APPENDIX A

COST ESTIMATE

SAND POINT, ALASKA

**** TOTAL PROJECT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY STUDY, DATED: DEC 97

PROJECT: SMALL BOAT HARBOR
LOCATION: SAND POINT, AK

DISTRICT: ALASKA
P.O.C.: FRANK J. ANTOLIN, CHIEF, CE

		CURRENT MCACES ESTIMATE PREPARED: DEC 05, 1997 EFFECTIVE PRICING LEVEL: OCTOBER 1, 1996				AUTHORIZ./BUDGET YEAR: OCT 99 EFFECT. PRICING LEVEL: 1 OCT 98			.....FULLY FUNDED ESTIMATE.....				
ACCOUNT NUMBER	FEATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	COST ($K)	CNTG ($K)	TOTAL ($K)	($K)		COST ($K)	CNTG ($K)	FULL ($K)
C-10-01	MOB AND DEMOB	531	53	10%	584	531	53	584	AUG 99	8.8%	578	58	636
C-10.03	BREAKWATER AND SEAWALLS	3,960	792	20%	4,752	3,960	792	4,752	AUG 99	8.8%	4,308	862	5,170
C-12.010	NAVIGATION PORTS & HARBOR	1,363	273	20%	1,636	1,363	272	1,635	AUG 99	8.8%	1,483	296	1,779
C-12.030	NAV. PORTS & INNER HARBOR	1,887	189	10%	2,076	1,887	189	2,076	AUG 99	8.8%	2,053	205	2,258
	TOTAL CONSTRUCTION COSTS =====	7,741	1,306	17%	9,047	7,741	1,306	9,047			8,422	1,421	9,843
01---	LANDS AND DAMAGES	120			120	120		120	AUG 99	8.8%	130		130
30---	PLANNING, ENGINEERING & DESIGN	1,140	173	15%	1,313	1,140	173	1,313	AUG 99	8.8%	1,241	188	1,429
31---	CONSTRUCTION MANAGEMENT	907	67	7%	974	907	67	974	AUG 99	8.8%	987	73	1,060
	TOTAL PROJECT COSTS ==========>	9,908	1,547	16%	11,455	9,908	1,546	11,454			10,780	1,682	12,462

THIS TPCS REFLECTS A PROJECT COST CHANGE OF $ ____

TOTAL FEDERAL COSTS ==========> 12,462

TOTAL NON-FEDERAL COSTS ==========>

THE MAXIMUM PROJECT COST IS =======> $ ____

DISTRICT APPROVED: DISTRICT APPROVED DATE: ____

CHIEF, COST ENGINEERING, Frank Antolin

CHIEF, REAL ESTATE, Dennis Klein

CHIEF, PLANNING, Kenneth Hitch

CHIEF, ENGINEERING, Claude Vining

CHIEF, OPERATIONS, Allen Churchill

CHIEF, CONSTRUCTION, Michael B Rogers

CHIEF, CONTRACTING, Thomas Carter

PROJECT MANAGER, Janis Kara

CHIEF (PM), Kirk Shadrick

DIVISION APPROVED:

