APPENDIX A

COST ESTIMATES

FALSE PASS, ALASKA

NED PLAN

PLAN 1C NED

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

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

CURRENT MCACES ESTIMATE PREPARED: 1 APR 02
EFFECTIVE PRICING LEVEL: Jan 2002

AUTHORIZ./BUDGET YEAR: FY2005
EFFECT. PRICING LEVEL: 1 Oct 2002

.....FULLY FUNDED ESTIMATE.....
FEATURE MID PT: Aug 2005

ACCOUNT NUMBER	FEATURE DESCRIPTION		COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	COST ($K)	CNTG ($K)	TOTAL ($K)	COST ($K)	CNTG ($K)	FULL ($K)
C-10-01	MOB DEMOB & PREWORK		$1,209	$181	15%	$1,390	$1,234	$185	$1,419	$1,336	$200	$1,536
C-10-06	BREAKWATERS & SEAWALLS		$5,869	$880	15%	$6,749	$5,989	$898	$6,887	$6,482	$972	$7,454
C-12-02	NAV, PORTS & HARBORS		$2,442	$366	15%	$2,808	$2,491	$374	$2,865	$2,696	$405	$3,101
	TOTAL CONSTRUCTION COSTS =====>		$9,520	$1,428	15%	$10,948	$9,714	$1,457	$11,171	$10,514	$1,577	$12,091
P-01---	LANDS AND DAMAGES		$329	$64	19%	$393	$336	$65	$401	$363	$71	$434
P-30-02	PLANNING, ENGINEERING, DESIGN	6.3%	$600	$30	5%	$630	$612	$31	$643	$662	$34	$696
P-31-02	CONSTRUCTION MANAGEMENT	7.8%	$740	$37	5%	$777	$755	$38	$793	$817	$41	$858
	TOTAL OWNER COSTS==========>		$1,669	$131	8%	$1,800	$1,703	$134	$1,837	$1,842	$146	$1,988
	TOTAL PROJECT COSTS =========>		**$11,189**	**$1,559**	**14%**	**$12,748**	**$11,417**	**$1,591**	**$13,008**	**$12,356**	**$1,723**	**$14,079**

THIS TPCS REFLECTS A PROJECT COST CHANGE OF $

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

TOTAL FEDERAL SHARED COSTS === 83% $11,736

TOTAL NON-FEDERAL COSTS ====== 17% $2,343

DISTRICT APPROVED:

_____ CHIEF, COST ENGINEERING

_____ CHIEF, REAL ESTATE

_____ CHIEF, ENGINEERING

_____ CHIEF, CON-OPS

_____ PROJECT MANAGER

_____ DDE (PM)

DIVISION APPROVED:

_____ CHIEF, COST ENGINEERING

_____ DIRECTOR, REAL ESTATE

_____ CHIEF, PROGRAMS MANAGEMENT

_____ DIRECTOR OF PPMD

APPROVED DATE: _____

CONTRACT A - FEDERAL SHARED

**** TOTAL CONTRACT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

		CURRENT MCACES ESTIMATE PREPARED: 1 APR 02 EFFECTIVE PRICING LEVEL: Jan 2002				AUTHORIZ./BUDGET YEAR: FY2005 EFFECT. PRICING LEVEL: 1 Oct 2002				.....FULLY FUNDED ESTIMATE..... CWCCIS - 30 Sep 98				
ACCOUNT NUMBER	FEATURE 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)
C-10-01	MOB DEMOB & PREWORK	$1,209	$181	15%	$1,390	2.0%	$1,234	$185	$1,419	Aug 2005	8.2%	$1,336	$200	$1,536
C-10-06	BREAKWATERS & SEAWALLS	$5,869	$880	15%	$6,749	2.0%	$5,989	$898	$6,887	Aug 2005	8.2%	$6,482	$972	$7,454
C-12-01	ENTRANCE CHANNEL	$326	$49	15%	$375	2.0%	$333	$50	$383	Aug 2005	8.2%	$360	$54	$414
C-12-01	MANEUVERING AREA	$365	$55	15%	$420	2.0%	$372	$56	$428	Aug 2005	8.2%	$403	$61	$464
	TOTAL CONSTRUCTION COSTS =====>	$7,769	$1,165	15%	$8,934		$7,928	$1,189	$9,117			$8,581	$1,287	$9,868
P-01---	LANDS AND DAMAGES 3.1%	$242	$42	17%	$284	2.0%	$247	$43	$290	Aug 2005	8.2%	$267	$47	$314
P-30-02	PLANNING, ENGINEERING, DESIGN 7.7%	$600	$30	5%	$630	2.0%	$612	$31	$643	Aug 2005	8.2%	$662	$34	$696
P-31-02	CONSTRUCTION MANAGEMENT 9.5%	$740	$37	5%	$777	2.0%	$755	$38	$793	Aug 2005	8.2%	$817	$41	$858
	TOTAL COSTS ==========>	$9,351	$1,274	14%	$10,625		$9,542	$1,301	$10,843			$10,327	$1,409	$11,736

