1. COMPONENT	FY 1987 MILITARY CONSTRUCTION PROJECT DATA	2. DATE

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
G-650	G-650 REPLACE BOILERS

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	81125	LE802m	1,540

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
SUB TOTAL	LS	—	—	1,400
CONTINGENCY 10%	LS	—	—	140
TOTAL CONTR. COST	LS	—	—	1,540
DESIGN 6%	LS	—	—	92
TOTAL EST. COST	LS	—	—	1,632

10. DESCRIPTION OF PROPOSED CONSTRUCTION

REPLACE STEAM BOILERS #83, 84, 85 AND ASSOCIATED MECHANICAL EQUIPMENT.

REQUIREMENTS:

REPLACE STEAM BOILERS AND ASSOCIATED MECHANICAL EQUIPMENT AS PER ENCLOSED SCOPE OF WORK.

CURRENT SITUATION: THE EXISTING BOILERS AND EQUIPMENT ARE OLD, DETERIORATED, CAUSING UNSAFE USAGE.

IMPACT IF NOT CORRECTED: MAINTENANCE COST WILL BE HIGH, FUEL COST WILL BE EXCESSIVE, WORKING CONDITIONS WILL BE UNSAFE.

☆ U.S. Government Printing Office: 1984—705-012/17914 2-1

NAVFAC 11013/7 (1-78)
Supersedes NAVDOCKS 2417 and 2417A

COST ESTIMATE

DATE PREPARED: 2-12-86

SHEET OF

ACTIVITY AND LOCATION: G-650

CONSTRUCTION CONTRACT NO.

IDENTIFICATION NUMBER

ESTIMATED BY: Huffman

CATEGORY CODE NUMBER

PROJECT TITLE: REPLACE BOILERS #83, 84, 85.

STATUS OF DESIGN: ☐ PED ☐ 30% ☐ 100% ☐ FINAL ☐ Other (*Specify*) _____

JOB ORDER NUMBER

ITEM DESCRIPTION	QUANTITY NUMBER	QUANTITY UNIT	MATERIAL COST UNIT COST	MATERIAL COST TOTAL	LABOR COST UNIT COST	LABOR COST TOTAL	ENGINEERING ESTIMATE UNIT COST	ENGINEERING ESTIMATE TOTAL
REPLACE BOILERS #83, 84, 85 AND RELATED MECH. EQUIPMENT AS PER INSPECTION REPORT SCOPE OF WORK.								
BASIC TOTAL				390000		585,000		975,000
OVERHEAD 15%								175,500
LABOR 18%								87,750
MATERIAL 4.5%								17,550
SUB TOTAL								1,255,800
PROFIT 10%								125,580
SUBTOTAL								1381,380
BOND 1%								13,814
SUBTOTAL								1395,194
					ROUNDED			1,400,000

S/N 0105-LF-010-1335

☆U. S. Government Printing Office: 1981—505-106/7227 2-1

TYPE IN INSPECTION REPORT

GIVE TYPE COPY TO DAVID SOUTHLAND

Replace Boilers 83, 84 + 85 and associated mechanical equipment. G 650 - Steam Plants.

(1) 2 ea - 40,000 lb/hr boilers } with the following boiler trim:
1 ea - 25,000 lb/hr boiler }
Steam stop Valves, feedwater regulators, blow off valves, Non-Return Valves, water level indicators, water columns, pressure gages, safety valves and associated piping - All blow down piping to be replaced from boiler to blow down pit - Replace boiler breeching and stacks to be designed for compatibility

(2) Baily Net Work 90 and Steam flow meters to remain. New boiler regulators + combustion controlers to be compatible and functional with Baily Net work 90. Orifice plates + transmitters for steam meters to be reused if compatible -

(3) Replace existing duplex oil pumping station + heater set. Heater set to be combination electric + steam. Replace associated piping, valves, regulators from heater set to boiler fronts.

(4) Replace existing Deaerator tank, controls, regulators, valves + associated piping from make up tank to deaerator,

(5) Replace 3 Boiler feedwater pumps, valves + associated piping from pumps to the boilers. Two feed water pumps are electrical driven and one is steam driven. Replace steam driven feedwater pump with electrical driven pump. Provide new diesel generator sized to carry one Boiler feedwater pump, one Boiler, one oil pump, one condensate pump, one air compressor + emergency lights, to include automatic transfer switch -

(6) Replace existing air compressor, air dryer, valves, & associated piping -

(7) Replace existing continuous blow down lines, valves & heat exchanger to include make-up water lines -

(8) Remove all asbestos insulation & replace with non-asbestos type -

(9) Water softeners & Chemical pumps to remain.