____ CHIEF, COST ENGINEERING, Sam Song

____ DIRECTOR, REAL ESTATE

____ CHIEF, PROGRAMS MANAGEMENT

____ DIRECTOR OF PPMD

DIVISION APPROVED DATE: ____

APPENDIX E

COST ESTIMATE

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY STUDY, DATED: DEC 97

SMALL BOAT HARBOR
SAND POINT, AK

DISTRICT: ALASKA
P.O.C.: FRANK J. ANTOLIN, CHIEF, CE

	CURRENT MCACES ESTIMATE PREPARED: DEC 05, 1997 EFFECTIVE PRICING LEVEL: OCTOBER 1, 1996				AUTHORIZ./BUDGET YEAR: OCT 99 EFFECT. PRICING LEVEL: 1 OCT 96				.....FULLY FUNDED ESTIMATE.....				
ATURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
B AND DEMOB	531	53	10%	584		531	53	584	AUG 99	8.8%	578	58	636
EAKWATER AND SEAWALLS	3,960	792	20%	4,752		3,960	792	4,752	AUG 99	8.8%	4,308	862	5,170
VIGATION PORTS & HARBORS	1,027	205	20%	1,232		1,027	205	1,232	AUG 99	8.8%	1,117	223	1,340
TAL CONSTRUCTION COSTS =====	5,518	1,051	19%	6,569		5,518	1,050	6,568			6,003	1,143	7,146
ND AND DAMAGES	70			70		70		70	AUG 99	8.8%	76		76
ANNING, ENGINEERING & DESIGN	850	170	20%	1,020		850	170	1,020	AUG 99	8.8%	925	185	1,110
NSTRUCTION MANAGEMENT	647	65	10%	712		647	64	711	AUG 99	8.8%	704	70	774
TAL COSTS ==========>	7,085	1,285	18%	8,370		7,085	1,284	8,369			7,708	1,398	9,106

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY STUDY, DATED: DEC 97

SMALL BOAT HARBOR
SAND POINT, AK

DISTRICT: ALASKA
P.O.C.: FRANK J. ANTOLIN, CHIEF, CE

	CURRENT MCACES ESTIMATE PREPARED: DEC 05, 1997 EFFECTIVE PRICING LEVEL: OCTOBER 1, 1996				AUTHORIZ./BUDGET YEAR: OCT 99 EFFECT. PRICING LEVEL: 1 OCT 98				.....FULLY FUNDED ESTIMATE.....				
TURE DESCRIPTION	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	OMB (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	FEATURE MID PT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
GATION PORTS & HARBORS	336	67	20%	403		336	67	403	AUG 99	8.8%	366	73	439
GATION INNER HARBOR DEVEL	1,887	189	10%	2,076		1,887	189	2,076	AUG 99	8.8%	2,053	205	2,258
AL CONSTRUCTION COSTS =====	2,223	256	12%	2,479		2,223	256	2,479			2,419	278	2,697
D AND DAMAGES	50			50		50		50	AUG 99	8.8%	54		54
NNING, ENGINEERING & DESIGN	290	3	1%	293		290	3	293	AUG 99	8.8%	316	3	319
STRUCTION MANAGEMENT	260	3	1%	263		260	3	263	AUG 99	8.8%	283	3	286
AL COSTS ==========>	2,823	261	9%	3,084		2,823	262	3,085			3,072	284	3,356

Small Boat Harbor, Sand Pt., AK
ALTERNATE 1C18

D:\GOLD530\SBH\FEASIBIL\AL1C18

Designed By: CENPA-EN
Estimated By: ZINCO ESTIMATING

Prepared By: Melvin Zimmermann CCET

Preparation Date: 12/05/97
Effective Date of Pricing: 10/01/96
Est Construction Time: 180 Days

Sales Tax: 0.00%

This report is not copyrighted, but the information
contained herein is For Official Use Only.

M C A C E S G O L D E D I T I O N
Composer GOLD Software Copyright (c) 1985-1994
by Building Systems Design, Inc.
Release 5.30A

Project Description:
Construct a 1,300-lineal feet of detached rubblemound breakwaters with a crest elevation of +16 ft MLLW.
Dredging the entrance channel to a depth -18 feet. The fairway and mooring basins to a depth of -17 MLLW.

Bases of Design:
Feasibility Report, dated Dec, 97
G.I Study

Construction Schedule:
Overtime; This cost est. has contractors crew working 1-12 hr shift day and a 6 day week.

Acquisition Plan:
There will be two contracts.
The first contract (A) is to construct the rubblemound breakwater, dredge the harbor to project depth and disposal of dredged material.
A second contract (B) will be awarded to construct the inner harbor facilities (floats, fingers and etc.)

