New Bedford's economic decline, the Island has remained unused. Conventional thinking about the Island is split between using it as either an Industrial or Marine Storage Area/Dumping Ground. One problem, however, is that the glacially-formed island is composed of massive ledge outcroppings; (See topography map accompanying plate 3) hence various economic interests have found proposals to build on this site unfeasible.

At a point when the City is awakening to its potential as a center of historic/tourist attractions and when urban dwellers are awakening to recreation possibilities around them, the City proposed initiating a cooperative venture with the State to establish a so-called "heritage park" in the New Bedford Harbor, on Palmer's Island.

This preliminary proposal advocates gradual Island development to convert it from a purely local recreational resource which serves residents in Greater New Bedford, to a regional multi-use resource which can accommodate increased tourist traffic arriving by auto and boat.

A phased schedule of development is presented below with preliminary cost estimates and anticipated sources of funding:

Acquisition	Estimated Cost (1976)	Source
Phase I		
Acquisition	$ 95,000	State/BOR
Mainland Parking Treatment	5,000	Local CD
Site Cleanup	-0-	Local CETA
Landscape Treatment & Pathway Development	15,000	State/BOR/Local CD
Phase II		
Landmark Designation	-0-	Local efforts
Lighthouse Title Transfer	Legal Fees	Local CD
Lighthouse Restoration	$ 25,000	Local CD/Private
Picnic Area Development	5,000	Local CD
Phase III		
Road Safety Improvements	$ 30,000	Local CD
Parking Deck Construction	135,030	State/BOR
Phase IV		
Berthing Space/Finger Piers	Not Available	State/BOR
Phase V		

- continued next page -

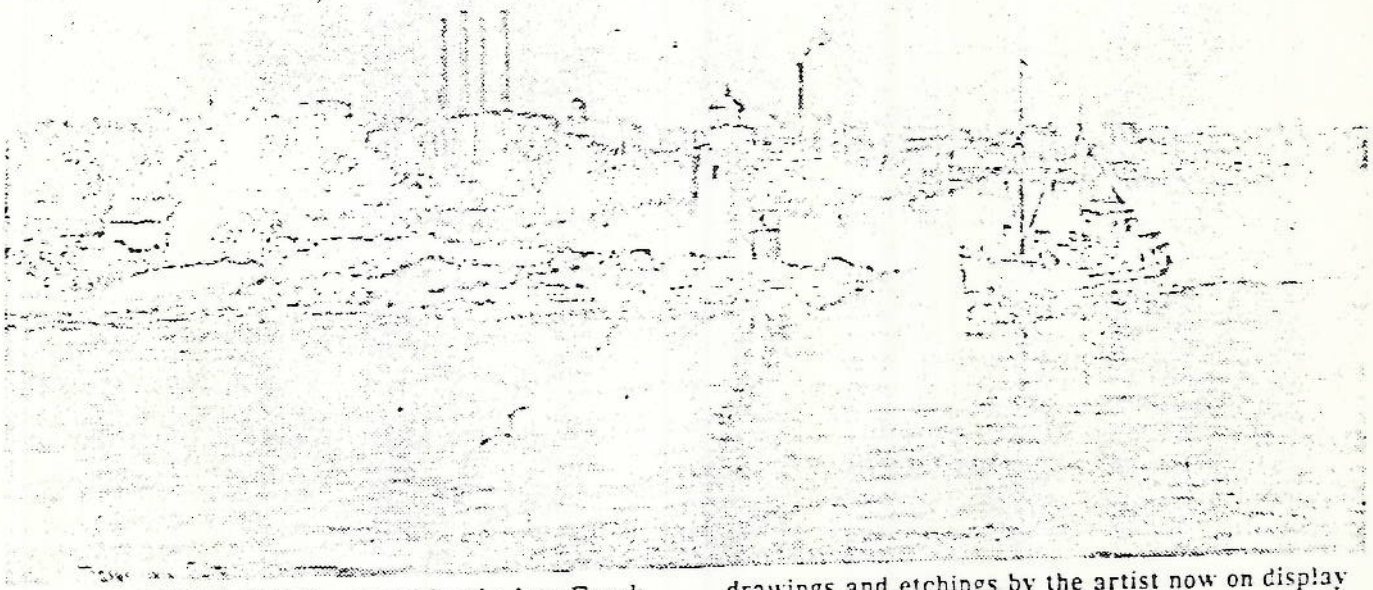
Acquisition	Estimated Cost (1976)	Source
Phase V		
Support Facilities, Administration Building Snack Bar, Utilities	Not Available	State/BOR

This phase development scheme will ensure that land locally identified as desirable for recreational uses will be preserved.[1] Further, it will allow the City and State to cooperatively expand, as the need arises, water-related tourist activities in the inner harbor without undue conflict with fishing and industrial uses along New Bedford's working waterfront.[2]

Footnotes

1.) New Bedford Harbor Master Plan Committee:
   a.) Goal 1, Objective 4: Dedicate approximately 5 per cent of the 'public' waterfront land area....to passive recreation and/or landscaped space.
   b.) Goal 2, Objective 6: Puruse with appropriate state and federal agencies the possibility of utilizing the New Bedford/Fairhaven Hurricane Dike and associated lands.
   c.) Goal 3, Objective 3: Palmer's Island, the basin directly west of it and the Standard-Times Field, deserve special consideration and study for development which will be sensitive to the Island's history and development potential.

2.) New Bedford Harbor Master Plan Committee "Space Needs Study". New Bedford City Planning Department, April, 1977, predicts that additional berthing space for the fishing fleet may be needed as early as 1983.



"PALMER'S ISLAND," painted by the late Frank Vining Smith, noted marine painter and ardent boatman (he was a member of the New Bedford Yacht Club) is one of more than 100 paintings, drawings and etchings by the artist now on display at Heritage Plantation, Sandwich. Hurricane Dike was still to come when this picture was painted.

PALMER'S ISLAND of long ago is shown in this detail from the Russell-Purrington Panorama; some 150 feet of panorama will be on permanent view in new Gratia Rinehart Waters Gallery at the Whaling Museum. (Photo courtesy Whaling Museum).

Entry will be through double doors on heavier linen fabric especially woven

Site Analysis

Palmer's Island encompasses 5.6 acres, of which 1 acre (the northeastern tip) is held by the Federal government: the balance of the property is in private hands.

Dominating the area is the New Bedford Hurricane Dike built by the U.S. Army Corps of Engineers. (See site analysis, accompanying plate 2). Rising some 20 feet above sea level, the dike is composed of large granite blocks and boulders. The main opening to the harbor is adjacent to the Island, thus assuring continual passage of merchant and fishing vessels for viewing by island visitors. Ordinarily, such a massive structure would pose an almost unsolvable design problem. In our instance, however, the Island's shape pointing northward, combined with the northward orientation of most vistas and attractions (i.e., the harbor, the old lighthouse) leads one away from the dike to focus on activity to the north.

At present, the Island supports little vegetation other than grass, cattails, briars, scumo cabbage and ailanthus trees. (One exception to the depressing vegetation is a large pussywillow adjacent to the marsh). Nevertheless, for years prior to the destructive hurricanes of 1938, '44 and '54, artists consistently depicted the Island as a center of lush, green vegetation amid the blue harbor. (See pictures, pp. 4,5). With the dike offering some protection from ocean gales, there is little reason to believe that organized plantings would not be successful. (See suggested planting scheme, plate 5 and accompanying cost estimate, Appendix 1).

The region's geologic history leads us to believe that the Island is of glacial origin with glacial till still present along its eastern shore. Its granite outcroppings, which represent a portion of a shelf running across southeastern Massachusetts and terminating in the vicinity of Quincy, dominate the topography. The highest, which is on the southeastern corner (see topographic map plate 3) offers the best vista of Buzzards Bay and the Elizabeth Island chain to the south, New Bedford's shipping lane to the east, and the New Bedford/Fairhaven harbor to the north and northwest. This outcropping will be preserved and enhanced through the installation of hiking paths and information panels.

Initially, access to the site will be exclusively by foot. Parking is available at the City-owned boat ramp near Palmer's Island (see map, Appendix 2). As the site is developed as a regional resource, the proposal envisions auto access limited to a parking platform adjacent to the dike. (See plate 4, and cost estimate, Appendix 3). The platform will be mounted on pilings, thus assuring continued tidal action through a shallow channel separating the Island from the dike at high tide. Vehicular access will be limited to service and emergency vehicles.

Throughout all phases of development, pedestrians will be allowed to meander throughout undeveloped portions of the site; nevertheless, they can take advantage of the semi-developed pathways along either shore (these will probably be a wooden walkway along the eastern shore and a stone or gravel pathway able to support services/emergency vehicles along the western shore).

Interior marshes will be bordered with eastern red cedar and Japanese black pine to discourage traffic and enhance the natural setting.**

Two other granite outcroppings at the Island's southern end will remain undeveloped.

The northern two-thirds (2/3's) of the Island is low-lying and gently rolling. One distinctive "geologic" feature is a sedimentary-like mixture of sand and shells forming one layer of the sandy topsoil which dominates the western shore. Given the layering several feet above sea level, we theorize that the formation is a remnant of one of the area's more destructive hurricane (perhaps 1938, which destroyed all Island structures, save the lighthouse). Plantings will be designed to impede either natural erosion or human tampering of this unique feature.

In addition to this, the western shore is dominated by both a linear and tidal beach. For the present, the beaches are to be cleared of any scattered debris to allow their use for sunbathing. Prevailing summer winds, harbor noises and sun orientation should make the area highly attractive for this use. While present water quality prevents active use of this natural bathing area, it is hoped that future water improvements will allow bathing within the next 10 to 20 years. Furthermore, future water quality improvements could open the shallow offshore mudflats to the propagation of clams and quahogs. The northern half of the Island will be the site of intermediate and long-range Island development. An open area can be developed as a campground / picnic area. (See plate 2).

** The interior marsh does collect some island runoff. However, most rain-water runs off the Island rapidly due to the solidity of the rock base and the thin soil covering.

Further, the Island's historic lighthouse can be acquired and restored as a tourist attraction and educational facility. Finally, the northern tip can be developed for recreational berthing space.

The harbor vistas and noises give this area great promise for future development. A well-designed marina, the pleasure craft attracted to the marina and the rehabilitated lighthouse should not only enhance the existing maritime vistas, but should reinforce each other and thereby reinforce the quality of the recreation/open space.

Transportation & Circulation

Palmer's Island is connected to the mainland via the Hurricane Dike constructed in 1965. A roadway with a twenty-foot (20') width runs along the inside of the dike providing vehicular access to the point where Palmer's Island abuts the dike. At this point, it is proposed that a bridge and parking platform, accommodating 100 cars, be constructed. The bridge would provide access to the Island for emergency and service vehicles only. All private cars would remain at the parking lot.

Internal circulation would be limited to pedestrian traffic. It is proposed that internal pedestrian ways be constructed to specifications required by heavy vehicles such as firetrucks, ambulances, police cars and delivery trucks.

Mainland transportation linkages to Palmer's Island are quite good. The dike road connects to the J.F.K. Highway, a limited access route running

along the waterfront of the City's "south end". The J.F.K. Highway, in turn, connects with Route 6, the main arterial road linking local traffic with nearby towns (Westport, Dartmouth, Fairhaven, Mattapoisett, Marion and Wareham) and with I-195.

Interstate 195 places New Bedford within thirty minues of Providence and Interstate 95, thus allowing access to every major metropolitan area in the east. The Boston area and the "golden circle" of industry along Route 128 are but an hour away via Routes 140 and 24, two of New England's major highways.

Cape Cod is but a thirty-minute drive from New Bedford along Interstate 195 or Route 6. Direct bus transportation from Boston, Cape Cod, New York, and Providence to New Bedford is provided by regional and local operators. In-city public transportation is provided by the Southeastern Regional Transit Authority.

Accessibility by water is excellent. Regular ferry services provide means of reaching Martha's Vineyard and Cuttyhunk. Buzzards Bay forms the northernmost end of what is almost an inside passage from New York City to Cape Cod. From the Elizabeth Islands, at the mouth of the Bay, it is only a few hours' sail to the shelter of Long Island Sound. Moreover, the northern end of Buzzards Bay terminates with the Cape Cod Canal thus linking the Bay to Cape Cod Bay, the "north shore" and the coast of Maine. Facilities in the New Bedford Harbor would therefore be well situated to serve the coastal sialing traffic generated during the summer months.

Palmer's Island lies to the port side as one enters the Harbor through the Hurricane Dike. Because of the Island's proximity to the Harbor's deep-water channel, any boat-related use of the outer shore would have to be restricted. The inlet formed by the Island and the mainland is for the most part too shallow to permit large boats. However, the northeastern tip, where the lighthouse is sited, provides between 6 and 9 ft. draught and would be suitable for berthing facilities. Public boat ramps are available at different locations throughout the New Bedford Harbor including the mainland terminus of the Hurricane Barrier near Palmer's Island. (See map , Appendix 2).

Palmer's Island as a Local and Regional Resource:

Although the initial phases of Island development call for passive recreation uses, ultimate development of the Island will have a significant regional impact. This section briefly analyses the magnitude of local and regional user populations.

Passive recreational use will initially be restricted to local residents who choose to spend time taking leisurely strolls along the dike to the Island. It is estimated that local users will be generally restricted to residents of the immediate Greater New Bedford area, i.e., New Bedford, Acushnet, Fairhaven, Dartmouth. Latest population figures (1975 show total populations among these jurisdictions:

New Bedford	100,345
Fairhaven	16,005
Dartmouth	12,586
Acushnet	8,439
	146,375

Within the City itself, neighborhoods with concentrations of lower income and minority populations are within 2-1/2 miles of the Island: (See Appendices 4,5) public transit connections can be made to stops within one mile of the island: if demand were significant, special routes could be established to accommodate passengers at a stop on the landward edge of the Hurricane Barrier near the existing City-owned boat ramp. (See Appendix 3).

Further development of the Island will increase its regional role as a tourist and recreational resource.

Special studies conducted by the New Bedford City Planning Department indicate that potential user populations within moderate driving distances are significant. For example, due to highway improvements (Routes 195, 240, 18) the portions of Greater New Bedford cited above are all within a 15-20 minute drive. Furthermore, assuming that a majority of residents in Southeastern Massachusetts would utilize existing highways, the following cities and towns are within a 30 minute highway drive of the New Bedford waterfront:

Westport	12,636
Swansea	15,052
Somerset	19,205
Fall River	100,339
Rehoboth	7,009
Dighton	5,076
Berkley	2,300
Lakeville	5,118
Raynham	7,720
Middleboro	14,146
Plymouth	26,907
Rochester	2,284
Marion	3,764
Mattapoisett	5,376
Wareham	15,078
Carver	4,280
Taunton	42,148
Seekonk	11,361
Sub-Total	299,799

Thus, the potential user population including Greater New Bedford and an area within reasonable driving distance of the Island, totals 446,174.

Furthermore, it is estimated that approximately 91% of Massachusetts tourists originated in New York/New Jersey; hence, it can be estimated that approximately 40% of the Cape's tourists must pass through New Bedford along I-195.

The downtown connector's (Route 18) presence makes Island access easier for tourists travelling the I-195 corridor. (See plate 1).

Future Development Options:

As the need arises for berthing space and as the Island is developed as a regional resource, Palmer's Island may require utility installation to support special facilities associated with park administration and the berthing area. Several utility options are presented below:

There are two options in bringing water and sewer service to Palmer's Island:

1) underwater from the South Terminal Bulkhead, approximately 1300 feet;
2) above the water along the Hurricane Barrier road, approximately 2,100 feet.

Both options will require a pumping station on the Island for the sewer service at a cost of approximately $73,000 based on the estimate from the Airport Utilities LPW Application.

The shortest route would require special ball and socket river crossing pipe to go underwater. This pipe currently costs $50.00 per foot for 10 inch and $62.00 per foot for 12 inch, not counting installation:

12" pipe - 1300 feet @ $62.00 = $80,600 plus installation

10" pipe - 1300 feet @ $50.00 = $65,000 plus installation.

The other alternative would be to suspend the pipes from the side of the road along the Hurricane Barrier. This would require building supports in the water and installing a guard rail along the road's outer edge.

Using present estimates for installing pipe in-ground as a base and assuming that the supports needed will cost as much or more than trenching in roads, the following prices are presented as minimum estimates:

12" Sewer - 2100 feet @ $30.00 = $63,000 +

or 12" Water - 2100 feet @ $35.00 = $73,500 +

or 10" Sewer - 2100 feet @ $27.50 = $57,750 +

or 8" Sewer - 2100 feet @ $25.00 = $52,500 +

The installation of an electric submarine cable from Gifford Street to the Island is approximately $25.00 per foot for a total estimated expense of $52,500. The line would tie into a 13,000 volt line at Gifford and Harbor Streets.

Palmer's Island Park and Coastal Development Concerns:

The following presents a list of policies taken from the

Massachusetts Coastal Zone Management Plan, which the City believes are addressed by this preliminary proposal.

Policy (13) Encourage incorporation of visual concerns into the early stages of the planning and design of all facilities proposed for sitting in the coastal zone. Use existing review processes to ensure that publicly funded development minimizes adverse impacts on the visual environment.

Policy (15) Expand visual access in urban areas and provide views of coastally dependent activities with significant educational or interest value.

Policy (18) Promote the widest possible public benefit from port and harbor and channel dredging and ensure such proposals are consistent with marine environment policies.

Policy (19) Encourage, through technical and financial assistance, the expansion of water-dependent uses in port areas and developed harbors where the risks of damage to the marine environment are minimal.

Policy (22) Link existing coastal recreation sites to each other or to nearby coastal inland facilities via trails for bicyclists, hikers and equestrians, and via rivers for boaters.

Policy (23) Increase capacity of existing recreation areas by facilitating multiple use of the sites and by improving management, maintenance and public support facilities. Resolve conflicting uses whenever possible through improved management rather than through exclusion of uses.

Policy (34) All development must conform to existing state and federal requirements governing sub-surface waste discharges, point sources of air and water pollution, and protection of inland wetlands.

Policy (36) Encourage the revitalization of existing development centers in the coastal zone by providing federal and state financial support for residential, commercial, and industrial redevelopment.

LANDSCAPE

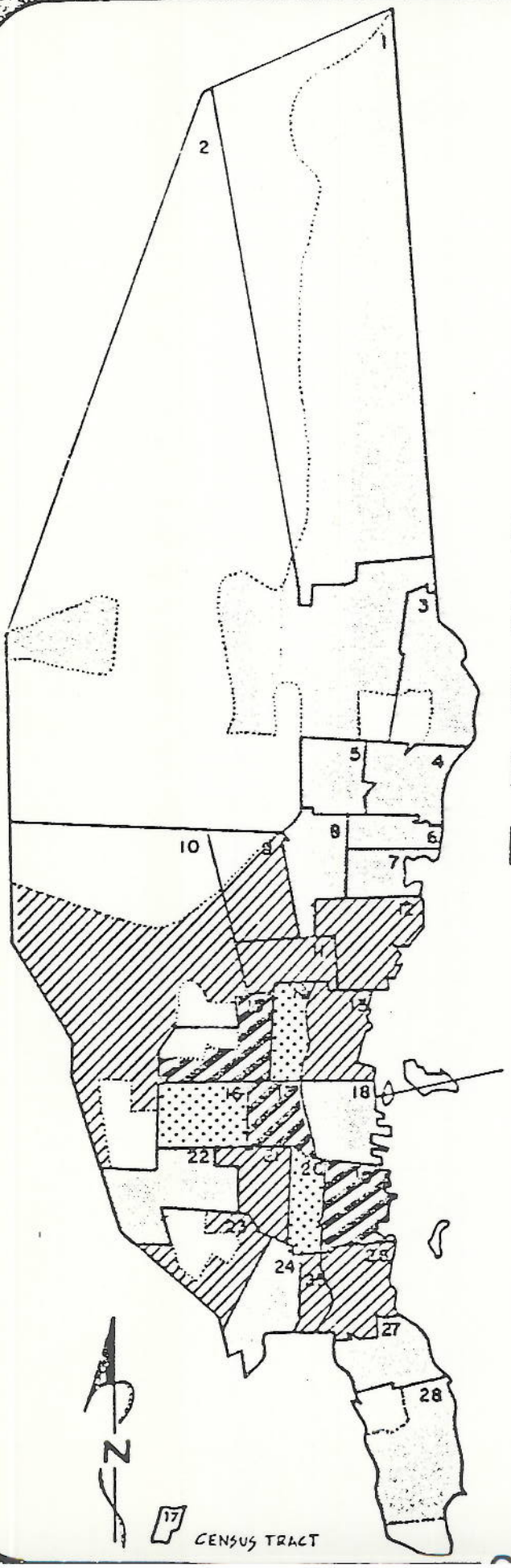
Eastern Red Cedars	112 @ $18.00	$2,016.00
Jap Black Pine	39 @ $22.00	858.00
Hazel Alder	13 @ $30.00	390.00
Babylon Weeping Willow	11 @ $15.00	165.00
Flowering Quince	6 @ $25.00	150.00
Winged Euonymus	17 @ $ 4.00	68.00
Colorado Blue Spruce	44 @ $18.00	792.00
Beach Plum	72 @ $ 7.50	540.00
Jap. Rose	66 @ $ 3.00	198.00
Jap. Andromeda	31 @ $15.00	465.00
Mountain Cranberry	100 @ $ 1.50	150.00
		$5,792.00

PARKING LOT

1.	Survey @ $175./acre	$ 700.00
2.	Pilings 18" dia. Conc. Filled @ $19.95/ Vertical Ft. - 20 Ft. Pilings	12,000.00
3.	Timber Guard Rail along Causeway @ $4.40/ft. 1700 ft.	7,500.00
4.	Precast Conc. Bridge From Island to Dike	30,000.00
5.	Steel Underside over Pilings	60,000.00
6.	Paint Lines @ .10/Lin.Ft.	250.00
7.	Drainage	1,000.00
8.	Landscaping	700.00
	Sub-Total	112,150.00
9.	Deck Surface 31,250 sq.ft.	
	572 Tons Asphalt @ $40/Ton (incl.Labor)	22,880.00
	GRAND TOTAL	$135,030.00

FIGURE 2

CONCENTRATIONS OF MINORITY GROUPS



NON-WHITE POPULATION

- Well Above City Norm (>20%)
- Above City Norm (6-10%)
- Around City Norm (1-5%)
- Below City Norm (<1%)
- Unpopulated Areas

Total Non-White in City - 3.7%

Source: 1970 U. S. Census

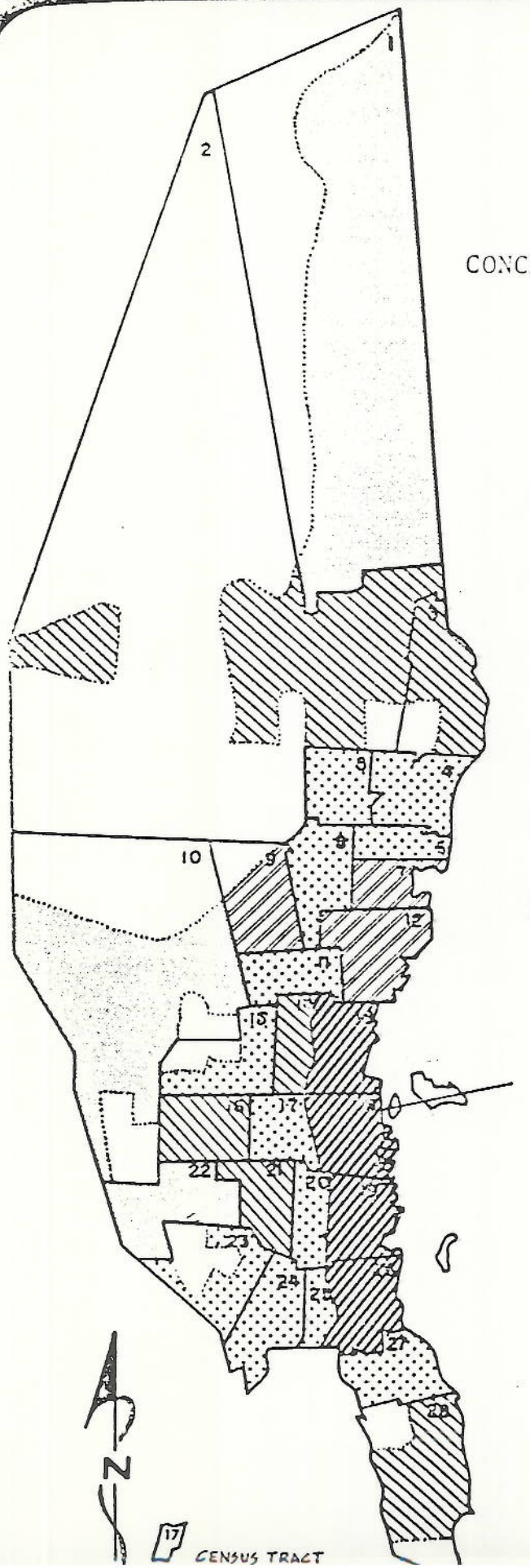


FIGURE 3

CONCENTRATIONS OF LOWER-INCOME PERSONS

MEDIAN FAMILY INCOMES

- Well Below City Norm (<$6400)
- Below City Norm (<$7000)
- Around City Norm ($7000-8300)
- Above City Norm (>$8900-9900)
- Well Above City Norm (>$10,000)
- Unpopulated Areas

City Median-$7974

80% City Median-$6379
(low and Moderate level)

Source: 1970 U.S. Census

PALMER'S ISLAND:

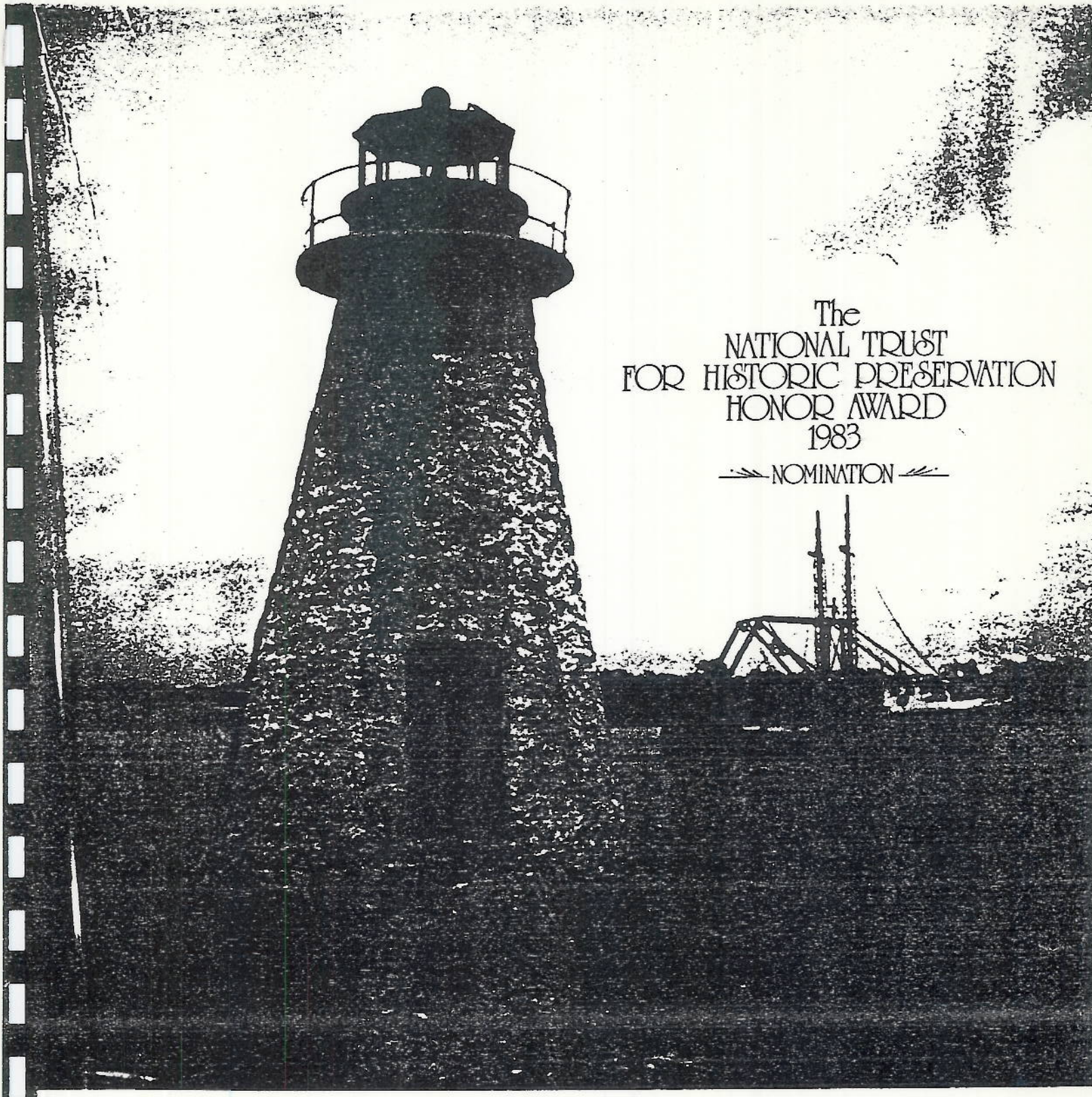
History of the Site:

Palmer's Island is located at the entrance of New Bedford's Harbor, approximately half a mile off the City's "south end". When the economy of New Bedford centered on various maritime industries, a succession of uses integrated the Island into the mainstream of the City's life. Today, however, the Island is barren, save for the ruins of a lighthouse which once guided ships into a thriving port.

The Island was named for one of its first owners, William Palmer, who was reported to have been scalped by Indians in 1670. During the time of King Phillip's War, it was used a detention center for captured renegade Indians. A military unit was garrisoned on the Island after the outbreak of the Revolution. In 1849, a lighthouse, the remains of which are still in evidence, and a keeper's house, were built by the Federal Government on a one acre site on the northeastern tip of the Island. Fifteen years later, the balance of the Island was enlivened by the establishment of a dance hall patronized by whalers and merchant seamen. A bowling alley was added in 1880 and for a while, the Island prospered as an active, if not notorious, recreation center. With the decline of New Bedford's whaling and shipping industries, the demand for the particular delights of Palmer's Island slackened and towards the end of the century, the dance hall was purchased and refurbished for use as a private summer residence. However, in 1938, all structures, save the lighthouse, were washed away by a hurricane.

At present, the Island is linked to the mainland by a Hurricane Dike running across the mouth of New Bedford Harbor. This Dike was constructed by the Army Corps of Engineers in 1964-1966, and provides complete protection for the innder Harbor. The harbor barrier consists of 4,430 feet of earth-fill with rock faces and toes. It extends across the main Harbor from the foot of Gifford Street in New Bedford to the intersection of Foot and Doane Streets in Fairhaven. To accommodate the navigational needs of the Harbor, a 150 foot concrete and steel-gated opening is at the channel. The area behind the barrier is Flood Zones Area "C" - area of minimum flood hazard.

Although Palmer's Island is separated from the dike at high tide, access by foot is possible at low tide. The lighthouse ceased operation a number of years ago and the remaining structure was gutted by fire in 1966. There are no current uses of the Island.



The
NATIONAL TRUST
FOR HISTORIC PRESERVATION
HONOR AWARD
1983

NOMINATION

Palmer's Island

Description of Nomination.

Palmer's Island, situated at the entrance of the New Bedford Harbor has been prominent in the history of New Bedford since colonial times. It was reported that King Philip's family was kept hostage on the Island during King Philip's War. The Lighthouse built in 1849, as a navigational aide for the Whaling Fleet, is pictured on the City's seal, a copy of which and description is enclosed.

In 1980, the Coast Guard Commemorative, Inc. was organized in order to preserve several maritime-related structures within New Bedford's Harbor. At that time, it was decided that the Lighthouse could be restored to its original appearance and lighted once again. This was accomplished over the next three years with the help of many.

The main purpose of this effort was to show that community pride and talent would accomplish the task. Coast Guard Commemorative, Inc. sought no government aide or any outside grants.

Palmer's Island and its derelict lighthouse was the only significant blemish in our beautiful busy harbor, and a source of embarrassment to City officials. These officials, as well as the Town officials in Fairhaven, across the Harbor, agreed (in theory) to the problem but had no ability nor funding to do the restoration. It was public approval pledged by the Mayor of the City that was most helpful in generating enthusiasm for this project.

Scope of the Activity

The list of de-commissioned Lighthouses is growing larger monthly, as is the National Register of Historical Landmarks. The successful efforts on Palmer's Island should be proof that local effort and pride are sufficient to rehabilitate and maintain significant local landmarks.

Achievement

The Lighthouse at Palmer's Island has been restored and illuminated for the past six months. It is registered with the Coast Guard as a privately-maintained aide to navigation. Also, volunteer efforts organized through the Coast Guard Commemorative, Inc. have been responsible for the systematic cleanup of this four and one-half acre Island and plans are currently underway to assure this cleanup program is repeated on an annual basis.

All Unusual Challenges

The Coast Guard Commemorative, Inc. faced many problems in the restoration process. These obstacles included transporting tons of material by small boat even to the details of supplying fresh water for cement mixing. The constant lack of electricity during building phases necessitated the transport of a portable generator for power and tools. There was the need for security from vandalism and from curiosity seekers while the site was unattended.

The major obstacle and subsequently, greatest accomplishment, was simply maintaining a safe working environment for a completely amateur effort in such an isolated area.

The Method of Construction

The Coast Guard Commemorative, Inc. recruited a local marine construction firm to remove the skeleton lantern top from the Lighthouse and replace it, approximately one year later, completely refitted. This restoration was accomplished by members of the Coast Guard Commemorative, Inc. in the backyard of one of the directors. This restoration involved sandblasting, dismantling, welding, and repairing severe damage. A new roof, ceiling, plate glass windows, were also added at this time.

The Greater New Bedford Vocational School custom-machined steel window frames and ceiling straps. A group of students from the concentrated employment training act center built a prefabricated

Method of Construction Cont'd.

iron-decked frame which was carried out to the Lighthouse and assembled on site. Major remodeling to strengthen the original stone structure was done and a custom steel vandal-proof door was installed. An iron spiral staircase was located in an unused City fire station. It was donated to Coast Guard Commemorative, Inc. and then installed inside the Lighthouse - a perfect fit.

Innovation

The final design problem was in locating a source of power for the beacon. Since the Island was isolated from all utilities, the Coast Guard Commemorative, Inc. chose a photovoltaic solar generator which charges the 12-volt batteries, which in turn, power the light. The organization learned about solar energy storage from U.S. Government Publications and learned of their practical application through day trips to the Coast Guard Research and Development Center in Gro Connecticut. Thereafter, the group successfully assembled a reliable, self-contained system for the Lighthouse. It can now be said that the Coast Guard Commemorative, Inc. has provided a City of New Bedford's Harbor with the first solar-powered Lighthouse in the world!

