

# LUCCHESI ENGINEERING, P.C.

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Chairperson Michael Leahy  
Restoration Committee  
United States Lighthouse Association  
1100 Shames Drive  
Suite 205  
Westbury, New York 11590

October 12, 2009

Cedar island Lighthouse  
Sag Harbor, New York

Dear Mr. Leahy,

Pursuant to our September 16th site investigation and after review of the two prior architectural survey reports (Sedovic; Ehasz), we herein provide our observations and recommendations.

We suggest a **two phase** approach to the restoration effort. The first phase would address the exterior restoration of the structure which would include the following listed design details and related construction. We have included very preliminary construction cost estimates for each item for Board consideration and discussion.

In general, we observed the structure to be in significantly sound structural condition, considering its age and the elements to which it has been exposed. The entire footprint and superstructure evidence no signs of settlement or consolidation of underlying soil strata. The following restored exterior elements would bring this facility back to what it might have appeared when originally constructed.

## Phase I:

- Removal and disposal of existing temporary roof (see note below)..... \$40,000
  - Install new standing seam metal roof (including copings, fascia & flashings)... 78,500
  - Install new roof structural framing..... 49,000
  - Removal of interior scaffolding..... 10,000
  - Cleanup of bird guano and fire residue debris..... 17,000
  - Window and door restoration..... 60,000
  - Lantern structure replacement (lamp not included)..... 118,000
  - Restoration of exterior decking at walkway..... 68,000
  - Exterior railing replacement (treated steel)..... 50,000
  - Interior floor framing and stairways..... 50,000
  - Masonry re-pointing of exterior granite and interior "rubble masonry"..... 395,000
- \$ 935,500

Note: Any consideration to utilize the existing temporary roof as a permanent structure should be dismissed. The supports for this temporary structure bear upon improvised brick masonry haunches, which are questionable as to their continued structural integrity, especially under wind and snow loadings. This temporary roof structure also in most places bears on the interior wythe of “rubble masonry” and not the exterior, more structurally sound granite block elements. The condition of this interior coursing of masonry is not sufficient to provide long term and assured roof loadings and support.

Phase II:

After the first phase has been funded and completed, the Board should have determined the final usage(s) of the interior of the structure. Until such time as a defined scope of work is achieved, design considerations such as ADA accessibility, plumbing, electrical, HVAC and site improvements can then be estimated.

Kindly call with any questions, concerns, or comments you might have in this regard.

Very truly yours,

Joseph A. Lucchesi, P.E.