October 16, 2001

Committee on History and Heritage
American Society of Civil Engineers
1015 15th Street, NW, Suite 600
Washington, DC 20006

The Maine Section of ASCE nominates Portland Head Light in Cape Elizabeth for designation as a National Historic Civil Engineering Landmark. We have retyped the nomination form which is presented below:

Name: Portland Head Light
Located at: Cape Elizabeth, Maine

The latitude to the nearest minute (or U.T.M. coordinates). Latitude: 43 degrees, 37.4 minutes north. Longitude: 70 degrees, 12.5 minutes west. Attach detailed local and vicinity maps that show access from a major city or the interstate. (See Exhibit A)

The proposed landmark's owner: Town of Cape Elizabeth

Supporting Information:

1. **Date of construction (and other significant dates).**

   Local merchants began petitioning the Massachusetts Legislature for a lighthouse at Portland Head as early as 1784. A maritime tragedy in 1787 prompted the Legislature to approve a small appropriation of $750 to begin the construction of a 58 foot tower of rubblestone set in lime. The Lighthouses Act of 1789 transferred responsibility for aids to navigation from the individual states to the Federal Government and in 1790, under authorization from President George Washington, $1,500 was appropriated for the completion of the lighthouse. Portland Head Light flickered into operation just before sunset on January 10, 1791. It was the first lighthouse to be lighted by the Federal Government. Portland Head Light is on the National Register of Historic Places.

2. **Names of key civil engineer and other professionals associated with the project.**

   The tower was constructed by Portland masons John Nichols and Jonathan Bryant. We assume the tower was designed by these masons since we have not found any reference to a designer for the light.

3. **Historic (international, national, or local) significance of this landmark.**

Portland Head Light was the first lighthouse constructed in Maine and only the 14th constructed in the United States. It served an important role in protecting shipping. When the lighthouse was constructed in 1790, Portland was the 6th largest port in the country, the closest port to Europe and had significant trade to the Carribean. The lighthouse served a major role in protecting the economic investment made in the area. While the tower has received several different lenses, and was extensively repainted in 1900, the exterior of the tower remains today essentially as it was originally constructed. The lighthouse was built during the first term of President George Washington from funds administered by Secretary of Treasury, Alexander Hamilton, was the first lighthouse to be lighted by the Federal Government and one of only four authorized by President Washington. Henry Wadsworth Longfellow used to walk out to the light when he lived in Portland and sit and write at its base.

4. **Comparable or similar projects, both in the United States and other countries.**

The need to provide navigation at night and during periods of poor visibility necessitated the construction of many lighthouses both in Maine, along the eastern seaboard of the colonies and along many coastal waterways throughout the world. One of the earlier lighthouse towers was Eddystone Light, which was constructed in 1698. It was important because it was the first to be anchored to rocks with iron rods enclosed in a stone foundation. There were many lighthouses constructed in the later half of the eighteenth century and the first decade of the nineteenth century in New England including the 1807 construction of Franklin Island at Muscongus Bay in Maine and West Quoddy Head lighthouse in 1808.

5. **Unique features or characteristics which set this proposed landmark apart from other civil engineering projects, including those in #4 above.**

In addition to being only the 14th lighthouse constructed in the United States and the first in Maine, there are other unique features, which distinguish this lighthouse from others. It was the first tower constructed by the Federal Government after it took over administration of all navigational aids in 1790 and appropriated $1,500 to complete the tower. From an engineering standpoint, it is unique in that the rocks for the foundation were excavated from the site for the lighthouse tower. While changes have been made to the keeper's dwelling, the lenses and foghorn, the tower has remained essentially unchanged since 1790. Since it was the first lighthouse under the federal government's jurisdiction, President Washington gave it his personal attention. He ordered that it be constructed of rubblestone taken from the fields and shores of Cape Elizabeth and stated that the stone could be "handled nicely when hauled by oxen on a drag".

6. **Contribution which this structure or project made toward the development of: (1) the civil engineering profession, (2) the nation or a large region thereof (part 2 is necessary for an NHCEL).**

   1. Since Portland Head Light was one of the earliest lights in American history, it served as model for future projects for its construction and for the use of on site and local materials to minimize construction costs. It has also served as a model of how existing projects can be adapted to better serve the public as needs change. Although fitted with numerous different lenses as technology changed and altered in height to improve visibility, it has never been rebuilt.

   2. Portland Head Light has made a significant contribution to the nation's development by facilitating shipping and thereby playing an important role in the national economy by keeping the shipping routes safe and minimizing losses.

7. **A list of published references concerning this nomination.**

   Holland, Francis Ross, Jr., America's Lighthouses – An Illustrated History (Newark: Dover Publications ©'1972)
National Park Service, Inventory of Historic Light Stations – Portland Head Light (Internet)
National Park Service, Historic American Buildings Survey (HABS No. Me-123 ©' 1965)
Stewart, Walter Jr., The Lighthouses Act of 1789 (U.S. Senate Historical Office© '1991)
U.S. Lighthouse Society, The keeper's Log (U.S. Lighthouse Society Vol. VII No. 4© '1991)
Interview with Cheryl Parker, Town of Cape Elizabeth July 26, 2001

8. **A list of additional documentation in support of this nomination. (Please list all enclosed documents, publications, photographs, and supporting historical evidence. One 35mm color slide and one 5" x 7" black & white glossy photo are required for publicity and presentation purposes.)**

   - Exhibit B - Photograph (5" x 7" black & White Glossy) (Included in original application only)
   - Exhibit C – 35 mm color slide (Included in original application only)
   - Exhibit D– The Lighthouse Act of 1789
   - Exhibit E – Historic American Buildings Survey – HABS No. ME123
   - Exhibit F – The Keepers Log Vol. VII No. 4 1991

9. **The recommended citation for CHHACE consideration.**

   National Historic Civil Engineering Landmark
   Portland Head Light
   First Lit in 1791

10. **A statement of the owner's support of the nomination.**

- Exhibit G – Letter from Mr. Michael McGovern, Cape Elizabeth Town Manager

If this nomination is approved for designation as a National Historic Civil Engineering Landmark by the Board of Direction of ASCE, we understand that the Section will have the major responsibility for the public presentation ceremony of the plaque and for plaque maintenance.

Chairman, Section History & Heritage Committee_____

Section Secretary _____

Section President _____

Note: For State Historic Civil Engineering Landmark designation, the other Section presidents from the state should sign the nomination form or concur with the nomination in writing.
Note: Designation by ASCE as a National Historic Civil Engineering Landmark carries no legal commitment on the part of ASCE, the owner or the governmental jursidication in which it is located.