

**NAVIGATION IMPROVEMENTS  
SITKA HARBOR, ALASKA  
CHANNEL ROCK BREAKWATERS**

**DRAFT DEFICIENCY CORRECTION EVALUATION REPORT**

**APPENDIX D  
REAL ESTATE PLAN**

**JANUARY 2011**



**REAL ESTATE PLAN  
FOR  
SITKA HARBOR, ALASKA  
CHANNEL ROCK BREAKWATERS  
DEFICIENCY CORRECTION EVALUATION REPORT  
January 3, 2011**

**1. Purpose:**

The Alaska District, Corps of Engineers, along with the City and Borough of Sitka (CBS), its non-Federal sponsor, completed construction of the Channel Rock Breakwaters feature of the Sitka Harbor project in 1995. The purpose of that project was to provide protection for Thomsen Harbor and to protect additional moorage that would be constructed in the natural anchorage and channel between Sitka and Japonski Island. During the feasibility study and after, this additional moorage was termed New Thomsen Harbor. The name of the expanded moorage area was later changed to its current name, Eliason Harbor.

After the Channel Rock Breakwaters were constructed, Sitka Harbor users and the city reported excessive energy entering through the breakwater gaps adversely affecting harbor use and damaging boats and harbor facilities during high tide and swell conditions. Congress provided the Corps funding from 2001 through 2003 to study the potential for excessive swell in the harbor. In May 2002, the Corps completed a Section 905(b) Analysis for Eliason Harbor, which recommended further study. Additional Congressional legislation in 2005 and in 2007 stated that the damages being experienced resulted from breakwater design deficiencies and directed the Corps to modify the Channel Rock Breakwaters to correct those deficiencies to reduce wave and swell motion within the Sitka Harbor.

**2. Project Description:**

Hydraulic analysis has shown that gaps in the Channel Rock breakwater at Sitka Harbor are allowing significant wave energy to enter the harbor. The effects of this energy are most obviously manifested in significant and undesirable movement in the floats of the (New Thomsen) harbor. The adverse movement has led to damages to vessels and increased float maintenance costs as users attempt to access their vessels at the floats. Hydraulic analysis has also shown that the majority of energy comes through the gaps to the north and south of the center breakwater in a fairly equal manner. According to locals, the majority of the energy comes from the southern gap. Their anecdotal evidence discusses when the southerly storm systems impact the area, the energy that most affects the floats comes from the southern gap. According to the locals, the northern gap, though quite wide, does not cause as significant a problem.

Preliminary cost estimate for design and construction of the project modification is \$8.1 million (1 October 2011 price level).

### 3. Real Estate Requirements for the Project:

The following real estate requirements for the project are based on the layout of the recommended deficiency correction measure alternative no. 4: Therefore, no real estate acquisition will be required. No disposal areas will be utilized since dredging will not be required. No known uplands staging area will be used since all construction can take place from barges. However, should the assumptions stated within the body of this report stating the rock will be procured from the quarry on Kasiana Island come to fruition, there is a potential requirement for rights-of-entry, as well as for assumed use of a land-based crane.

