

UNSKILLED LABOR

Class 1—\$9.26 per hour.
Stewards
Material Handlers

SEMI-SKILLED LABOR

Class 2—\$9.61 per hour.
Carpenters' Helpers
Truck Driver—2 Ton
Riggers' Helpers
Class 3—\$9.79 per hour.
Structural Steel Helper.
Class 4—\$9.77 per hour.
Jackhammer men
Truck Drivers—5 Ton

SKILLED LABOR

Class 5—\$1.99 per hour.
Carpenters
ROSEL Rodwellers
Electricians
Painters
Mule Skinner
Concrete Finishers
Riggers
Class 6—\$1.25 per hour.
Structural Iron Worker
Class 7—\$1.29 per hour.
General Foreman.

ARMY PEARL HARBOR BOARD EXHIBIT No. 4K

Summary

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Honolulu, T. H., March 22, 1941.

Contract W414-eng-602

Kawailoa Camp, Oahu, T. H.
Job Order #13.0

Construct and equip a reinforced concrete powerhouse and a reinforced concrete fire control station complete with all utilities and fixtures.

Est Cost: \$13,285.00.

Commencement Date: March 15, 1941.

Est date for completion: April 20, 1941.

Supervision by J. J. Kestly, Area Engr. 3rd Field Area.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Honolulu, T. H., March 22, 1941.

JOB ORDER NO. 13.0.

Contract No. W-414-eng-602

To: Hawaiian Constructors, Honolulu, T. H.

You are hereby directed to proceed with the following work:

1. PROJECT TITLE: Fire Control Station at Kawailoa Camp.
2. Location: Kawailoa Camp, Oahu, T. H.
3. OFFICE FILE REFERENCE: 2013.2F.
4. WORK TO BE DONE: Construct and equip a reinforced concrete powerhouse, and a reinforced concrete fire control station complete with all utilities and fixtures.
5. WORK REQUESTED BY: Commanding General—Hawaiian Department.
6. DRAWINGS AND REFERENCES: See paragraph 1-03, attached Specifications.
7. APPROPRIATION CHARGEABLE: Seacoast Defenses, Insular Departments, 1941, CAC 126 P99 A1210-01.
8. ESTIMATED COST: \$13,285.00.
9. COMMENCEMENT DATE: March 15, 1941.
10. ESTIMATED DATE FOR COMPLETION: April 20, 1941.
11. ESTIMATED LABOR AT SITE: 3,446 man hours.
12. PLANT REQUIRED: See detailed estimate attached.
13. MATERIALS: See detailed estimate attached.
14. SUPERVISION BY: J. J. Kestly, Area Engineer, Third Field Area.

(Signed) Theodore Wyman, Jr.,
THEODORE WYMAN, JR.,
Lt. Col., Corps of Engineers,
District Engineer.

Approved: Apr. 8, 1941.

WARREN T. HANNUM,
Colonel, Corps of Engineers,
Division Engineer.

ESTIMATE OF COST

To Accompany Job Order No. 13.0

Contract No. W-414-eng-602

ESTIMATE OF COST: Fire Control Station at Kawaihoa Camp, Oahu, T. H.
 DISTRICT: Honolulu District, Honolulu, T. H.

The work to be done is at Kawaihoa Camp on the Island of Oahu, and includes the furnishing of all necessary labor, and equipment, and the performing of all work necessary to construct and complete a reinforced concrete building for a power plant together with all electrical and mechanical equipment and all fixtures, and also a reinforced concrete fire control station complete with all utilities and fixtures. All of the work to be done shall conform to the provisions of Specification "Fire Control Station, Kawaihoa, and appurtenant work to accompany Job Order No. 13.0", and the details shown on the following drawings:

Sheet No.	Description	File No.
1.	Project Location and Index to Drawings-----	F-3/25
2.	Detailed Location of Work and Typical Sections-----	F-3/26
3.	Instrument Bldg.—Structural Details No. 1-----	F-3/27
4.	Instrument Bldg.—Structural Details No. 2-----	F-3/28
5.	Instrument Bldg.—Structural Details No. 3 and Bar Schedule No. 3-----	F-3/29
6.	Power Plant Bldg.—Plan Details and Bar Schedule-----	F-3/30
7.	Miscellaneous Metals—Standard Details—No. 1-----	F-3/31
8.	Miscellaneous Metals—Standard Details—No. 2-----	F-3/43