THE SEAL OF NEW BEDFORD

Designed by James T. Almy and adopted by ordinance September 4, 1851 it presents a view of the northerly end of Palmer's Island, with its lighthouse, of a steamboat passing Palmer's Island, and of the city of New Bedford in the distance. The motto "Lucem Diffundo" translated is "I diffuse light." The inscription "Nova Bedfordia condita, A.D. 1787" gives the date when the town was set off from Dartmouth; "Civitatis regimine donata, A.D. 1847" refers to the year of incorporation of this municipality as a city.

240

Purpose

A volunteer, non-profit group, COAST GUARD COMMEMORATIVE EXHIBITION, INC., has assumed the job of fixing up and maintaining PALMER'S ISLAND LIGHTHOUSE, LIGHTSHIP NEW BEDFORD, BUTLER FLATS LIGHTHOUSE, and CLARK'S POINT LIGHT. Today, many youngsters will clean up many years of debris on Palmer's Island, and are seeking financial sponsors to raise funds for the overall effort. Willing sponsors are asked to pledge a small amount of money per ton of junk collected by the aggregate of youngsters. A theoretical limit of twenty tons of junk has been set for the purpose of meeting the pledges.

Parents

PALMER'S ISLAND is reached by wading across a narrow tidal wash. There is some poison ivy on the island. First-Aid will be available if needed (provided by local medical personnel). For any but the most minor injuries, transportation to St. Luke's Hospital will be available. You would be responsible for any injuries to your child. If you agree, please sign here:

Parent's Name _____

Parent's signature denotes permission for any necessary First-Aid. Thank you.

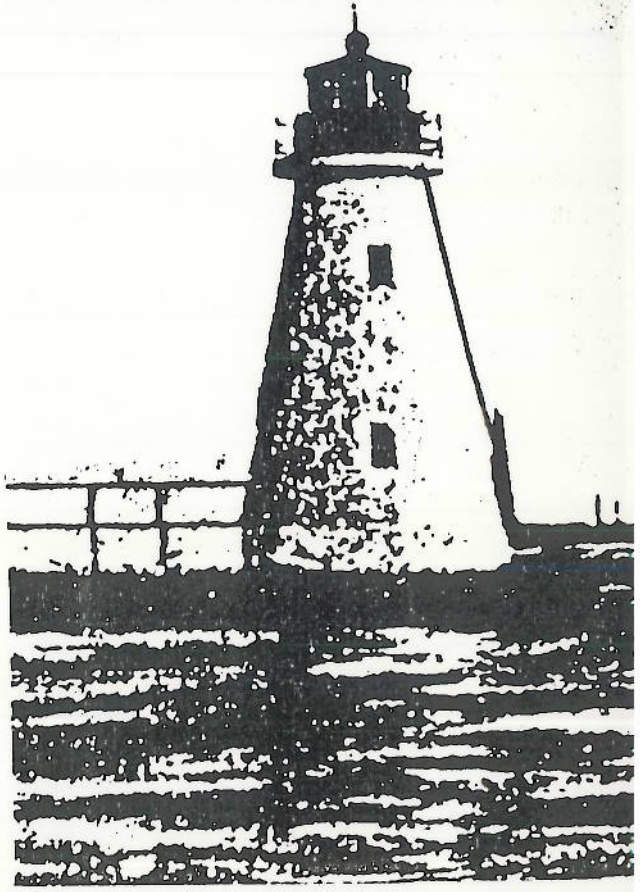
You are assured that adequate adult supervision will be provided. Please direct your youngster to obey the adult leaders all day.

Palmer's Island
JUNK-A-THON

Saturday, June 13, 1981

Rain Date: Sunday, June 14, 1981

Postponement will be announced on Radio Stations



This Pledge Sheet Identifies:

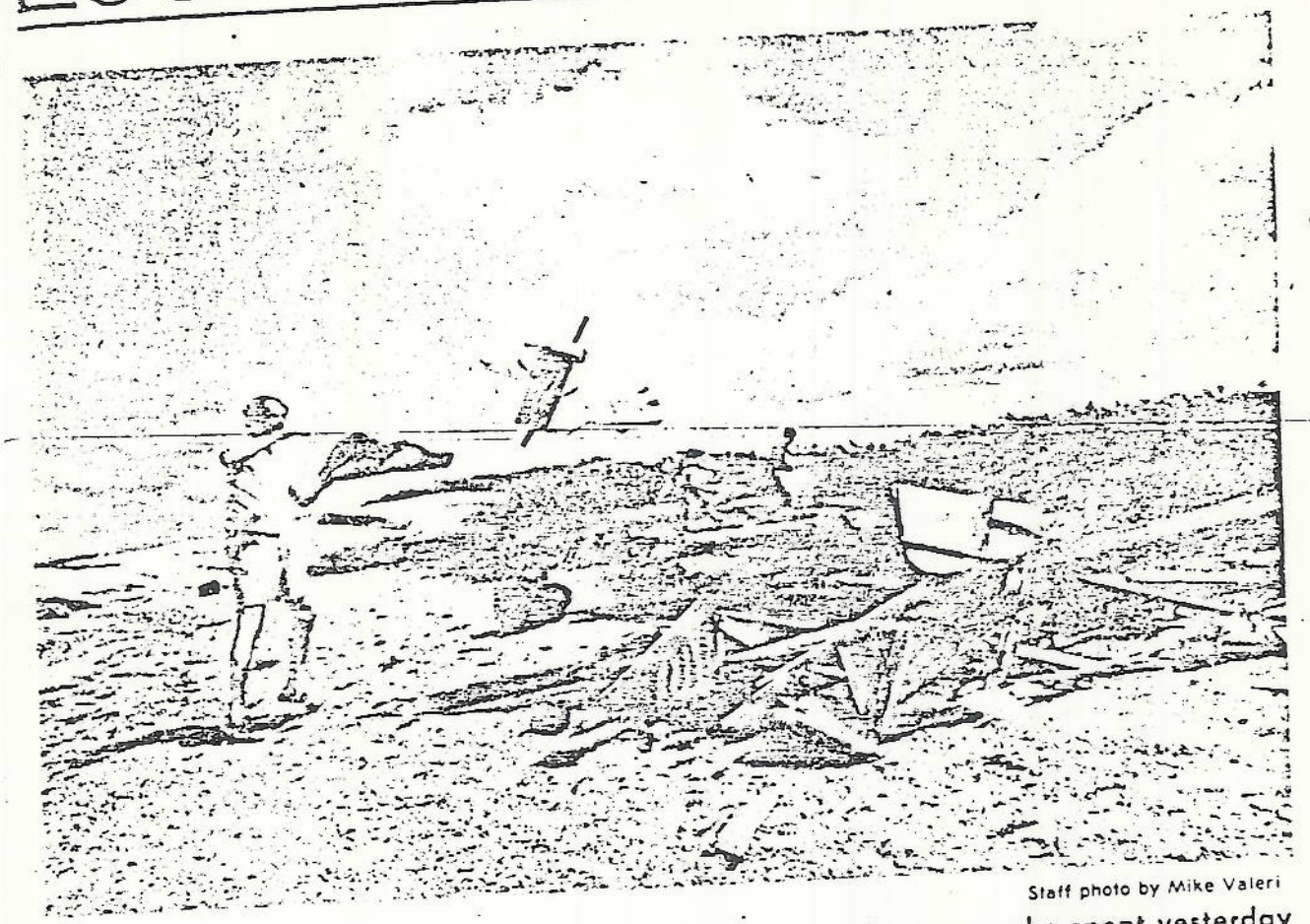
Name: _____ Address: _____

Unit: _____

Total Junk Collected by Aggregate: _____ Tons Verified: _____

SPONSOR NAME	SPONSOR ADDRESS	PLEDGE PER TON	TOTAL PLEDGED	TOTAL COLLECTED

VOLUNTEER YOUNGSTERS: Assemble at 9:00 a.m., Saturday, June 13, 1981, in Parking Lot behind Hathaway Mill to walk out to Palmer's Island. Wear hard-soled shoes, bring your lunch, and be prepared to stay on the Island until 2:00 p.m. We will wade over to the Island from the Hurricane Dike on a falling tide. Cool drinks will be provided, and Adult Leaders must be obeyed. Please bring this pledge sheet signed by your parent.



Staff photo by Mike Valeri

Joseph Winterhalter of New Bedford adds his share to the pile of debris collected by volunteers, who spent yesterday cleaning up Palmer's Island.

Young volunteers help return Palmer's Island to past beauty

By Charlotte E. Mooney
STANDARD-TIMES CORRESPONDENT

"Litter makes the world look ugly and we don't like it," This is the reason 8-year-old Matthew Centeio gave for his participation in yesterday's Palmer's Island Junk-a-Thon.

Matthew, along with other youthful and adult volunteers, braved water, broken glass and poison ivy in an attempt to reach a projected goal of 20 tons of debris to be removed from the five-acre island in New Bedford Harbor.

Sponsored by the Coast Guard Commemorative Exhibition Inc. the event is part of the group's efforts to restore the 132-year-old Palmer's Island Lighthouse to working capacity.

According to Dr. John B. O'Tooke, 3rd, vice-president of the exhibition, the structure will serve as "a privately maintained aid to navigation" and will be operational "hopefully, by the end of the summer."

The Palmer's Island lighthouse guided sailors for the last time in 1965, when signals were placed upon the Hurricane Barrier. To Richard Walega, of New Bedford's Planning Board "it is locally very significant.

"Because it was built just before the hey-day of whaling you could say it's part of the whaling heritage." The building which is part of the city's seal was placed on the national register of historic landmarks a year ago.

Benjamin Baker, president of the exhibition, explained that "the city acquired this area for a recreational area." He added that "although we're concerned with restoring the lighthouse we thought it would be a good thing to do, to give the city a hand."

Filling bags donated by the Corporation for a Cleaner Commonwealth Baker stated that "all the non-biodegradeable debris will have been picked up today" adding that the large pieces of wood remaining "are unsightly but not harmful."

The youngsters were particularly enthusiastic about some of the acquisitions, such as horseshoe crabs, fishing lures and large metal spikes.

Eleven-year-old Robert Pacheco "Would like to preserve the history behind this lighthouse." He enthusiastically asks "Did you know that King Phillip's son was kept hostage here?"

Robert's co-worker, 13-year-old Todd Centeio, is working "to make everything better so people can make it in Massachusetts."

The actual amount of debris will be judged by Sen. William MacLean, Mayor John Markey, and City Councillor J. Mark Treadup. The volunteers will then approach their sponsors for their pledges to support the overall effort.

CITY OF NEW BEDFORD
MASSACHUSETTS

CITY PLANNING DEPARTMENT

Richard A. Walega
City Planner

November 23, 1981

Dear Ladies & Gentlemen of the Advisory Committee:

Although New Bedford has always maintained a close relationship with her maritime heritage, storm warnings from Proposition 2-1/2 have forced her to lean toward the private sector for help in maintaining several of her most cherished maritime landmarks. In the Spring of 1981, the City agreed to allow a newly-formed, non-profit organization called Coast Guard Commemorative Exhibition, Inc. take over the maintenance responsiblities for the Clark's Point light, Palmer's Island light station, Butler Flats light station, and Lightship (WLV-536) NEW BEDFORD and the adjoining geodesic dome. The Coast Guard Commemorative Exhibition, Inc. has a statement of purpose and a description of activities which are included as an appendix to this letter.

It is the Coast Guard Commemorative Exhibition, Inc. (hereafter called the Commemmorative) that is petitioning the Citizens Advisory Committed for $7,500 in 8th year Community Development funds to accomplish several things.

First: The Commemorative wishes to expand the audiovisual addition to the "aboard ship" tour program. Presently, Coast Guard oriented film clips are shown in the former mess area of the ship. This component and theatre should be expanded and made self-actuating.

This past summer season welcomed over 5,000 visitors aboard the LIGHTSHIP, over one-half were children. We intend to encourage school-time participation by the students as field trip exercises in May/June 1982 and would like to have the expanded A/V system in operation. The approximate cost of this element would not exceed $2,000.

Second: The Commemorative wishes to create exhibition space on-board the LIGHTSHIP and within the geodesic dome to display Coast Guard artifacts and interpretive explanations of their functions. Space aboard the LIGHTSHIP will be transfored into a Palmer's Island light display and a Fishermen's Heritage display dedicated in the memory of Lucille Swain. The cost of these improvements will not exceed $3,000.

Third: The Commemorative wishes to further restore the Palmer's Island Lighthouse. This landmark has been added to the National Register of Historic Places and is in the process of being restored. The Commemorative plans to sponsor several fund-raising events in 1982 to raise money to continue the restoration effort. We would like to restore the large granite-block walkway leading out to the structure from the Island. The cost of the labor to reposition the stone walkway would not exceed $2,000.

The Fourth and final item is the exterior rehabilitation of the Butler Flats light station. Work involved includes the scraping and painting of all rusted areas above the first deck and securing the interior from vandalism. The cost of this work through volunteer labor will not exceed $500 for materials.

We sincerely hope that the Advisory Committee will view these requests as a means of preserving New Bedford's Maritime heritage for all groups and all ages of people in New Bedford.

Sincerely,

BENJAMIN B. BAKER, Pres.
Coast Guard Commemorative
Exhibition, Inc.

Coast Guard Commemorative Exhibition

July 25, 1981

MEMBERS OF THE EXECUTIVE COMMITTEE

DATE OF THE NEXT MEETING
AND
COAST GUARD DAY CELEBRATION
TUESDAY EVENING
7:00PM
ON BOARD
LIGHTSHIP NEW BEDFORD
AUG 4,1981

RECAP OF EVENTS IN JUNE AND JULY TODATE:

* June 13th was the JUNK-A-THON on Palmer's Island. While the number of eager kids was lower than expected, the adults all pitched in and collected the "20" tons of rubbish which was taken to the City's Land Fill in the early afternoon.

* June 23- The Lightship returns to its berth!

* June 27th- the postponed cleanup starts with mooring the Lightship with the chains and replacement of the gangway.

*June 29- the CETA Maintenance Crew started and did a fantastic job prior to the July 3rd openning!

July 3- The Lightship is openned for the season. The events along the waterfront brought approximately 1,000 visitors the first weekend.

July 11- Palmer's Island gets a new door.

July 16,- Palmer's Island gets a spiral staircase (from decommissioned Station 10. Transferred to the custody of the Planning Department.)

July 25- Installation of the stairs in Palmer's Island is started.

ITEMS FOR A BRIEF DIRECTORS MEETING BEFORE THE COAST GUARD DAY OBSERVATIONS

* INCORPORATION-Papers to be signed, if not done prior to meeting!

* AGREEMENT- Draft for agreement with City to be presented for review.

A Project of port support

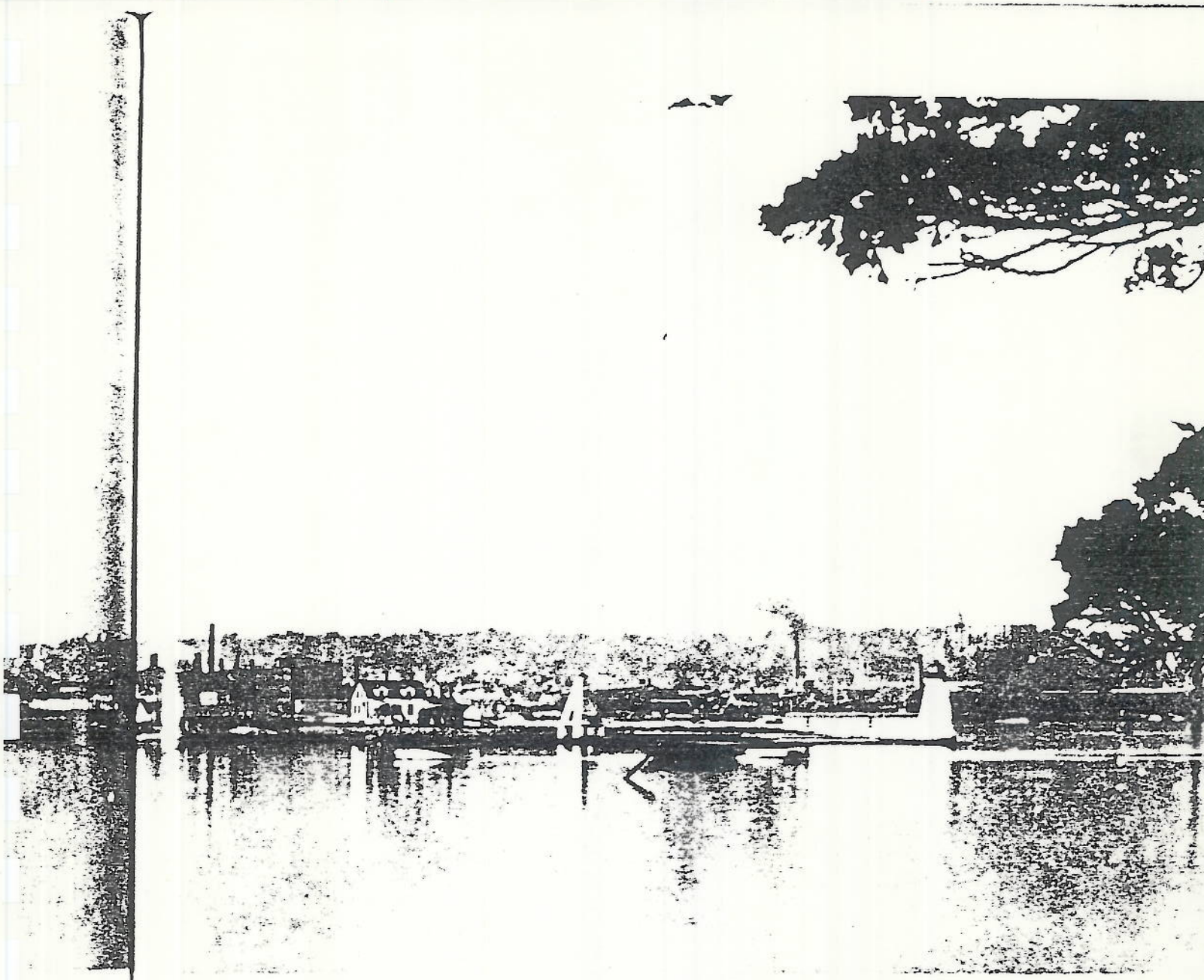
LIGHTSHIP NEW BEDFORD, Post Office Box D-625, New Beaford, Massachusetts 02742

BANK OF NEW ENGLAND
BRISTOL COUNTY

NEW BEDFORD

FALL RIVER

Palmer's Island Lighthouse in 1910 and the house of the family which tended it.



Palmer's Island, Looking from Fort Phoenix

This island was named after William Palmer, a resident of the old township of Dartmouth who was slain on this island during King Philip's War. The old lighthouse was built on Palmer's Island in 1849 and is depicted on the city seal. A lighthouse keeper lived here until 1941, when the light was automated. The new hurricane barrier, built in 1966, rendered the lighthouse obsolete, and it was allowed to fall to ruin. Restoration of the light began in 1981 under the direction of Dr. John B. O'Toole III and is still in progress.

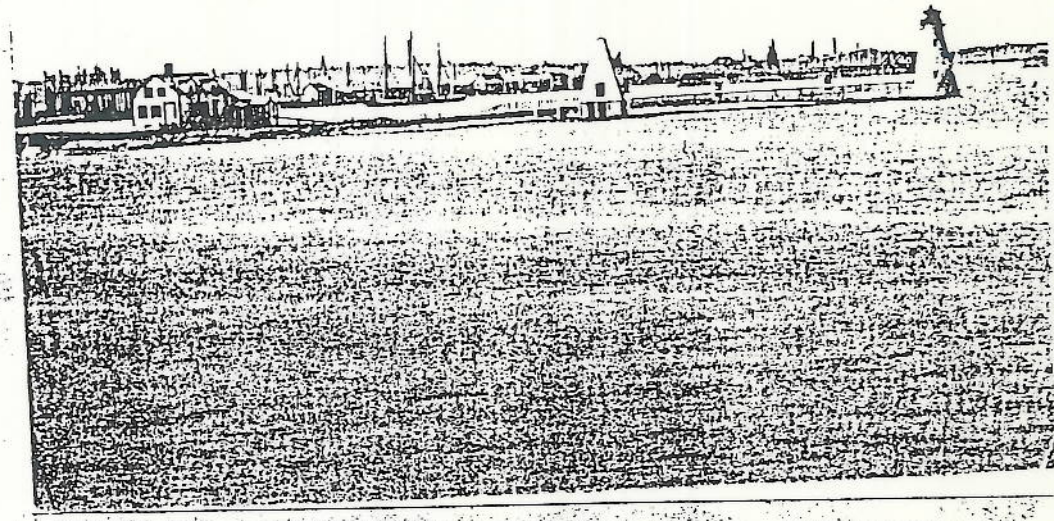
A hotel, Furber House, was built as a summer home on the island in 1866 and was later converted to a summer hotel and then a dancehall. The island also had a bowling alley and an amusement park, none of which are still standing today. Cedar trees and wild asparagus once grew on this now barren little island.

In 1893 the island, no longer used as a summer "resort" spot, was sold to the Hathaway Manufacturing Company and the Acushnet Mills for coal storage. Palmer's Island is now owned by Norlandic Diesel. Photograph courtesy of the New Bedford Free Public Library

was known of the New York apoisett. He ireless tic Ocean. suing licenses ember 1912. try to his life he th other

d dio station. decessor of of the mill rn. at the age of Milton Silvia:

2022 Palmers Island, New Bedford Harbor.



PALMERS ISLAND, NEW BEDFORD, MASS.

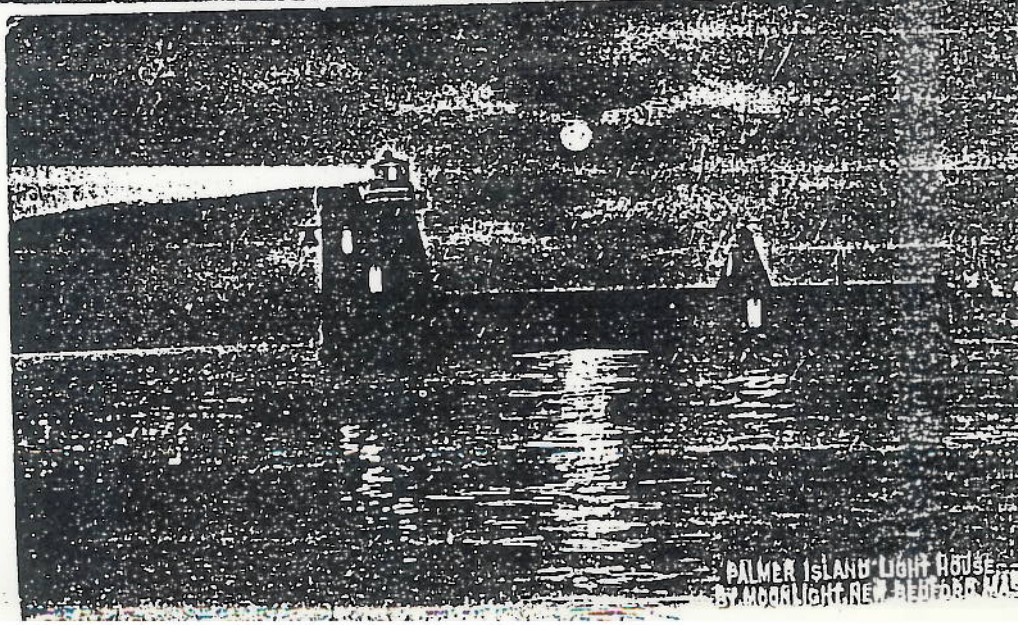
A Warm Welcome

Awaits you in Cool

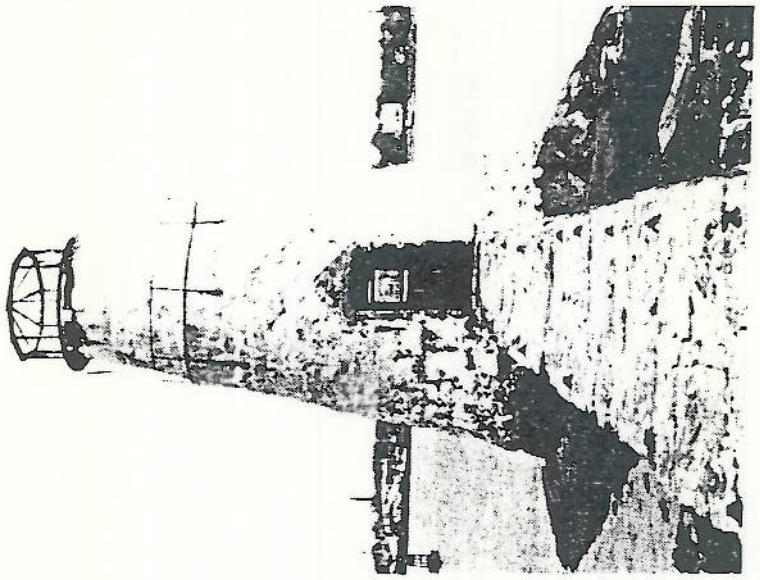
NEW BEDFORD

Old Home and Textile Carnival

August 25-31 1907.



PALMER ISLAND LIGHT HOUSE
BY MOONLIGHT NEW BEDFORD MASS



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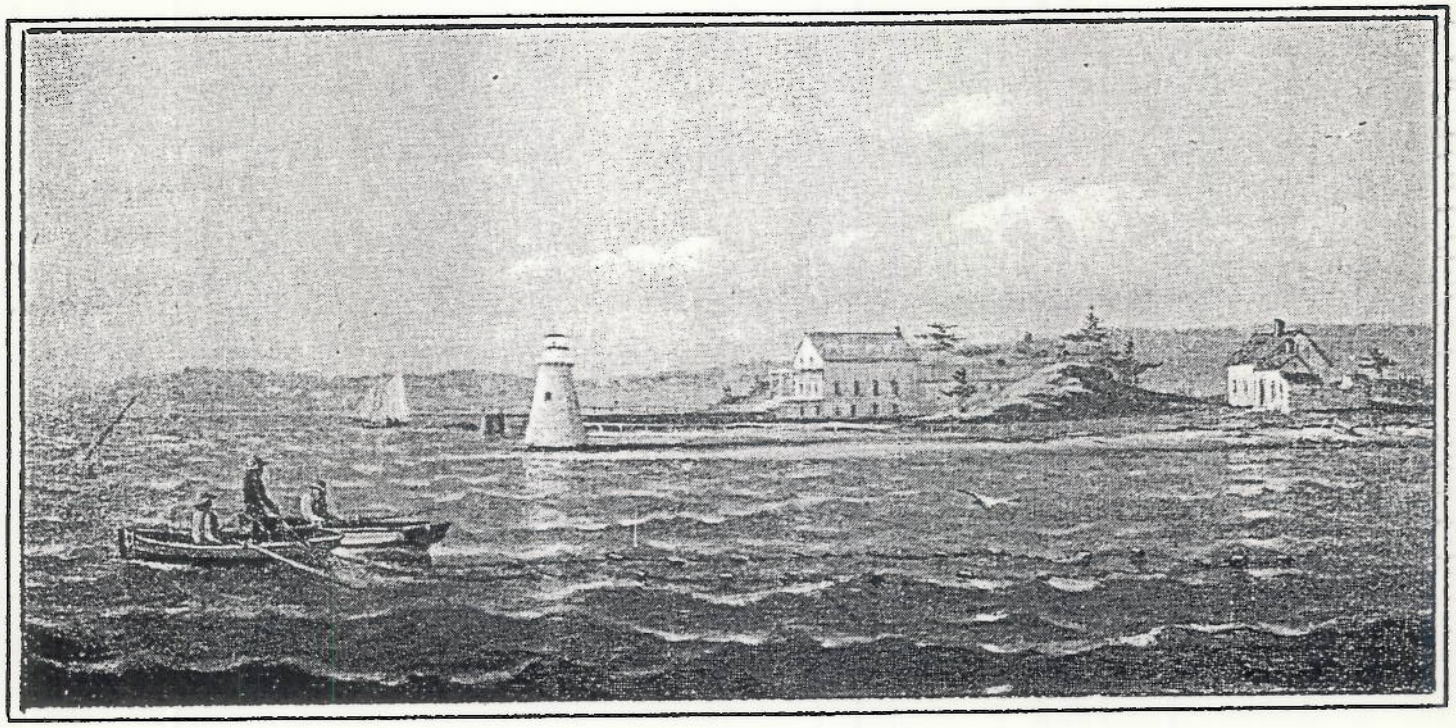
Designed by James T. Almy and adopted by ordinance September 4, 1851 it presents a view of the northerly end of Palmer's Island, with its lighthouse, of a steamboat passing Palmer's Island, and of the city of New Bedford in the distance. The motto "Lucem Diffundo" translated is "I diffuse light." The inscription "Nova Bedfordia condita, A.D. 1787" gives the date when the town was set off from Dartmouth; "Civitatis regimine donata, A.D. 1847" refers to the year of incorporation of this municipality as a city.

Invitation for Proposals:

Architectural Services for the

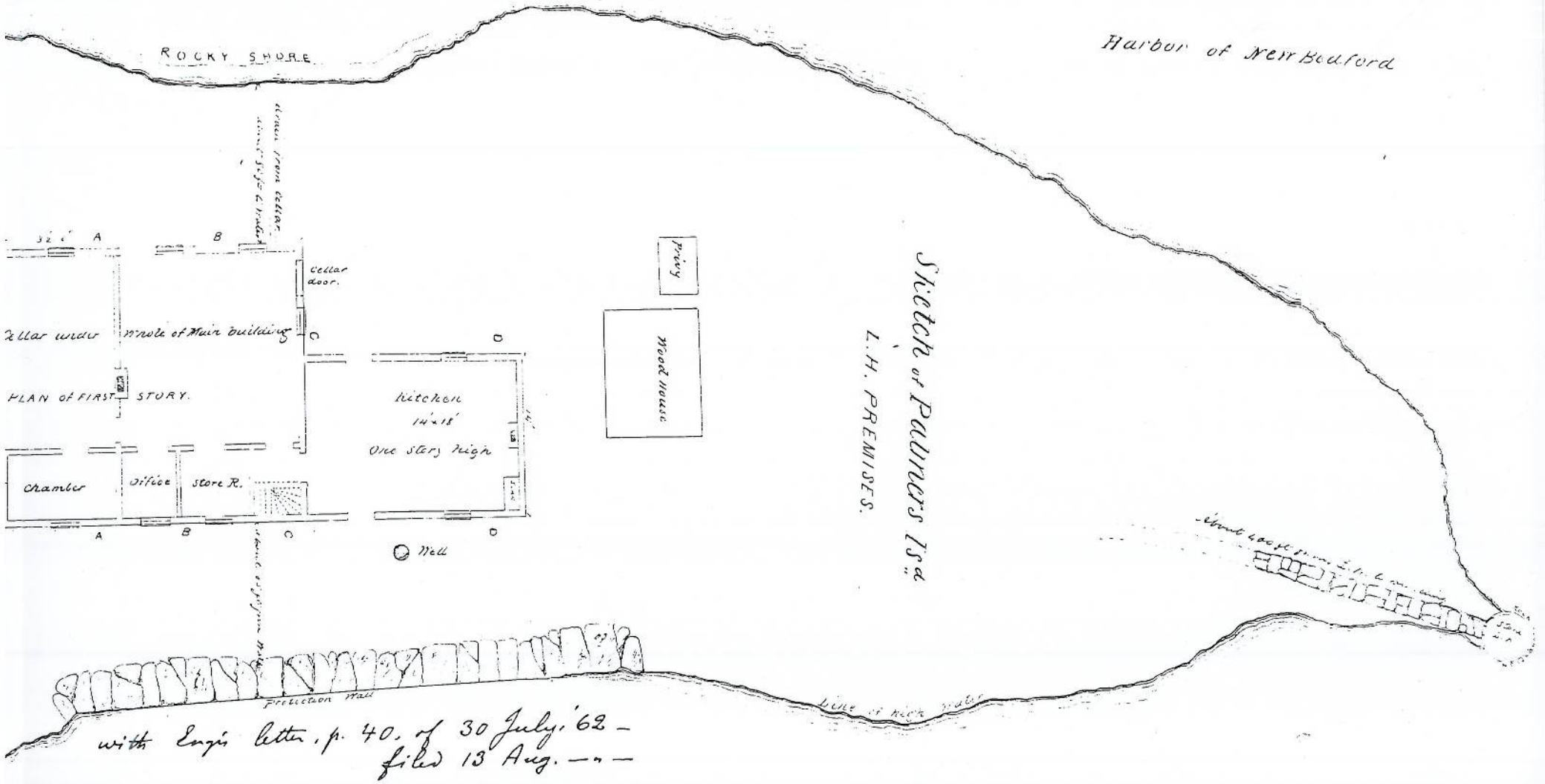
Historic Lighthouse Improvement Project:

Butler Flats Lighthouse and Palmer's Island Lighthouse



City of New Bedford, Massachusetts
Office of Housing and Neighborhood Development

January 18, 1989



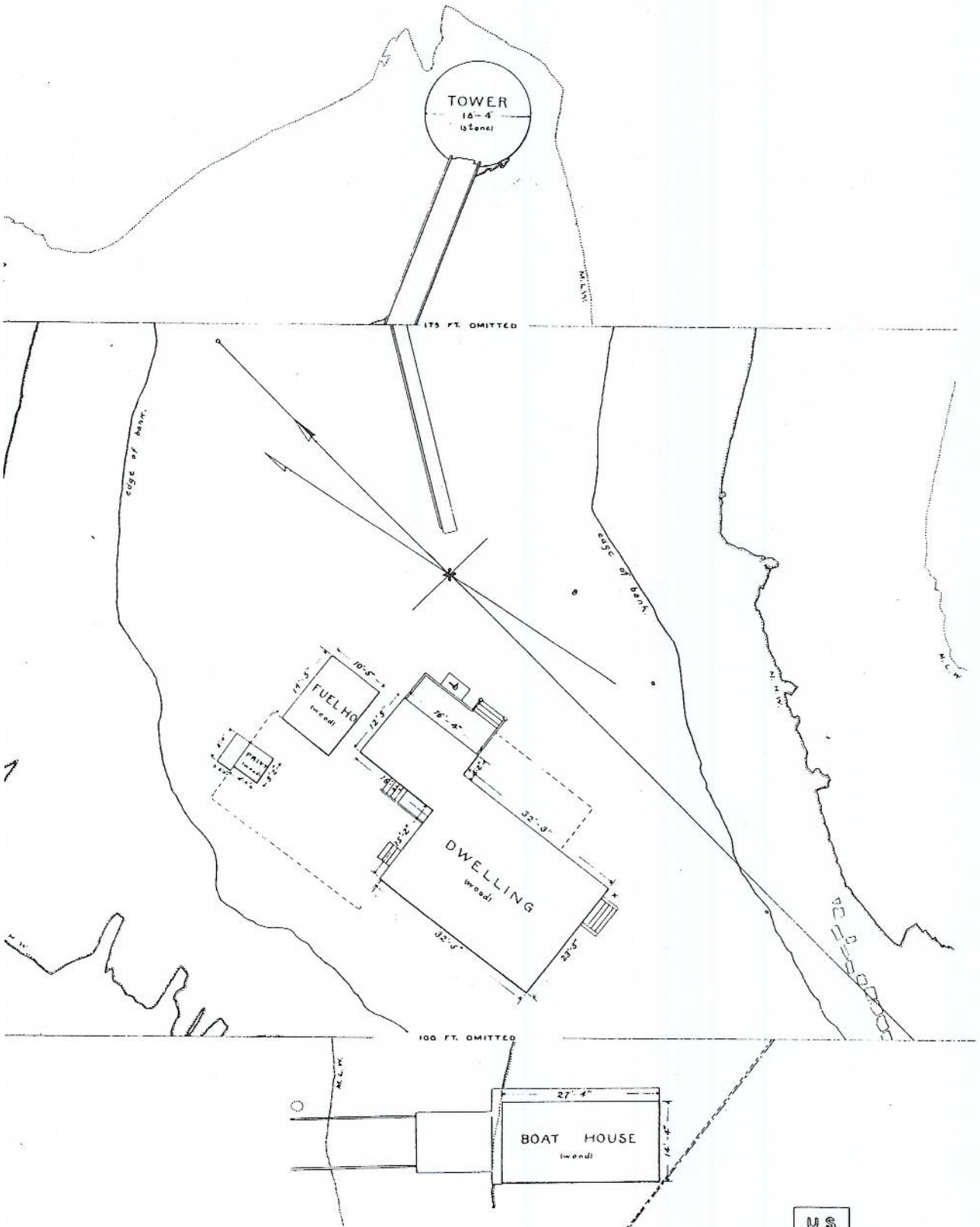
with Engr letter, p. 40, of 30 July '62 –
filed 13 Aug. – " –

LIGHT STATION,

MASS.