CONTRACT B - NON-FEDERAL

**** TOTAL CONTRACT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

		CURRENT MCACES ESTIMATE PREPARED: 1 APR 02 EFFECTIVE PRICING LEVEL: Jan 2002				AUTHORIZ./BUDGET YEAR: FY2005 EFFECT. PRICING LEVEL: 1 Oct 2002				.....FULLY FUNDED ESTIMATE..... CWCCIS - 30 Sep 98				
ACCOUNT NUMBER	FEATURE 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)
C-12-01	MOB DEMOB & PREWORK	$0	$0	15%	$0	2.0%	0	0	0	Aug 2005	8.2%	0	0	0
C-12-05	MOORING BASIN	$303	$45	15%	$348	2.0%	$309	$46	$355	Aug 2005	8.2%	$334	$50	$384
C-12-08	INNER HARBOR	$1,448	$217	15%	$1,665	2.0%	$1,477	$222	$1,699	Aug 2005	8.2%	$1,599	$240	$1,839
C-12-01	MANEUVERING AREA	$0	$0	15%	$0	2.0%	$0	$0	$0	Aug 2005	8.2%	$0	$0	$0
				15%										
	TOTAL CONSTRUCTION COSTS =====>	$1,751	$263	0%	$2,014		$1,786	$268	$2,054			$1,933	$290	$2,223
P-01---	LANDS AND DAMAGES	$87	$22	25%	$109	2.0%	$89	$22	$111	Aug 2005	8.2%	$96	$24	$120
P-30-01	PLANNING, ENGINEERING, DESIGN 0.0%	$0	$0	5%	$0	2.0%	$0	$0	$0	Aug 2005	8.2%	$0	$0	$0
P-31-01	CONSTRUCTION MANAGEMENT 0.0%	$0	$0	5%	$0	2.0%	$0	$0	$0	Aug 2005	8.2%	$0	$0	$0
	TOTAL COSTS ==========>	$1,838	$285	15%	$2,123		$1,875	$290	$2,165			$2,029	$314	$2,343

False Pass SBH, NED Plan
False Pass, Alaska UPC=FSP001

Y:\CIV\SBH\FSP001\FEAS

Designed By: CENPOA-EN-CW-HH
Estimated By: CENPOA-EN-ES-CE

Prepared By: Al Arruda

Preparation Date: 08/18/00
Effective Date of Pricing: 09/01/00
Est Construction Time: 150 Days

Sales Tax: 0.0%

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

M C A C E S f o r W i n d o w s
Software Copyright (c) 1985-1997
by Building Systems Design, Inc.
Release 1.2

False Pass is positioned 54.84 degrees north of the equator and 163.43 degrees west of the prime meridian. False Pass is located on the eastern shore of Unimak Island, the first and largest island on the Aleutian Chain. The strait between Unimak Island and the mainland connects the Gulf of Alaska to the Bering Sea. False. Pass is 646 miles southwest of Anchorage.