Subcontracting Plan; Performing hydrgraphic surveys

Project Construction:
Site Access; The site can be accessed either by land construction or marine floating equipment.

Borrow Areas; There are local borrow areas in the Sand Point road network. It is not known if the rock would meet corps specs. The COE does not designate borrow sites for rock sources.

Construction Methodology;
Assume the prime contractor will mobilize from the Seattle area, prepare his equipment and camp for work. It is assumed the breakwater rock material will come from the local Sand Point, Ak area.
This cost estimate assumes the breakwater will be constructed with land based equipment.
The harbor dredging material varies from sand, gravel, some boulders to hard dredging and drilling/shooting to breakup rock.
The harbor will be dredged with a floating crane and bucket.
The disposal materials will be loaded onto flat top barges and off loaded into trucks for upland disposal.

Perform final cleanup, prepare equipment and camp for demob and demob.

Unusual Conditions (Soil, water, weather):
Soil: Geotechical Field Exploration report indicates that some areas in the entrance channel and Fairway are of hard rock and will require drilling and shooting or some other mechanical means to loosen rock before dredging can begin.

Water: The tidal range at Sand Point N/A

Weather: Climate is maritime, with approximately 60 inches of precipitation per year. Temperatures are cool, with little variation, and seldom dip below freezing. Squalls and fog are frequent. Strong winds up to 75 Knots are common.

Unique Techniques of Construction: None

Equipment/labor Availability & Distance Traveled:
The type of equipment required for this project and the skilled labors are not available in the local project area and must be imported from elsewere. Semi-skilled laborers are available locally.

Environmental Concerns: N/A

Contingencies by Feature or Sub Feature:
P-01 Lands and Damages, N/A

C-10 Breakwater, 20% contingency, Eng & Design and are not complete at this time. Rock quantities and breakwater length is still under study.

C-12 Navigational ports & Harbors, 20% contingency, Harbor area and depth and dredging quantities may change.

P-30 Planning Engineering and Design, 20% contingency, addition Engineering will be required.

P-31 Construction Management, 10% contingency, some contract modifications could occur.

Effective Dates for labor, Equipment, Material Pricing:
Labor, 1997 MCACES Anchorage, Davis Bacon adjusted rate 1997. General Decision Number AKXXXXXX
Equipment, EP 1110-1-8 Volume, August 1995.
Material, Bid abstract, Sand Point, Ak, 1993.

Construction Schedule:

```
Mob              |--| 5 days
Breakwater
Core Material      |---------------| 34 days
"B" Rock                   |------| 11 days
"A" Armor                        |---------| 25 days

Clean-up                                 |-| 2 days

Dredging:                        |---------/ /---------| 83 days

Weather days                                          |    | 10 days
Demob                                                     |--| 4 days
Calender days      0         15       30   37    46  50        160
```

SUMMARY REPORTS SUMMARY PAGE

PROJECT INDIRECT SUMMARY - Contract....1
PROJECT INDIRECT SUMMARY - Feature....2
PROJECT INDIRECT SUMMARY - Sub Feat....3
PROJECT INDIRECT SUMMARY - Element....4
PROJECT DIRECT SUMMARY - Contract....6
PROJECT DIRECT SUMMARY - Feature....7
PROJECT DIRECT SUMMARY - Sub Feat....8
PROJECT DIRECT SUMMARY - Element....10

DETAILED ESTIMATE DETAIL PAGE

01. Prime Contractor....1
C-10. Breakwaters and Seawalls
01. Mob, Demob & Preparatory Work....8
03. Breakwater....9
C-12. Navigation Ports & Harbors
01. Ent. & Fairway Channels....18
02. Mooring Basin Dredging....28
03. Harbors, (Inner Harbor Develop.)....31
04. Harbors, (Power, Light & Water)....32