Buildings Surveyed November 30, 1889, by E. P. ADAMS, C.E., L.H. Surveyor.

Scale, $\frac{1}{200}$.



US
LHE

E. P. Adams
L.H. Surveyor, 1st & 2nd Dists.

W. P. Craven
Maj. of Engrs.,
Engr. 1st & 2nd L.H. Dists.

OFFICE OF L.H. ENGR., P.O. BLDG., BOSTON, MASS., JULY 31, 1894.

PALMER ISLAND

LIGHT STATION,

MASS.

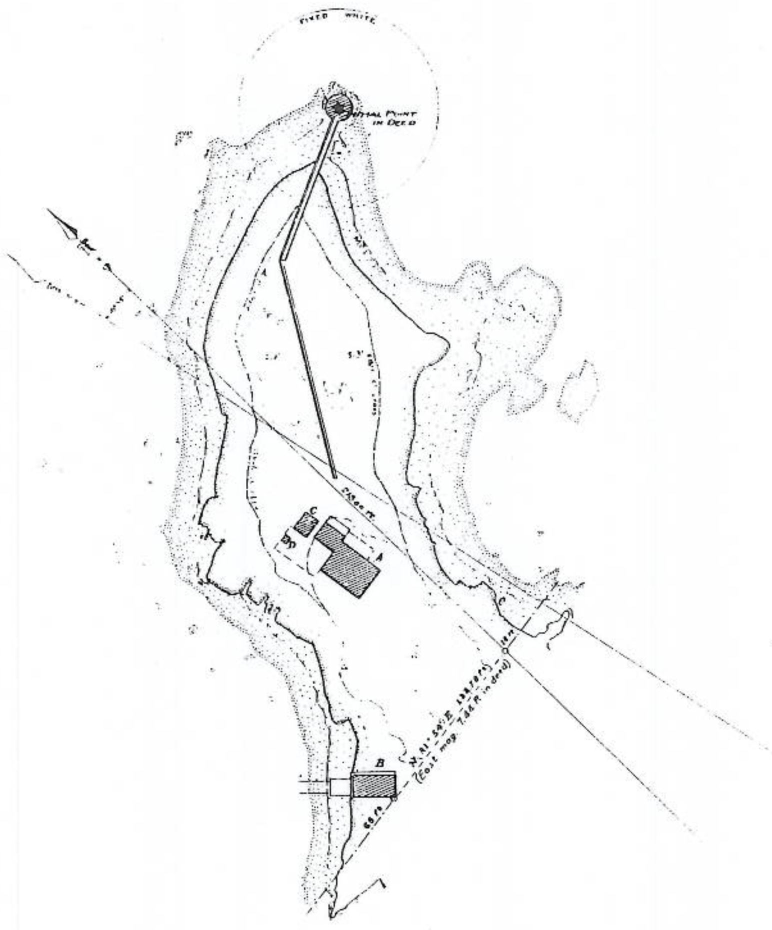
Lat. 41° 37' 37" N.
Long. 70°54' 35" W.

Kind of Light .... Harbor.
Order of Light .... 5th.
Characteristic of Light .... Fixed White.
Base of Tower above water level .... 1.60 ft.
Focal Plane .... 35.66 ft.
Mean Range of Tides .... 3.60 ft.

Site Purchased .... Mar. 15, 1849.
Deed Recorded in Bristol Co., Reg. Bk. 25, p. 105-6.
First Buildings, when built .... 1849.
When rebuilt or renovated ....
Area of Reservation to M.H.W. line .... 1.08 Acres.
Area enclosed .... Whole Area.

Reservation Surveyed Nov. 27 to Dec. 5, 1889, by E. P. ADAMS, C. E., L. H. Surveyor.

Scale, $\frac{1}{1000}$.



— EXPLANATIONS. —

The Magnetic Declination in 1849 was estimated in 1889, by comparison of authorities, to have been 9°42', the declination at time of survey was determined, by observation of Polaris to be 10°55' W. Courses given on plan are True bearings. Contours 3 ft. apart.

Light Tower. A. Dwelling. B. Boat House. C. Fuel House. D. Privy.

— - — Boundary of Reservation. - - - - Fence. ° Copper Bolt. ∘ Cedar post.

——— M.H.W. Line. .... M.L.W. Line. ▪ Stone Bound, 3 ft. long, 6"x 6" top cut thus:–

US LHE

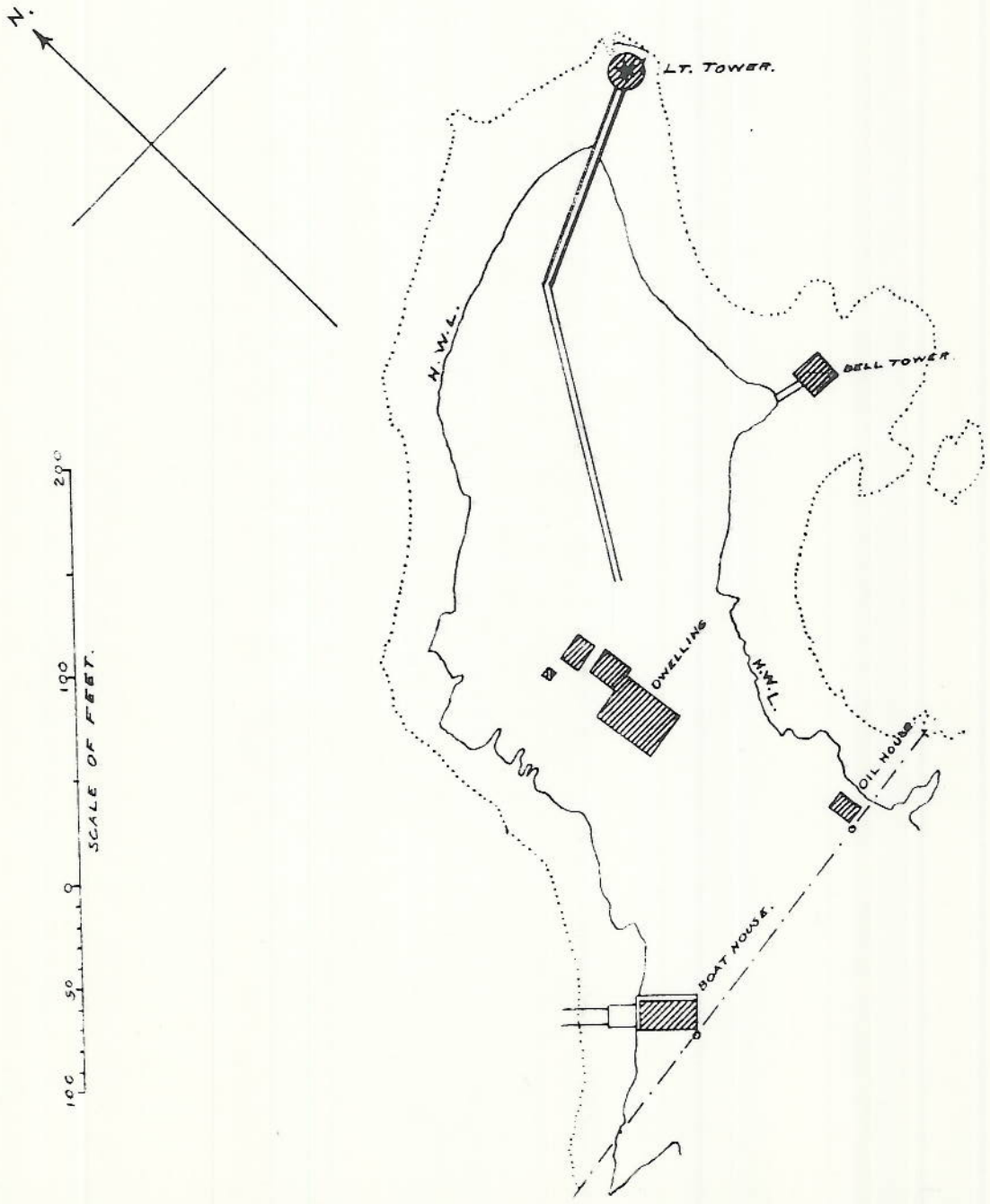
Feet.

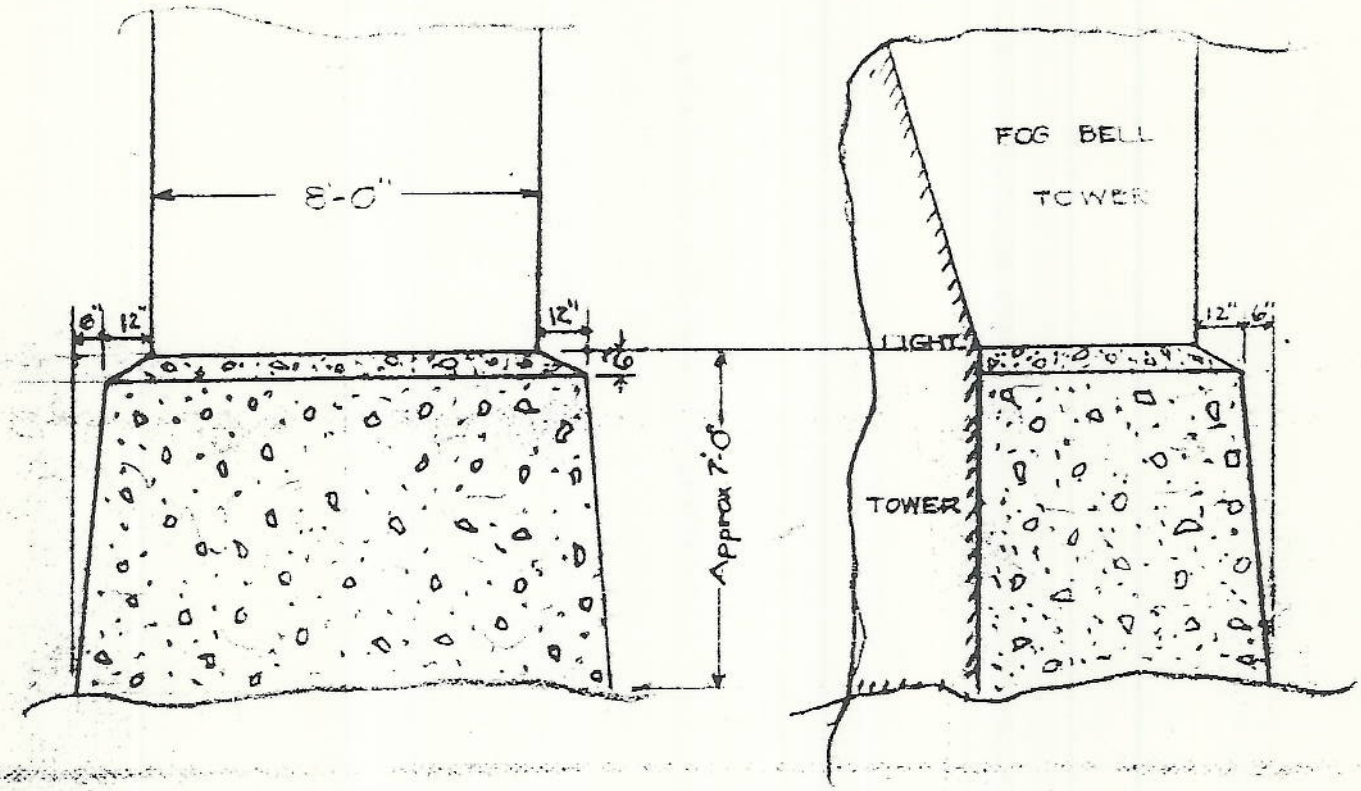
E. P. Adams
L. H. Surveyor 1st & 2d Dists.

W. R. Livermore *Maj. of Engrs.*
Engr. 1st & 2d L. H. Dists.

OFFICE OF L. H. ENGR., POST OFFICE BLDG., BOSTON, MASS., JULY 31, 1894.

LOCATION OF OIL HOUSE AT
PALMER ISLAND LT. STATION, MASS.
Nº 1083





OFFICE OF THE SUPERINTENDENT OF LIGHTHOUSES
SECOND DISTRICT, CHELSEA, MASS.

PALMER'S ISLAND L.H.
PROPOSED REPAIR TO FOG BELL TOWER FOUNDATION

SCALE: ¼" = 1 FT

APPROVED

ASST. SUPT.

SUPERINTENDENT

DRAWN BY:

TRACED BY:

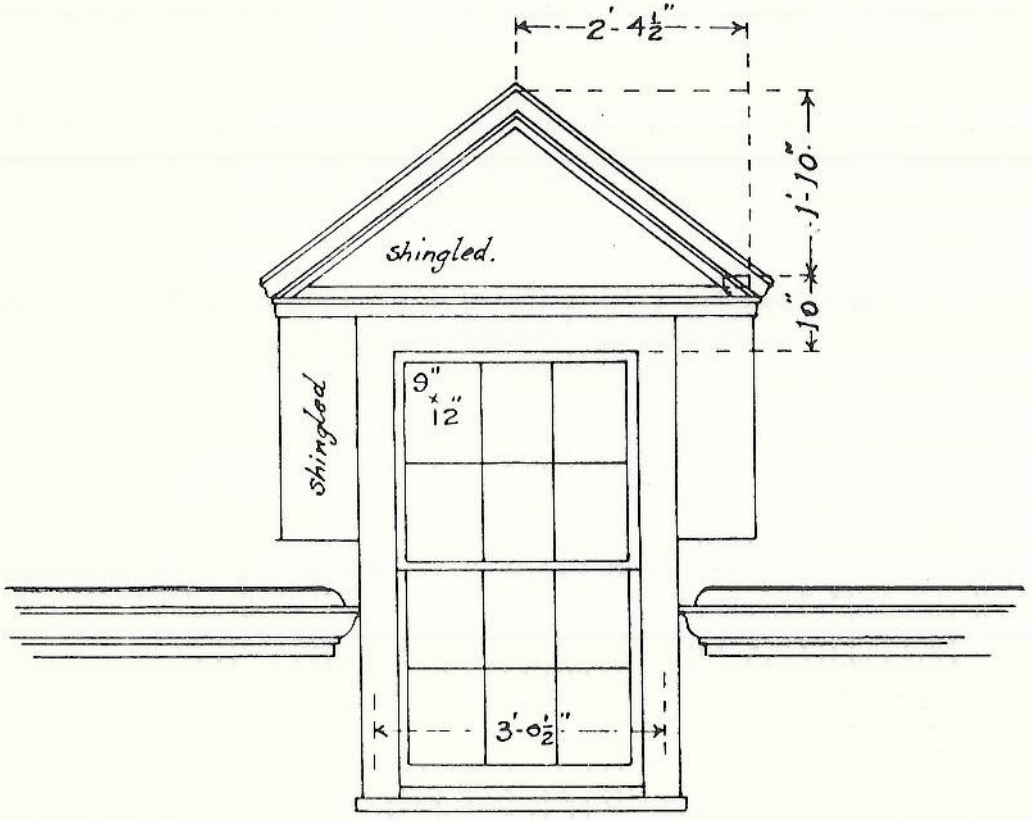
CHECKED BY:

SHEET 1 OF 1

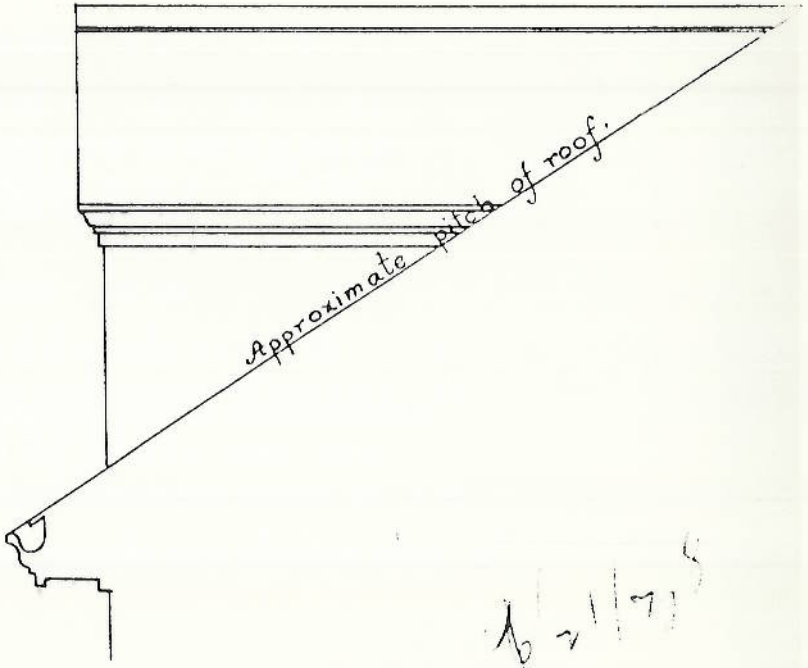
No 829

DORMER WINDOW FOR DWELLING AT PALMER ISLAND LT. STATION, MASS.

SCALE $\frac{1}{2}$" = 1'-0". Nº 1089



FRONT ELEVATION.



SIDE ELEVATION.

Nov 15

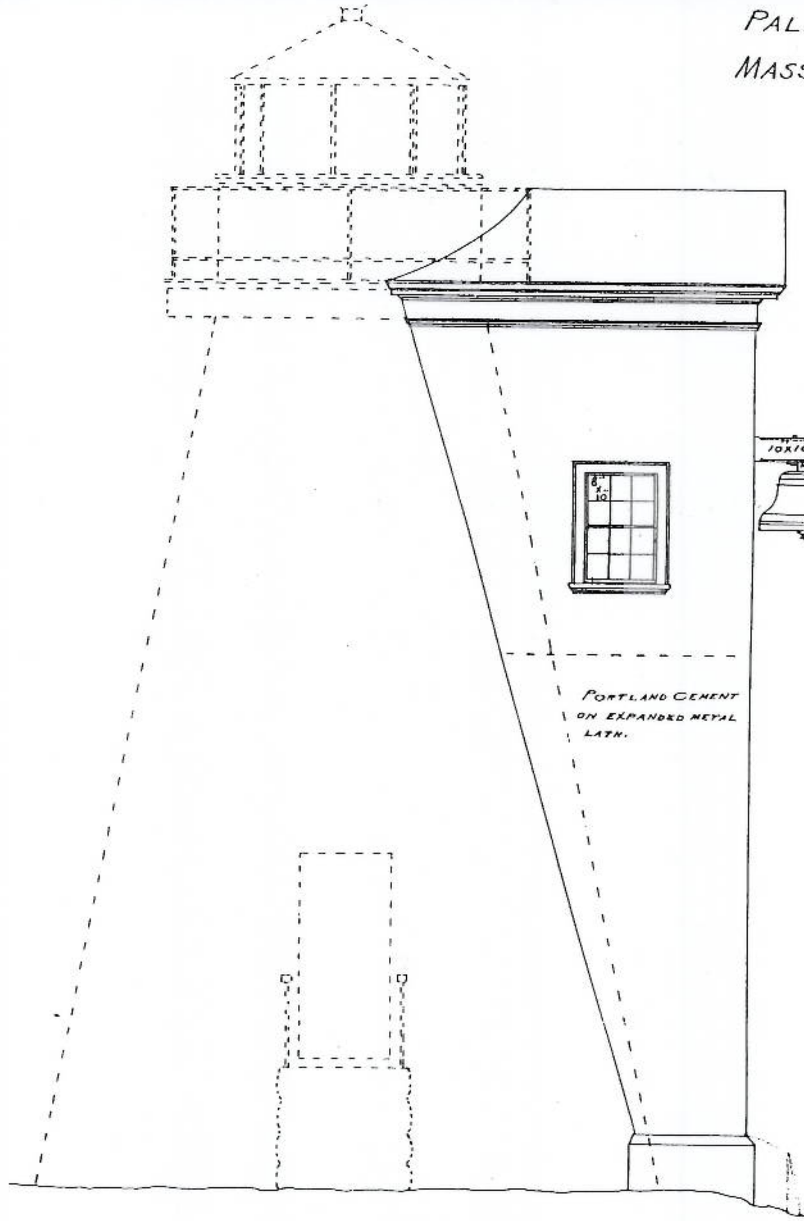
[illegible]

PALMER ISLAND LT. STATION,
MASS.

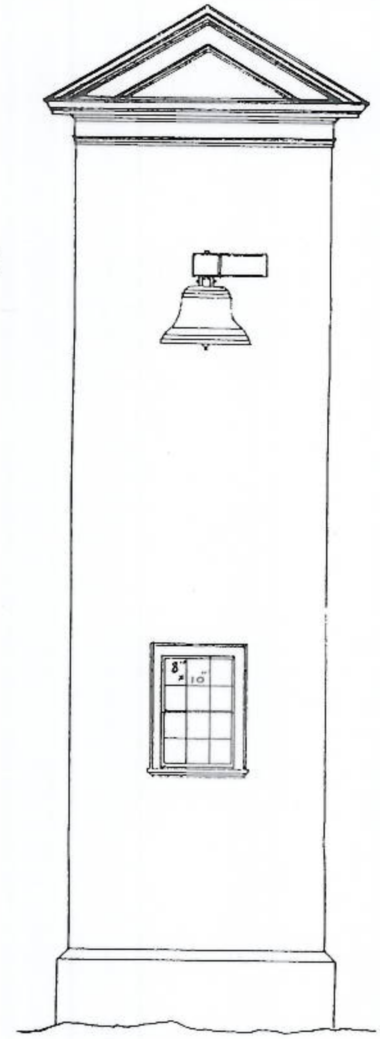
Nº 1098

OFFICE OF LIGHT-HOUSE ENGINEER,
SECOND DIST., BOSTON, MASS. JUL 15, 1907.

MAJOR CORPS. ENGRS.
ENG. 1ST & 2ND L.H.D.

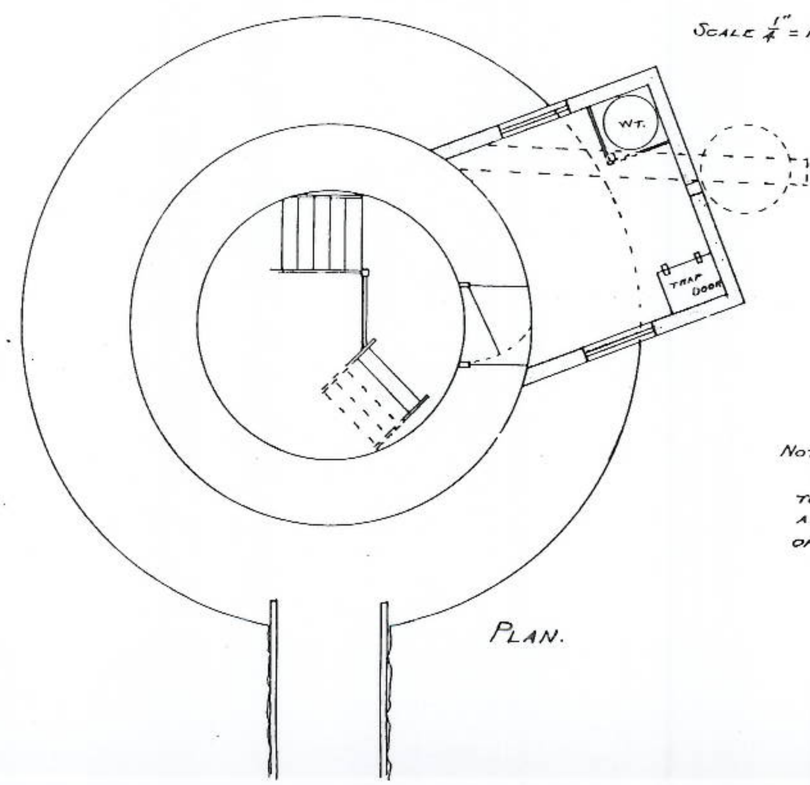


SIDE ELEVATION.



FRONT ELEVATION.

SCALE 1/4" = 1'-0".



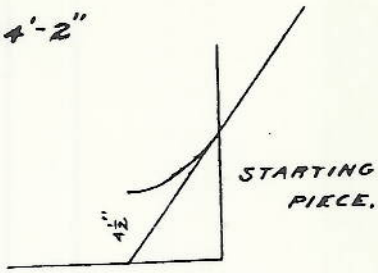
PLAN.

NOTE:-
BELL TOWER WAS CHANGED
TO SIDE OPPOSITE ENTRANCE DOOR
AND A DOOR CUT THROUGH INTO IT
OF THE GROUND FLOOR.

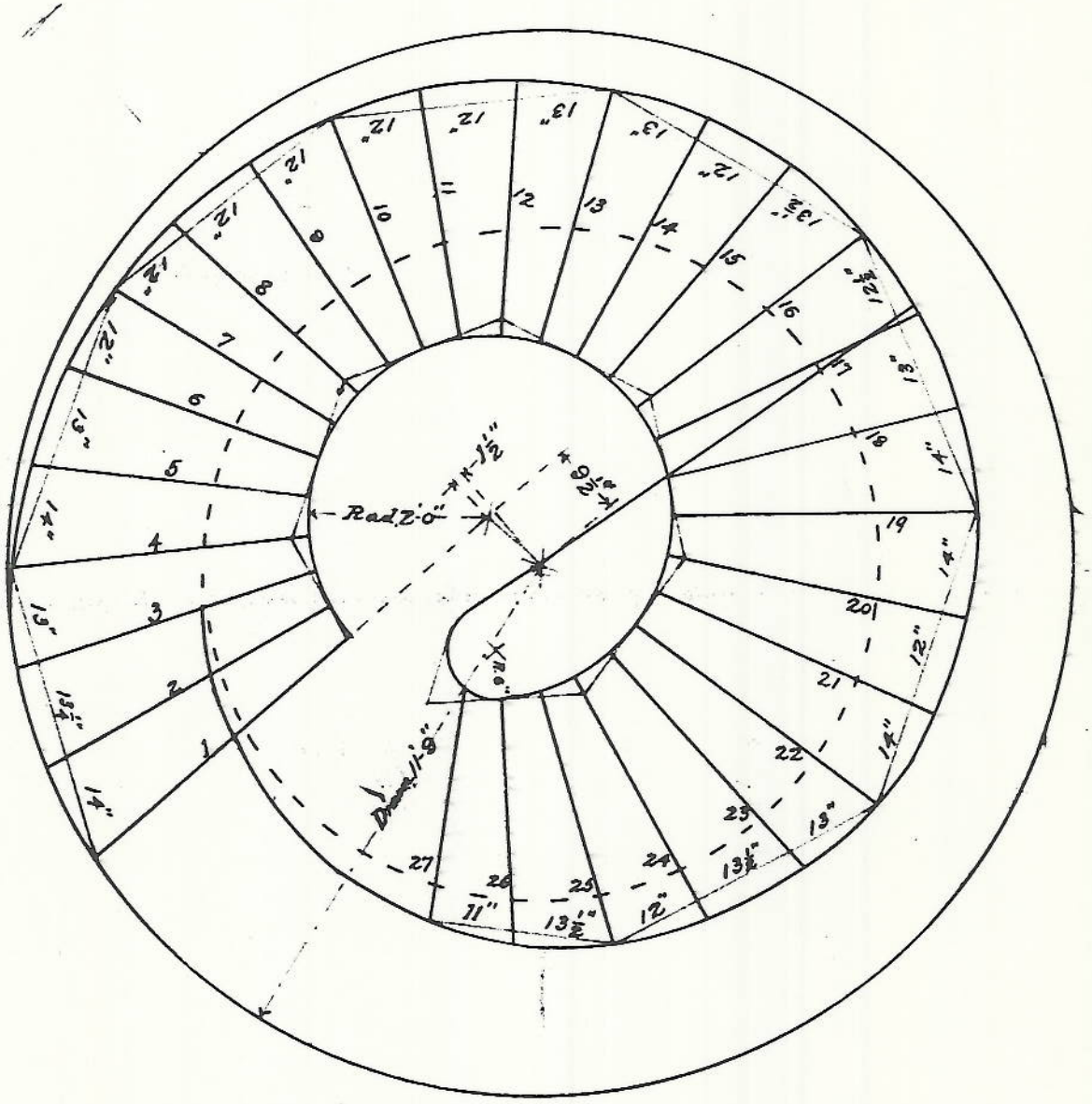
JULY 19--
F.J.P.

PALMERS ID. LT. STATION, MASS.

FROM TOP OF FLOOR TO TOP OF DECK 24'-2"
INSIDE DIAM AT BASE 11'-9" (ABOUT)
" " 17'-4" ABOVE FLOOR 8'-0½"
BATTER OF TOWER 1.53 TO 1'-0".
SCALE ½" = 1'-0".



Nº 1101



(Nº 10) W. 45

5-1-1900

Form 60

Second DISTRICT.

Department of Commerce and Labor

LIGHT-HOUSE ESTABLISHMENT

DESCRIPTION OF LIGHT-HOUSE TOWER,

BUILDINGS, AND PREMISES

AT

Palmer Island Light-Station, Mass.

March 23, 1908

NAME AND POSITION OF THE LIGHT-HOUSE AND LIGHT-STATION.

Palmer Island. On the northeasterly end of Palmer Island, Mass., westerly side of the entrance to New Bedford Inner Harbor.

1. By whom described, Lieut. Col. Edw. Burr U.S.A. Engineer Second Light-House District.
2. Date of description, March 23, 1908.
3. Distinguishing character of light or lights, Fixed red.
4. Latitude of tower, 41° 37' 37" N. } Authority, U.S. Coast and Geodetic Survey
5. Longitude of tower, 70° 54' 35" W. } Chart No. 112.

PREMISES—A DETAILED DESCRIPTION OF, EMBRACING—

6. Site of station—Public land, purchase, Military or Naval reservation, lease: Purchase.
7. Date of reservation,
8. Date of deed, 15 Mch. 1849.
9. Date of permission to occupy,
10. Date of lease,
11. Area of the entire site, 1.08 acres to M.H.W. line.
12. Area inclosed, Whole area.
13. Character of surface soil, Loam.
14. Distance of tower from nearest high-water mark, On high water mark.
15. Inclosures to premises, Post and wire fence.
16. Wharf or landing on premises, Boat slip.
17. Road to landing or wharf, character of, and distance from tower, Plank walk and path - About 4.50
18. Means by which the light-station may be reached, Boat.

PREMISES—A DETAILED DESCRIPTION OF—CONTINUED.

19. Distance to the nearest public road, railroad station, or steamboat landing, and to which: Boat landing ½ mile. R.R. station 2 miles, New Bedford.

20. Distance to the nearest post-office, 1¼ miles - New Bedford, Main.

21. Distance to the nearest village or town, ½ mile " "

22. Facilities for reaching the light-station by public conveyance, None.

23. Facilities for reaching the light-station by private conveyance from the nearest village, town, railroad station or steamboat landing, and the distance: Boat from New Bedford ½ mile.

24. Tower or other means used for supporting the lantern and apparatus, Tower.

25. Number of separate lights, 1.

26. When first built or established, 1849.

27. When last thoroughly rebuilt, repaired, or renovated,

28. Condition at this date, Good.

29. Shape of tower in plan, Circular.

30. Form of tower, cylindrical, conical, or pyramidal, Conical.

31. Height of tower from base to ventilator ball of lantern, 39 ft.

32. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers: 34½ ft.

33. Background of the light-house, upon which it is projected, as seen from the sea or lake: Cotton mills in New Bedford.

34. Color of tower, White.

35. Color of tower, how produced: Whitewashed.

36. Tower—connected with keeper's dwelling, and how, or detached: Detached.

37. Object—seacoast, lake coast, bay, harbor, channel, or range; for general or local navigating purposes: Harbor

38. Materials of which the tower is built: Stone

39. General description, embracing—

40. Thickness of walls at base, 3'.

41. Thickness of walls at parapet, 14"

42. Diameter of tower (inscribed, if polygonal) at base, 15'

PREMISES—A DETAILED DESCRIPTION OF—CONTINUED.

General description, embracing—Continued.

43. Diameter of tower (inscribed, if polygonal) at parapet, 6' 4".

44. Kind of stairway and steps, Wood.

45. Number of landings of stairway, 1.

46. Size of glass for glazing tower windows, 8" x 6".

47. Number of windows in tower, and size of sash, 3 – 19" x 21½".

48. Number of doors, 2.

49. Kind of foundation and depth below the surface, Stone, 2 ft.

50. Character of soil at and surrounding the light-house, Tower stands in water most of the time.

51. Soil susceptible of being protected by grass, shrubbery, or trees: No.

52. Miscellaneous remarks upon tower and site:

LANTERN AND LANTERN FIXTURES.

