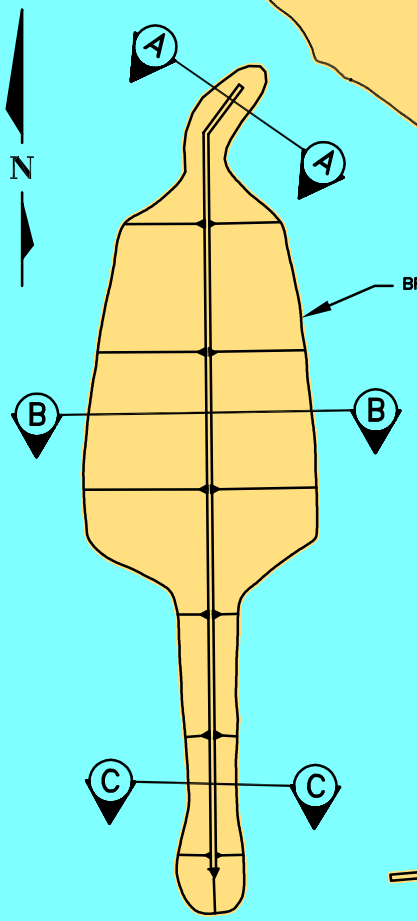
Kake Breakwater

CORPS OF ENGINEERS U.S. ARMY

NOTES

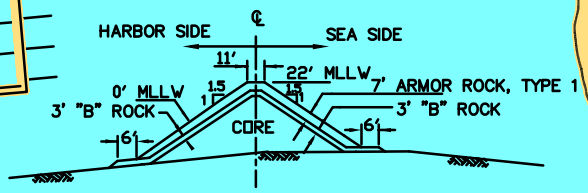
1. THIS LOCALITY IS SHOWN ON USC & GS CHART NOS. 17368, 17360, 17320, AND 16016.
2. ELEVATIONS AND DEPTHS ARE IN FEET AND REFER TO MEAN LOWER LOW WATER (MLLW = 0.0').



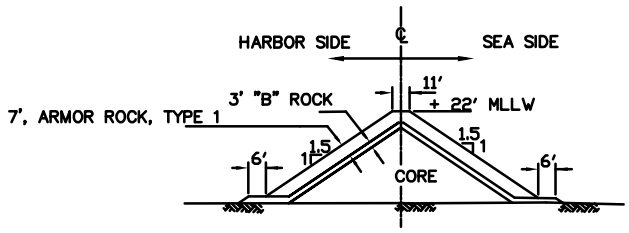
0 100 200 300 400
SCALE IN FEET

TIDAL DATA – KAKE, ALASKA

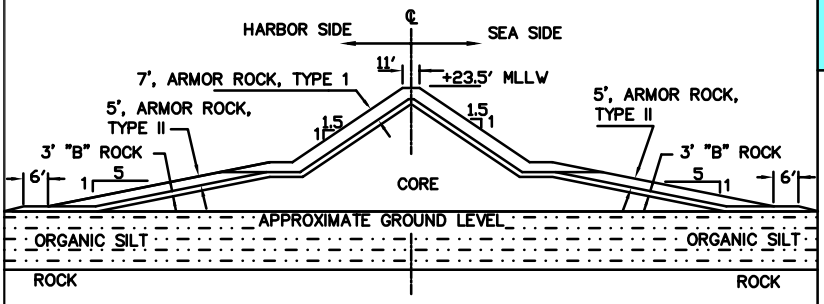
Estimated Highest Water Level	+18.0 ft MLLW
Mean Higher High Water	+14.0 ft MLLW
Mean High Water	+13.1 ft MLLW
Mean Tide Level	+7.25 ft MLLW
Mean Low Water	+1.4 ft MLLW
Mean Lower Low Water (datum)	+0.0 ft MLLW
Lowest Estimated Tide	−4.0 ft MLLW



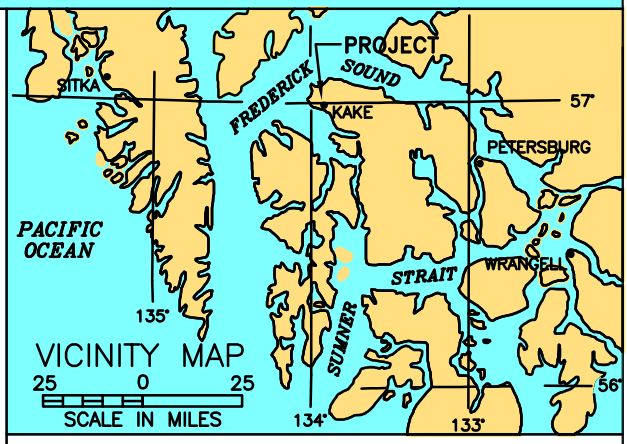
C BREAKWATER TRUNK SECTION
STA. 5+00 TO STA. 6+50
STA. 11+50 TO STA. 16+00



A BREAKWATER HEAD SECTION
STA. 16+00 TO STA. 17+00



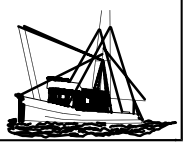
B BREAKWATER TRUNK SECTION
STA. 6+50 TO STA. 11+50



KAKE, ALASKA

KAKE HARBOR ALASKA

2000



Condition of Improvements
30 December 2014
Kake Harbor, Alaska
(CWIS No. 072739)

Authorization Rivers and Harbors Act, 13 August 1968 (Senate Doc. 249, 75th Congress, 1st Session) as adopted, provides for a 1,580 foot long west breakwater and a 900 foot long south breakwater enclosing a 7 acre berthing area at -15 feet MLLW.

Table 1

Existing Project	**Length** ft.	**Width** ft.	**Height** ft.
Breakwater	1240	Varies	22-23.5

Project Usage Fishing vessels find moorage at Portage Cove Harbor, a site 3 miles from town, protected by the new permanent Federal breakwater and a state maintained floating breakwater.

Progress of Work

1971	Pre-construction planning is initiated; field surveys are completed.
1972	Foundation and materials investigations begin.
1976	Pre-construction investigations reveal poor foundation conditions resulting in project re-evaluation and reformulation.
1979	Additional field investigation verifies poor subsurface conditions. The project is modified to include a 1,150 foot long west breakwater with a 960 foot shoreward access causeway and a 1,050 foot long floating south breakwater.
1980	Sampling and testing of bottom sediments is conducted.
1982	Plans and specifications are completed.
1983	A wind monitoring station is set up in June, and an aquatic biological study is initiated.
1986	The biological study is completed and wind data collection continues.
1991	Wind data is evaluated.
1994	A geophysical investigation is conducted at the Portage Cove harbor about 3 miles from the town site.

Progress of Work

1996	A General Reevaluation Report is issued in July covering possibilities at the Portage Cove site.
1998	Breakwater construction begins at Portage Cove.
2000	The breakwater is completed in October.
2009	CEPD required NOAA Tidal Determination performed at harbor.
2010	A project condition survey was accomplished in July. USACE Comprehensive Evaluation of Project Datums Compliance report completed and recorded in September.

Table 2 Cost to Date

Project	Description	Cost $
072739	GI PED Appropriation	273,151
	GI PED Costs	273,151
	CG Appropriation	16,021,585
	CG Costs	16,021,094
	CG Contributed Appropriation	1,971,000
	CG Contributed Costs	1,971,000

Table 3 Range of Tides in feet

Tide Station	Mean Range	Diurnal Range	Extreme Range
945 1528 Kake Harbor AK	11.81	14.24	-

Kake Harbor, Kake, Alaska

Kake Breakwater, 2010.

Kake Marina, 2010.