BACKUP REPORTS BACKUP PAGE

CREW BACKUP....1
LABOR BACKUP....3
EQUIPMENT BACKUP....4

* * * END TABLE OF CONTENTS * * *

U.S. Army Corps of Engineers
PROJECT A11C18: Small Boat Harbor, Sand Pt., AK - ALTERNATE 1C18
CURRENT WORKING ESTIMATE
** PROJECT INDIRECT SUMMARY - Contract **

	QUANTY UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls		3,488,011	385,513	240,158	337,322	40,556	4,491,560	
C-12 Navigation Ports & Harbors		2,945,258	116,951	72,855	102,331	12,303	3,249,698	
TOTAL Small Boat Harbor, Sand Pt., AK		6,433,268	502,464	313,014	439,653	52,859	7,741,258	

	QUANTY	UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls									
C-10_ 01 Mob, Demob & Preparatory Work			412,660	45,609	28,413	39,908	4,798	531,388	
C-10_ 03 Breakwater			3,075,351	339,904	211,746	297,414	35,758	3,960,172	
TOTAL Breakwaters and Seawalls			3,488,011	385,513	240,158	337,322	40,556	4,491,560	
C-12 Navigation Ports & Harbors									
C-12_ 01 Ent. & Fairway Channels	47800	BCY	797,547	88,149	54,913	77,130	9,273	1,027,012	21.49
C-12_ 02 Mooring Basin Dredging	31000	BCY	260,591	28,802	17,942	25,201	3,030	335,566	10.82
C-12_ 03 Harbors, (Inner Harbor Develop.)			1,664,870	0	0	0	0	1,664,870	
C-12_ 04 Harbors, (Power, Light & Water)			222,250	0	0	0	0	222,250	
TOTAL Navigation Ports & Harbors			2,945,258	116,951	72,855	102,331	12,303	3,249,698	
TOTAL Small Boat Harbor, Sand Pt., AK			6,433,268	502,464	313,014	439,653	52,859	7,741,258	

		QUANTY	UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT
C-10	Breakwaters and Seawalls									
C-10_ 01	Mob, Demob & Preparatory Work			412,660	45,609	28,413	39,908	4,798	531,388	
	TOTAL Mob, Demob & Preparatory Work			412,660	45,609	28,413	39,908	4,798	531,388	
C-10_ 03	Breakwater									
C-10_ 03.01	Core Material	74100	BCY	1,310,324	144,824	90,219	126,720	15,235	1,687,322	22.77
C-10_ 03.02	Secondary Rock	21300	BCY	520,936	57,577	35,868	50,379	6,057	670,817	31.49
C-10_ 03.03	Armor Rock	29100	BCY	1,134,541	125,395	78,116	109,720	13,192	1,460,964	50.20
C-10_ 03.04	Entrance Protection			71,550	7,908	4,926	6,919	832	92,136	
C-10_ 03.05	Navigation Foundation	2.00	EA	8,000	884	551	774	93	10,302	5150.86
C-10_ 03.06	Hydrographic Survey	2.00	EA	30,000	3,316	2,066	2,901	349	38,631	19316
	TOTAL Breakwater			3,075,351	339,904	211,746	297,414	35,758	3,960,172	
	TOTAL Breakwaters and Seawalls			3,488,011	385,513	240,158	337,322	40,556	4,491,560	
C-12	Navigation Ports & Harbors									
C-12_ 01	Ent. & Fairway Channels									
C-12_ 01.01	Entrance Channel	44300	BCY	747,465	82,614	51,465	72,207	8,691	962,521	21.73
C-12_ 01.02	Fairway	3500.00	BCY	35,082	3,877	2,415	3,393	408	45,176	12.91
C-12_ 01.99	Hydrographic Survey	1.00	EA	15,000	1,658	1,033	1,451	174	19,316	19316
	TOTAL Ent. & Fairway Channels	47800	BCY	797,547	88,149	54,913	77,130	9,273	1,027,012	21.49
C-12_ 02	Mooring Basin Dredging									
C-12_ 02.01	Mooring Dredging	31000	BCY	260,591	28,802	17,942	25,201	3,030	335,566	10.82
	TOTAL Mooring Basin Dredging	31000	BCY	260,591	28,802	17,942	25,201	3,030	335,566	10.82
C-12_ 03	Harbors, (Inner Harbor Develop.)			1,664,870	0	0	0	0	1,664,870	
C-12_ 04	Harbors, (Power, Light & Water)			222,250	0	0	0	0	222,250	
	TOTAL Navigation Ports & Harbors			2,945,258	116,951	72,855	102,331	12,303	3,249,698	
	TOTAL Small Boat Harbor, Sand Pt., AK			6,433,268	502,464	313,014	439,653	52,859	7,741,258	