53. Order or class of lantern, 4th Order.

54. Polygonal or cylindrical, Polygonal.

55. Diameter, inscribed, to glass, 7'.

56. Number of sides in plan, 9.

57. Vertical or helical bars, Vertical.

58. Height glazed, 3' 1".

59. Number of plates in height, 1.

60. Number of plates in each side, 1.

61. Thickness of plates, ¼".

62. Size of different plates, 28" x 35¾".

63. Number of storm panes of glass, None

64. Unglazed side of lantern in plates and degrees of arc, ; between

what bearings (magnetic and *from seaward*),

65. Materials of which the lantern is constructed, Cast-iron.

LANTERN AND LANTERN FIXTURES—CONTINUED.

66. Roof, Cast-iron.

67. Ventilator ball, Cast-iron.

68. Lightning-conductor spindle, Wrought-iron with copper point.

69. Lightning conductor, of what material; how attached to spindle; how led, and how far below the surface of dry earth, or otherwise, as the case may be: Copper attached to lantern led to water.

70. Balustrade and outside gallery, Iron balustrade - wooden gallery.

71. Lantern doors, and how fitted: Wood in parapet.

72. Floor of lantern—of what materials: Wood.

73. Watchroom door leading into the lantern, and how fitted: Trap door in wood.

74. Parapet, inside diameter (inscribed, if polygonal), 7'.

VENTILATORS.

75. In parapet, wall, or lower part of lantern: Parapet wall.

76. Lantern ladders for cleaning plate glass, outside: None

77. Curtain hooks inside of lantern—how fitted: Screwed into sash bar.

WATCHROOM.

78. How lined:

WATCHROOM—CONTINUED.

9. Bell wires, or speaking tubes, or telephones for calling relief keepers—kind: None.

Where led:

ILLUMINATING APPARATUS, ETC.

Name of maker, Henry Lepaute, Paris. Year made, Not given.

32. Marks and number on apparatus,

Order of apparatus, 5th. Inside diameter (inscribed circle) of central drum, 1 4 7/8 11

34. Characteristic of light shown by apparatus, Fixed red.

35. If movable; time of revolution,

Intervals between flashes,

37 Duration of flash,

38. If fixed, or fixed varied by flashes; state arc of each fixed part in degrees: 360°

Number of panels in the lens apparatus, 4

40. Number of flash panels, ; arc of each, in degrees,

Number of elements in each panel of central drum of the lens, 1,

42. Number of prisms in each panel *above* the central drum of the lens, 7.

Number of prisms in each panel *below* the central drum of the lens, 5.

44. How are the flashes produced—By the whole apparatus revolving ; by revolving belt only ;

if by panels of vertical elements revolving outside of fixed lens, state the number of such panels:

Describe how:

46. If by vertical elements, (*a*) state the number in each panel, ; (*b*) and the number

of elements of fixed lens covered by the panel:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

96. Pedestal, Cast-iron.

97. Service table, Sheet iron

98. Tube leading through the center of the upper metal ring of the lens into the ventilator ball, to carry off the gases of combustion and to assist in producing a proper draft in the lantern—of what material, diameter, and how fitted and connected with damper tube when in place: None.

99. If revolving, revolving machinery:

100. Revolving on chariot, mercury float, or balls:

101. If a chariot, describe it and state the number and size of each pattern of wheels in it:

102. If on balls, describe the construction of the ball-raceways, whether flat surface, or semi-circular or V grooves:

103. State number of balls: ; diameter of balls,

104. Revolving cord or chain—how led:

105. Length of drop tube,

106. Length of time revolving machinery will run after one winding:

107. How is the machinery protected:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

108. How regulated; describe:

IF COLORED LIGHT—

109. How is the color produced? Describe: Red chimney.

110. Red sectors—between what bearings (from seaward); magnetic, if on sea or gulf coasts; true on northern lakes and rivers:

11. State where colored glass is attached, if to illuminating apparatus or to the lantern:

12. If colored glass is inside of illuminating apparatus, describe its form:

LAMPS AND BURNERS.

13. Description of lamp in use and number of wicks to burner: Haines - 1 wick.

14. Number of spare lamps at the station, One.

15. Number of spare lamp burners at the station, One.

CLOSETS IN TOWER.

116. How fitted and used: One - Used for lamps, supplies &c.

OILHOUSE OR ROOM.

17. Describe where placed and how fitted: Brick oilhouse about 100 ft SSW from dwelling.

CLOSETS AND STOREROOMS.

118. Where placed, how fitted and used:

119. Damp or dry, suited or unsuited to the purposes for which they were designed:

FOG SIGNAL.

120. Kind and character of apparatus: Bell struck by machinery.

121. How much time is required to start the signal? Starts instantly.

122. Where, or by whom made: George M. Stevens, Batavia, Mass.

Year made,

123. Characteristic distinction of: Bell struck by machinery every 10 seconds.

Blast / sec.	Silent interval / sec.	Blast / sec.	Silent interval / sec.

124. What parts of the fog-signal machinery are in duplicate? None.

125. If a bell, state (*a*) weight, 1260 lbs.; (*b*) metal, Bell metal; (*c*) diameter, 3' 4" ; (*d*) height, 2' 6" ;

(*e*) if struck by clockwork, state time it will run with one winding, 3 3/4 hours.

126. If a steam signal, (*a*) describe boiler:

(*b*) Kind:

(*c*) Flue-tube or water-tube,

(*d*) Dimensions: length, diameter,

(*e*) Number and length of tubes,

(*f*) Diameter of tubes,

(*g*) Furnace: Kind, ; length, ; width, ; height,

(*h*) Total heating surface in square feet,

(*i*) Grate surface in square feet,

(*j*) Number of grate bars,

FOG SIGNAL—CONTINUED.

134. Height of whistle or trumpet above mean high water,

135. Direction, by compass, in which trumpet points,

136. If signal is blown by compressed air, describe compressing machinery:

Kind of engine, ; by whom made,

when made, ; nominal size, horsepower, ;

kind of compressor, ; name of maker,

State if compressor is on same bed and geared with engine, or separate and belt-driven:

137. Location, with reference to the light-house, to a particular danger or channel, or to the special object for establishing it:

138. Distance and direction from the light-house, Alongside the light-tower on the channel side.

139. Water supply for it,

140. How it is reached from the light-house:

141. Description of fog-signal building or buildings: Wooden bell-tower.

DWELLINGS FOR KEEPERS.

142. Location, with reference to the light-house tower: 278 ft SW by W 1/4 W from tower.

143. Coloring: White.

144. Materials of which built, Wood.

145. Number of rooms in each dwelling, 7.

146. Number of keepers and assistants to each dwelling, 1.

147. Outhouses, Fuel-house and privy.

148. Coloring: White.

149. Paths or walks on the premises, Plank walk from dwelling to causeway

DWELLINGS FOR KEEPERS—CONTINUED.

150. Area of premises inclosed, and how: Whole area.

151. Area of garden, None.

152. Area in timber or shrubbery, None.

153. Area susceptible of profitable cultivation, None

154. Area cultivated or prepared for cultivation, None.

155. Character of adjacent surrounding country—Soil, sandy, clay, marsh, swamp, wood, fast ground, or shifting sands: Loam.

WATER FOR FOG SIGNAL, DRINKING, AND DOMESTIC USES GENERALLY.

156. How procured, ~~Rain water from roof of dwelling~~. By water boat.

157. Quality, On account of smoke from the mills at New Bedford the water from roof is unfit to drink and the cistern has been filled by water boat.

158. Quantity ample or not for the station at all seasons of the year, Ample

159. Liable or not to be injured by the inroads of storm tides and seas, Not liable.

160. If rain water in tanks or cisterns, what precautions have been taken to insure its purity? Frequently cleaned

161. Capacity of tanks or cisterns, and where placed: Cistern in cellar of dwelling - 2500 gals.

162. Tanks or cisterns—of what material made: Brick.

HEALTHFULNESS OF THE LIGHT-STATION AND VICINITY—CONTINUED.

173. Would draining or other artificial means employed on the light-house premises be likely to improve the sanitary condition of the light-station? No.

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHT-HOUSE.

174. Describe: Boathouse and slip. Path to light-house.

175. Distance and direction from light-house: About 450 ft W. S. W.

176. Hoisting engine, what kind? None.

177. MISCELLANEOUS REMARKS UPON THE GENERAL CHARACTER AND CONDITION OF THE PREMISES, TOWERS, BUILDINGS, AND ILLUMINATING APPARATUS AT THIS DATE.

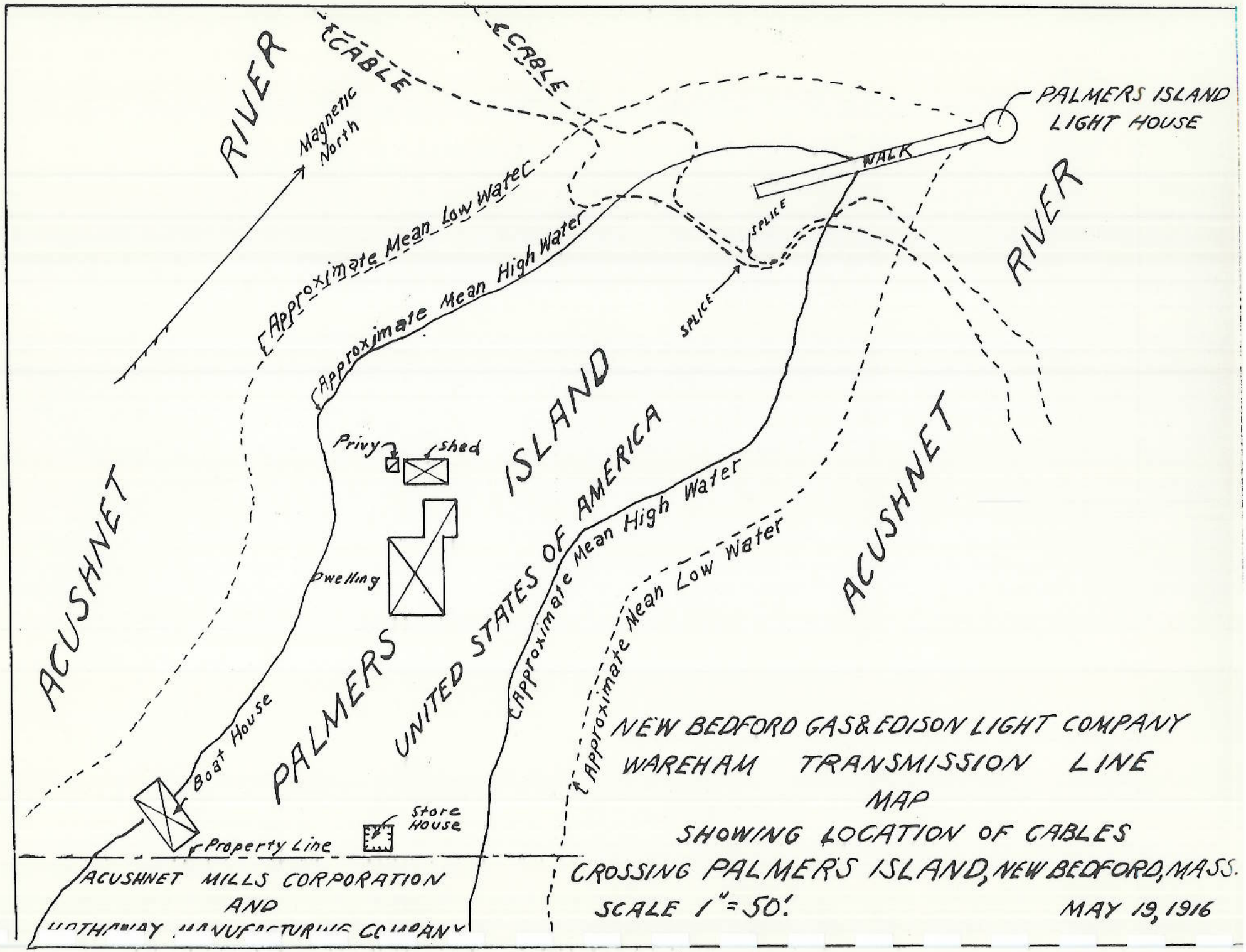
The light-house is connected with higher part of island by a white coveredway 95 ft. long. The Keeper's dwelling is heated by hot water.

Respectfully,

Edw. Burr.

Lieut. Col., Corps of Engineers, U. S. A.,

Engineer, Second Light-House District.


RIVER
CABLE
CABLE
Magnetic North
Approximate Mean Low Water
Approximate Mean High Water
PALMERS ISLAND LIGHT HOUSE
WALK
SPLICE
SPLICE
RIVER
ACUSHNET
Privy
Shed
ISLAND
Dwelling
UNITED STATES OF AMERICA
Approximate Mean High Water
Approximate Mean Low Water
ACUSHNET
PALMERS
Boat House
Store House
Property Line
ACUSHNET MILLS CORPORATION
AND
NEW BEDFORD GAS & EDISON LIGHT COMPANY
WAREHAM TRANSMISSION LINE
MAP
SHOWING LOCATION OF CABLES
CROSSING PALMERS ISLAND, NEW BEDFORD, MASS.
SCALE 1" = 50'
MAY 19, 1916

DEC 2 1931

Form 60

Second LIGHTHOUSE DISTRICT

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

DESCRIPTION

OF

Palmer Island

LIGHT STATION

State: Massachusetts

April 28, 1931

1914

DESCRIPTION OF LIGHT STATION.

1. By whom described H. L. Bartlett, Jun. Engr., date April 28, 1931

STATION.

2. Name of station, Palmer Island

3. Characteristic of light, Fixed green

4. Geographical position of light: Latitude, 41 ° 37 ' 37 "; longitude, 70 ° 54 ' 35 ".

5. Location, On Palmer Island west side of entrance to New Bedford Inner Harbor.

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Purchase

7. Date of reservation, deed, lease, or permission to occupy, March 15, 1849

8. Area of the entire site, 1.08 acres; (b) area inclosed, ; (c) type of fence,

9. Distance of tower from nearest high-water mark, On high water mark

10. Wharf or landing on premises, Boat landing, no wharf

11. Means by which the light station may be reached and distance to nearest post office or town, with name, Boat, 1/4 mile, New Bedford

12. Tower or other means used for supporting the lantern and apparatus, Stone tower

13. Number of separate lights, One

14. When first built or established, 1849

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, 1927

16. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers, 34 feet

17. Background of the lighthouse, upon which it is projected, as seen from seaward, New Bedford City

18. Color of tower, and how produced, White - whitewash

19. Tower—Connected with keeper's dwelling, and how; or detached, Detached

20. Purpose of aid—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigation, Harbor

21. Materials of which the tower is built, Stone

22. Kind of stairway and steps, Wooden winding

23. Size of glass for glazing tower windows, 6" x 8"

24. Number of windows in tower, and size of sash, Three 9" x 21½"

25. Number and size of doors, One double 3'-0" x 6'-10" One single 2'-8" x 6'-8"

26. General remarks upon tower and site, —

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, Fifth

28. If polygonal, state number of sides; if cylindrical, state diameter, Polygonal - 9 sides

29. Vertical or helical bars, Vertical; thickness of bars, 1⅛"; height glazed, 35¾"

30. Number of plates in height, One; in each side, —

31. Thickness and size of plates, ¼ x 28" x 36"

32. Unglazed side of lantern in plates and degrees of arc, None; between what bearings (true and from seaward), —

33. Materials of which the lantern is constructed, Iron

34. Roof, Iron

LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, Iron - copper

36. Lightning-conductor spindle, Yes with copper conductor leading to water

37. Balustrade and outside gallery, Yes

38. Lantern doors, and how fitted, Wood hinged

39. Floor of lantern—Of what materials, Wood

40. Watch-room door leading into lantern, and how fitted, Trap door in lantern floor

VENTILATORS.

41. In parapet, wall, or lower part of lantern, Parapet

42. Lantern ladders for cleaning plate glass, outside, None

43. Curtain hooks inside of lantern—How fitted, Hooks screwed into top of sashbars

WATCH ROOM.

44. How fitted, None

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, The usual bell wire

46. Where led, To chamber in dwelling

ILLUMINATING APPARATUS, ETC.

47. Kind of apparatus, Fixed green; intensity in English candles, ~~600~~ 870

48. Name of maker, Not known; year made, Not known

49. Marks and number on apparatus, None

50. Order of apparatus, ~~Fourth~~ Fourth; inside diameter (inscribed circle, tangent to glass) of central drum, ~~14 3/4"~~ 19 1/2"

51. If the apparatus is a parabolic mirror, state (*a*) diameter of opening, None; (*b*) depth of mirror, —; (*c*) its focal length, —; (*d*) material of which it is made, —

52. If revolving, time of revolution, —

(*a*) duration of flash, — sec.; (*b*) duration of eclipse, — sec.

53. If fixed, or fixed varied by flashes, state arc of each fixed part in degrees, —;

(*a*) duration of fixed light, — sec.; (*b*) eclipse, — sec.; (*c*) flash, — sec.

ILLUMINATING APPARATUS, ETC.—Continued.

54. Number of panels in the lens apparatus, Four ~~four~~

55. Number of flash panels, None; arc of each, in degrees, —

56. Number of elements in each panel of central drum of lens, 5

57. Number of prisms in each panel *above* central drum of lens, 5; are they fixed or ~~flash~~? Fixed

58. Number of prisms in each panel *below* central drum of lens, 3; are they fixed or flash? Fixed

59. How are the flashes produced—By the whole apparatus revolving —; by revolving belt only —; if by panels or vertical elements revolving outside of fixed lens, state the number of such panels, —

60. **If by vertical elements,** state (*a*) the number in each panel, None; and (*b*) the number of elements of fixed lens covered by the panel, —

61. **If light is occulting,** state (*a*) the characteristic, None

(*b*) Between what time limits may characteristic be varied without structural changes in mechanism? —

(*c*) Are eclipses produced by sleeve, revolving screens, or valve (if gaslight)?

(*d*) Size of sleeve and amplitude of movement, —

(*e*) Axis of rotation of screens, horizontal or vertical, ; (*f*) relation of axis to vertical axis of illuminating apparatus,

(*g*) Do the screens revolve as parts, or independently, of illuminating apparatus?

(*h*) If about vertical axis, how many in circumference, ; (*i*) time required for complete revolution, ; (*j*) form, ;

(*k*) how mounted (see Questions 62–65), ;

(*l*) if actuated by clockwork, state order and maker, ;

(*m*) date made,

If occultation is effected by valve, state (*n*) name of maker, None ;

(*o*) pattern, ;

(*p*) does it operate reliably?

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or balls? —

63. **If a chariot,** describe it and state the number and size of each pattern of wheels in it, —

ILLUMINATING APPARATUS, ETC.—Continued.

64. **If on mercury float,** give (*a*) inside diameter of trough, None; (*b*) inside depth of trough, —; (*c*) outside diameter of float, —; (*d*) depth of float, —; (*e*) weight of mercury required, in pounds, —; (*f*) how often mercury is renewed? —

65. **If on balls,** (*a*) describe the construction of the ball-raceways, whether they are flat surface or semicircular or V grooves, None; (*b*) is a cage used to separate balls? —; (*c*) state number of balls, —; (*d*) diameter of balls, —

66. Clock cord or chain, kind, None; size, —; length, —; how led, —; diam. and length of clock drum, —

67. Length and inside dimensions of drop tube or weight box, —; clock weight, — pounds.

68. Length of time clock will run after one winding, —

69. Does clock drive apparatus while being rewound? —

70. How is the machinery protected? —

71. How regulated? —

72. Describe the pedestal, Iron

73. Lens protector—Is there one? None; kind, —

74. Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place, One only

75. **If colored light,** (*a*) how is the color produced? Green shade

(*b*) state where colored glass is attached, if to illuminating apparatus or to lantern, Illuminating apparatus

76. If colored glass is inside of illuminating apparatus, describe its form, Green shade in shadeholder

77. Red sectors—Between what bearings, true (from seaward), —

LAMPS, BURNERS, ETC.

78. Description of lamp: (*a*) give order, Type A" 35 m.m; (*b*) kind of illuminant, I.O.V.

(*c*) intensity in English candles, 500

If oil, or oil vapor:

(*a*) number of ~~wicks~~, or mantels, to burner, One;

(*b*) diameter of outside wick, —; (*c*) diameter of mantel, 1 1/4";

(*d*) if more than one mantel, also diameter of circumscribing circle, —

If gaslight:

(*e*) state kind, None; (*f*) number of burners, if more than one burner in group, ...; (*g*) kind of burner, ...;

(*h*) candlepower per burner, ...; (*i*) total candlepower of group, ...;

(*j*) size of burner in cubic feet of gas per hour, ...;

(*k*) consumption of gas per hour, ... cubic feet; (*l*) how is gas obtained?

.....

If gas is generated at station:

(*m*) describe generator, None;

(*n*) state name of maker, ...;

(*o*) date of pattern, ...; (*p*) maximum capacity per hour, ... cubic feet.

If compressed gas is used:

(*q*) describe container and give number in service, None; spare .....;

(*r*) capacity, ... cubic feet of free gas; (*s*) to what pressure charged, ... lbs.; (*t*) how is supply renewed? .....;

(*u*) if by substitution of full for empty container, at what intervals? .....

.....

79. Number of spare lamps at station, One

80. Number of spare lamp burners at station, One

CLOSETS IN TOWER.

81. How fitted and used, One with shelves for spare lamps Chimneys, etc,

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, 100 ft SSW. from dwelling (*b*) inside dimensions, 8'-8" x 10'-8"; (*c*) materials of which built, Bricks; (*d*) capacity in 5-gallon cans, about 450 – 1 Bulk Kerosene Tank 2½"x7' capacity 257 gals in oilhouse.

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, Fuel house near dwelling on N.W. by side

84. Damp or dry, suited or unsuited to the purpose for which they were designed, Dry and suited

FOG SIGNAL.

85. Kind and character of apparatus, Bell struck by machinery

86. How much time is required to sound the signal? ~~starts instantly~~ how long may the signal sound its characteristic with the quantity of air stored under pressure? —

87. Characteristic:

If whistle, trumpet, or siren:				If bell:			
Blast — sec.	Silent — sec.	Blast — sec.	Silent — sec.	1 strokes	Silent 10 sec.	1 strokes	Silent 10 sec.

88. What parts of the fog-signal machinery are in duplicate? Necessary parts

89. Location, with reference to lighthouse, to a particular danger or channel, or to the special object for which established, Guide to New Bedford Inner Harbor

90. Distance and direction, true, from lighthouse Attached to tower on channel side

91. Water supply for it, none

92. How is it reached from the lighthouse? Through door cut in tower.

FOG SIGNAL—Continued.

93. Description of fog-signal building or buildings, Square wooden structure attached to tower on channel side

94. If a bell, state (*a*) weight, 1260 lbs.; (*b*) metal Bellmetal; (*c*) diameter, 3'-4"; (*d*) height, 2'-6"; (*e*) if struck by clockwork, state time it will run with one winding, 5½ hrs.; (*f*) maker and date, Henry McShane 1901; (*g*) weights for operating, 1000 lbs.

95. If a steam signal, describe boiler: (*a*) type, None; (*b*) length, —; (*c*) diameter, ...; (*d*) horsepower, ...; (*e*) maker and date, ...

(*f*) Is there a heater? ....; what kind? ....; what size? ....; how much does its use reduce the time of starting the fog signal? ....

96. If a steam engine is used: (*a*) kind, None; (*b*) number of revolutions per minute, ...; (*c*) diameter of cylinder, ...; (*d*) stroke of piston, ...; (*e*) horsepower, ...; (*f*) maker and date, ...

97. If internal combustion engines are used: (*a*) kind of engine, None; (*b*) maker, ...; (*c*) date, ...; (*d*) nominal size, ...; (*e*) horsepower, ...; (*f*) fuel used, ...; (*g*) how started, ...; (*h*) kind of compressor, ...; (*i*) maker and date, ...

State if compressor is on same bed and geared with engine, or separate and belt-driven, or both pistons on same rod, ...; if geared or belt-driven, state ratio, ...

Describe compressor machinery, (*a*) diameter of cylinder, ...; (*b*) stroke of piston, ...; (*c*) number of revolutions per minute, ...; (*d*) character and size of air-inlet valves, ...; (*e*) kind of unloader, ...; (*f*) diameter of delivery pipe, ...

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, ...; (*b*) diameter, ...; (*c*) height, ...; (*d*) capacity cubic feet, each, ...; (*e*) pressure in each, ...; (*f*) make of reducing valve, if used, ...; (*g*) remarks, ...

99. **If whistle, trumpet, or siren,** pressure at which blown, None

100. Diameter of whistle, ...; height, ...; distance between orifice and edge of whistle, ...; single tone, ...; chime, ...

101. **If disk or cylindrical siren,** None; diameter of revolving part, ...; when made, ...; by whom made, ...; number, width, and length of ports, ...; revolutions per minute, ...; type of governor, ...; condition of revolving part, ...

102. **If Daboll trumpet:** Class, None; reed: length, ...; breadth, ...; thickness at base, ...; thickness at tip, ...

103. **If trumpet:** Length, None; diameters, ...; material, ...

104. Timing device, ...

105. Height of whistle or trumpet above mean high water, ...

106. Direction, *true*, in which trumpet points, ...

107. Pressure and recording gauge, ...

DWELLINGS FOR KEEPERS.

108. Location with reference to lighthouse tower, 278 feet S.W. by W. ¼ W. from tower

109. Coloring, White with lead color trimmings

110. Materials of which built, Wood

111. Number of dwellings, One; number of rooms in each, Seven

112. Describe heating plant, Direct hot water

113. Number of keepers and assistants in each dwelling, One keeper

114. Which keepers are furnished quarters? Keeper

115. Which keepers are not furnished quarters? .....

116. Outhouses, Freehouse N.W. by of dwelling; coloring, White lead trim

117. Paths or walks on the premises, Walks between dwelling and tower

118. Area susceptible of profitable cultivation, none; area cultivated or prepared for cultivation, none

DWELLINGS FOR KEEPERS—Continued.

119. Character of adjacent surrounding country—Soil, sandy, clay, marsh, swamp, wood, fast ground, or shifting sands, Ledge rocks and sand

120. Furnish following data for stoves, kitchen sink, sink pump, and lamps in quarters:

Articles.	Keeper.	1st Assistant Keeper.	2d Assistant Keeper.	3d Assistant Keeper.
Stove, maker,	Empire Crawford			
Stove, size,	7-18			
Sink, maker,	Not known			
Sink, size,	20"x39"			
Pump, maker,	Douglas			
Pump, size,	No. 2			
LAMPS. (Give name, number, and make of all lamps in such set of quarters.)	1 Brass table 1 " hand lamp from General Depot			

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Rain water from dwelling roof

122. Quality, Good

123. Quantity ample or not for the station at all seasons of the year, Ample

124. Liable or not to be injured by the inroads of storm tides and seas, No-but smoke from city causes some trouble from soot on roof

125. If rain water in tanks or cisterns, what precautions have been taken to insure its purity? Roof washed off at each storm before water is taken cistern frequently cleaned.

126. Capacity of tanks or cisterns, and where placed, 2500 gals. in dwelling cellar

127. Tanks or cisterns—Of what material made, Bricks, cement plastered

WATER FOR FOG SIGNAL, DRINKING, ETC.—Continued.

128. Is there a distilling apparatus at the station? None

Name of maker and date, ;

capacity, ; when installed, ; condition, ;

efficiency,

129. If from a well, describe and give depth, None

130. Diameter, ; lined or not,

131. Water obtained by pump or bucket, ; what power is used?

132. Distance from keeper's dwelling,

HEALTHFULNESS OF STATION.

133. General opinion in regard to the healthfulness of the light station and vicinity Healthful

134. Diseases—What are most prevalent at the station and in the vicinity? None

135. Do they prevail at particular seasons of the year, or not? —

136. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the lighthouse which are likely to be the cause of these diseases? No

137. Would draining or other artificial means employed on the lighthouse premises be likely to improve the sanitary condition of the light station? No

BOATS.

138. Furnish following data for each boat at station:

Number.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.
1-#41	Skiff	10'	3'-2"	1905	1914	No	yes
1-#24	Power Dory	18'	4'-10"	1922	1925	No	yes

BOATS—Continued.

139. **If power boat,** kind of engine, Gasoline; horsepower, 3;
maker of engine, shop number, and date Lathrop - 22834 - 1926
(*a*) type, size, number, and maker's name of spare coil, —
(*b*) type, size, number, and maker's name of magneto, None
(*c*) type and number of batteries, Dry - 6
(*d*) propeller wheel, diameter, 14"; pitch, 20" - 3 Blades

140. Where are boats kept at station? Boathouse

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHTHOUSE.

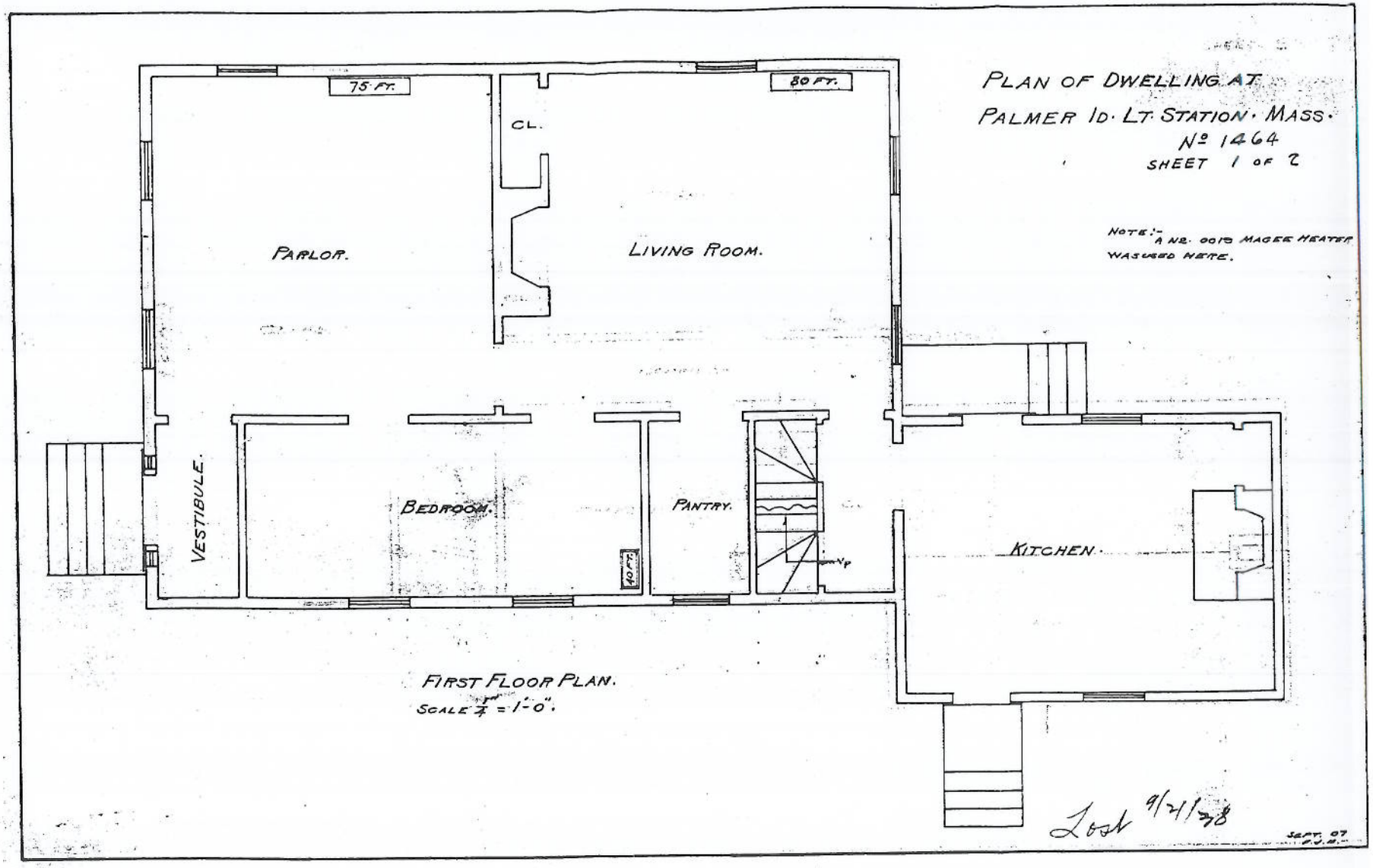
141. Description, Boathouse and boatslip with path to dwelling, no wharf or road.

142. Distance and direction of landing from lighthouse, About 450 feet W.S.W.

143. Hoisting engine, what kind? None;
diameter of cylinder, —; number of revolutions per minute, —;
stroke, —; kind of boiler, —;
maker and date, —

144. General Remarks: Dwelling old but in fair condition

Geo. E. Eaton,
Superintendent.



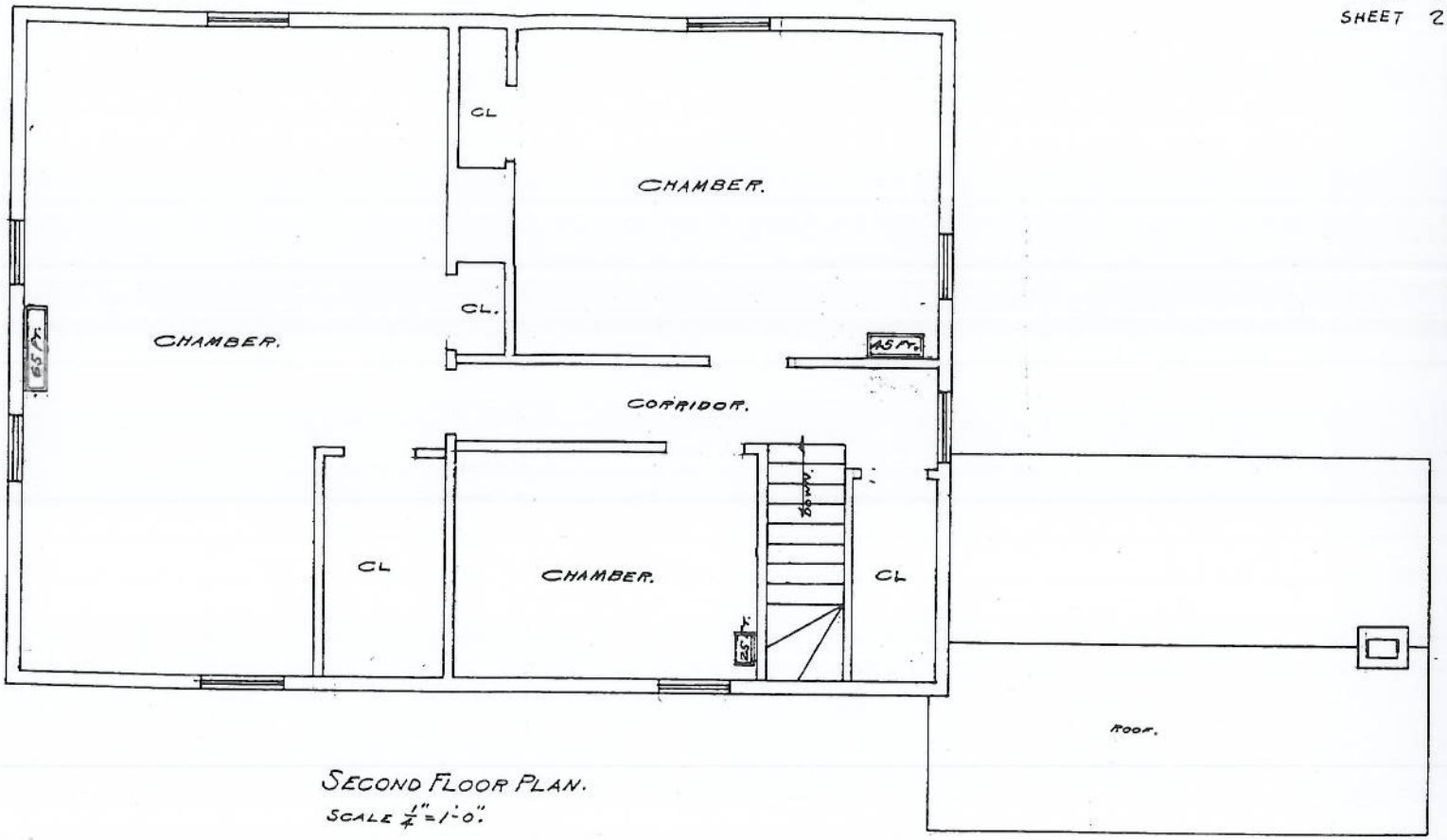
PLAN OF DWELLING AT
PALMER ID. LT. STATION. MASS.
№ 1464
SHEET 1 OF 2

NOTE:- A NO. 0013 MAGEE HEATER WASHED HERE.