The estimated cost of the work to be done is as follows:

1. Materials to be furnished:

Item	Designation	Quantity	Unit	Unit cost	Amount
1	Reinf. Steel (Del. from Base Yard)-----	11,900	lbs	0.045	\$535.50
2	Structural Steel (Honolulu Purchase)-----	6,000	lbs	0.10	600.00
3	Cement (From Base Yard)-----	143	bbls	3.04	434.72
4	Fine Aggregate (Delivered)-----	68	cu. yd.	2.70	183.60
5	Coarse Aggregate (Delivered)-----	67	cu. yd.	3.00	201.00
6	Lumber (From Base Yard)-----	19,650	b. f.	45.00M	884.25
7	Nails (Delivered)-----	800	lbs	0.08	64.00
8	Form Wire #11 (Delivered)-----	530	lbs	0.05	26.50
9	Tie Wire #16 (Delivered)-----	100	lbs	0.062	6.20
10	1" Black Pipe (Honolulu Purchase)-----	3	ft.	0.17	0.51
11	Metal Louvers (Honolulu Purchase)-----	4	ea.	7.00	28.00
12	Wire Mesh Reinforcement 6" x 6" (Hon. Pur.)-----	1,100	sq. ft.	0.015	16.50
13	2" Galv. Electrical Conduit (Hon. Pur.)-----	22	lin. ft.	0.26	5.72
14	2½" Galv. Electrical Conduit (Hon. Pur.)-----	4	lin. ft.	0.35	1.40
15	Curing Compound for Concrete (Hon. Pur.)-----	50	gal.	0.52	26.00
16	Electrical Wiring & Fixtures (Lump Sum) (at Honolulu).-----				175.00
17	3 KVA Generator Unit (at Honolulu)-----				450.00
18	Paint (Local at Honolulu).-----	2	gal.	2.75	5.50
19	Hardware (lump sum) (Local at Honolulu).-----				150.00
	Total Cost of Materials-----				3,794.40

2. Day Labor:

(a) Clearing and Grubbing Roadway:

24 man hours-----	@	\$1.50	\$36.00
24 man hours-----		1.00	24.00
64 man hours-----		0.75	48.00
128 man hours-----		0.50	64.00

(b) Clearing and Grubbing Building Sites:

16 man hours-----	@	1.50	24.00
8 man hours-----		1.00	8.00
96 man hours-----		0.50	48.00

(c) Excavation and Backfill—Buildings:

16 man hours-----	@	1.50	24.00
16 man hours-----		1.00	16.00
96 man hours-----		0.50	48.00

(d) Hauling and Handling Materials and Providing Transportation:

8 man hours-----	@	1.50	12.00
240 man hours-----		0.75	180.00
200 man hours-----		0.50	100.00