A public dock was constructed in the fall of 1992. The face of the dock is 175 feet long-sufficient to accommodate most crab boats, trawlers, longliners, floating processors, small freighters, barges, and Alaska Marine Highway System vessels. Water and sewer are available to dock users. In 1996, with $40,000 in matching funds from APICDA, a vessel haul out ramp was constructed. This was done in support of a vessel haul out and storage business being developed. AJV previously purchased a trailer, which is located in the community

Project Description:
Construct a 1,282lf and a 588lf semi-detached rubblemound breakwaters with a crest elevation of +4m MLLW.
Dredging the entrance channel to a depth -20 feet.

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 borrow areas on Sand Point. It is assumked 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 Sand Point, Ak area.
This cost estimate assumes the breakwater will be constructed with land based and floating barge 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 dredged materials will be loaded onto flat top barges for disposal.

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

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.

THIS ESTIMATE WAS PREPARED FOR COMPARISON OF FOUR ALTERNATIVE PLANS NOS. 5, 6, 7, AND 8 IN PREPARATION FOR SELECTION OF AN NED PLAN. THE UNIT PRICE COST DATA WAS TAKEN FROM HISTORICAL BID DATA OF PREVIOUS SIMILAR PROJECTS.

		QUANTY	UOM	CONTRACT	UNIT	TOTAL COST	NOTES
C-01	Mob, Demob & Preparatory Work			1,208,731		1,208,731	
C-10	Breakwaters and Seawalls						
C-10_ 03	Rubblemound Breakwater						
C-10_ 03.01	Core Rock - North BW	28284	CY	1,223,531	43.26	1,223,531	
C-10_ 03.02	Secondary Rock - North BW	13851	CY	878,793	63.45	878,793	
C-10_ 03.03	Armor Rock - North BW	19410	CY	1,788,825	92.16	1,788,825	
C-10_ 03.06	Hydrographic Survey	2.00	EA	30,093	15047	30,093	
C-10_ 03.11	Core Rock - South BW	9989.00	CY	432,112	43.26	432,112	
C-10_ 03.12	Secondary Rock - South BW	6003.00	CY	380,867	63.45	380,867	
C-10_ 03.13	Armor Rock - South BW	10451	CY	963,164	92.16	963,164	
C-10_ 03.21	Core Rock - Entrance Channel	850.00	CY	36,770	43.26	36,770	
C-10_ 03.22	Secondary Rock - Entrance Channl	1962.00	CY	124,481	63.45	124,481	
	TOTAL Rubblemound Breakwater	4.60	ACR	5,858,636	1273616	5,858,636	
C-10_ 05	Navigation Foundation	2.00	EA	10,031	5015.51	10,031	
	TOTAL Breakwaters and Seawalls	1861.00	LF	5,868,667	3153.50	5,868,667	
C-12	Navigation Ports & Harbors						
C-12_ 02	Harbor Dredging						
C-12_ 02.06	Hydrographic Survey	2.00	EA	30,093	15047	30,093	
C-12_ 02.11	Basin Dredging	38901	CY	293,759	7.55	293,759	
C-12_ 02.21	Entrance Channel Dredging	41900	CY	316,406	7.55	316,406	
C-12_ 02.31	Maneuvering Area Dredging	46915	CY	354,277	7.55	354,277	
	TOTAL Harbor Dredging	9.90	ACR	994,536	100458	994,536	
C-12_ 03	Harbors, (Inner Harbor Develop.)			1,448,378		1,448,378	
	TOTAL Navigation Ports & Harbors	14.50	ACR	2,442,914	168477	2,442,914	
	TOTAL False Pass SBH, NED Plan			9,520,312		9,520,312	
	********** ALTERNATES **********						
P-01	Lands & Damages			329		329	
P-30	Planning , Engr & Design			600,000		600,000	
P-31	Construction Management			740,000		740,000	