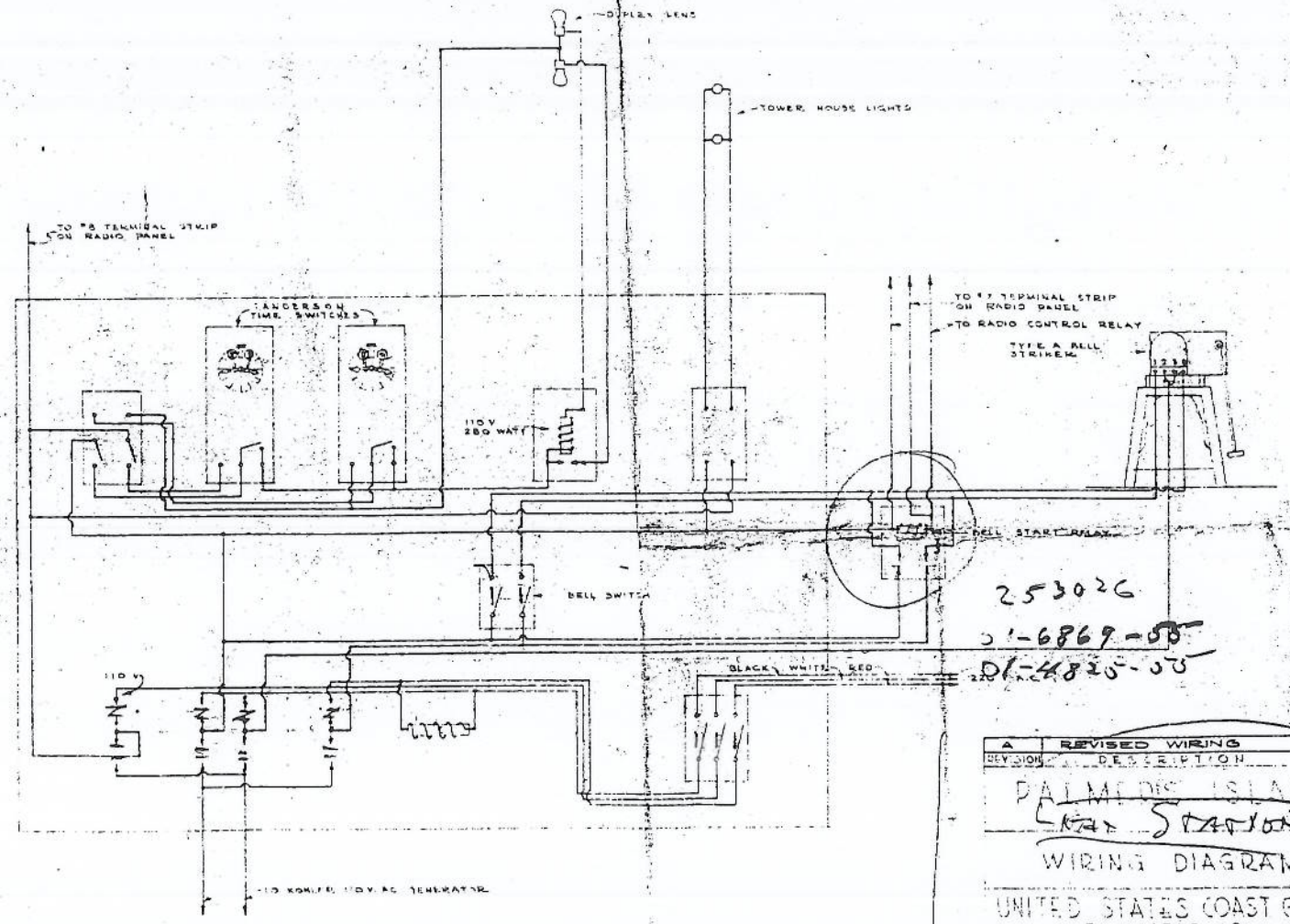
Lost 9/21/38

SEPT. 07

(№ 8) W. 45.



SECOND FLOOR PLAN.
SCALE 1/4"=1'-0".



253026

D1-6869-55

D1-4825-55

REVISION	DESCRIPTION	BY	DATE APPROVED
A	REVISED WIRING	G.L.C.	9-20-54

PALMER'S ISLAND, Light Station

WIRING DIAGRAM

UNITED STATES COAST GUARD
ENGINEERING
FIRST NAVAL DISTRICT BOSTON, MASS.

DRAWN: L.E.G.
TRACED: L.E.G.
CHECKED:
SCALE: NONE
DATE: 8 FEBRUARY, 1949
SHEET 1 OF 1
DRAWING NO.

LT. COMDR., CIVIL ENGR. OFFICER

CAPT., DISTRICT CIVIL ENGR. OFFICER

Commonwealth of Massachusetts

MASSACHUSETTS HISTORICAL COMMISSION

BUTLER FLATS LIGHT STATION, NEW BEDFORD, MASSACHUSETTS

is included in the

NATIONAL REGISTER OF HISTORIC PLACES

as part of the

LIGHTHOUSES OF MASSACHUSETTS THEMATIC RESOURCE NOMINATION

The National Register, established under the National Historic Preservation Act of 1966, is the official list of the Nation's cultural resources worthy of preservation.

LIGHTHOUSE AND FOG SIGNAL STATIONS

ghthouse/Station Name:
Butler Flats Light Station

wner/Manager/State Or Federal Agency With Jurisdiction:
City of New Bedford/USCG has right of way

ocation:
(Acushnet River, New Bedford, MA)

ddress [Acushnet River] City [New Bedford]

tate [MA] Zip Code [_____ - _____] Telephone [(____) ____ - ____]

tatus: Manned [_] Automated [x] Daymarker [_] Inactive [_]
Date [1978] Date [_____]

Site Date [_____] Current Tower Date [1898]

over:

Foundation: concrete/filled stone

Natural/Emplaced	[_]
Dressed Stone/Timber	[_]
Screw Piling	[_]
Piling	[_]
Caisson	[x]
Crib	[_]
Other (_____)	[_]

Construction Material:

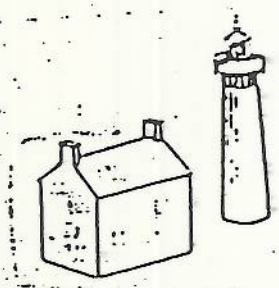
Rubble Stone	[_]
Dressed Stone	[_]
Brick	[x]
Wood	[_]
Cast Iron	[x]
Reinforced Concrete	[_]
Steel	[_]
Aluminum	[_]
Other (_____)	[_]

Markings/Patterns [painted/tower body:white, fog deck and light deck:black]

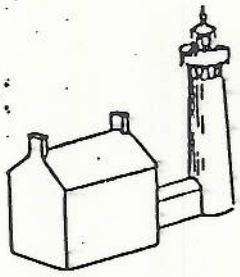
Shape (Check One):

Square	[_]	Cylindrical	[x]
Pyramidal	[_]	Conical	[_]
Hexagonal	[_]	Skeletal	[_]
Octagonal	[_]		

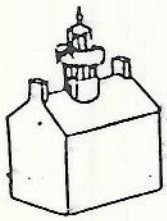
Choose One Tower Type:



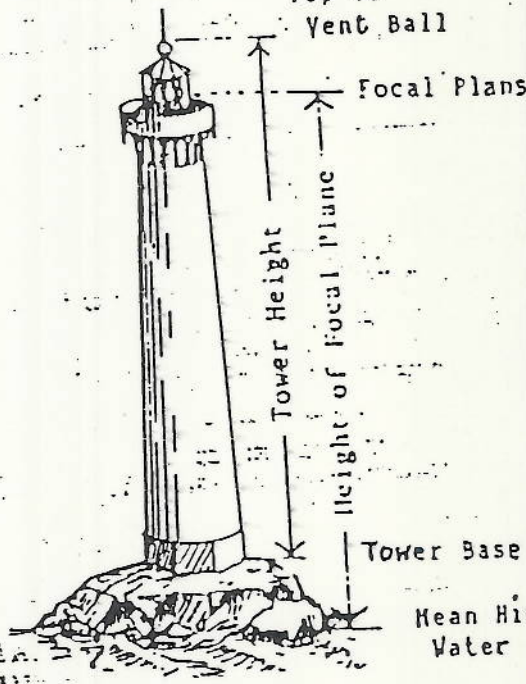
Separate [x]



Attached [_]



Integral [_]



Tower Height [53'] Ft [00] In
Height of Focal Plane [46'] Ft [0] In

Lens:
Original Optic [_____] Date Installed [1898]
Present Optic [_____] Date Installed [1978]
Optic Characteristics:
Signal [four second duration/four second interval Color [white]

Sound Signal Building Extant Yes [_] No [x]

Construction Material (Choose One):

Rubble Stone	[_]
Dressed Stone	[_]
Brick	[_]
Wood	[_]
Cast Iron	[_]
Reinforced Concrete	[_]
Steel	[_]
Aluminum	[_]
Other (_____)	[_]

Style [_____]
(Example: Cape Cod, Victorian)

Signal Type [_____]

Construction Date [_____]

Number of Stories [6]

Construction Material (Choose One):

Rubble Stone	[_]
Dressed Stone	[_]
Brick	[x]
Wood	[_]
Cast Iron	[x]
Reinforced Concrete	[_]
Steel	[_]
Aluminum	[_]
Other (_____)	[_]

Style [in the tower]
(Example: Cape Cod, Victorian)

Associated Structures:	Number:		Number:
Oil House	[___]	Bridges/Tunnels/Catwalk	[___]
Storage Buildings	[___]	Sound Signal Buildings	[___]
-- Garages	[___]	Dock/Crane/Marine RR	[___]
Cisterns	[___]	Barn	[___]

-- fold

Open to the Public? Yes [x] No [_] Access (ex. foot, boat): [boat only]

On a State List? Yes [x] No [_] Date [1981]

National Register Status [x] Date [1987] Reference Number [_____]
Level of Significance [_] L,S

Designated a NHL? Yes [_] No [x] Date [_____]

HABS Recorded Yes [_] No [x] Date [_____]
HABS Inventoried Yes [_] No [x] Date [_____]
HABS Code Number [_____]

HAER Recorded Yes [_] No [x] Date [_____]
HAER Inventoried Yes [_] No [x] Date [_____]
HAER Code Number [_____]

Owned by NPS? Yes [_] No [x]
If Yes: Park Code [_____] Park Number [_____] On NPS LCS? Yes [_] No [_]

Name/Title/Telephone of Contact Person/Person Reviewing This Form:
[William Swan/Preservation Planner/(508) 999-2931]

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION

LIGHTHOUSE INFORMATION FORM

NUMBER 8

MASSACHUSETTS HISTORICAL COMMISSION
80 Boylston Street, Boston, MA 02116

PHOTOGRAPH KEY

Leslie Fox, MHC - 1981

1. Lighthouse from Clark's Point, Photo #1, by Fox, July, 1981

2. Aerial View, Photo #2 by the U.S. Coast Guard, Boston, date unknown

HISTORIC NAME: Butler Flats Light Station

TOWN: New Bedford

LOCATION: New Bedford Channel, Acushnet River

COUNTY: Bristol CODE: 005

CONGRESSIONAL DISTRICT: 10th

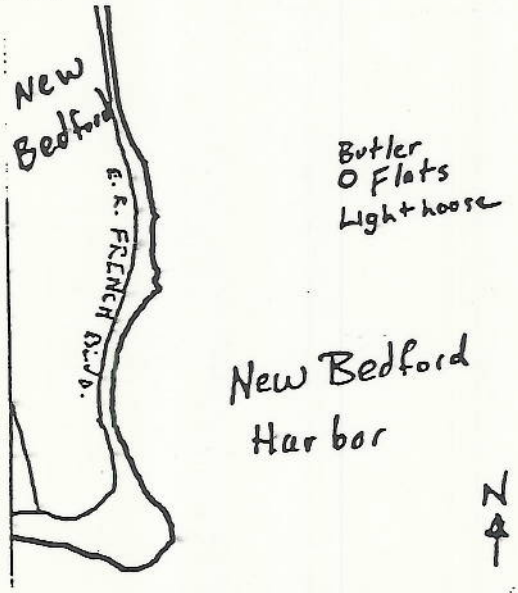
LOCATION OF LEGAL DESCRIPTION:

Bristol County Southern District Registry of Deeds (Book 174, p. 305, 306, Comm. of Mass. to U.S.)

VERBAL BOUNDARY DESCRIPTION:

The nomination is confined to the light and its man-made foundation

SKETCH MAP



LAT./LONG.: LAT41° 36'3"N LONG 70° 53'42"W

UTM COORDINATE: 19/341/800/4607/100

USGS QUADRANGLE: Prov., RI., Mass., Conn.

SCALE: 1:250,000

ACREAGE: Marine Site - less than one acre

OWNER(S): U.S. Coast Guard has right of way; maintenance done by the Coast Guard Commemorative Exhibit, New Bedford (private organization)

STATUS: Active/Unmanned

RECORDED BY: L. Fox/N. Salz/M.M.

ORGANIZATION: Mass. Historical Commission

DATE: August, 1981

SITE DESCRIPTION

The Butler Flats Light Station is located in New Bedford Channel at the entrance to New Bedford Harbor. Surrounded by water, it can be seen easily from the approach from the sea or from the Clark's Point Light (#12) at the very end of the peninsula, a remote end of the city of New Bedford. The peninsula, known as Clark's Point, has a scattered residential section, abandoned World War II barracks, a civil war fort, and a water-treatment plant.

Access to the lighthouse is made only by boat.

MAJOR ELEMENTS DESCRIPTION

The 53' caisson tank light was built on a marine site in 1898, and is a white and black cylindrical lighthouse that is very similar to the Borden Flats Light (#5) in Fall River. Butler Flats Light consists of a cast iron caisson foundation with curved wave deflecting plates at the top of the caisson. Butler Flats Light is unusual and perhaps unique among the caisson harbor lights in that the three story tower is constructed of brick and incorporates detailing of building architecture such as brick window sills and arches and raised brick below the watch deck level. The watchstanders room and lanternhouse are of cast iron construction. The tower was designed by F. Hopkinton Smith. Construction was completed April 30, 1898. It houses 1091 square feet: office space-201', housing-201': mess deck-254': storage or basement-530'; fog deck-78'; light deck-28'. This offers an example of the way in which the light station was used.

Until the station was unmanned, two officers and five enlisted men lived there and maintained the light and fog signal.

The light station was built on the soft mud bottom of the channel, upon which the concrete and filled stone foundation was placed.

Exterior: Access is gained from an iron ladder that leads directly up to the first balcony, or fog deck, that extends around the tower. There are at least three windows on this level, and a door leading into the tower. The fog or first deck is quite wide, and its roof is composed of many segments of steel and concrete fixed together.
The Light balcony is located on the lamp room level. It is supported by Italianate brackets but the railing and balusters are of a simple design (though not a common one in New England). Nine thin iron vertical railings compose each section of the balustrade. Each baluster topped by a round finial.

Lens Room - The balcony around the octagonal lens room has a very simple iron railing that consists of single balusters and railings. It has an iron segmented roof (8 triangular segments) topped by the ball-shaped air vent and a lightning rod.

CHRONOLOGICAL HISTORY

1898 - Station designed and built by F. Hopkinton Smith, "famous writer-architect-builder"; completed April 30. A navigational aid with lighthouse tower, light, and fog signal.

1975 - A local campaign was begun to save the lighthouse when the Coast Guard determined it was no longer required for safe passage into New Bedford, as the recently built Hurricane Barrier was more effective (1/2 mile closer to Harbor). A small dyke light was installed there.

1978 - The station was unmanned and fully automated by April, and automatic signals and a speed call 7843 encoder/decoder were installed. The fog signal was moved to the Hurricane Barrier. A private, non-profit group that had organized a successful New Bedford marine campaign for the Bicentennial (the Coast Guard Commemorative Exhibit) expressed interest in maintaining the light.

1979 - A Revocable License and Standard Department of Transporation Title VI Assurance was given to the city of New Bedford to operate the light as a private aid.

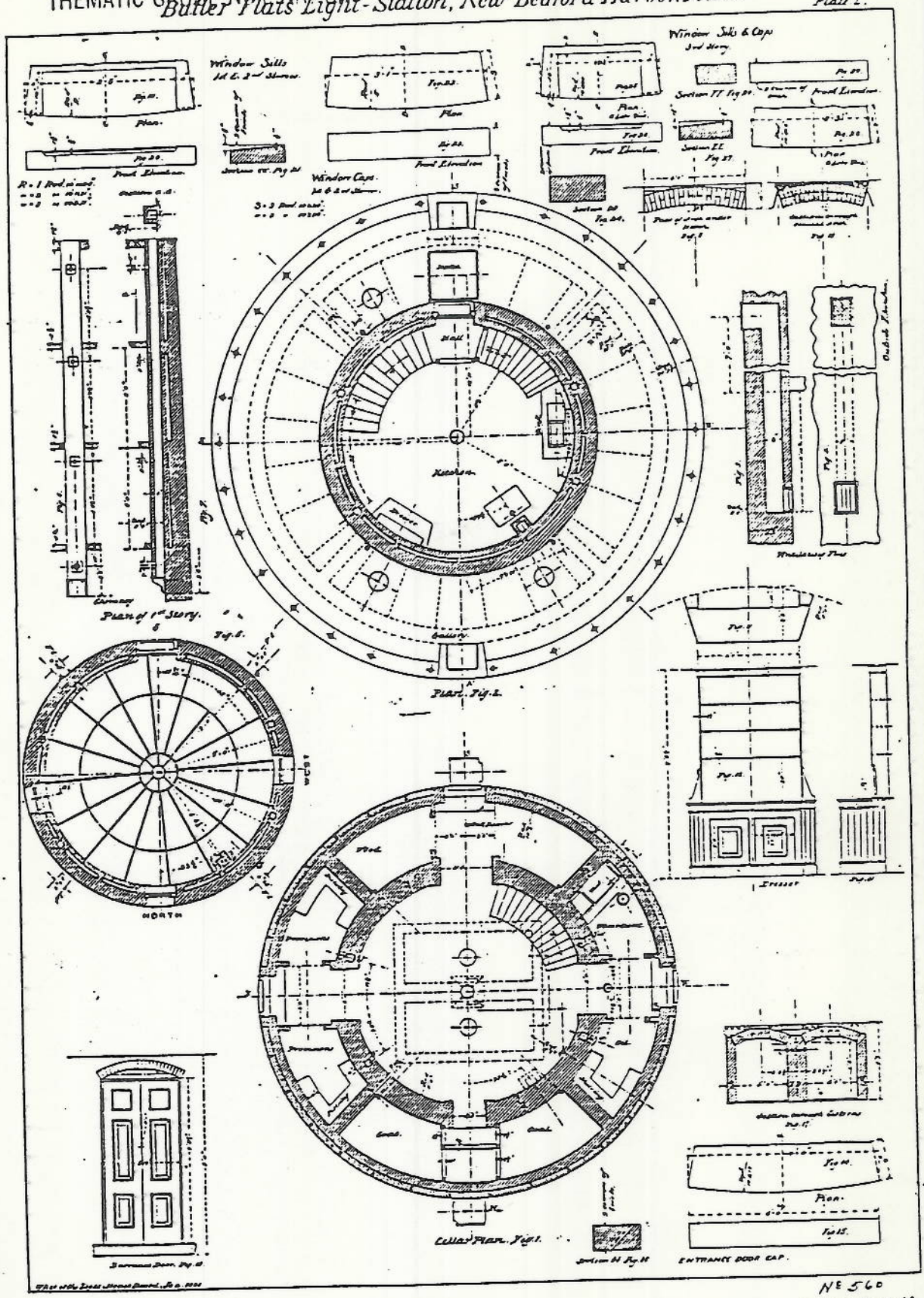
1981 - The Coast Guard Commemorative Exhibit plans to make necessary repairs and maintain the light.

Level of Significance

The Butler Flats Light possesses integrity of location, design, setting, materials, and workmanship as well as important associations with the development of aids to navigation in Massachusetts. Erected in 1898, it is a well-maintained example of caisson type construction and the only one of its type designed by a known marine architect. The Station meets criteria A, B and C of the National Register of Historic Places. It also meets survey criteria 1c, 1e, and 4a.

Butler Flats Light-Station, New Bedford Harbor, Mass.

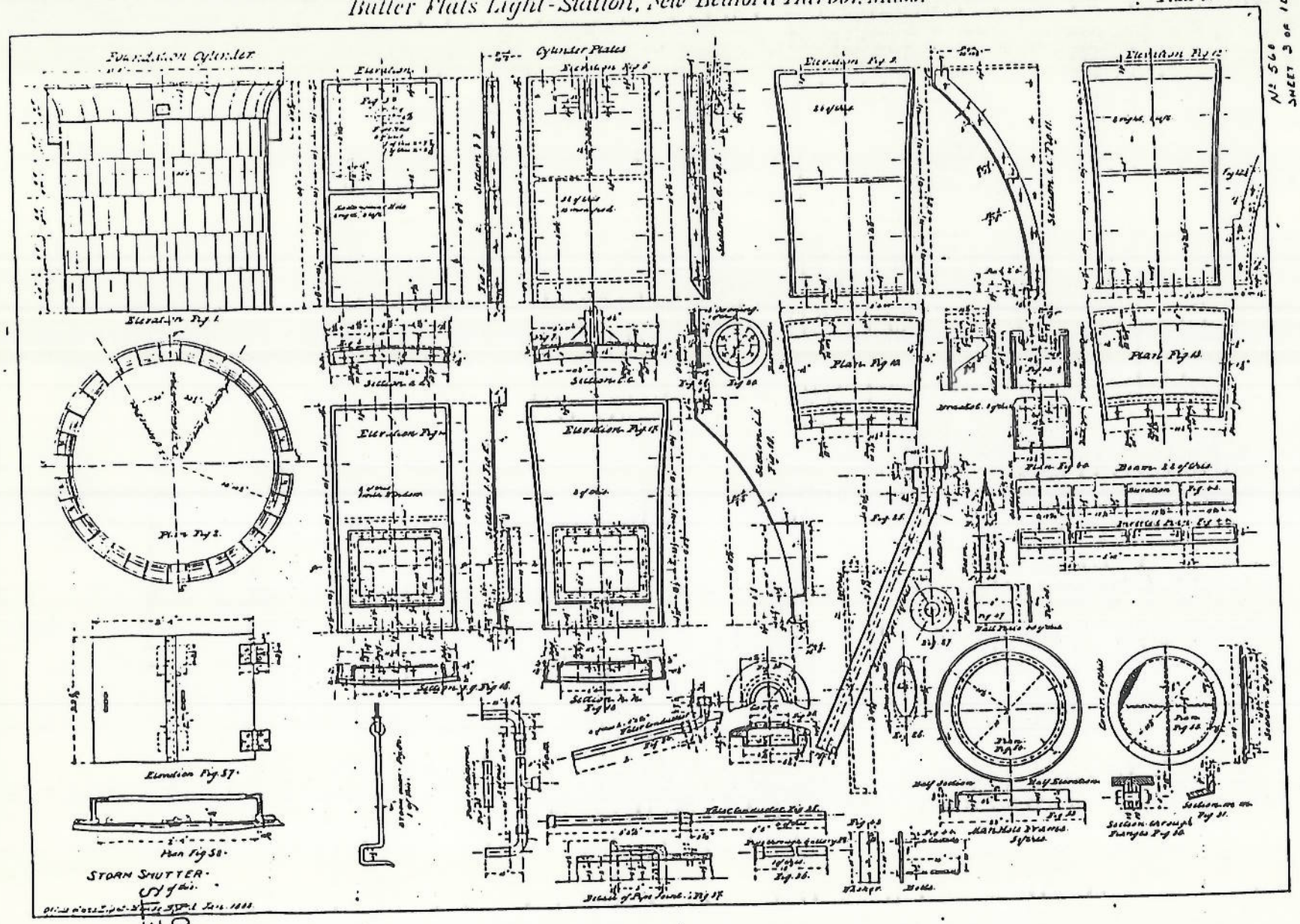
Plate 2.



NE 560
SHEET 9 OF 10

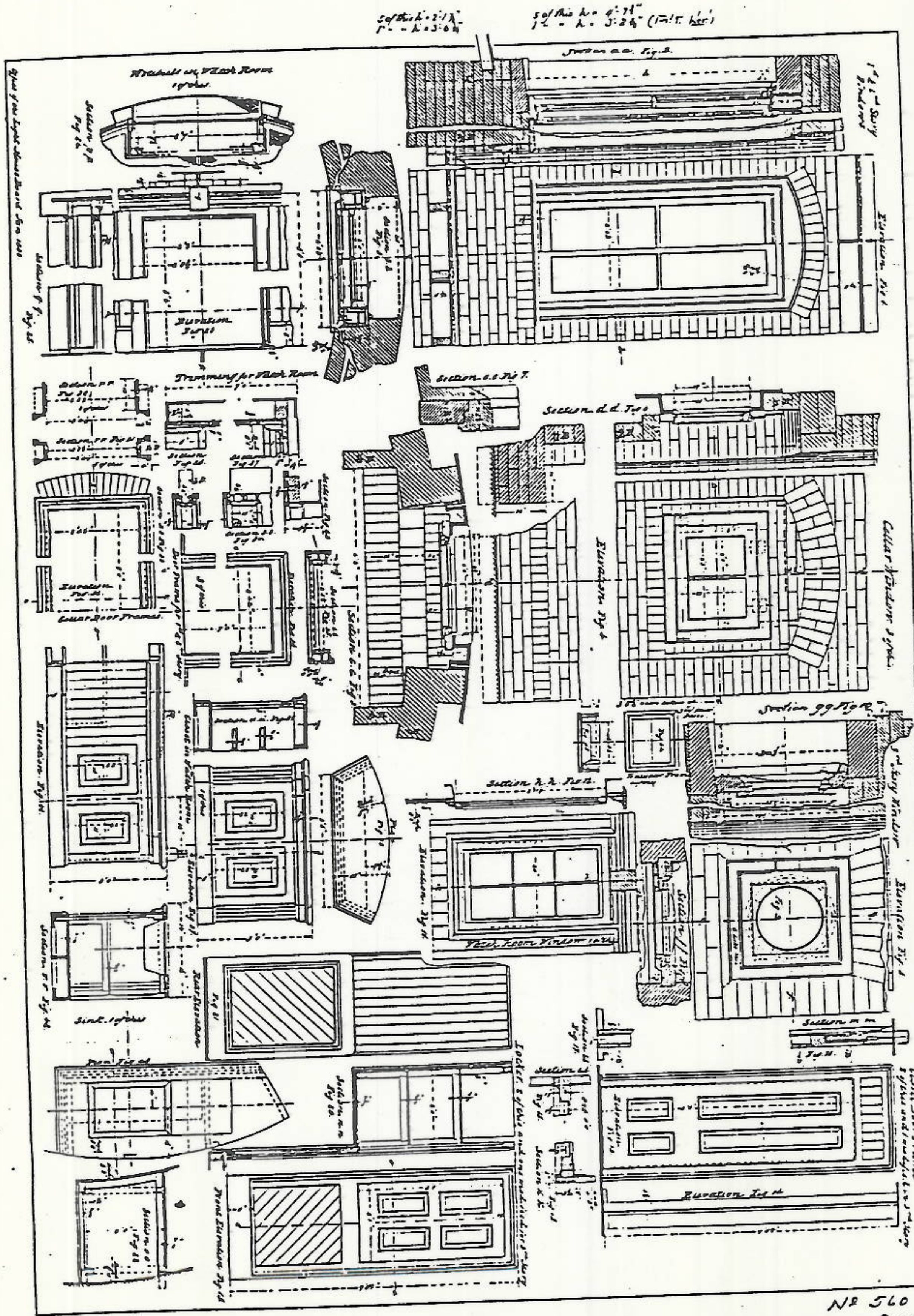
Butler Flats Light-Station, New Bedford Harbor, Mass.

Plate 3.



No 568
SHEET 3 OF 10

LIGHTHOUSES OF MASSACHUSETTS
THEMATIC GROUP NOMINATION



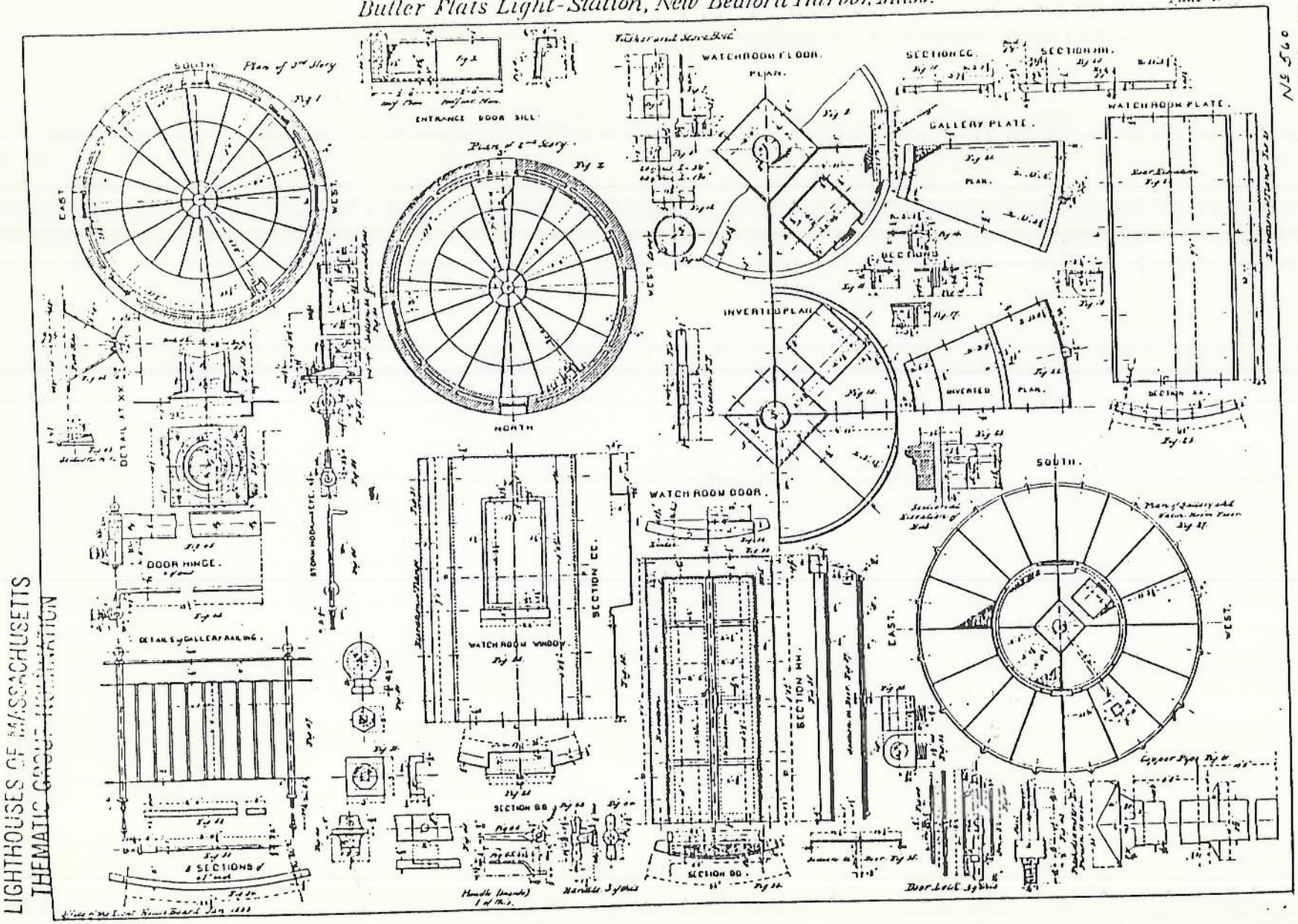
Butler Flats Light-Station, New Bedford Harbor, Mass.