(e) <i>Concrete Forms—Framing, Erecting, Stripping:</i>		
160 man hours-----	@ \$1.50	\$240.00
480 man hours-----	1.00	480.00
480 man hours-----	0.65	312.00
(f) <i>Mixing, Placing, Finishing, Concrete:</i>		
66 man hours-----	@ 1.50	99.00
74 man hours-----	1.00	74.00
240 man hours-----	0.75	180.00
438 man hours-----	0.50	219.00
(g) <i>Placing Reinf. Steel in Buildings:</i>		
32 man hours-----	@ 1.50	48.00
160 man hours-----	0.75	120.00
(h) <i>Installing Doors and Shutters.</i>		
64 man hours-----	@ 1.50	96.00
128 man hours-----	@ 1.00	128.00
(i) <i>Electrical Installation.</i>		
32 man hours-----	@ 1.50	48.00
80 man hours-----	@ 1.00	80.00
80 man hours-----	@ 0.65	52.00
Total Day Labor Cost-----		2,908.00
3 <i>Plant Operation:</i>		
(a) <i>Plant to be Leased.</i>		
1—Caterpillar dozer-----	8 da. @ \$22.50	180.00
1—Truck—3 ton-----	30 da. @ 10.00	300.00
1—Concrete Mixer—½ yd-----	30 da. @ 3.00	90.00
1—2 Drum hoist-----	30 da. @ 3.50	105.00
1—Water Wagon-----	8 da. @ 2.50	20.00
1—Skip-----	30 da. @ 0.50	15.00
1—Hopper-----	30 da. @ 1.00	30.00
1—Compressor-----	30 da. @ 10.00	300.00
Total Plant to be Leased-----		1,040.00
(b) Fuel, Oil, Small Tools and Supplies-----		400.00
Total Plant Operation Cost-----		1,440.00
4. <i>Total Plant Operation Cost of Job:</i>		
Cost of Materials-----		\$3,794.00
Cost of Day Labor-----		2,908.00
Cost of Plant Rental-----		1,440.00
Total Plant Operation Cost-----		8,142.40
5. <i>Total Cost of Works:</i>		
(a) <i>Direct Cost:</i>		
Total Plant Operation Cost-----		8,142.40
Contingencies—15%-----		1,221.36
Total Direct Cost-----		9,363.76
(b) <i>Indirect Cost:</i>		
Mobilization and Demobilization-----	\$500.00	
Survey, Inspection, Supervision, 10%-----	936.38	
Right of Way-----	1,500.00	
Total Indirect Cost-----		2,936.38
Total Field Cost to Job-----		12,300.14
General Office Overhead-----		984.86
Estimate Grand Total Cost by Hired Labor and Govern- ment Plant-----		13,285.00

THEODORE WYMAN, JR.,
Lt. Col., Corps of Engineers,
District Engineer.

UNSKILLED LABOR

Class 1—\$0.50 per hour.

Shovelers
Concrete placers
Slopers—roadway
Material handlers
Water boy.

Class 2—\$0.65 per hour.

Carpenter's helper
Rigger's helper
Pipefitter's helper
Tractor operator's helper
Electrician's helper

SKILLED LABOR

Class 4—\$1.00 per hour.

Carpenters
Tractor Operators
Cement Finisher
Electricians

Pipefitters

Class 5—\$1.50 per hour.

General Foreman.

SEMI-SKILLED LABOR

Class 3—\$0.75 per hour.

Truck Drivers
Steel Tiers

ARMY PEARL HARBOR BOARD MEMORANDUM NO. 41.

SUMMARY
CBB/36

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Honolulu, T. H., April 30, 1941.

Contract No. W414-eng 602

Pl. Shafter, Oahu, T. H.

Job Order #170.

Construct—bondproof addition to radio transmitter station and appurtenant work.

Est. Cost: \$44,507.44 in Gov.

Commencement Date: May 1, 1941.

Est. date for completion: Aug. 1, 1941.

Supervision by J. J. Kestly, Area Engr., 3rd Field Area.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Honolulu, T. H., April 30, 1941.

JOB ORDER NO. 170.

Contract No. W 414-eng-602.

To: Hawaiian Constructors, Honolulu, T. H.

You are hereby directed to proceed with the following work:

1. PROJECT TITLE: The Construction of Bondproof Addition to Radio Transmitter Station at Fort Shafter.
2. LOCATION: Fort Shafter, Island of Oahu, T. H.
3. OFFICE FILE REFERENCE: 2011.
4. WORK TO BE DONE: Construct and complete bondproof addition to radio transmitter station, including connecting passageway between the existing structure and the new station.
5. WORK REQUESTED BY: Commanding General, Hawaiian Department.
6. DRAWINGS AND REFERENCES: As enumerated in paragraph 1-04 of Specifications.
7. APPROPRIATION CHARGEABLE: 21X1291 Seawest Defense General Eng. 205 P 12 22 A1294-N.
8. ESTIMATED COST: \$51,640.82.
9. COMMENCEMENT DATE: May 1, 1941.
10. ESTIMATED DATE FOR COMPLETION: August 1, 1941.
11. ESTIMATED LABOR AT SITE: See Detailed Estimate Attached.