LPP PLAN

PLAN 1E LPP

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

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

ACCOUNT NUMBER	FEATURE DESCRIPTION		CURRENT MCACES ESTIMATE PREPARED: 1 APR 02 EFFECTIVE PRICING LEVEL: Jan 2002 COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	AUTHORIZ./BUDGET YEAR: FY2005 EFFECT. PRICING LEVEL: 1 Oct 2002 COST ($K)	CNTG ($K)	TOTAL ($K)	.....FULLY FUNDED ESTIMATE..... FEATURE MID PT: Aug 2005 COST ($K)	CNTG ($K)	FULL ($K)
C-10-01	MOB DEMOB & PREWORK		$1,209	$181	15%	$1,390	$1,234	$185	$1,419	$1,336	$200	$1,536
C-10-06	BREAKWATERS & SEAWALLS		$8,012	$1,202	15%	$9,214	$8,175	$1,226	$9,401	$8,848	$1,327	$10,175
C-12-02	NAV, PORTS & HARBORS		$2,442	$368	15%	$2,810	$2,492	$376	$2,868	$2,696	$407	$3,103
	TOTAL CONSTRUCTION COSTS =====>		$11,663	$1,751	15%	$13,414	$11,901	$1,787	$13,688	$12,880	$1,934	$14,814
P-01---	LANDS AND DAMAGES		$329	$64	19%	$393	$336	$65	$401	$363	$71	$434
P-30-02	PLANNING, ENGINEERING, DESIGN	6.0%	$700	$35	5%	$735	$714	$36	$750	$772	$39	$811
P-31-02	CONSTRUCTION MANAGEMENT	7.2%	$840	$42	5%	$882	$857	$43	$900	$927	$46	$973
	TOTAL OWNER COSTS==========>		$1,869	$141	8%	$2,010	$1,907	$144	$2,051	$2,062	$156	$2,218
	TOTAL PROJECT COSTS ==========>		**$13,532**	**$1,892**	**14%**	**$15,424**	**$13,808**	**$1,931**	**$15,739**	**$14,942**	**$2,090**	**$17,032**

THIS TPCS REFLECTS A PROJECT COST CHANGE OF $

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

TOTAL FEDERAL SHARED COSTS ==: 85% $14,406

TOTAL NON-FEDERAL COSTS =====: 15% $2,626

DISTRICT APPROVED:

_____ CHIEF, COST ENGINEERING

_____ CHIEF, REAL ESTATE

_____ CHIEF, ENGINEERING

_____ CHIEF, CON-OPS

_____ PROJECT MANAGER

_____ DDE (PM)

DIVISION APPROVED:

_____ CHIEF, COST ENGINEERING

_____ DIRECTOR, REAL ESTATE

_____ CHIEF, PROGRAMS MANAGEMENT

_____ DIRECTOR OF PPMD

APPROVED DATE: _____

CONTRACT A - FEDERAL SHARED

**** TOTAL CONTRACT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

		CURRENT MCACES ESTIMATE PREPARED: 1 APR 02 EFFECTIVE PRICING LEVEL: Jan 2002				AUTHORIZ./BUDGET YEAR: FY2005 EFFECT. PRICING LEVEL: 1 Oct 2002				.....FULLY FUNDED ESTIMATE..... CWCCIS - 30 Sep 98				
ACCOUNT NUMBER	FEATURE 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)
C-10-01	MOB DEMOB & PREWORK	$1,209	$181	15%	$1,390	2.0%	$1,234	$185	$1,419	Aug 2005	8.2%	$1,336	$200	$1,536
C-10-06	BREAKWATERS & SEAWALLS	$8,012	$1,202	15%	$9,214	2.0%	$8,175	$1,226	$9,401	Aug 2005	8.2%	$8,848	$1,327	$10,175
C-12-01	ENTRANCE CHANNEL	$326	$49	15%	$375	2.0%	$333	$50	$383	Aug 2005	8.2%	$360	$54	$414
C-12-01	MANEUVERING AREA	$325	$49	15%	$374	2.0%	$332	$50	$382	Aug 2005	8.2%	$359	$54	$413
	TOTAL CONSTRUCTION COSTS =====>	$9,872	$1,481	15%	$11,353		$10,074	$1,511	$11,585			$10,903	$1,635	$12,538
P-01---	LANDS AND DAMAGES 2.5%	$242	$42	17%	$284	2.0%	$247	$43	$290	Aug 2005	8.2%	$267	$47	$314
P-30-02	PLANNING, ENGINEERING, DESIGN 6.1%	$600	$30	5%	$630	2.0%	$612	$31	$643	Aug 2005	8.2%	$662	$34	$696
P-31-02	CONSTRUCTION MANAGEMENT 7.5%	$740	$37	5%	$777	2.0%	$755	$38	$793	Aug 2005	8.2%	$817	$41	$858
	TOTAL COSTS ==========>	$11,454	$1,590	14%	$13,044		$11,688	$1,623	$13,311			$12,649	$1,757	$14,406