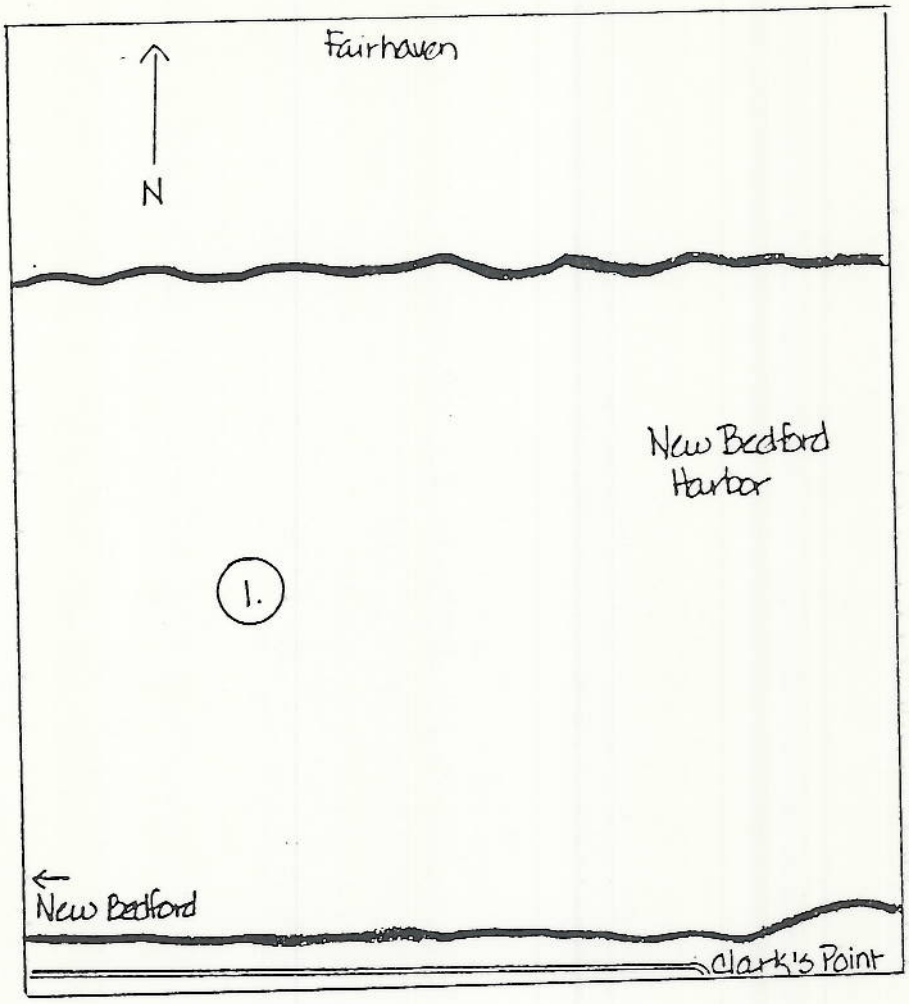
Plate 9

No 560
SHEET 9 OF 10

Butler Flats Light-Station, New Bedford Harbor, Mass.

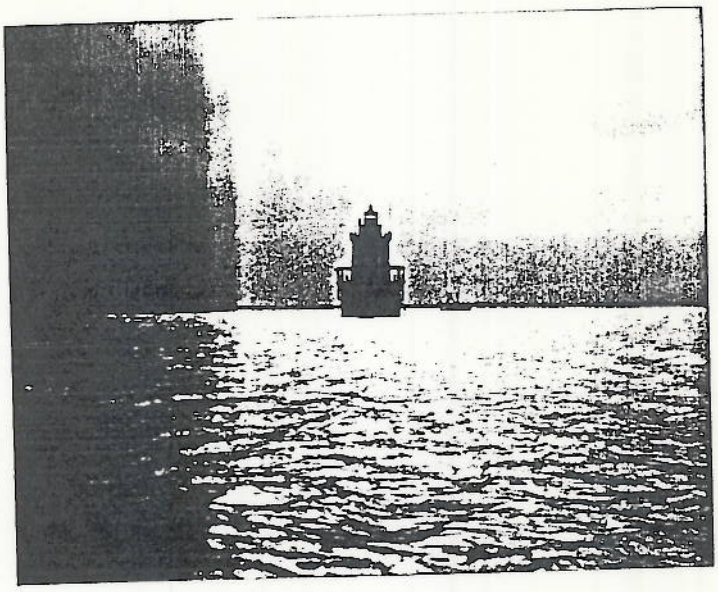
Plate 1.



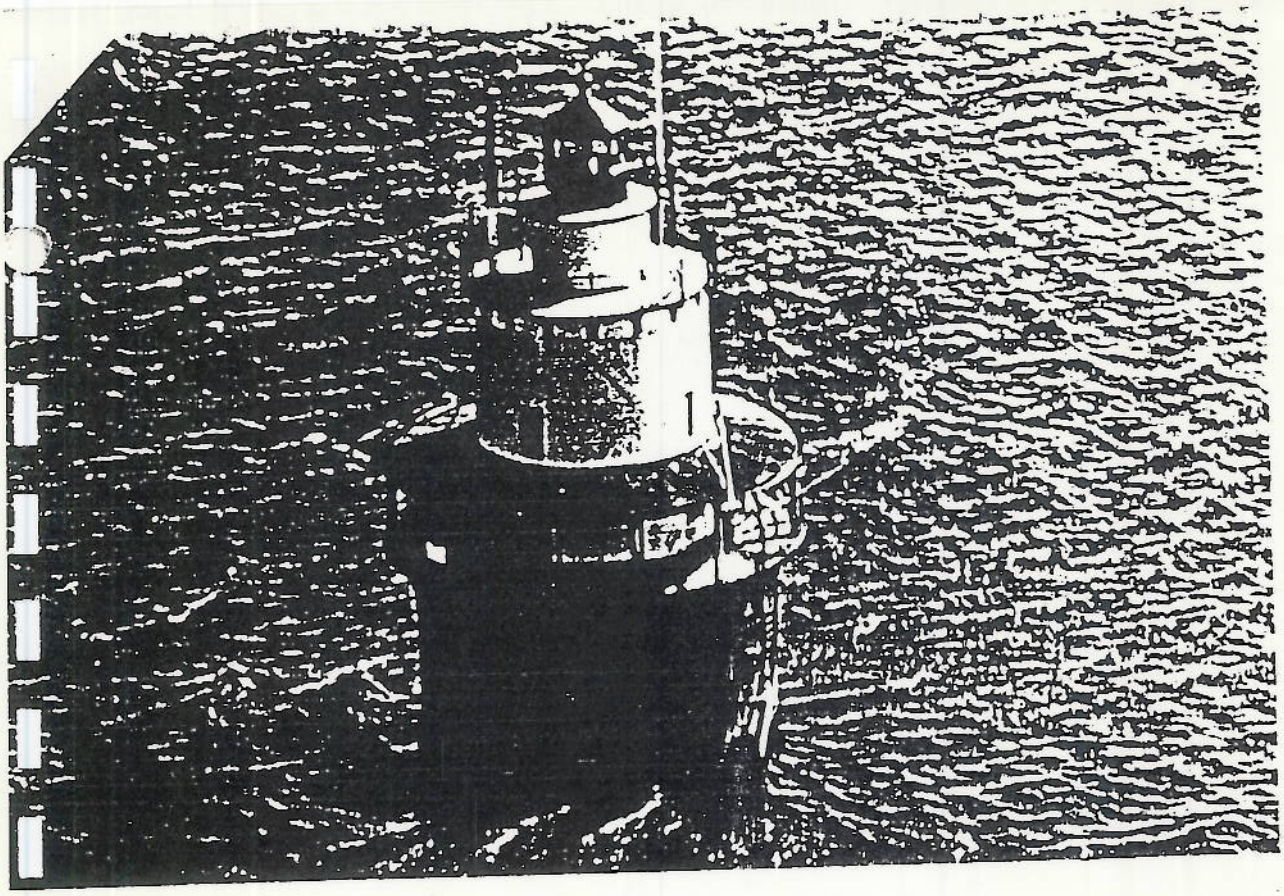


Butler Flats Light Station

1. Tower



Curren
Condition



Coast Guard, Markey plan parley

8/14/75
S.T.

Few oppose lighthouse doom

The Coast Guard reported yesterday it has received "fairly light" opposition to its proposal to dismantle the Butler Flats Lighthouse.

Cmdr. Leo Jordan, chief of the aid to navigation branch in Boston, said his office has received "perhaps a dozen" responses to the plan.

Some writers want the lighthouse to remain as it is, he said, but most support a counter-proposal by Mayor John A. Markey that the city be allowed to take over the structure.

Jordan said he has agreed to Markey's request for a meeting to discuss the possibility and conditions of such a transfer. No date has been set.

The biggest concern expressed in the letters, said Jordan, was for preservation of the appearance and structure of the lighthouse.

The Coast Guard proposal calls for dismantling of the light to the cast-iron caisson, which would then be fitted with a 1-mile daymark.

There has been little comment on other proposed changes to navigational aids in the harbor, Jordan said. Under the plan, the Butler Flats foghorn would be moved to the Hurricane Barrier, and candlepower of the barrier beacon would be increased. Several harbor buoys also would be altered.

The Coast Guard feels the four men assigned to the manned lighthouse could be used better elsewhere. Automation of the light is possible, Jordan said, but more complex and costly than what has been proposed.

He said comments on the proposal are welcome until Sept. 1. "We're certainly interested in preserving historic structures," Jordan said.

If the lighthouse were to be given up by the Coast Guard, he said, it would have to be done through the U.S. General Services Administration, with priority for takeover going to federal and state users, if any.

One of the biggest concerns would be the responsibility of the new owner for maintaining the structure, Jordan said. If a former Coast Guard structure is neglected, he said, "the complaints come to us."

The lighthouse, itself, is structurally sound, he said. Without the beacons, its needs should consist of "touchup paint and maintenance" only.

He suggested the city might want to take the top off the light and locate it ashore.

After comments on the proposal are all in, the Coast Guard would try to put together a plan for the lighthouse by October, Jordan said.

Comments should be directed to Commander (OAN), 1st Coast Guard District, 150 Causeway St., Boston.

Boating interests would keep facility

5/6/75

Lighthouse plan stirs comment

By FRANK D. ROYLANCE
Standard-Times Staff Writer

The Coast Guard's proposal to dismantle the 77-year-old Butler Flats Lighthouse is getting generally negative reactions on the New Bedford-Fairhaven waterfront.

Representatives of fishing and boating interests cited sentimental as well as practical reasons why the lighthouse should be retained.

The Coast Guard announced last week it was considering discontinuance of the manned light as part of a plan to modernize navigational aids in the harbor, and cut the costs of operation.

The lighthouse would be taken down to the cast iron caisson and fitted with a one-mile daymark. Candlepower at the hurricane barrier light would be increased, and the lighthouse fog horn would be moved to the barrier.

Two other channel buoys would be altered also as part of the Coast Guard plan. Comments on the plans have been invited by the Commander of the First Coast Guard District, 150 Causeway St., Boston, 02114.

Octavio Modesto, general manager of the New Bedford Seafood Producers Association, said yesterday that "for nostalgic reasons we would like to see the facility continued; there should be no great cost entailed."

If the decision is made to discontinue the light, however, the Coast Guard "would never leave us without such warning and navigational aides to avoid any accidents," Modesto said.

"So long as they do not do away with any safety factors, and provide the same service by any other means, we should be satisfied . . . we have to realize that times change, and we have to change with them."

John Burt, secretary of the New Bedford Fishermen's Union, said "we think it (the light) should stay there, even if the city has to pick up the tab."

While Burt said he had gathered no consensus from his membership, the light is "a welcome site to the men when they're coming home from the (fishing) banks" especially with the Palmers Island light gone behind the barrier.

William H. Potter, president of Fairhaven Marine, Inc., said he would have no objection to automation of the light. But he said it would be a "shame" to consider taking it down.

Potter said Butler Flats is a great hazard in the harbor at night, and that the light is a good bearing point. The cost of automation would be too slight to warrant dismantling. "There are so many ways they can save money; this isn't one of the better ways, in my opinion," said Potter.

Joseph N. Alcobia, commander of the New Bedford Power Squadron said his organization will oppose dismantling of the light as an inconvenience to mariners. From an historical standpoint, he said, it should be retained. "It seems there's nothing left," he said.

Francis Hoffman, commander of the Coast Guard Auxiliary in Fairhaven, said through a spokesman today he disagrees with the Coast Guard proposal. It's a navigational aid most everyone uses, he said.

Norman B. Maynard, chief engineer at Hathaway Machinery in Fairhaven, said he'll "hate to see it (the lighthouse) go."

Maynard said it would be dangerous to leave the lighthouse's base with only a daymark. It should be lit at night, he said. From the standpoint of aesthetics too, he said, "I'd like to see it stay like it is."

Ward 6 Councillor Ralph J. Saulnier has said Rep. Gerry E. Studds, D-Mass. has indicated the Coast Guard plan is a long-range proposal. There is no danger of dismantling happening overnight, he said.

Saulnier said the Coast Guard is encouraging public reaction to the proposal.

Save the light

One can understand and appreciate the Coast Guard's reasons for proposing to discontinue Butler Flats lighthouse in the outer reaches of New Bedford Harbor: it is expensive to operate and can be replaced with equipment that will serve the mariner more effectively.

But isn't it possible to preserve the lighthouse structure as a historic monument, rather than leaving only its caisson foundation?

There is so much sentimental memory associated with this structure, designed and built by writer-painter F. Hopkinson Smith, who was also an expert on iron. The huge metal cylinder on which it rests, 35 feet in diameter, was constructed on Crow Island and towed down the harbor to be set on "hard pan" after five feet of mud had been dredged away.

On April 30, 1898, Captain Amos Baker Jr. and his son and assistant, Charles, lighted the Butler Flats beacon for the first time. The son helped his father for the next 13 years until the elder Baker died—at Butler Flats. Then Charles took over — "Captain Charlie," everybody called him — serving there a total of 43 years until he retired in 1941. ("I thought the end was coming," he said after the 1938 hurricane, which started bolts in the landing and cracked the 1¼-inch iron shell around the foundation.)

The Bakers, beginning with Captain Amos Sr. (who had to end a sea-going career because a ship's cook poisoned his food, which resulted in his ultimate blindness), gave New Bedford three generations and 82 years of faithful and efficient lighthouse service. Butler Flats light is a fitting symbol of the qualities they, and the government's lighthouse operations, have stood for over a period of many years.

Beyond this, what will the skyline be without the silhouette of the lighthouse? Summer and winter, generation after generation of fishermen and yachtsmen have set their courses on this bold black and white structure that guides and reassures the departing and welcomes those bound home.

We approach the year of the nation's bicentennial. Of all times, this seems a most inappropriate moment to destroy, rather than to preserve an element of our past that has been of such value to so many for so long.

Monday, August 4, 1975

Drive begins to save City harbor light

By FRANK D. ROYLANCE
Standard-Times Staff Writer

Activities are under way on several fronts in New Bedford to save the Butler Flats Lighthouse from proposed dismantling by the Coast Guard.

Mayor John A. Markey said today he would ask the Coast Guard to turn the landmark over to the city. "From an historic standpoint, I hate to see that thing go," the mayor said.

City Council President Ralph J. Saulnier said today he has spoken with Rep. Gerry E. Studds, D-Mass., and Studds' administrative assistant John Sasso, in an attempt to find the most effective way of saving the lighthouse.

Saulnier said he was prepared to mount a petition drive in Ward 1 and throughout the city, if necessary, to keep the beacon in operation.

If Coast Guard personnel must be taken off the lighthouse for reasons of economy, Saulnier, said he would much prefer the beacon continue to be operated by remote control, rather than be torn down.

The Coast Guard announced last week it proposed to discontinue the Butler Flats light as part of a plan to give mariners a more reliable system of aids to navigation, replace obsolete equipment that is expensive to operate, and keep up with changing needs in the area.

The Butler Flats light has been a manned beacon to mariners since 1898.

Under the Coast Guard proposal, the lighthouse would be taken off the cast-iron fonudation to the six-foot level. Painted symbols used to guide sailors to the correct harbor channel would be set up on the remaining structure.

The lighthouse's radio beacon would be moved to the hurricane barrier, and other navigational buoys in the harbor would be altered. The fog horn on the lighthouse would be moved to a channel buoy, and controlled from Ft. Rodman.

Mayor Markey said if the lighthouse were turned over to the city, maintenance of the revolving white light and the rest of the structure would be done by the city.

Markey said the lighthouse would not be manned, and tourists would not be taken to visit the facility. Its main benefit to the city, he said, would be in maintaining the appearance of the harbor at a time when the city is trying to develop its tourist industry.

Councillor Saulnier cited the loss of the New Bedford Whaleship Morgan to Mystic Seaport in Connecticut, as one good reason the Butler Flats light should be saved.

In other matters at today's press conference, the mayor:

SAID that the city's new tax rate would be announced by the end of next week. Markey refused to say how big the increase would be, but said he was working to have the city's county tax assessment reduced in proportion to the legislature's reduction of the county budget. The city's assessment was based on the county's original budget proposal.

HINTED that he would have "something" for the press on Wednesday relative to his decision on whether to run again for mayor. There is little doubt that he will shortly announce his candidacy for re-election.

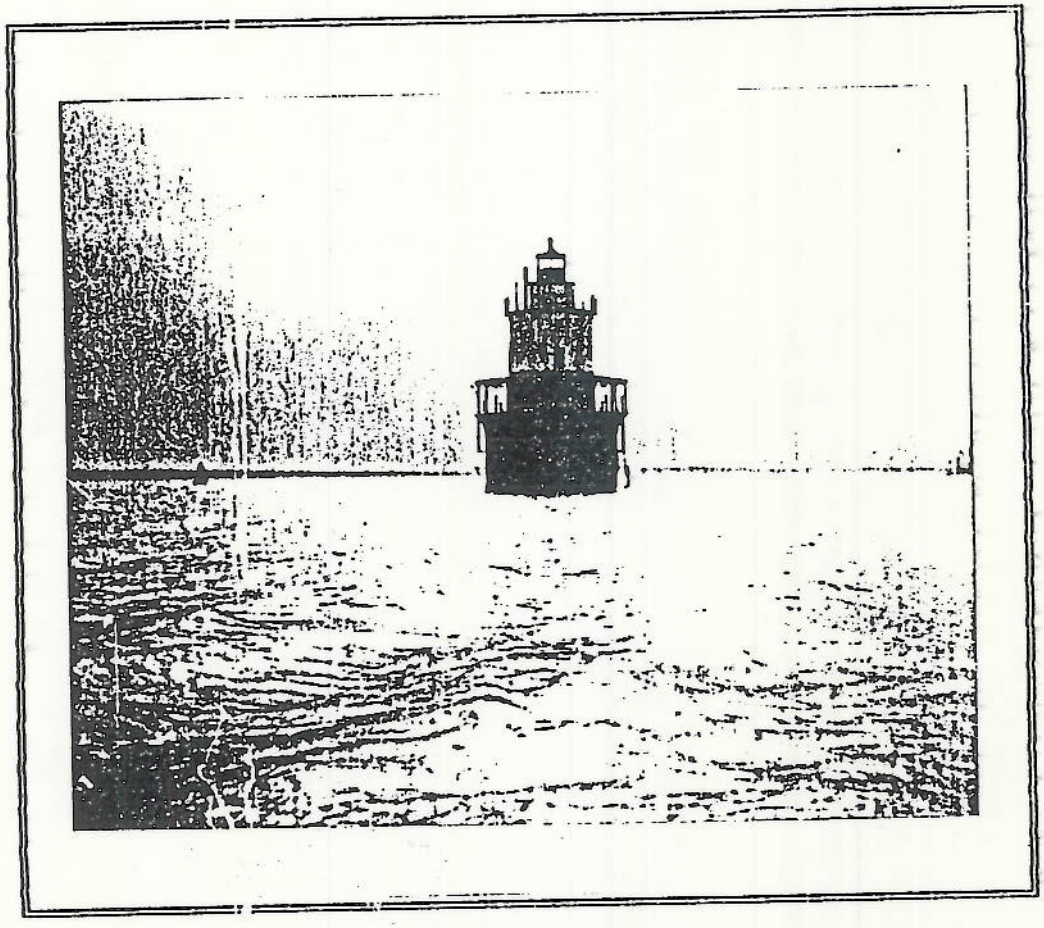
Nosin' Around — by Footloose

Three more antique-style street lamps have gone up on Mechanics Lane. Officials will decide which of the four styles now installed is best and may make them available to certain neighborhoods to give streets a little charm . . .

There ought to be a law against mowing grass before noontime on Sunday.

Massachusetts Historical Commission

Bicentennial Lighthouse Fund FY 1988



Butler Flats Lighthouse

City of New Bedford

John K. Bullard, Mayor

Butler Flats Lighthouse

The purpose of the proposed work is to assess the Butler Flats Lighthouse and compile working drawings and specifications to be used to stabilize and restore structure.

Built in 1898 this light was designed and constructed by F. Hopkinton Smith. The Butler Flats light possesses integrity of location, design, setting, materials and workmanship as well as important associations with the development of aids to navigation in Massachusetts. It is an example of caisson tank type construction unique among caisson harbor lights in that the three story tower is constructed of brick and incorporates detailing of building architecture such as granite window sills and arches. A prominent feature in the lower Acushnet River channel leading to the inner harbor which when threaten with being dismantled by the Coast Guard in 1975, rallied the support of a campaign to save the light. Until unmanned and fully automated in 1978 a crew of two (2) officers and five (5) enlisted men lived there and maintained the light and fog signal. A private non-profit group has maintained the light since that time, though admirable in their volunteer efforts, the light has suffered deterioration. Development of specifications to accompany the already available drawings would enable the City to seek restoration funds through the Massachusetts Department of Environmental Management for Lighthouse Projects ensuring that this landmark will remain an integral part of New Bedford's waterway for generations to come.

Access to the light is gained from a ladder which leads to the fog deck (first balcony) which extends around the tower. There are two (2) windows and a door leading into the tower on this level. The roof of this deck is steel which is heavily corroded. The light balcony is located on the lamp room level and is supported by Italianate brackets. The railing and balusters are of simple design. The balcony around the octagonal lens room is bound by a simple iron railing. It is topped by an iron segmented roof with ball shaped air vent and lighting rod.

In 1978 when the Coast Guard automated this station precautions were taken to render the light as vandal proof as possible. This included enclosing window openings with glass blocks and the insulation of a steel door with vandal proof lock enclosure. The interior is in relatively good condition with the exception of mass peeling of paint on all surfaces due to the fact the structure is no longer heated in winter months. The interior is unchanged with the exception of the lighting mechanism which is now smaller and battery operated, batteries being charged by a small solar panel on the roof.

Butler Flats Lighthouse

Project Goals:

To provide a thorough analysis of existing conditions of the structure.

To provide detailed working drawings, plans and technical specifications necessary to guide the construction, determine the scope of the work and provide a firm basis for competitive bidding and contractual obligations for the restoration of the Lighthouse.

The grant will meet these goals by providing fifty per cent of the cost of engaging the professional services of qualified personnel to undertake an analysis and prepare the necessary drawings, plans and specifications.

Project Description by Phase:

Phase 1. Undertake a systematic and thorough analysis of the existing conditions of the structure, including the preparation of as-is plans. This will be undertaken by a qualified preservation architectural firm with the capability of doing structural, engineering and architectural analysis. This phase will provide a detailed understanding of the lighthouse's current status, allowing the formulation of a scope of work to stabilize and restore the building.

Phase 2. Undertake the preparation of detailed working drawings and complete plans and technical specifications necessary for the restoration of the lighthouse. This phase will be undertaken by a qualified preservation architectural firm. These documents will be of bid quality and must abide by the Secretary of the Interior's guidelines, and will, of course, be subject to the review and approval of the Massachusetts Historical Commission.

Proposed timeframe:

Because of the dependency of phase 2 work upon Phase 1, both phases would be combined in one Request for Proposals (RFP). The Mayor's Office of Housing and Neighborhood Development would prepare an RFP for the project, screen and interview respondents and select final firm to undertake Phase 1 and 2 (with Massachusetts Historical Commission approval). The RFP would be prepared as soon as is practical after notification of approval of the grant, and consultation with MHC staff.

Tentative timeframe:

Offer RFP	October 15, 1988
Return Date	November 15, 1988
Selection	December 15, 1988
Phase 1	February 1, 1989
Phase 2	June 1, 1989

Form 60

March 21, 1922
July 15/31

Second LIGHTHOUSE DISTRICT

Department of Commerce and Labor
LIGHTHOUSE SERVICE

DESCRIPTION

OF

Butler Flats.

LIGHT STATION

State: Massachusetts

March 17, 1922

EEE

DESCRIPTION OF LIGHT STATION.

1. By whom described Geo E Eaton, Supt, date March 17, 1922

STATION.

2. Name of station, Butler Flats.

3. Characteristic of light, Flashing white every 5 sec.

4. Geographical position of light: Latitude, 41° 36' 14"; longitude, 70° 53' 42".

5. Location, On 2½ fathoms on west side of dredged channel into New Bedford Harbor

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Conveyed by Commonwealth of Mass.

7. Date of reservation, deed, lease, or permission to occupy, Sept. 19, 1895

8. Area of the entire site, 80' X 50'; (*b*) area inclosed, —; (*c*) type of fence, —

9. Distance of tower from nearest high-water mark, Tower sits in water

10. Wharf or landing on premises, None, - ladder only

11. Means by which the light station may be reached and distance to nearest post office or town, with name, By boat - 1 mile New Bedford

12. Tower or other means used for supporting the lantern and apparatus, Tower

13. Number of separate lights, One

14. When first built or established, 1898

DESCRIPTION OF LIGHT STATION.

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, Has never been rebuilt

16. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers, 53 feet

17. Background of the lighthouse, upon which it is projected, as seen from seaward, Land trees and buildings

18. Color of tower, and how produced, Tower white, base black, - paint

19. Tower—Connected with keeper's dwelling, and how; or detached, Keepers quarters are in tower

20. Purpose of aid—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigation, Harbor ~~Bay~~ & local navigation

21. Materials of which the tower is built, Iron, concrete and bricks

22. Kind of stairway and steps, Iron winding

23. Size of glass for glazing tower windows, 1, 8x10" Fog light from; 6, 2x10"; 1, 8x9"; 3, 13½x10"; 6, 10½" diam

24. Number of windows in tower, and size of sash, 17 { 6, 2'-3"x2'; 1, 21x2'-11"; 1, 45x27⅝ 6, 14½"x14½"; 3, 19"x2'

25. Number and size of doors, Twelve, 1, double 3-0x6-10; 11 2'-6"x6'-8"

26. General remarks upon tower and site, —

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, Fourth

28. If polygonal, state number of sides; if cylindrical, state diameter, Polygonal - 8 sides

29. Vertical or helical bars, Vertical; thickness of bars, 1"; height glazed, 2'-11½"

30. Number of plates in height, One; in each side, One

31. Thickness and size of plates, ¼"x 34"x 36"

32. Unglazed side of lantern in plates and degrees of arc, None;

between what bearings (true and from seaward), —

33. Materials of which the lantern is constructed, Iron

34. Roof, Iron

LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, Iron

36. Lightning-conductor spindle, Yes with conductor down to water

37. Balustrade and outside gallery, Yes.

38. Lantern doors, and how fitted, Yes. Iron with hinges and latch

39. Floor of lantern—Of what materials, Iron

40. Watch-room door leading into lantern, and how fitted, Iron trap door hinged

VENTILATORS.

41. In parapet, wall, or lower part of lantern, In parapet

42. Lantern ladders for cleaning plate glass, outside, None

43. Curtain hooks inside of lantern—How fitted, Hooks screwed into hinge

WATCH ROOM.

44. How fitted, Closet for spare lamps etc and trimming table.

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, None

46. Where led, —

ILLUMINATING APPARATUS, ETC.

47. Kind of apparatus, Flashing white; intensity in English candles, ~~1200~~ 2400

48. Name of maker, Barbier + Benard; year made, 1896

49. Marks and number on apparatus, Paris

50. Order of apparatus, Fifth; inside diameter (inscribed circle, tangent to glass) of central drum, $14\frac{7}{8}$"

51. If the apparatus is a parabolic mirror, state (*a*) diameter of opening, None; (*b*) depth of mirror, —; (*c*) its focal length, —; (*d*) material of which it is made,

52. If revolving, time of revolution, 30 secs.

(*a*) duration of flash, 0.7 sec.; (*b*) duration of eclipse, 4.3 sec.

53. If fixed, or fixed varied by flashes, state arc of each fixed part in degrees, —;

(*a*) duration of fixed light, — sec.; (*b*) eclipse, — sec.; (*c*) flash, — sec.

ILLUMINATING APPARATUS, ETC.—Continued.

54. Number of panels in the lens apparatus, Six

55. Number of flash panels, Six; arc of each, in degrees, 60°

56. Number of elements in each panel of central drum of lens, 3

57. Number of prisms in each panel *above* central drum of lens, 5; are they fixed or flash? Flash

58. Number of prisms in each panel *below* central drum of lens, 3; are they fixed or flash? Flash

59. How are the flashes produced—By the whole apparatus revolving Yes; by revolving belt only No; if by panels or vertical elements revolving outside of fixed lens, state the number of such panels, None

60. **If by vertical elements,** state (*a*) the number in each panel, None; and (*b*) the number of elements of fixed lens covered by the panel, —

61. **If light is occulting,** state (*a*) the characteristic, None

(*b*) Between what time limits may characteristic be varied without structural changes in mechanism? —

(*c*) Are eclipses produced by sleeve, revolving screens, or valve (if gaslight)? —

(*d*) Size of sleeve and amplitude of movement, —

(*e*) Axis of rotation of screens, horizontal or vertical, —; (*f*) relation of axis to vertical axis of illuminating apparatus, —

(*g*) Do the screens revolve as parts, or independently, of illuminating apparatus? —

(*h*) If about vertical axis, how many in circumference, —; (*i*) time required for complete revolution, —; (*j*) form, —;

(*k*) how mounted (see Questions 62–65), —;

(*l*) if actuated by clockwork, state order and maker, —;

(*m*) date made, —

If occultation is effected by valve, state (*n*) name of maker, None;

(*o*) pattern, —;

(*p*) does it operate reliably? —

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or balls? Balls

63. **If a chariot,** describe it and state the number and size of each pattern of wheels in it, —

ILLUMINATING APPARATUS, ETC.—Continued.

64. **If on mercury float,** give (*a*) inside diameter of trough, None; (*b*) inside depth of trough, —; (*c*) outside diameter of float, —; (*d*) depth of float, —; (*e*) weight of mercury required, in pounds, —; (*f*) how often mercury is renewed? —

65. **If on balls,** (*a*) describe the construction of the ball-raceways, whether they are flat surface or semicircular or V grooves, V grooves; (*b*) is a cage used to separate balls? No; (*c*) state number of balls, Eight; (*d*) diameter of balls, 3/8"

66. Clock cord or chain, kind, Cord galv. iron size, 1/8"; length, about 150'; how led, Down central tube; diam. and length of clock drum, 4"X12"

67. Length and inside dimensions of drop tube or weight box, Length 37'-0 diam about 12" clock weight, About 100 pounds.

68. Length of time clock will run after one winding, Six hours

69. Does clock drive apparatus while being rewound? No

70. How is the machinery protected? Glass case

71. How regulated? By fan governor

72. Describe the pedestal, Iron

73. Lens protector—Is there one? No; kind, —

74. Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place, Cone only.

75. **If colored light,** (*a*) How is the color produced? —

(*b*) state where colored glass is attached, if to illuminating apparatus or to lantern, —

76. If colored glass is inside of illuminating apparatus, describe its form, —

77. Red sectors—Between what bearings, true (from seaward), —

DESCRIPTION OF LIGHT STATION.

Aladdin lamp style No 12

LAMPS, BURNERS, ETC.

I.O.V.

78. Description of lamp: (*a*) give order, ~~Third Order~~, (*b*) kind of illuminant, Kerosene

(*c*) intensity in English candles, 35 88

If oil, or oil vapor:

(*a*) number of wicks, or mantels, to burner, One mantel;

(*b*) diameter of outside wick, ~~1 3/4"~~; (*c*) diameter of mantel, 1 5/8";

(*d*) if more than one mantel, also diameter of circumscribing circle, —

If gaslight:

(*e*) state kind, None; (*f*) number of burners, if more than one burner in group, —; (*g*) kind of burner, —;

(*h*) candlepower per burner, —; (*i*) total candlepower of group, —;

(*j*) size of burner in cubic feet of gas per hour, —;

(*k*) consumption of gas per hour, — cubic feet; (*l*) how is gas obtained?

If gas is generated at station:

(*m*) describe generator, None;

(*n*) state name of maker, —;

(*o*) date of pattern, —; (*p*) maximum capacity per hour, — cubic feet.

If compressed gas is used:

(*q*) describe container and give number in service, None; spare —;

(*r*) capacity, — cubic feet of free gas; (*s*) to what pressure charged, — lbs.; (*t*) how is supply renewed? —;

(*u*) if by substitution of full for empty container, at what intervals?

79. Number of spare lamps at station, One

80. Number of spare lamp burners at station, One

CLOSETS IN TOWER.

81. How fitted and used, One fitted with chutes for household use

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, Oil stored in cellar

(*b*) inside dimensions, —; (*c*) materials of which built, —;

(*d*) capacity in 5-gallon cans, about 200

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, One room for coal, one for wood, one for oil one for paints in case of tower

84. Damp or dry, suited or unsuited to the purpose for which they were designed, Suitable

FOG SIGNAL.

85. Kind and character of apparatus, Fog bell struck by machinery

86. How much time is required to sound the signal? instantly; how long may the signal sound its characteristic with the quantity of air stored under pressure? —

87. Characteristic:

If whistle, trumpet, or siren:				If bell:			
Blast — sec.	Silent — sec.	Blast — sec.	Silent — sec.	2 strokes	Silent 15 sec.	2 strokes	Silent 15 sec.

88. What parts of the fog-signal machinery are in duplicate? None

89. Location, with reference to lighthouse, to a particular danger or channel, or to the special object for which established, Guide to New Bedford Harbor.

90. Distance and direction, true, from lighthouse, One easterly side of tower

91. Water supply for it, None

92. How is it reached from the lighthouse? By main gallery deck.

FOG SIGNAL—Continued.

93. Description of fog-signal building or buildings, Sheathing structure under main gallery deck roof.

94. **If a bell,** state (*a*) weight, 835 lbs.; (*b*) metal, Bell metal; (*c*) diameter, 2'-11½"; (*d*) height, 2'-3"; (*e*) if struck by clockwork, state time it will run with one winding, About 2 hours; (*f*) maker and date, Geo. M. Stevens, Boston

95. **If a steam signal,** describe boiler: (*a*) type, None; (*b*) length, —; (*c*) diameter, —; (*d*) horsepower, —; (*e*) maker and date, —

(*f*) Is there a heater? —; what kind? —; what size? —; how much does its use reduce the time of starting the fog signal? —

96. **If a steam engine is used:** (*a*) kind, None; (*b*) number of revolutions per minute, —; (*c*) diameter of cylinder, —; (*d*) stroke of piston, —; (*e*) horsepower, —; (*f*) maker and date, —

97. **If internal combustion engines are used:** (*a*) kind of engine, None;

(*b*) maker, —;

(*c*) date, —; (*d*) nominal size, —; (*e*) horsepower, —;

(*f*) fuel used, —; (*g*) how started, ;

(*h*) kind of compressor, ; (*i*) maker and date, —

State if compressor is on same bed and geared with engine, or separate and belt-driven, or both pistons on same rod, —; if geared or belt-driven, state ratio, —

Describe compressor machinery, (*a*) diameter of cylinder, —; (*b*) stroke of piston, —; (*c*) number of revolutions per minute, —; (*d*) character and size of air-inlet valves, —; (*e*) kind of unloader, —; (*f*) diameter of delivery pipe, —

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, None; (*b*) diameter, —; (*c*) height, —; (*d*) capacity cubic feet, each, —; (*e*) pressure in each, —; (*f*) make of reducing valve, if used, —; (*g*) remarks, —

99. **If whistle, trumpet, or siren,** pressure at which blown, None

100. Diameter of whistle, —; height, —; distance between orifice and edge of whistle, —; single tone, —; chime, —

101. **If disk or cylindrical siren,** None; diameter of revolving part, —; when made, —; by whom made, —; number, width, and length of ports, —; revolutions per minute, —; type of governor, —; condition of revolving part, —

102. **If Daboll trumpet:** Class, None; reed: length, —; breadth, —; thickness at base, —; thickness at tip, —

103. **If trumpet:** Length, None; diameters, —; material, —

104. Timing device, —

105. Height of whistle or trumpet above mean high water, —

106. Direction, *true*, in which trumpet points, —

107. Pressure and recording gauge, —

DWELLINGS FOR KEEPERS.—None

108. Location with reference to lighthouse tower, Quarters in tower

109. Coloring, —

110. Materials of which built, —

111. Number of dwellings, —; number of rooms ~~in each~~, Five

112. Describe heating plant, Stoves

113. Number of keepers and assistants in each dwelling, Keeper and Assistant

114. Which keepers are furnished quarters? Both

115. Which keepers are not furnished quarters? No quarters ashore furnished

116. Outhouses, None; coloring, —

117. Paths or walks on the premises, None

118. Area susceptible of profitable cultivation, —; area cultivated or prepared for cultivation —

DWELLINGS FOR KEEPERS—Continued.