	QUANTY	UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls									
C-10_ 01 Mob, Demob & Preparatory Work			412,660	45,609	28,413	39,908	4,798	531,388	
TOTAL Mob, Demob & Preparatory Work			412,660	45,609	28,413	39,908	4,798	531,388	
C-10_ 03 Breakwater									
C-10_ 03.01 Core Material									
C-10_ 03.01.02 Core Material Placement	81100	LCY	1,310,324	144,824	90,219	126,720	15,235	1,687,322	20.81
TOTAL Core Material	74100	BCY	1,310,324	144,824	90,219	126,720	15,235	1,687,322	22.77
C-10_ 03.02 Secondary Rock									
C-10_ 03.02.02 Secondary Rock Placement	23300	LCY	520,936	57,577	35,868	50,379	6,057	670,817	28.79
TOTAL Secondary Rock	21300	BCY	520,936	57,577	35,868	50,379	6,057	670,817	31.49
C-10_ 03.03 Armor Rock									
C-10_ 03.03.04 Armor Rock Placement	32100	LCY	1,134,541	125,395	78,116	109,720	13,192	1,460,964	45.51
TOTAL Armor Rock	29100	BCY	1,134,541	125,395	78,116	109,720	13,192	1,460,964	50.20
C-10_ 03.04 Entrance Protection									
C-10_ 03.04.03 Filter Stone	1400.00	BCY	22,588	2,497	1,555	2,184	263	29,087	20.78
C-10_ 03.04.04 "A" Stone	2700.00	BCY	48,961	5,411	3,371	4,735	569	63,048	23.35
TOTAL Entrance Protection			71,550	7,908	4,926	6,919	832	92,136	
C-10_ 03.05 Navigation Foundation	2.00	EA	8,000	884	551	774	93	10,302	$150.86
C-10_ 03.06 Hydrographic Survey	2.00	EA	30,000	3,316	2,066	2,901	349	38,631	19316
TOTAL Breakwater			3,075,351	339,904	211,746	297,414	35,758	3,960,172	
TOTAL Breakwaters and Seawalls			3,488,011	385,513	240,158	337,322	40,556	4,491,560	
C-12 Navigation Ports & Harbors									
C-12_ 01 Ent. & Fairway Channels									
C-12_ 01.01 Entrance Channel									