CONTRACT B - NON-FEDERAL

**** TOTAL CONTRACT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE FEASIBILITY, DATED: 1 APR 00

PROJECT: SMALL BOAT HARBOR
LOCATION: FALSE PASS, ALASKA

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

		CURRENT MCACES ESTIMATE PREPARED: 1 APR 02 EFFECTIVE PRICING LEVEL: Jan 2002				AUTHORIZ./BUDGET YEAR: FY2005 EFFECT. PRICING LEVEL: 1 Oct 2002				.....FULLY FUNDED ESTIMATE..... CWCCIS - 30 Sep 98				
ACCOUNT NUMBER	FEATURE 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)
C-12-01	MOB DEMOB & PREWORK	$0	$0	15%	$0	2.0%	0	0	0	Aug 2005	8.2%	0	0	0
C-12-05	MOORING BASIN	$303	$45	15%	$348	2.0%	$309	$46	$355	Aug 2005	8.2%	$334	$50	$384
C-12-08	INNER HARBOR	$1,448	$217	15%	$1,665	2.0%	$1,477	$222	$1,699	Aug 2005	8.2%	$1,599	$240	$1,839
C-12-01	MANEUVERING AREA	$40	$8	20%	$48	2.0%	$41	$8	$49	Aug 2005	8.2%	$44	$9	$53
				15%										
	TOTAL CONSTRUCTION COSTS =====>	$1,791	$271	0%	$2,062		$1,827	$276	$2,103			$1,977	$299	$2,276
P-01---	LANDS AND DAMAGES	$87	$22	25%	$109	2.0%	$89	$22	$111	Aug 2005	8.2%	$96	$24	$120
P-30-01	PLANNING, ENGINEERING, DESIGN 5.6%	$100	$5	5%	$105	2.0%	$102	$5	$107	Aug 2005	8.2%	$110	$5	$115
P-31-01	CONSTRUCTION MANAGEMENT 5.6%	$100	$5	5%	$105	2.0%	$102	$5	$107	Aug 2005	8.2%	$110	$5	$115
	TOTAL COSTS ==========>	$2,078	$303	15%	$2,381		$2,120	$308	$2,428			$2,293	$333	$2,626

False Pass SBH, Local Pref Plan
False Pass, Alaska UPC=FSP001

Y:\CIV\SBH\FSP001\FEAS

Designed By: CENPOA-EN-CW-HH
Estimated By: CENPOA-EN-ES-CE

Prepared By: Al Arruda

Preparation Date: 06/23/00
Effective Date of Pricing: 06/01/00
Est Construction Time: 180 Days

Sales Tax: 0.0%

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

False Pass is positioned 54.84 degrees north of the equator and 163.43 degrees west of the prime meridian. False Pass is located on the eastern shore of Unimak Island, the first and largest island on the Aleutian Chain. The strait between Unimak Island and the mainland connects the Gulf of Alaska to the Bering Sea. False Pass is 646 miles southwest of Anchorage.

A public dock was constructed in the fall of 1992. The face of the dock is 175 feet long-sufficient to accommodate most crab boats, trawlers, longliners, floating processors, small freighters, barges, and Alaska Marine Highway System vessels. Water and sewer are available to dock users. In 1996, with $40,000 in matching funds from APICDA, a vessel haul out ramp was constructed. This was done in support of a vessel haul out and storage business being developed. AJV previously purchased a trailer, which is located in the community.

Project Description:
Construct a 1,273lf semi-detached rubblemound breakwater and a 646lf semi-detached fill breakwater with a causeway bridge and with a crest elevation of +4m MLLW. Dredging the entrance channel to a depth of -20 feet.