119. Character of adjacent surrounding country—Soil, sandy, clay, marsh, swamp, wood, fast ground, or shifting sands, Water

120. Furnish following data for stoves, kitchen sink, sink pump, and lamps in quarters:

Articles.	Keeper.	1st Assistant Keeper.	2d Assistant Keeper.	3d Assistant Keeper.
Stove, maker,	Magic Grand Railway [illegible]			
Stove, size,	7-18 22x23			
Sink, maker,	Not known			
Sink, size,	22x36"			
Pump, maker,	Douglas			
Pump, size,	No. 2			
LAMPS. (Give name, number, and make of all lamps in such set of quarters.)	1 [illegible] 2 " [illegible] [illegible] [illegible]			

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Delivered by tender

122. Quality, Good

123. Quantity ample or not for the station at all seasons of the year, [illegible]

124. Liable or not to be injured by the inroads of storm tides and seas, [illegible]

125. If rain water in tanks or cisterns, what precautions have been taken to insure its purity?

126. Capacity of tanks or cisterns, and where placed, [illegible] 2800 gal. in base of tower

127. Tanks or cisterns—Of what material made, Concrete & [illegible]

WATER FOR FOG SIGNAL, DRINKING, ETC.—Continued.

128. Is there a distilling apparatus at the station? None

Name of maker and date, —;

capacity, —; when installed, —; condition, —;

efficiency, —

129. If from a well, describe and give depth, —

130. Diameter, —; lined or not, —

131. Water obtained by pump or bucket, —; what power is used? —

132. Distance from keeper's dwelling, —

HEALTHFULNESS OF STATION.

133. General opinion in regard to the healthfulness of the light station and vicinity, Healthful

134. Diseases—What are most prevalent at the station and in the vicinity? None

135. Do they prevail at particular seasons of the year, or not? —

136. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the lighthouse which are likely to be the cause of these diseases? No

137. Would draining or other artificial means employed on the lighthouse premises be likely to improve the sanitary condition of the light station? No

BOATS.

138. Furnish following data for each boat at station: None — Keeper uses his own boat

Number.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.

BOATS—Continued.

139. **If power boat,** kind of engine, ——; horsepower, ;

maker of engine, shop number, and date,

(*a*) type, size, number, and maker's name of spare coil,

(*b*) type, size, number, and maker's name of magneto,

(*c*) type and number of batteries,

(*d*) propeller wheel, diameter, ; pitch,

140. Where are boats kept at station? Davits

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHTHOUSE.

141. Description, Landing ladder only.
No wharf, boathouse or road.

142. Distance and direction of landing from lighthouse, ——

143. Hoisting engine, what kind? None;

diameter of cylinder, ——; number of revolutions per minute, ——;

stroke, ——; kind of boiler, ——;

maker and date,

144. General Remarks: Station in good repair

[illegible]

[illegible signature]

Capt. Amos C. Baker Jr.
in his room at
Butler Flats Lighthouse
1911, shortly
before his death at the
Lighthouse.

He often said that he would
rather "wear out than
rust out" — and that
was just what he did.

Second Section
NEWS, EDITORIAL
Sunday Standard
NEW BEDFORD, MASS., NOVEMBER 1, 1964

Resident's Family Linked to Butlers Flat Light


CAPTAIN CHARLES BAKER

The wind began to howl as [illegible] the two women and the little girl across the water from Butlers Flat Light to Fort Rodman. He quickly helped them from the boat and began to row back toward the light.

The sea was rising, the wind icy cold, the going hard. By the time he reached the light, ice was forming on the northeast side.

The man was Captain Amos C. Baker Jr., [illegible] keeper of Butlers Flat Light. The year was [illegible] just a few months after the light was constructed, and the rising storm became the long remembered "Portland Gale," so named for the loss of that steamer. That stormy ride in a skiff, recalls Miss Amy Baker of 191 Elm Street, was the beginning of a forty-three year association of Butlers Flat Light and her family.

Miss Baker's family first became keepers of the light in the year 1872 when her grandfather, Captain Amos C. Baker, a retired whaling captain, became keeper of Clarks Point light. His son, Captain Amos C. Baker Jr., also a retired whaling master, became his assistant. After her grandfather passed away, Miss Baker's father became keeper of the light at a salary of $500 a year. It was here at Clarks Point that Grover Cleveland signed Mr. Baker's guest book in 1887.

When Mr. Baker took over Butlers Flat Light in April, 1898, he got a raise to $600 a year. His son, Charles Baker, became his assistant. Miss Amy Baker remembers that both her father and brother were quite clever with their hands.

When there was a need for new equipment of a minor nature, it was made right at the lighthouse. Captain Amos Baker ran the light in the neat orderly fashion as required of a master of a whaling bark at sea. At the end of Winter the lighthouse was painted inside and out by the two men who also made all necessary repairs.

One of Miss Baker's fond memories of her childhood summers at the lighthouse was rowing about the harbor with a small set of oars hand carved by her father.

Upon one occasion he sent her to deliver the old New Bedford Standard to the captain of a whaling bark just returned from a long voyage. The bark was anchored awaiting the quarantine officers.

An object from this historic past which is treasured by Miss Baker is a souvenir booklet telling of the Sloop Spray which Captain Jonathan Slocum sailed alone around the world. The booklet is inscribed, "To the [illegible] who rang the bell each time I passed the light," and it is signed by Captain Slocum.

Miss Baker's father served at Butlers Flat until his death, then her brother became keeper. Among Miss Baker's mementos is a citation of her brother's from the late Herbert Hoover who was then secretary of Commerce, commending him for aiding a man who had lost his oars while the harbor was icebound. According to Miss Baker, many swimmers were towed to shore by her brother after reaching the light too exhausted to return to shore.

The sea around Butlers Flat usually provided Captain Baker with a lobster or two or perhaps a tautog for his evening meal. Captain Charles Baker was a well known authority on catboats and raced for many years after his retirement.

Butler Flats Light and Its Predecessors

A paper written by Amy E. Baker and read by her on graduation from Fifth St. Grammar School New Bedford, Massachusetts June 29, 1905

Addenda by Amy E. Baker 1966

Buter Flats Light and Its Predecessors.

A little ove a hundred years ago, when New Bedford was, carcely more than a village, having a good harbor, and consequently needing a light-house a wooden tower to serve that purpose was erected on Clark Point and was lighted for the first time October 15, 1799. In 1812 however this* was burned down and a white-washed stone tower nor quite dilapidated, took its place. The light in this tower was fifty-five feet from the ground and fifty-nine feet above an average tide. It was lighted with twelve sperm oil "petticoat lamps" placed in a semicircle of two tiers, a reflector being behind.

In 1842 my great-uncle, Henry M. Smith was the first regularly appointed keeper of Clark Point Light. He held this position for thirty years when he was succeeded by my grand-father, Amos C. Baker Sr., then a retired whaling captain who held the position for seven years when his eye-sight having failed him, Amos C. Baker Jr. my father, after completing his second successful voyage as master of the whaling bark A. & Tucker, took his place.

In 1861 Fort Rodman was commenced, work continued on it for ten years but it was really never completed. In 1869 the lens which had replaced the "petticoat" lamps was removed from the tower to the top of the fort, and a covering built to protect it. The keeper's dwelling which had stood near the tower was removed 1000 feet to the north of the fort. The tower was in service during the height of New Bedford's whaling industry.

Formerly light-houses were controlled by collectors of customs in their districts, but before 1850 the Light House Board was established and light house inspectors were appointed, commanders of the Navy in good standing being selected to hold these positions. Light houses are divided into districts - there are eight on the Atlantic coast. Butler Flats is in the second district which extends from Hampton Harbor N. H. to Elisha Ledge off Warren Point, R. I. An inspector has charge of one district. These inspections were not very frequent until about 1860 when they were arranged quarterly, as at present. These inspections are perhaps not always looked for-

ward to with the greatest of pleasure by the keepers. Now light houses are under the newly ~~directed~~ erected de-sected Department of Commerce and Labor.

The light on the Fort was discontinued in 1897 when Butler* Flats Light was established, about a mile from the old fort and more than a half a mile from the nearest land. My father was appointed keeper of this light and my brother, who had just graduated from the High School assistant keeper. In 1901 the light keeper's dwelling in which I was born was transferred to the War Department and now having been moved for the second time is occupied by the Ordnance Sergeant of the post at Fort Rodman.

Butler Flats Light was begun in the summer of 1897. The foundation, or caisson consisted of circular iron plates, bolted together on Crow Island, and a wooden bottom of heavy timbers put in. It weighed ninety tons, was launched and floated like a tub. This was towed to its destination and sunk to the bottom which had been dredged out five feet to receive it. Then the wooden bottom was blown out with dinamite. The caisson was filled with concrete up

* The U.S. government dropped 's' in all the official [illegible]

to low-water mark. This concrete was lowered to the bottom in iron boxes holding about two tons each. The concrete consisted of three parts broken stone, two parts sand and one part cement, this having been mixed into batches beforehand. When the iron boxes were lowered the bottoms were tripped out and the concrete deposited. This work was carried on night and day until seventeen feet of concrete had been laid. Then another section of iron was added, and water pumped out of the caisson by means of a steam pump. ~~The remainder~~ The remainder was packed in, two cisterns, ten feet long, four and one half feet wide and six feet deep being made. One of these holds rain water caught from the tower for washing purposes, and in the other water from Fairhaven brought in the water boat once a year and is kept for drinking and culinary use.

The final section of caisson was added, making the foundation thirty-nine feet from bottom to top, at which is a balcony floor. It is thirty-three feet in diameter, expanding in bell shape at the top making it thirty-nine feet. This balcony floor is nine feet wide.

The top of cistern forms the basement floor, which is a good sized room, ten and one half feet in the clear. Around it are storerooms for coal, oil, wood, paint, provisions etc. It contains a work bench, tool chest and vise bench. Iron stairs lead to the room above which serves as dining room and kitchen. Within are a cooking range, two tables, china cupboard, porcelain sink, pump and pantry.

The brick tower springs from the basement floor and stands upward twenty-five feet. At bottom the walls are two feet thick, tapering to nineteen inches at the top. air spaces have been built between the walls.

Next above the kitchen is the keeper's room which is very pleasant. It contains his desk, library, folding bed, couch, phonograph and clothes press. Next above is the assistant's room which has five small round windows. It is unique and has quite a nautical appearance. Needless to say it commands a wide view.

Above these are two smaller rooms, the "watch room" and "lantern" which are surrounded by small balconies. In the latter room is the lens, which is very beautiful. It is of French

make with six bulls eyes with five prisms above three below each. It revolves, making two revolutions a minute and hence one flash every five seconds. It is run by clock work - on ball bearings and has a weight of only sixty pounds which runs down a column extending through the center of the rooms from the basement floor. It has to be wound up once in the night.

On the east, built on the balcony floor is the fog-singnal room which contains the machinery for running the fog bell. That also runs by clock work and has a weight of seven hundred pounds. It strikes a double blow every fifteen seconds. To one not used to it it would seem almost unbearable when going for any length of time, but I have often been told in the morning that it had been running during the night, when I knew nothing of it, sleeping soundly all the while. Vessels are saluted by this bell.

There are two entrance ladders, one on the north and one on the south side. These are of two parts with platforms half way up. Many people, (occasionally not always women)

act quite timid in climbing there while others think very little about it. It is far easier than mounting to the third floor at the Fifth Street Grammar School.

Of course in the winter there are few visitors, but in summer it is quite different. Last summer over two hundred and forty signed in the register book. Often summer evenings sailing parties stop for an hour or so. It is very fine out on the balcony on a moonlight night.

I spend most of my summer vacation off there and have a most delightful time. I can row against a pretty "stiff breeze" and can sail a boat, at least I have done so once alone to shore. Spring and Fall I spend most of my Saturdays and Sundays there. I have been out for a short time in December. One time I got caught out there - it blew so it was impossible to get ashore Sunday, and so I had to get up long before sunrise the next morning to get ashore in time for school. It is grand there in a storm to watch the huge waves in a Southerly gale come rolling in. The

crests of these have several times washed up on the balcony floor which is eighteen feet above the water.

In the winter ice shakes the light a good deal at times and it is scarcely pleasant to have the chair in which you sit, shake and realize what might happen if the ice proved stronger than the iron plates of the caisson. But as the old light successfully withstood the storms let us hope that Butler Flats may be a guide to sailors for many a long year. Many have been the vessels passing and guided by their lights.

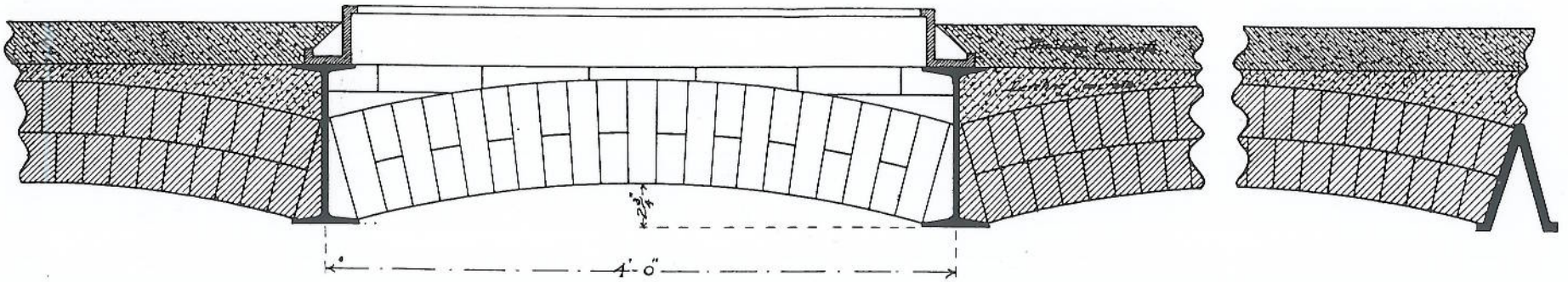
And the great ships sail outward and return
Bending and bowing o'er the billowy swells,
And ever joyful, as they see it burn,
They wave their silent welcomes and farewells.

The mariner remembers when a child,
On his first voyage, he saw it rise and sink;
And when returning from adventures wild,
He saw it rise again on ocean's brink.

Steadfast serene, immovable, the same

Year after year, through the silent night
Burns on for evermore that quenchless flame,
Shines on, that inextinguishable light!

"Sail on!" it says "sail on, ye stately ships!
And with your floating bridge the ocean span;
Be mine to guard this light from all eclipse,
Be yours to bring man nearer unto man!"



E.W. Section Through Hatch of
Butler Flats Lt. Tower, Mass.

Scale 1½"=1'-0"

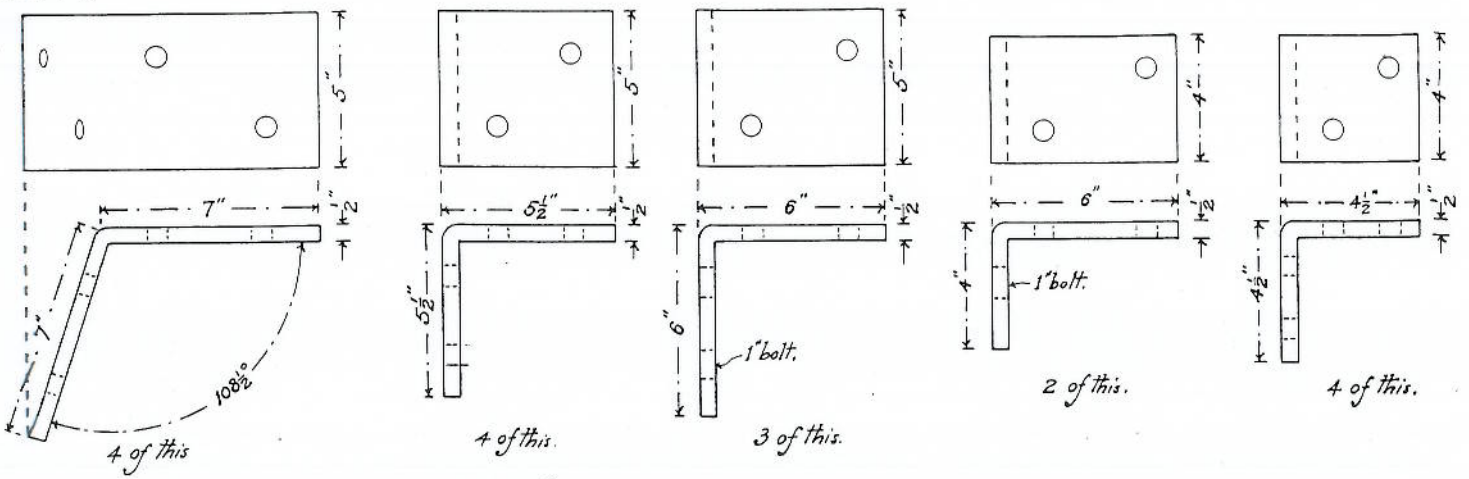
No 573

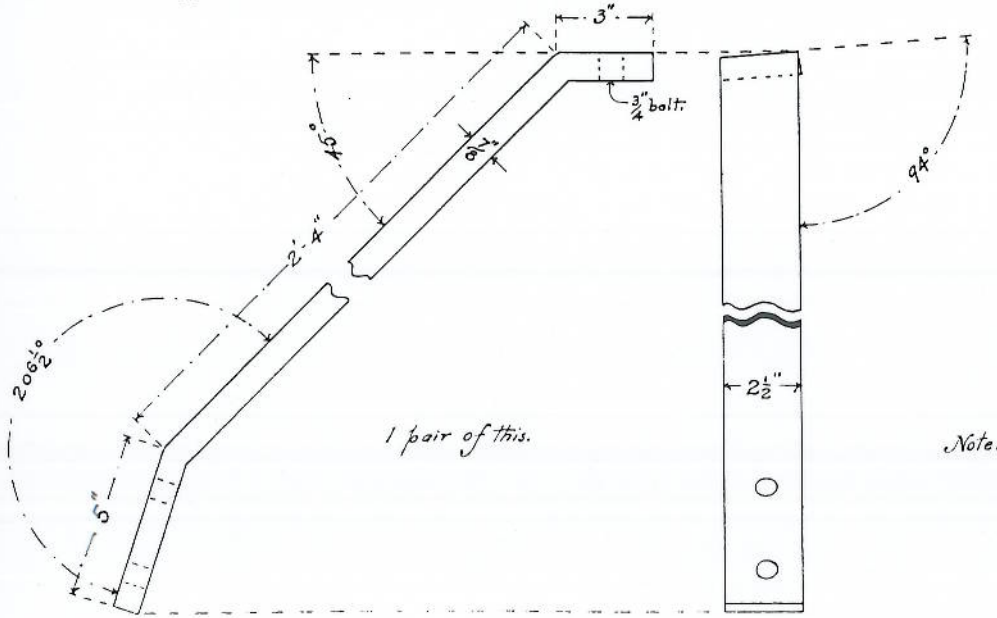
Oct 1847

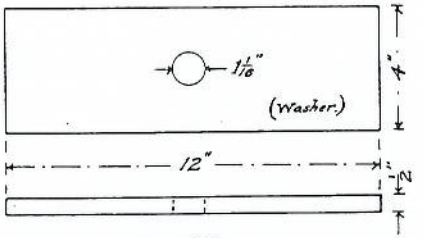
DETAILS OF IRON FORGINGS FOR FOG SIGNAL AT BUTLER FLATS LT. STATION, MASS.

No 558
SHEET 2 OF 3

SCALE 3"=1'-0".

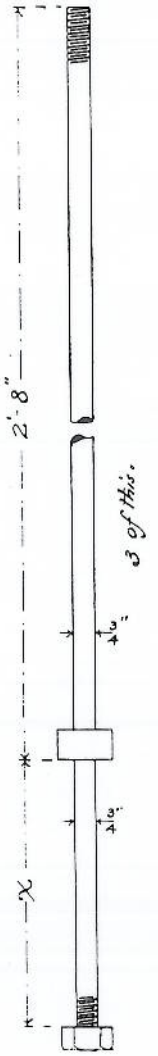






Note.

2	bolts	1"	x	18"	sq. head	hex. nut
8	"	¾"	x	2¼"	"	"
4	"	⅝"	x	4¾"	"	"
60	"	⅝"	x	1¾"	"	"
6	"	1"	x	3"	"	"
12 lap	"	⅝"	x	1¼"	"	"
8	"	"	1"	x	12"	"



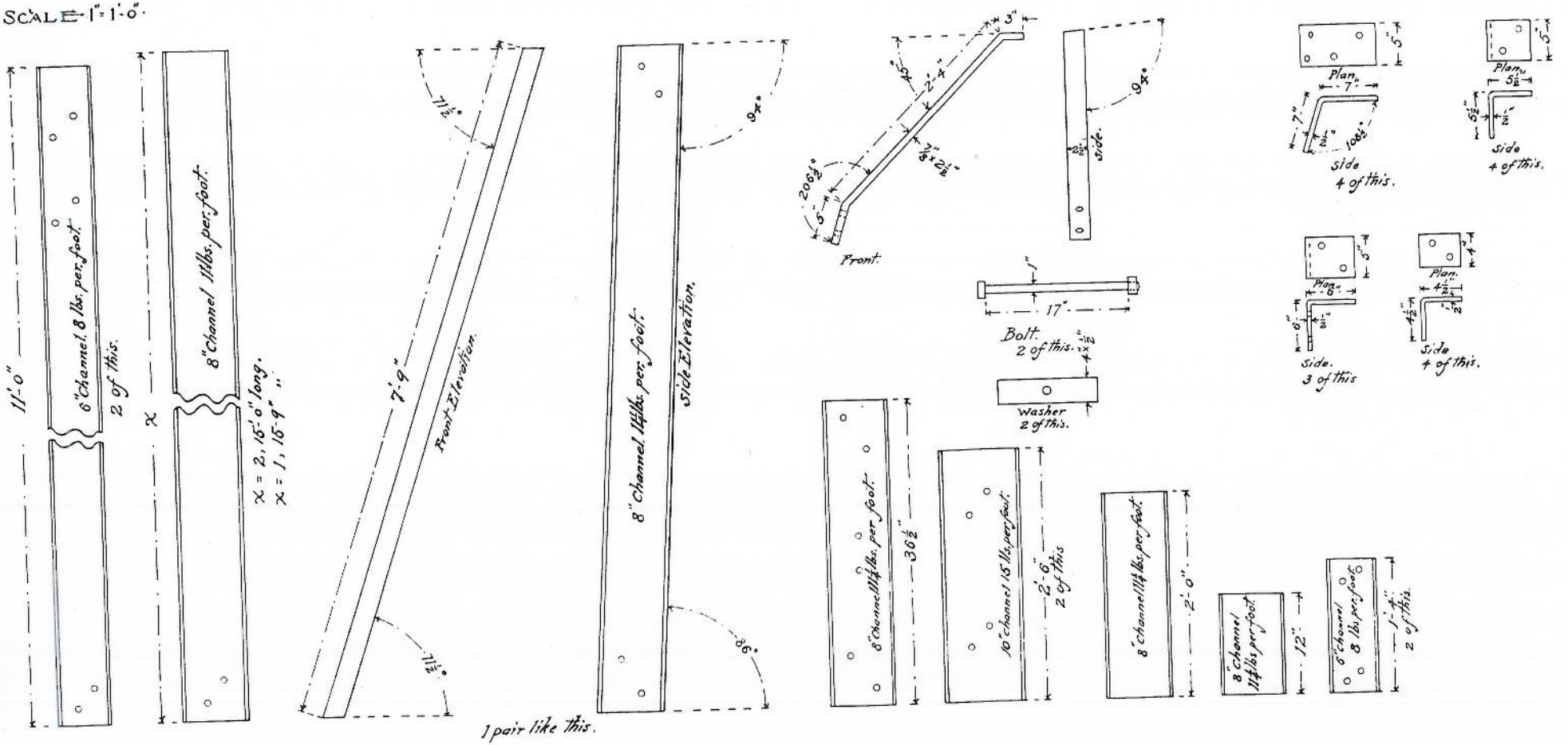
X = 2, 8" long.
X = 1, 8½" "

DETAILS OF IRONWORK FOR FOG SIGNAL AT BUTLER FLATS LT. STATION, MASS.

No 558

SHEET 3 OF 3

SCALE 1" = 1'-0"

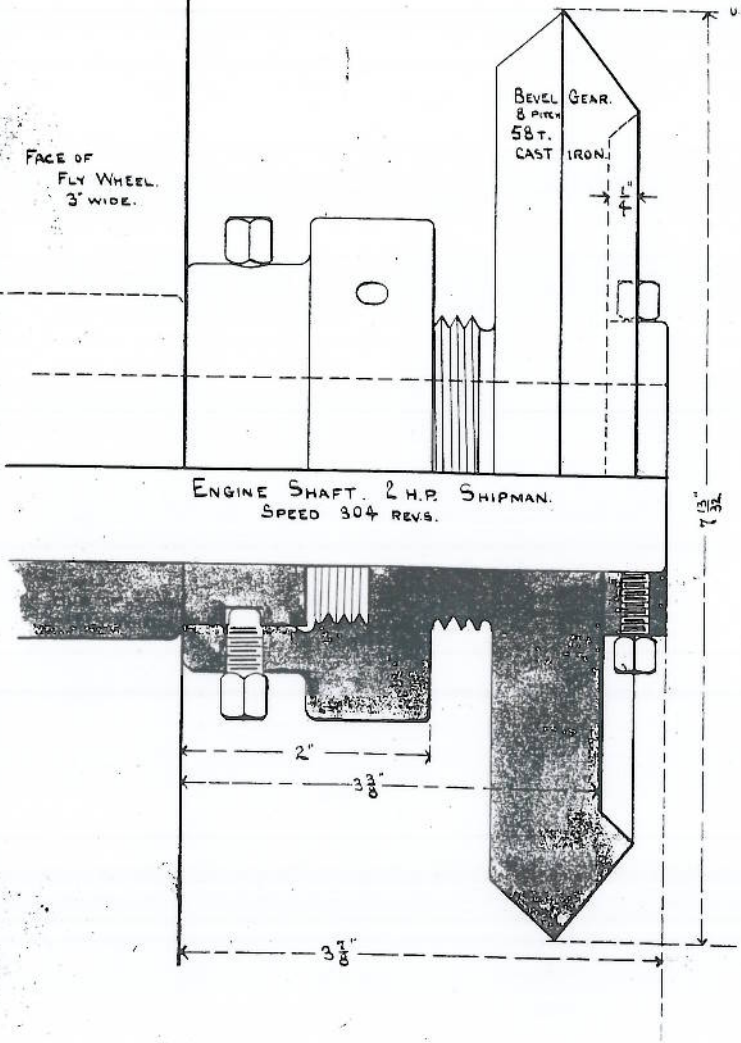


BUTLERS FLATS.

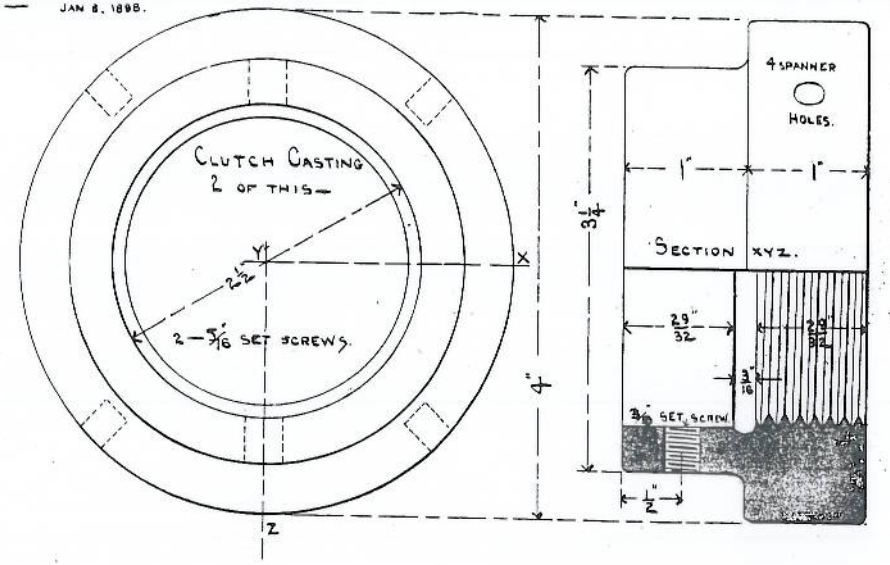
DOUBLE BLOW FOG SIGNAL. BEVEL GEAR CLUTCH DETAILS.

4000 LB BELL. DOUBLE BLOW EVERY 15 SECONDS.

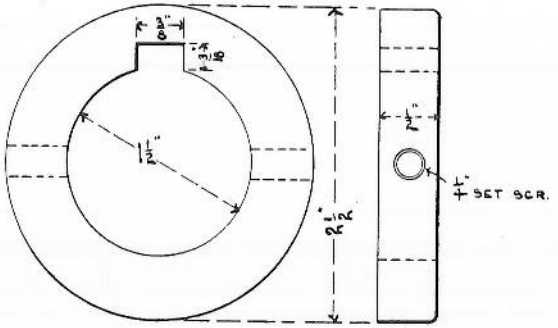
U.S.L.H.EST. 1ST & 2ND DIST'S. — JAN 8, 1898.



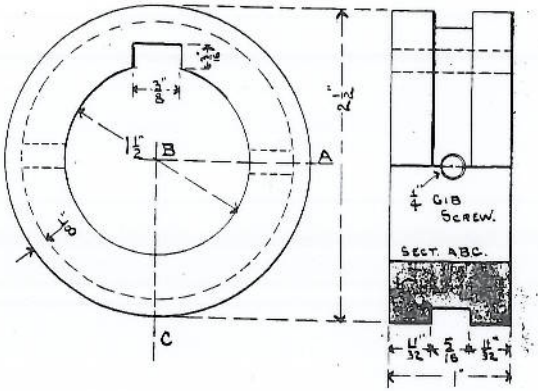
SCALE, - FULL SIZE.

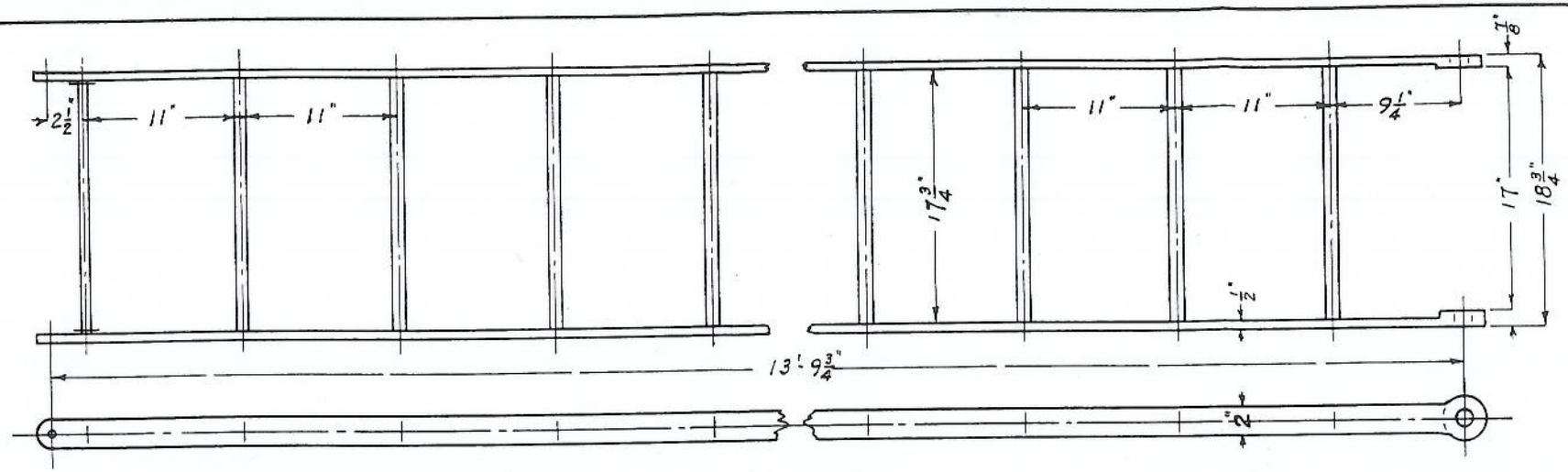


2 STEEL COLLARS LIKE THIS.

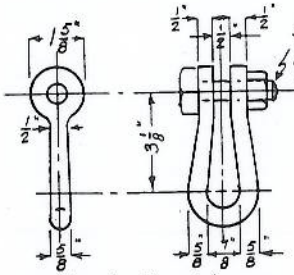


2 STEEL COLLARS LIKE THIS.

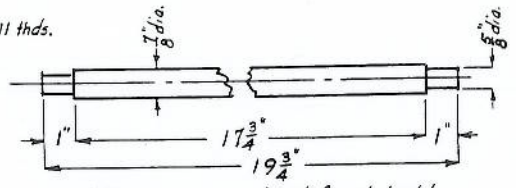




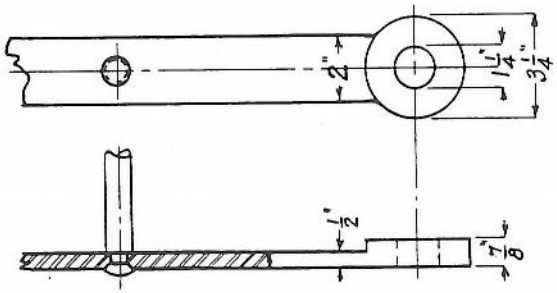
Note: Furnish 1 galv. shackle with 5/8" pin and 5/8" jaws for attaching tackle to davit.