(10) Electrical wiring, breakers, & control center & the signal for new equipment and upload if necessary

(11) Replace 2 feedwater transfer pumps, regulators, valves and piping from make-up tank & deaerator.

(12) Replace existing catwalks & new boilers & auxiliary equipment - Add new catwalk if needed

(13) Provide new energy monitoring and control system (EMCS) interfacing including associated equipment and appurtenances

(14) Replace existing boilers power control system -

(15) Estimated cost $1,500,000

ENGINEERING SERVICE REQUEST (ESR)
NAVFAC 11000/7 (4-78)
Supersedes NAVDOCKS 2038
S/N 0105-LF-010-0035 *Instructions on Reverse* Copy No.

SECTION A FOR USE BY REQUESTER

1. FROM (Activity and location)
Commanding General, Marine Corps Base, Camp Lejeune, NC 28542

2. TO Commander, Atlantic Division, Naval Facilities Engineering Command, Norfolk, VA 23511 (Attn: 09A21B3/M. Bryant)

3. REFERENCE(S)

4. ESR IDENTIFICATION NUMBER (if applicable)
2E87

5. ENCLOSURE(S) (check)
☐ NAVCOMPT 140
☐ NAVCOMPT 2038
☐ NAVCOMPT 372
☐ OTHER (specify) See next page

6. TYPE OF FUNDING (check)
☐ O&MN ☒ OTHER (specify)
☐ NIF
☐ NAF

7. TYPE OF SERVICES REQUESTED
Slate, select and negotiate A&E design contract for work enclosed herein. Award and administer contract.

8. DESIRED COMPLETION DATE
FY88 Construction Contr

9. DESCRIPTION OF WORK
I. GENERAL: Prepare plans, specifications and cost estimate for FY88 Facilities Major Repair Project LE802M, Replace Boilers 83, 84 and 85, Bldg G-650.

II. BACKGROUND: HQMC has authorized preparation of plans/specifications for the above project.

10. FOR INFORMATION CONSULT (Name and phone)
T. H. HANKINS, JR.
AV: 484-3238

11. OFFICIAL REPRESENTATIVE (Signature)
T. L. HUGUELET
By direction

12. DATE
OCT 8 1986

SECTION B FOR USE BY EFD

1. SCOPE OF SERVICES

2. DATE RECEIVED

3. ESR NUMBER

SECTION C INTERIM ENDORSEMENT

1. REMARKS

2. EST. COMPLETION DATE

3. AUTHORIZED REPRESENTATIVE (Signature)

4. DATE

SECTION D FINAL ENDORSEMENT

1. ENCLOSURE(S)
☐ DRAWINGS AND MAPS ☐ SPECIFICATIONS ☐ REPORT
☐ OTHER (specify)

2. EST. COST (if applicable)
$

3. AUTHORIZED REPRESENTATIVE (Signature)

4. DATE OF COMPLETION

COPY TO w/o encl: COMP, MAIN

III. DETAIL OF WORK:

a. Work for project is detailed in the enclosure.

b. The contract documents shall require the contractor to provide a rental boiler or boilers to serve the area with full capacity steam during the entire outage of his contract.

c. Deliverables: All work will be accomplished by construction contract with costs for project. Provide plans, specifications, cost estimate and award of construction contract.

d. Special Requirements: The design will be reviewed at this activity at the 35% and 90%. Cost estimates are required for all reviews as well as the 100%. A pre-design conference should be scheduled at this activity prior to beginning design. Three copies of plans, specifications, and cost estimates will be required with each submission.

e. Time Requirements: Completion of design is required by May 1987 to permit HQMC approval of plans and specifications prior to solicitation of bids for FY88 construction.

IV. FUNDS AVAILABLE:

Design funds in support of A&E costs have been reserved by HQMC and this activity, and funds will be provided upon notification of negotiated contract.

V. POINT OF CONTACT: Mr. Thomas H. Hankins, Jr., Manager, Mechanical Section, Design Branch, Public Works Division, AV 484-3238, FTS 676-3238.

Encl: (1) Project LE802M, Rpl Boilers 83, 84 and 85, Bldg G-650, consisting of DD Form 1391 and NAVFAC Form 11013/7 of 12 Feb 86, and reference drawings.