		QUANTY	UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND	TOTAL COST	UNIT
C-12_	01.01.03 Sand & Gravel Dredging	27450	BCY	221,289	24,458	15,236	21,401	2,573	284,956	10.38
C-12_	01.01.04 Hard Mech Dredging	11450	BCY	112,528	12,437	7,748	10,882	1,308	144,904	12.66
C-12_	01.01.05 Drilling/Blasting & Dredging	5400.00	BCY	413,648	45,719	28,481	40,004	4,810	532,661	98.64
	TOTAL Entrance Channel	44300	BCY	747,465	82,614	51,465	72,287	8,691	962,521	21.73
C-12_	01.02 Fairway									
C-12_	01.02.01 Mech Dredging	5000.00	LCY	13,995	1,547	964	1,353	163	18,022	3.60
C-12_	01.02.02 Upland Disposal	5000.00	LCY	21,087	2,331	1,452	2,039	245	27,154	5.43
	TOTAL Fairway	3500.00	BCY	35,082	3,877	2,415	3,393	408	45,176	12.91
C-12_	01.99 Hydrographic Survey	1.00	EA	15,000	1,658	1,033	1,451	174	19,316	19316
	TOTAL Ent. & Fairway Channels	47800	BCY	797,547	88,149	54,913	77,130	9,273	1,027,012	21.49
C-12_	02 Mooring Basin Dredging									
C-12_	02.01 Mooring Dredging									
C-12_	02.01.01 Mech Dredging	39000	LCY	109,165	12,065	7,516	10,557	1,269	140,573	3.60
C-12_	02.01.02 Upland Disposal	39000	LCY	151,426	16,736	10,426	14,644	1,761	194,993	5.00
	TOTAL Mooring Dredging	31000	BCY	260,591	28,802	17,942	25,201	3,030	335,566	10.82
	TOTAL Mooring Basin Dredging	31000	BCY	260,591	28,802	17,942	25,201	3,030	335,566	10.82
C-12_	03 Harbors, (Inner Harbor Develop.)			1,664,870	0	0	0	0	1,664,870	
C-12_	04 Harbors, (Power, Light & Water)			222,250	0	0	0	0	222,250	
	TOTAL Navigation Ports & Harbors			2,945,258	116,951	72,855	102,331	12,303	3,249,698	
	TOTAL Small Boat Harbor, Sand Pt., AK			6,433,268	502,464	313,014	439,653	52,859	7,741,258	

	QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls	8,579		463459	1,036,651		1987900	3,488,011	
C-12 Navigation Ports & Harbors	7,659		401610	617,852		1925795	2,945,258	
TOTAL Small Boat Harbor, Sand Pt., AK	16,237		865069	1,654,504		3913695	6,433,268	
Prime Contractor's Field Overhead							502,464	
SUBTOTAL							6,935,732	
Prime's Home Office Expense							313,014	
SUBTOTAL							7,248,746	
Prime Contractor's Profit							439,653	
SUBTOTAL							7,688,399	
Prime Contractor's Bond							52,859	
TOTAL INCL INDIRECTS							7,741,258	

	QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls								
C-10_ 01 Mob, Demob & Preparatory Work			0	27,620	373,040	12,000	412,660	
C-10_ 03 Breakwater			8,579	435839	663,611	1975900	3,075,351	
TOTAL Breakwaters and Seawalls			8,579	463459	1,036,651	1987900	3,488,011	
C-12 Navigation Ports & Harbors								
C-12_ 01 Ent. & Fairway Channels	47800	BCY	5,653	295305	325,567	176,675	797,547	16.69
C-12_ 02 Mooring Basin Dredging	31000	BCY	2,006	106305	154,286	0	260,591	8.41
C-12_ 03 Harbors, (Inner Harbor Develop.)			0	0	138,000	1526870	1,664,870	
C-12_ 04 Harbors, (Power, Light & Water)			0	0	0	222,250	222,250	
TOTAL Navigation Ports & Harbors			7,659	401610	617,852	1925795	2,945,258	
TOTAL Small Boat Harbor, Sand Pt., AK			16,237	865069	1,654,504	3913695	6,433,268	
Prime Contractor's Field Overhead							502,464	
SUBTOTAL							6,935,732	
Prime's Home Office Expense							313,014	
SUBTOTAL							7,248,746	
Prime Contractor's Profit							439,653	
SUBTOTAL							7,688,399	
Prime Contractor's Bond							52,859	
TOTAL INCL INDIRECTS							7,741,258	

	QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls								
C-10_ 01 Mob, Demob & Preparatory Work			0	27,620	373,040	12,000	412,660	
TOTAL Mob, Demob & Preparatory Work			0	27,620	373,040	12,000	412,660	
C-10_ 03 Breakwater								
C-10_ 03.01 Core Material	74100	BCY	4,055	204702	294,622	811,000	1,310,324	17.68
C-10_ 03.02 Secondary Rock	21300	BCY	1,363	70,445	100,992	349,500	520,936	24.46
C-10_ 03.03 Armor Rock	29100	BCY	2,945	149350	214,791	770,400	1,134,541	38.99
C-10_ 03.04 Entrance Protection			216	11,343	15,207	45,000	71,550	
C-10_ 03.05 Navigation Foundation	2.00	EA	0	0	8,000	0	8,000	4000.00
C-10_ 03.06 Hydrographic Survey	2.00	EA	0	0	30,000	0	30,000	15000
TOTAL Breakwater			8,579	435839	663,611	1975900	3,075,351	
TOTAL Breakwaters and Seawalls			8,579	463459	1,036,651	1987900	3,488,011	
C-12 Navigation Ports & Harbors								
C-12_ 01 Ent. & Fairway Channels								
C-12_ 01.01 Entrance Channel	44300	BCY	5,396	280747	290,043	176,675	747,465	16.87
C-12_ 01.02 Fairway	3500.00	BCY	257	14,558	20,524	0	35,082	10.02
C-12_ 01.99 Hydrographic Survey	1.00	EA	0	0	15,000	0	15,000	15000
TOTAL Ent. & Fairway Channels	47800	BCY	5,653	295305	325,567	176,675	797,547	16.69
C-12_ 02 Mooring Basin Dredging								
C-12_ 02.01 Mooring Dredging	31000	BCY	2,006	106305	154,286	0	260,591	8.41
TOTAL Mooring Basin Dredging	31000	BCY	2,006	106305	154,286	0	260,591	8.41
C-12_ 03 Harbors, (Inner Harbor Develop.)			0	0	138,000	1526870	1,664,870	
C-12_ 04 Harbors, (Power, Light & Water)			0	0	0	222,250	222,250	
TOTAL Navigation Ports & Harbors			7,659	401610	617,852	1925795	2,945,258	
TOTAL Small Boat Harbor, Sand Pt., AK			16,237	865069	1,654,504	3913695	6,433,268	
Prime Contractor's Field Overhead							502,464	
SUBTOTAL							6,935,732	
Prime's Home Office Expense							313,014	

U.S. Army Corps of Engineers
PROJECT AL1C18: Small Boat Harbor, Sand Pt., AK - ALTERNATE 1C18
CURRENT WORKING ESTIMATE
** PROJECT DIRECT SUMMARY - Sub Feat **

	QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
SUBTOTAL							7,248,746	
Prime Contractor's Profit							439,653	
SUBTOTAL							7,688,399	
Prime Contractor's Bond							52,859	
TOTAL INCL INDIRECTS							7,741,258	

U.S. Army Corps of Engineers
PROJECT AL1C18: Small Boat Harbor, Sand Pt., AK - ALTERNATE 1C18
CURRENT WORKING ESTIMATE
** PROJECT DIRECT SUMMARY - Element **

	QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
C-10 Breakwaters and Seawalls								
C-10_ 01 Mob, Demob & Preparatory Work			0	27,620	373,040	12,000	412,660	
TOTAL Mob, Demob & Preparatory Work			0	27,620	373,040	12,000	412,660	
C-10_ 03 Breakwater								
C-10_ 03.01 Core Material								
C-10_ 03.01.02 Core Material Placement	81100	LCY	4,055	204702	294,622	811,000	1,310,324	16.16
TOTAL Core Material	74100	BCY	4,055	204702	294,622	811,000	1,310,324	17.68
C-10_ 03.02 Secondary Rock								
C-10_ 03.02.02 Secondary Rock Placement	23300	LCY	1,363	70,445	100,992	349,500	520,936	22.36
TOTAL Secondary Rock	21300	BCY	1,363	70,445	100,992	349,500	520,936	24.46
C-10_ 03.03 Armor Rock								
C-10_ 03.03.04 Armor Rock Placement	32100	LCY	2,945	149350	214,791	770,400	1,134,541	35.34
TOTAL Armor Rock	29100	BCY	2,945	149350	214,791	770,400	1,134,541	38.99
C-10_ 03.04 Entrance Protection								
C-10_ 03.04.03 Filter Stone	1400.00	BCY	51	3,169	4,419	15,000	22,588	16.13
C-10_ 03.04.04 "A" Stone	2700.00	BCY	165	8,174	10,787	30,000	48,961	18.13
TOTAL Entrance Protection			216	11,343	15,207	45,000	71,550	
C-10_ 03.05 Navigation Foundation	2.00	EA	0	0	8,000	0	8,000	4000.00
C-10_ 03.06 Hydrographic Survey	2.00	EA	0	0	30,000	0	30,000	15000
TOTAL Breakwater			8,579	435839	663,611	1975900	3,075,351	
TOTAL Breakwaters and Seawalls			8,579	463459	1,036,651	1987900	3,488,011	
C-12 Navigation Ports & Harbors								
C-12_ 01 Ent. & Fairway Channels								
C-12_ 01.01 Entrance Channel								

U.S. Army Corps of Engineers
PROJECT AL1C18: Small Boat Harbor, Sand Pt., AK - ALTERNATE 1C18
CURRENT WORKING ESTIMATE
** PROJECT DIRECT SUMMARY - Element **

		QUANTY	UOM	MANHRS	LABOR	EQUIPMNT	MATERIA	TOTAL COST	UNIT
C-12_ 01.01.03	Sand & Gravel Dredging	27450	BCY	1,733	89,698	131,590	0	221,289	8.06
C-12_ 01.01.04	Hard Mech Dredging	11450	BCY	887	44,917	67,611	0	112,528	9.83
C-12_ 01.01.05	Drilling/Blasting & Dredging	5400.00	BCY	2,776	146132	90,842	176,675	413,648	76.60
TOTAL	Entrance Channel	44300	BCY	5,396	280747	290,043	176,675	747,465	16.87
C-12_ 01.02	Fairway								
C-12_ 01.02.01	Mech Dredging	5000.00	LCY	114	5,064	8,931	0	13,995	2.80
C-12_ 01.02.02	Upland Disposal	5000.00	LCY	143	9,494	11,593	0	21,087	4.22
TOTAL	Fairway	3500.00	BCY	257	14,558	20,524	0	35,082	10.02
C-12_ 01.99	Hydrographic Survey	1.00	EA	0	0	15,000	0	15,000	15000
TOTAL	Ent. & Fairway Channels	47800	BCY	5,653	295305	325,567	176,675	797,547	16.69
C-12_ 02	Mooring Basin Dredging								
C-12_ 02.01	Mooring Dredging								
C-12_ 02.01.01	Mech Dredging	39000	LCY	891	39,501	69,664	0	109,165	2.80
C-12_ 02.01.02	Upland Disposal	39000	LCY	1,114	66,804	84,622	0	151,426	3.88
TOTAL	Mooring Dredging	31000	BCY	2,006	106305	154,286	0	260,591	8.41
TOTAL	Mooring Basin Dredging	31000	BCY	2,006	106305	154,286	0	260,591	8.41
C-12_ 03	Harbors, (Inner Harbor Develop.)			0	0	138,000	1526870	1,664,870	
C-12_ 04	Harbors, (Power, Light & Water)			0	0	0	222,250	222,250	
TOTAL	Navigation Ports & Harbors			7,659	401610	617,852	1925795	2,945,258	
TOTAL	Small Boat Harbor, Sand Pt., AK			16,237	865069	1,654,504	3913695	6,433,268	

Prime Contractor's Field Overhead	502,464
SUBTOTAL	6,935,732
Prime's Home Office Expense	313,014
SUBTOTAL	7,248,746
Prime Contractor's Profit	439,653
SUBTOTAL	7,688,399
Prime Contractor's Bond	52,859
TOTAL INCL INDIRECTS	7,741,258