### 4. Federally/Government Owned Land included:

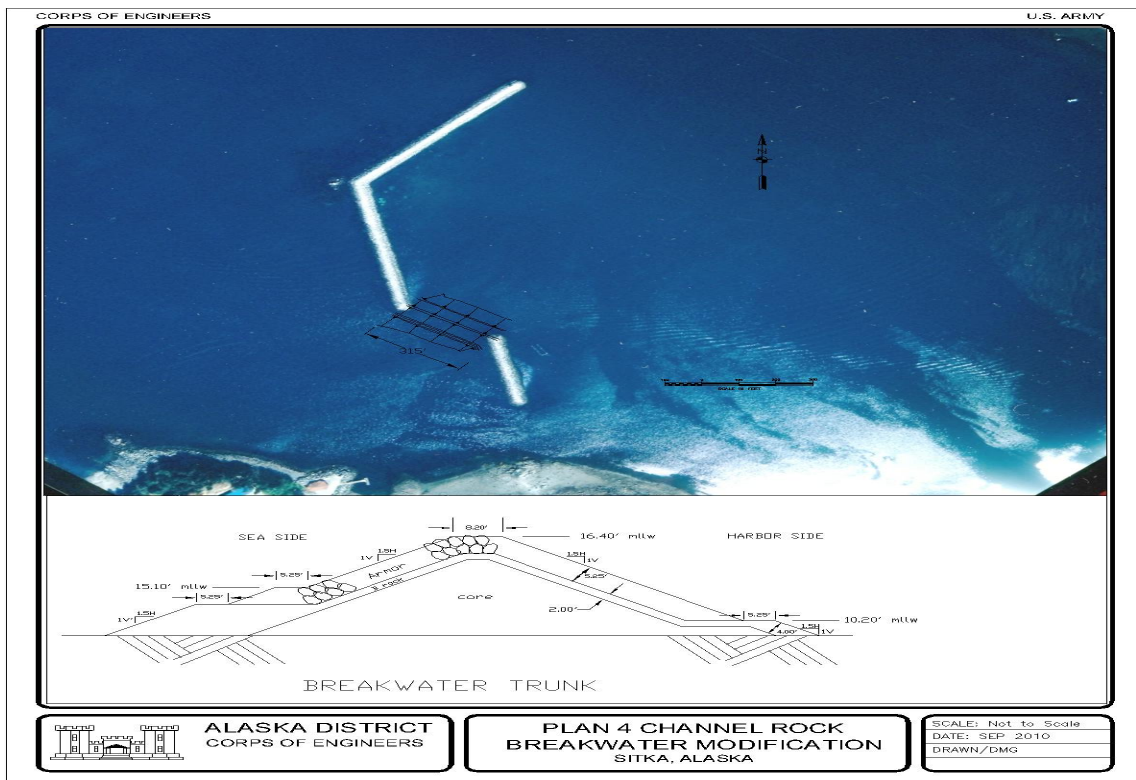
There are no known government lands for use in this project.

### 5. LER below MHW/OHW:

All construction will be done below Mean High Water; the U.S. Government asserts right of Navigational Servitude for this project.

### 6. Map:

Sitka Alaska is located on the West coast of Baranof Island fronting the Pacific Ocean, on Sitka Sound. An Extinct Volcano, Mount Edgecombe, rises 3,200 feet above the community. It is 95 air miles southwest of Juneau, and 185 miles southwest of Ketchikan Alaska. Seattle Washington lies 862 air miles to the South. Figure 1, map of Sitka Harbor Construction Site:



**7. Potential flooding induced by construction, operation or maintenance of project:**

No known potential for flooding is anticipated during or after construction.

**8. Real Estate and Administrative Cost Estimate:**

Table II

*Federal project portions (GNF)*

<u>Item</u>	<u>Federal</u>	<u>Local</u>	<u>Subtotal</u>	<u>Total</u>
Administration	\$3000	\$000	\$000	\$ 3000
Payments for Real Estate	-0-	-0-	-0-	-0-

*Non-Federal project portions*

<u>Item</u>	<u>Federal</u>	<u>Local</u>	<u>Subtotal</u>	<u>Total</u>
Administration	\$000	\$000	\$000	\$ 000
Payments for Real Estate	-0-	\$000	\$000	\$ 000

**9. Relocation:**

No relocation of people or structures is anticipated under the Relocation Assistance Act, (PL 91-646). No known utility relocations are anticipated also.

**10. Mineral Activity:**

No known mineral activity is under way in the Sitka Area.

**11. Non-Federal sponsor's acquisition experience:**

Sponsor does not need to be certified under this project.

**12. Environmental / HTW:**

Environmental study has been done; refer to other sections of this report.

**13. Known or Anticipated Opposition of Landowners in project area:**

No known opposition of landowners to this project.

**14. Other RE issues relevant to planning, design, or implementation of the project:**

This project is to correct a problem detected since construction on the float system was completed. The Sponsor has requested a study to look at alternatives to the energy of wave distribution, which may be damaging boats and docks in the inner harbor.

Thomsen Harbor was authorized as a Federal project in 1992 and was constructed in 1994. The harbor is protected from wave action by three rubble mound breakwaters 480 feet, 1,200 feet, and 320 feet in length. Additional facilities include a 1,800-foot floating breakwater, a vehicle and a pedestrian ramp both leading to a loading area dock, and restroom and shower facilities. The project accommodates recreational and commercial vessels and has 260 slips, which are filled to capacity. Upon completion of the Channel Rock Breakwaters deficiency correction measure, the Federal government will remain responsible for Operation and Maintenance of the breakwaters, as a project General Navigation feature, and the local sponsor will remain responsible for the Operation and Maintenance of the Local Service Facilities, such as the piles, floats, and docks.