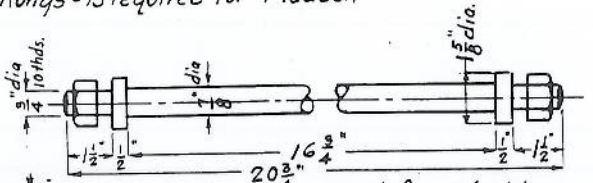


Steel Shackle
2 required for 1 ladder.

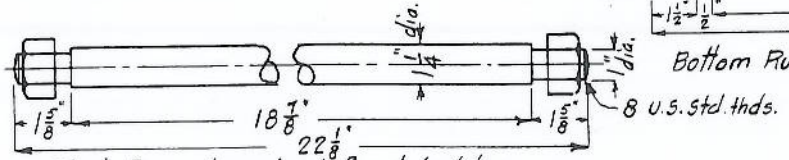


Steel Rungs - 15 required for 1 ladder.

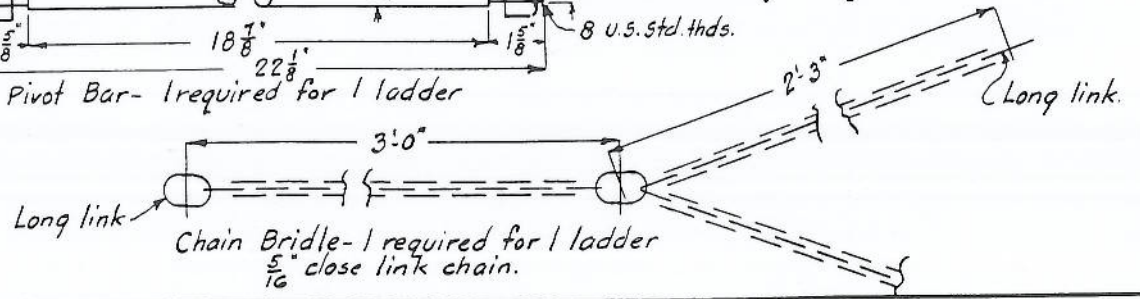




Bottom Rung - 1 required for 1 ladder.



Pivot Bar - 1 required for 1 ladder



Chain Bridle - 1 required for 1 ladder
5/16" close link chain.

Office of The Superintendent of Lighthouses.
Second District - Chelsea, Mass.

BUTLER FLATS LT. STA.
LOWER LADDER

Scale: 1½" = 3" = 1 ft.

Approved: Mar. 1, 1935

Geo. E. Eaton
Superintendent.

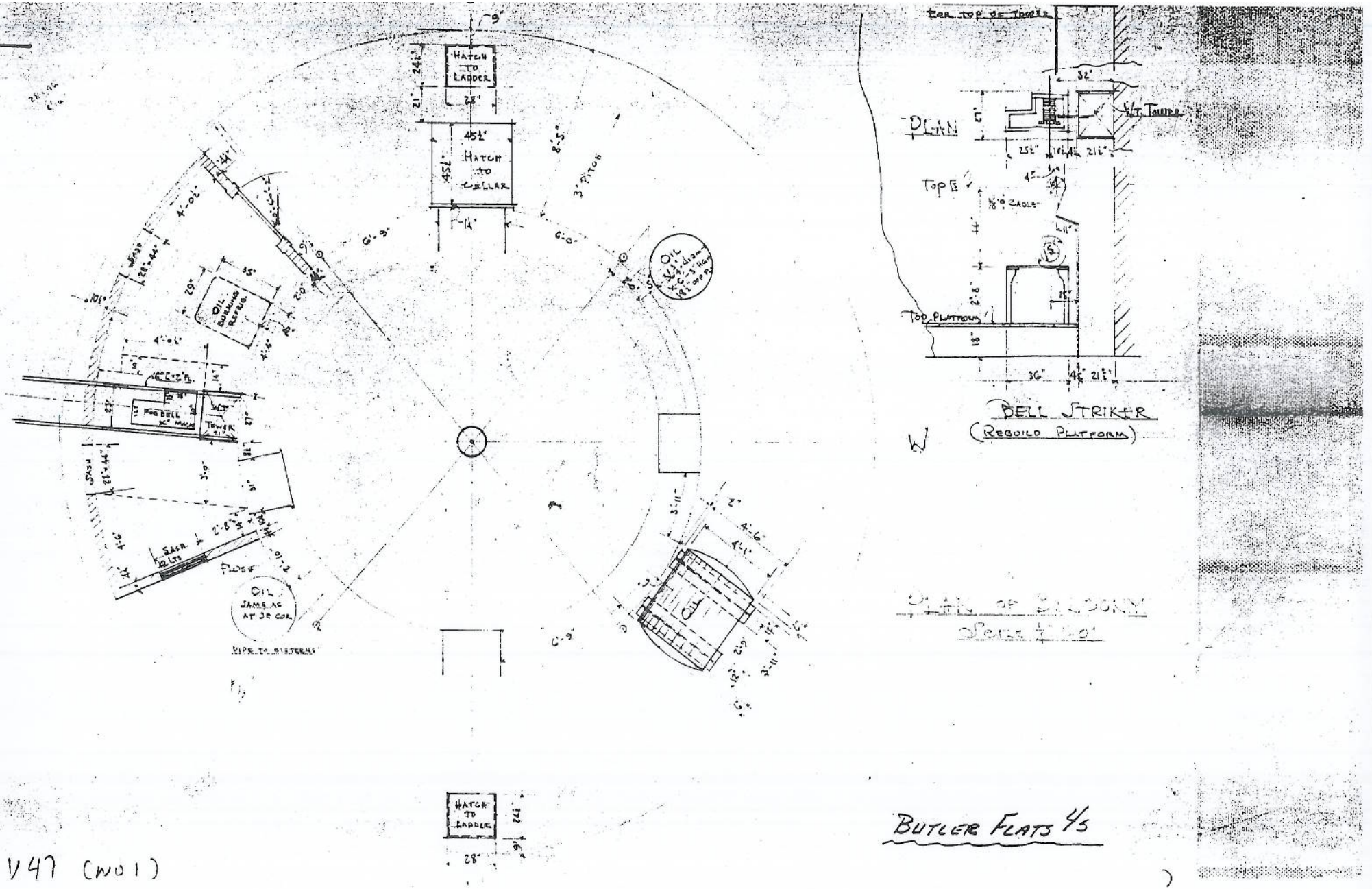
Assoc. L.H. Engineer.

Drawn by:
Traced by: J.G.R.
Checked by:

Sheet 1 of 1

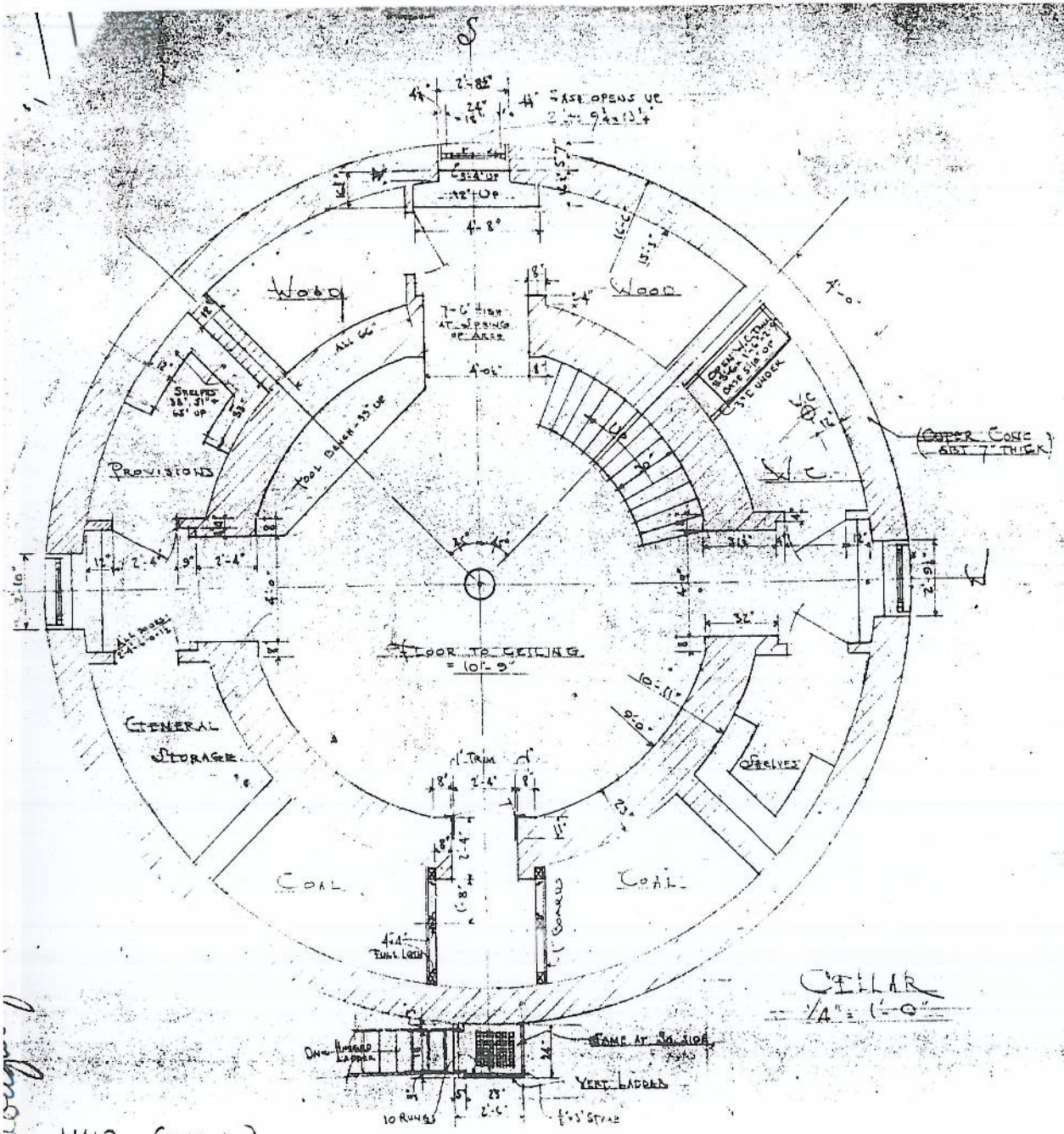
No 482

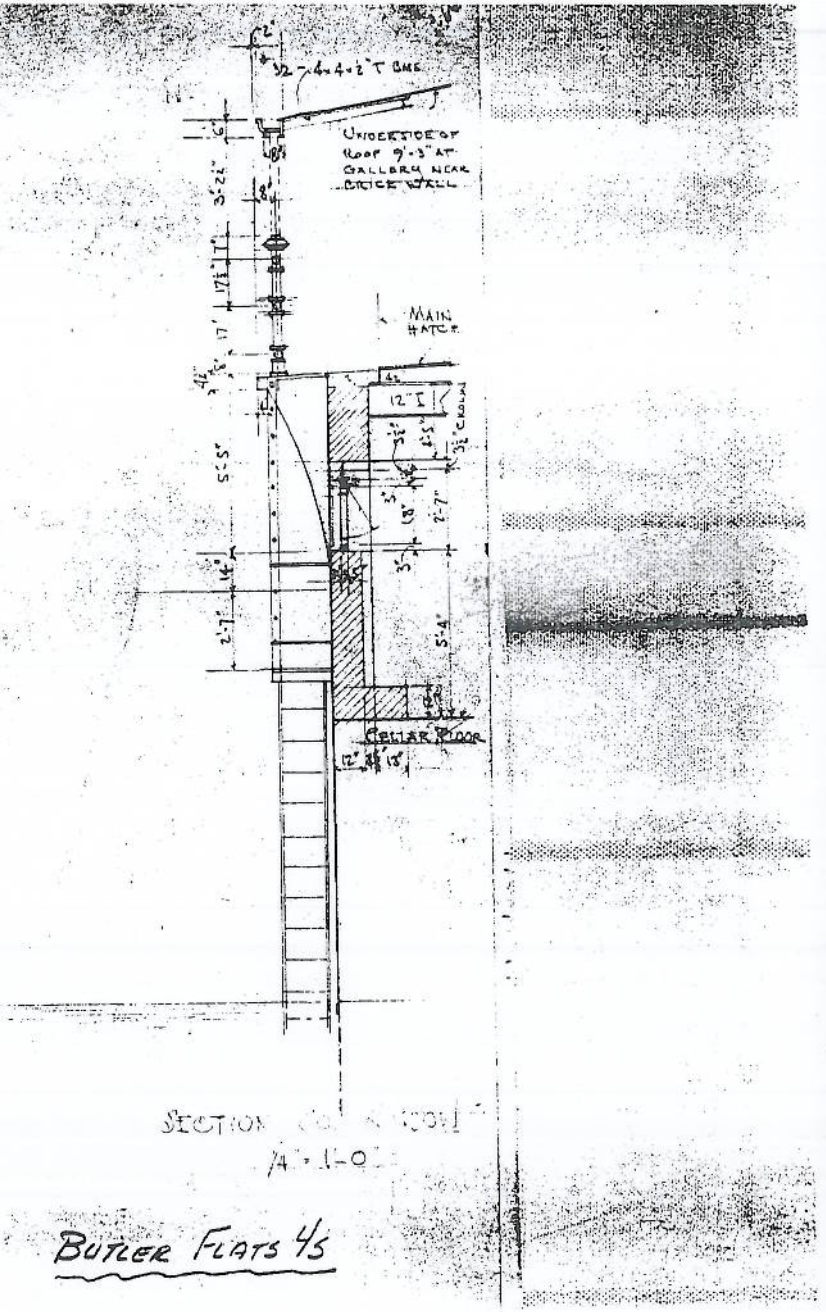
ES V45



V47 (NO1)

BUTLER FLATS 45

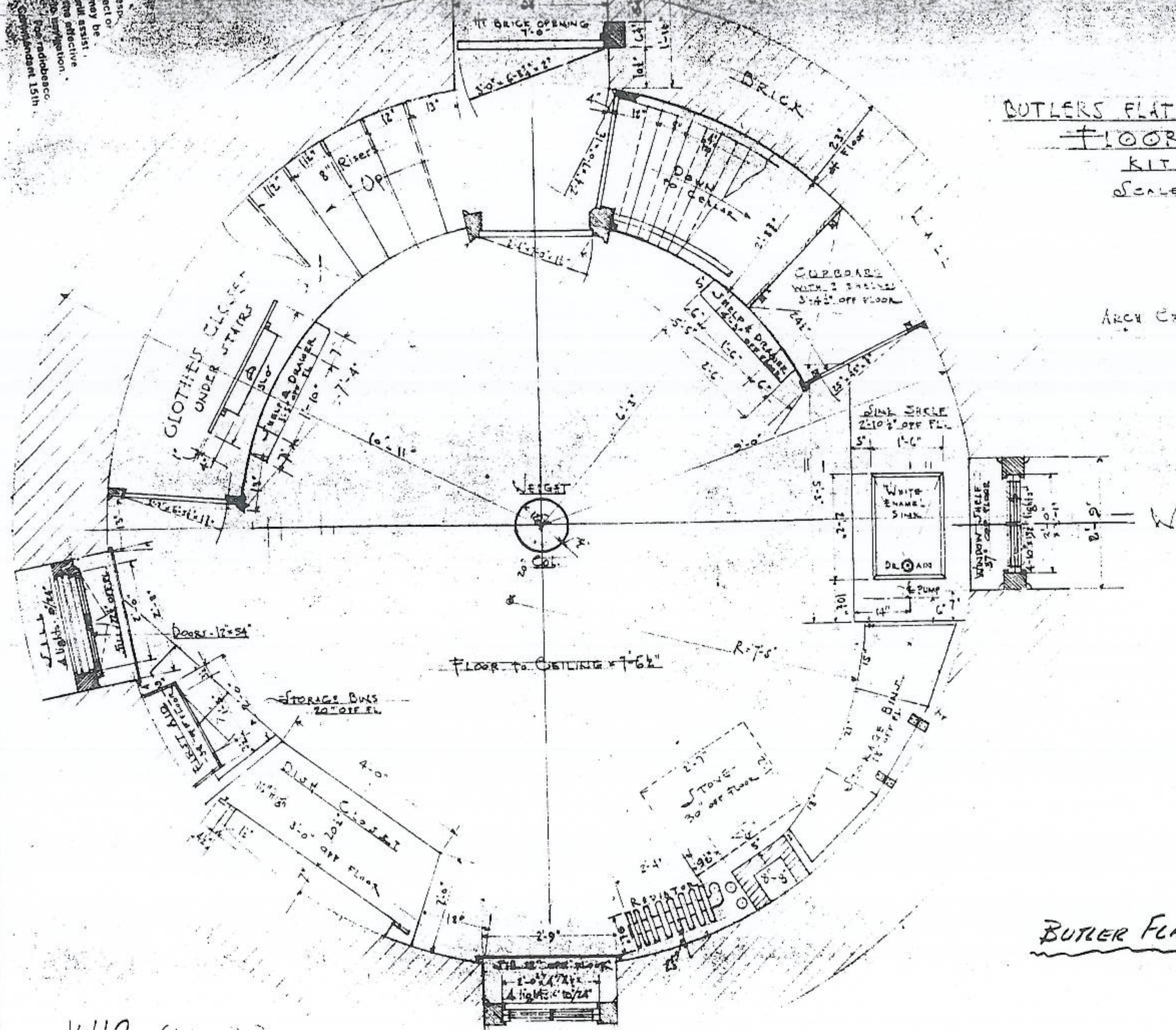




Section

1/4" = 1'-0"

Butler Flats 4/5



BUTLERS FLAT LIGHTHOUSE

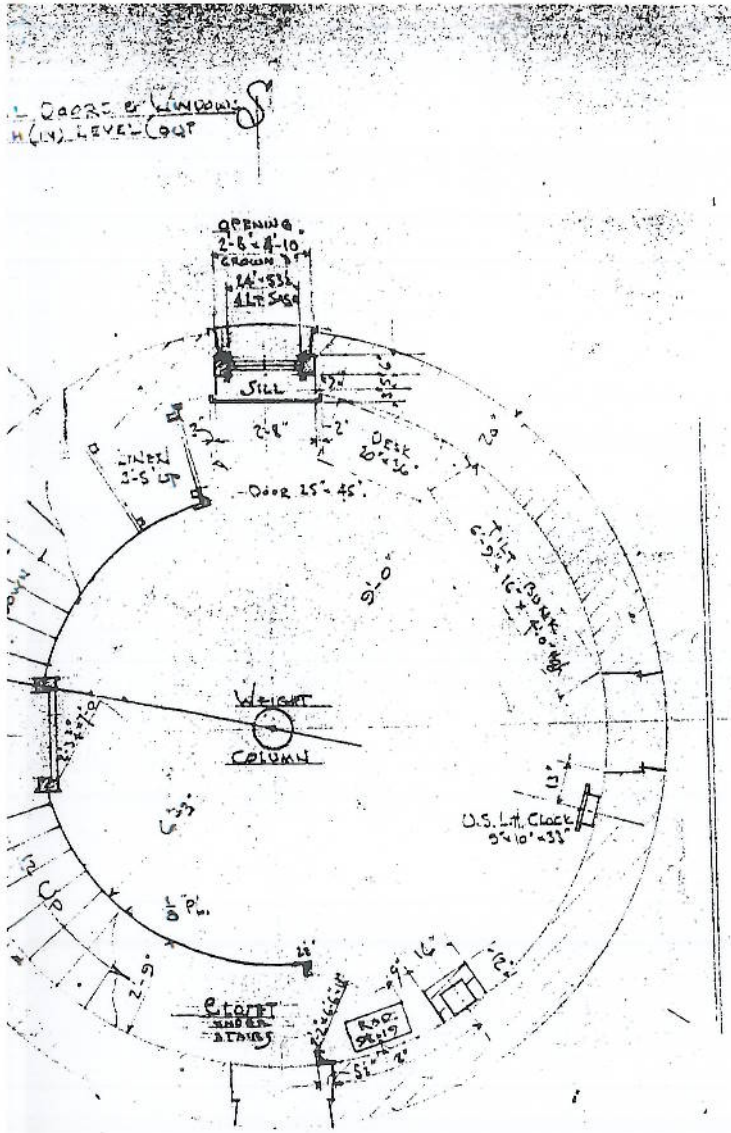
FLOOR PLAN

KITCHEN

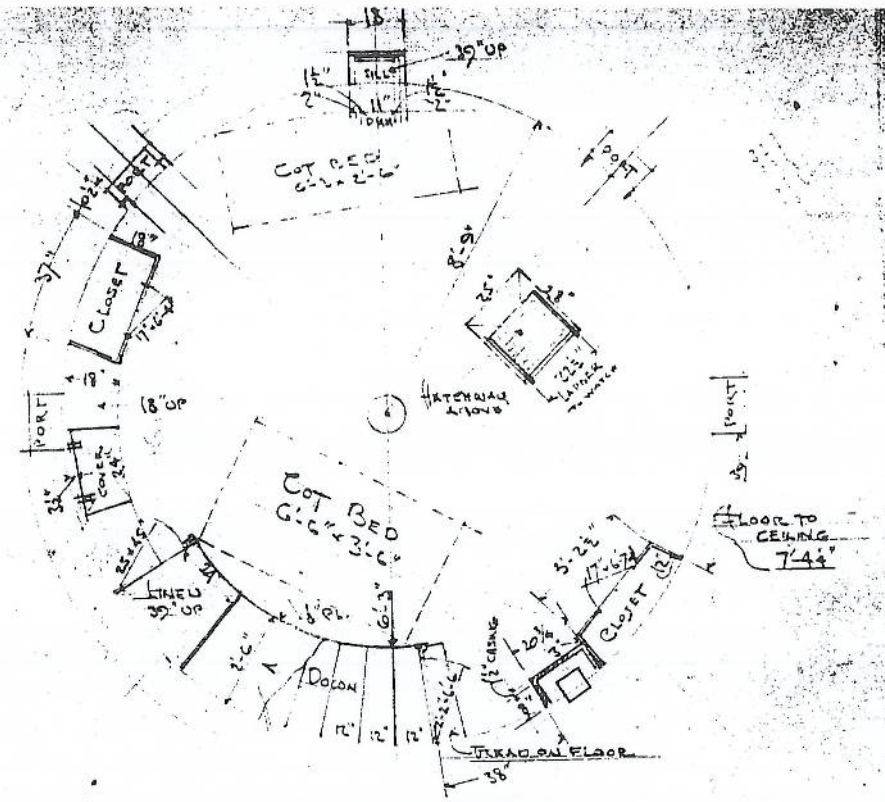
SCALE ½" = 1'-0"

ARCH CROWN OVER SASH = 3½"
" " DOOR = 2½"

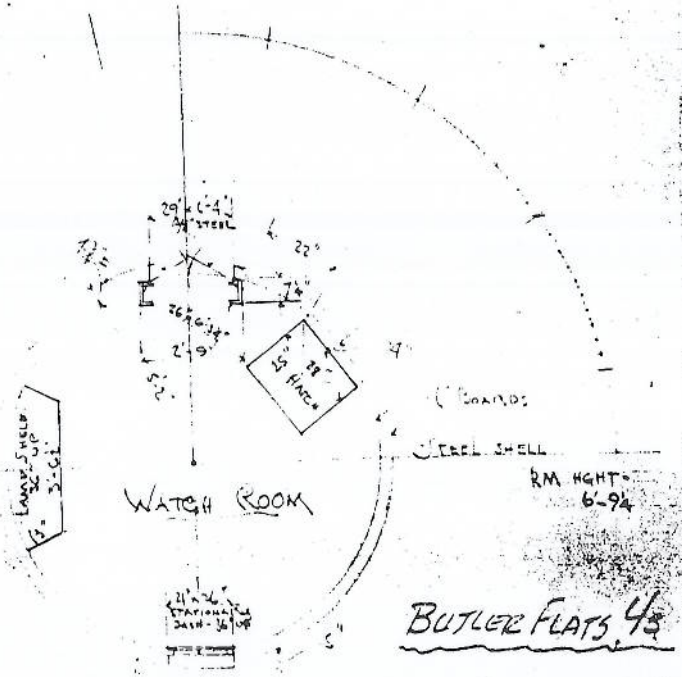
BUTLER FLATS 4/5



2ND FL. PLAN
¼" = 1'-0"



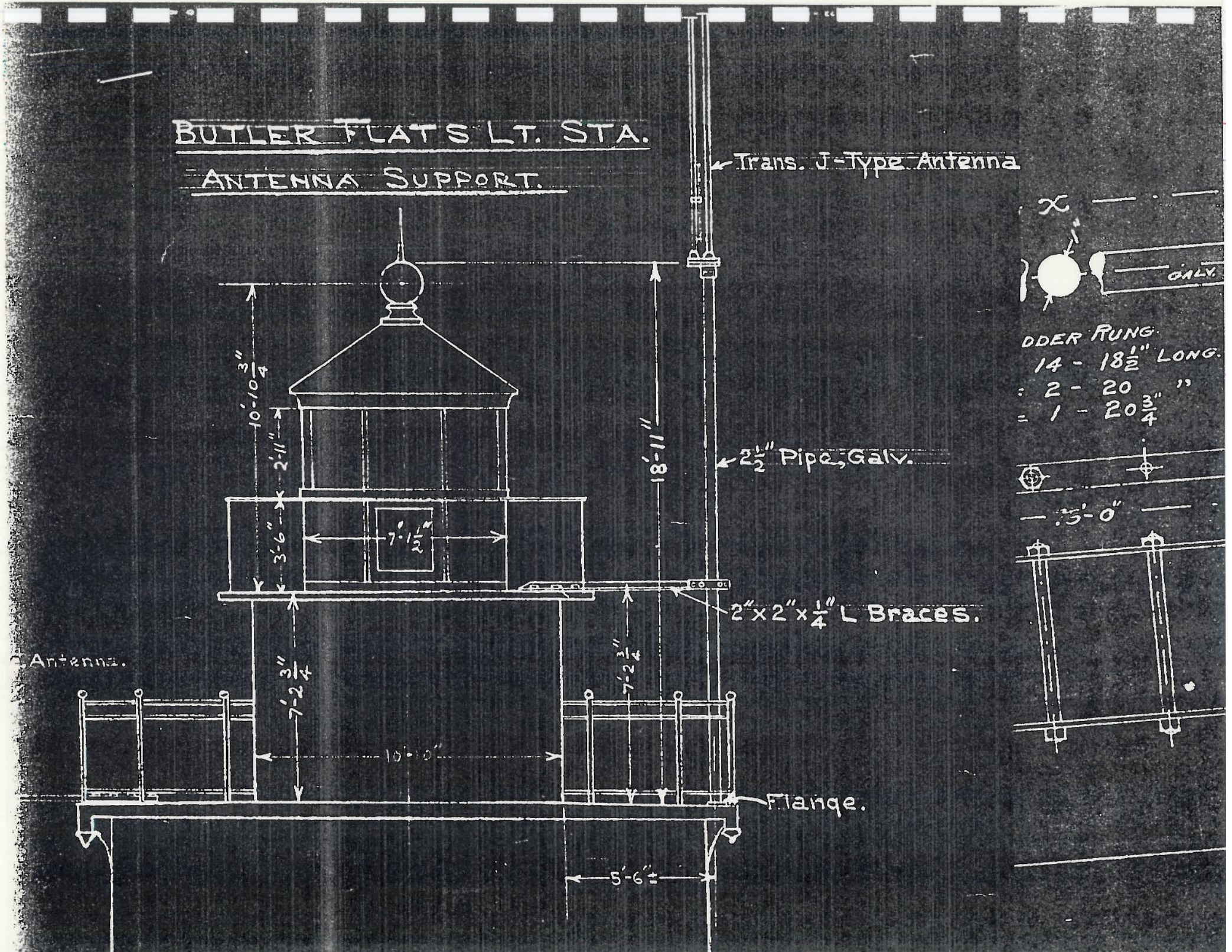
THIRD FLOOR PLAN
¼" = 1'-0"

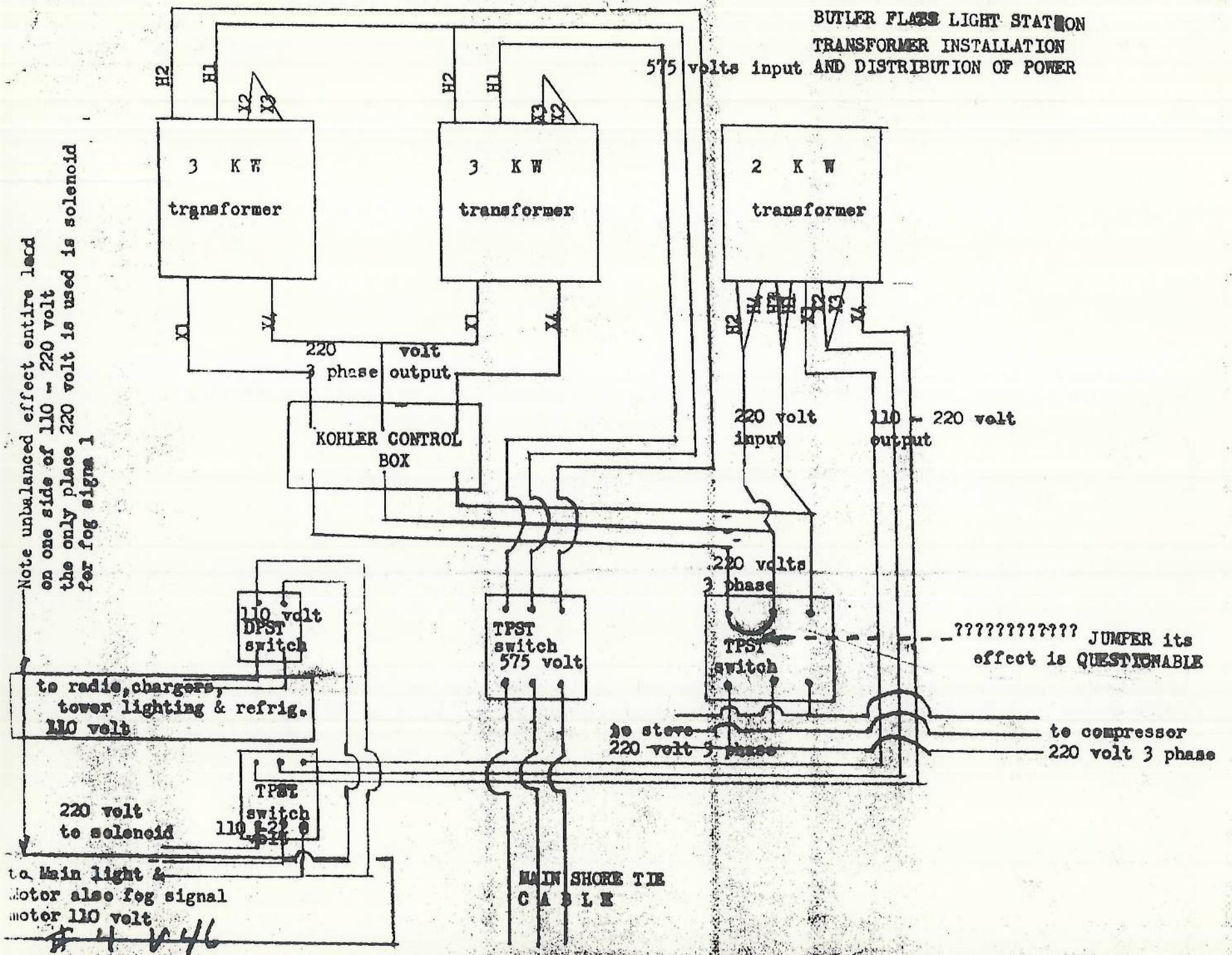


BUTLER FLATS 45

BUTLER FLATS LT. STA.

ANTENNA SUPPORT.




BUTLER FLATS LIGHT STATION
TRANSFORMER INSTALLATION
AND DISTRIBUTION OF POWER
575 volts input
3 K W transformer
3 K W transformer
2 K W transformer
H2
H1
X2
X3
X1
X4
220 volt 3 phase output
KOHLER CONTROL BOX
220 volt input
110 - 220 volt output
220 volts 3 phase
110 volt DPST switch
TPST switch 575 volt
TPST switch
??????????? JUMPER its effect is QUESTIONABLE
to radio, chargers, tower lighting & refrig. 110 volt
to stove 220 volt 3 phase
to compressor 220 volt 3 phase
TPST switch
220 volt to solenoid
to Main light & motor also fog signal motor 110 volt
MAIN SHORE TIE CABLE
Note unbalanced effect entire load on one side of 110 - 220 volt the only place 220 volt is used is solenoid for fog signa l

HISTORIC LIGHTHOUSE IMPROVEMENT PROJECT

INFORMATION NETWORK

1. National Park Service, Washington, D.C.
   Martitime History Office: (202) 343-9528
   Jim Delgado
   Kevin Foster
   (about to issue "Bibliography of Lighthouse Preservation")

2. U.S. COAST GUARD-HISTORIAN'S OFFICE (CMDT (G-BPA)
   2100 2nd St. SW, Washington, D.C. 20593 (202) 267-0948
   Dr. Bob Browning
   Dr. Bob Scheina

3. National Trust for Historic Preservation
   Northeast Regional Office
   45 School St. Boston, Ma. 02108
   (about to issue "Lighthouse Bibliography"

4. Mass. Historical Commission, Boston, Ma. (617) 727-8470
   Ann Tate

5. Lighthouse Preservation Society, Rockport, Ma. (508) 281-6336
   Valerie Nelson
   Jay Highland

6. U.S. Lighthouse Society, San Francisco, Ca. (415) 585-1303
   Wayne Wheeler, Pres. 585-0846
   (very good on History)

7. U.S. COAST GUARD
   First District A to N office (617) 223-8338
   408 Atlantic Ave., Boston, 6th floor
   CWO-4 Wheaton (has some files, most in NYC.)

   Shore Maintenance Detachment, Governor's Island, NYC
   Lt. Baffer, Bldg. #107 (212) 668-3435 ext. 7004
   (has extensive drawings, files on both lighthouses, also access to property files.)

8. Shore Valley Museum, Rockland, Maine.
   105 Limerock St., Rockland, Maine 04841
   Ken Black, Dir. (207) 594-4950
   (very good on technology of lighthouses, scavenger)

9. Nancy Salzman, Preservation Consultant
   Cambridge, Ma. (617) 868-9165
   Lighthouse specialist.

10. Capt. Dave Parr, USCG
    Was lighthouse man at CG Boston, worked on Boston Light,
    has built a new house in Exeter, N.H., probably reachable.

11. Friends of the New Bedford Lighthouses
    Dr. O'Toole