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 borrow areas on Sand Point. It is assumked 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 Sand Point, Ak area.
This cost estimate assumes the breakwater will be constructed with land based and floating barge 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 dredged materials will be loaded onto flat top barges for disposal.

The Fill Breakwater will be constructed by a combination of barge and land-based truck dumping and compaction.

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

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.

THIS ESTIMATE WAS PREPARED FOR COMPARISON OF FOUR ALTERNATIVE PLANS NOS. 5, 6, 7, AND 8 IN PREPARATION FOR SELECTION OF AN NED PLAN. THE UNIT PRICE COST DATA WAS TAKEN FROM HISTORICAL BID DATA OF PREVIOUS SIMILAR PROJECTS.

		QUANTY	UOM	CONTRACT	UNIT	TOTAL COST	NOTES
C-01	Mob, Demob & Preparatory Work			1,208,731		1,208,731	
C-10	Breakwaters and Seawalls						
C-10_ 03	Rubblemound Breakwater						
C-10_ 03.01	Core Rock - North BW	28284	CY	1,223,531	43.26	1,223,531	
C-10_ 03.02	Secondary Rock - North BW	13851	CY	878,793	63.45	878,793	
C-10_ 03.03	Armor Rock - North BW	19410	CY	1,788,825	92.16	1,788,825	
C-10_ 03.06	Hydrographic Survey	1.00	EA	15,047	15047	15,047	
C-10_ 03.11	Core Rock - Entrance Channel	850.00	CY	36,770	43.26	36,770	
C-10_ 03.12	Secondary Rock - Entrance Channl	1962.00	CY	124,481	63.45	124,481	
	TOTAL Rubblemound Breakwater	3.10	ACR	4,067,446	1312079	4,067,446	
C-10_ 04	Fill Breakwater						
C-10_ 04.01	Core Rock	2815.00	CY	121,773	43.26	121,773	
C-10_ 04.02	Secondary Rock	6531.00	CY	414,367	63.45	414,367	
C-10_ 04.03	Armor Rock	10291	CY	948,418	92.16	948,418	
C-10_ 04.04	Quarry Spalls	27255	CY	982,515	36.05	982,515	
C-10_ 04.05	Crushed Gravel	916.00	CY	39,797	43.45	39,797	
C-10_ 04.06	Hydrographic Survey	1.00	EA	15,047	15047	15,047	
	TOTAL Fill Breakwater	2.30	ACR	2,521,917	1096486	2,521,917	
C-10_ 05	Navigation Foundation	2.00	EA	10,031	5015.51	10,031	
C-10_ 06	Sheet Pile Dock	150.00	LF	735,513	4903.42	735,513	
C-10_ 11	Causeway Bridge	120.00	LF	677,094	5642.45	677,094	
	TOTAL Breakwaters and Seawalls	1919.00	LF	8,012,001	4175.09	8,012,001	
C-12	Navigation Ports & Harbors						
C-12_ 02	Harbor Dredging						
C-12_ 02.06	Hydrographic Survey	2.00	EA	30,093	15047	30,093	
C-12_ 02.11	Basin Dredging	38901	CY	293,638	7.55	293,638	
C-12_ 02.21	Entrance Dredging	41900	CY	316,406	7.55	316,406	
C-12_ 02.31	Maneuver Area Dredging	46915	CY	354,130	7.55	354,130	
	TOTAL Harbor Dredging	11.30	ACR	994,268	87988	994,268	
C-12_ 03	Harbors, (Inner Harbor Develop.)			1,448,378		1,448,378	
	TOTAL Navigation Ports & Harbors	16.70	ACR	2,442,646	146266	2,442,646	
	TOTAL False Pass SBH, Local Pref Plan			11,663,378		11,663,378	

		QUANTY	UOM	CONTRACT	UNIT	TOTAL COST	NOT
********** ALTERNATES **********							
P-01	Lands & Damages			329		329	
P-30	Planning , Engr & Design			600,000		600,000	
P-31	Construction Management			740,000		740,000	