FILE FOLDER

DESCRIPTION ON TAB:

7542/47 1980/1981

MILcon Projs

☐ **Outside/inside of actual folder did not contain hand written information**

☒ **Outside/inside of actual folder did contain hand written information**
***Scanned as next image**

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

OPENED: 1980

CLOSED: 1980

PERM. SECNAVINST 5212.5D
Part II, par 2, SSIC
Until superseded

MILCON PROJECTS

A. Initiated Calendar Year 1980: Comments

SEWERAGE SYSTEM, (P-780) (Coal Pile Runoff)

EXPANSION OF HOLCOMB BOULEVARD WATER TREATMENT PLANT, (P-785)

COLD STORAGE PLANT, (P-786)

EXPANSION/UPGRADE OF COURTHOUSE BAY UTILITIES, (P-784)

SEWAGE SYSTEM IMPROVEMENTS (P-790) (HADNOT POINT)

AMPHIB VEHICLE MAINTENANCE SHOP (P-346) (Expand BB-9)

B. Initiated Calendar Year 1981:

INSTALL ENERGY MANAGEMENT SYSTEM (Family Housing) (HC-1-81)

BOILER PLANT OXYGEN SENSING AND TRIM SYSTEM (P-793) #346,000 Resubmitted Exigent Minor

COMBAT VEHICLE MAINT. SHOP(INCLUDES FRENCH CREEK UTILITY IMPROVEMENTS)

RAW SEWAGE HOLDING POND (P-817) Exigent Minor

TAB PLACEMENT HERE

DESCRIPTION:

Raw Sewage Holding Pond

(P-817)

☒ Tab page did not contain hand written information

☐ Tab page contained hand written information
*Scanned as next image

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

MILCON File

20-1

PWO:408:VM:sjr
P-817

Subj: Exigent Minor Construction Project P-817, Raw Sewage Holding Pond; submission of

projects will continue to result in this Command's inability to operate within the limits of the existing plant permit. As three new UEPH facilities will be operational by the third quarter of FY-82, and as pollution abatement facilities are coming on line randomly, it is imperative that this project be accomplished this fiscal year.

3. By copy of this letter, the Atlantic Division, Naval Facilities Engineering Command is requested to certify the cost of this project to the Commander, Naval Facilities Engineering Command.

C. G. COOPER

Advance copy to: (w/encls)
CNC (Code LFF-1)

Blind copy to: (w/encls)
AC/S Fac
→ BMO

PWO:408:VM:sjr
P-817
31 MAR 1982

From: Commanding General
To: Commandant of the Marine Corps (Code LFF-1)
Via: (1) Commander, Atlantic Division, Naval Facilities Engineering Command, Norfolk, VA 23511
(2) Commander, Naval Facilities Engineering Command, Alexandria, VA 22332

Subj: Exigent Minor Construction Project P-817, Raw Sewage Holding Pond; submission of

Ref: (a) CMC 101337Z JUL 81
(b) MCO P11000.5E
(c) Phonecon btwn CAPT Worrell (Code LFF-2, CMC) and Mr. V. Marshburn (Code 408, PubWks, MCB, CLNC) of 24 Feb 1982
(d) MCO P11000.12A

Encl: (1) Project package for P-817, Raw Sewage Holding Pond, consisting of DD Form 1391/1391c; NAVMC Form 11069 of 5 Mar 1982 w/proposed Site Location Map; and NAVFAC Form 11013/7 of 5 Mar 1982
(2) Certificate of Compliance

1. A requirement for a Raw Sewage Holding Pond was identified and action taken in May 1981. This action was in the form of a Minor Construction project, Raw Sewage Holding Pond (LE233RS), which was submitted to Code LFF-2. The project was approved by reference (a) which also authorized preparation of plans and specifications. The A&E 35% design and cost estimate were received by this Command on 1 February 1982, with an estimated construction cost in excess of $100,000. In accordance with reference (b), this project cannot be funded with O&MMC dollars. It was determined by reference (c) that the urgent nature of this project and the increased estimated construction costs should qualify it for the Exigent Minor MCON Program. Therefore, in accordance with reference (d), enclosures (1) and (2) are hereby submitted.

2. The subject project will alleviate current problems of sewage treatment within the confines of the existing National Pollution Discharge Elimination System (NPDES) permit. Further, this project will enhance sewage treatment procedures after the plant is expanded by MCON Project P-784, Utility Improvements. This holding pond will provide a continuous flow into the sewage plant, allowing proper treatment and discharge into the river. It will further guard against shock loads (large quantities of oils and pollutants) entering the plant at any one time. The holding pond will allow such items to dissolve or be skimmed off by plant operators. The increased flows from pollution abatement and Unaccompanied Enlisted Personnel Housing (UEPH) construction

1. COMPONENT	FY 19 82 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		5 Mar 1982

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NC 28542	RAW SEWAGE HOLDING POND

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	831-10	P-817	123.0

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
CONSTRUCT TANK	LS	-	-	106.0
CONTINGENCY - 10%	LS	-	-	10.6
ESTIMATED CONTRACT COST	LS	-	-	116.6
SUPERVISION, INSPECTION & OVERHEAD - 5.5%	LS	-	-	6.4
TOTAL FUNDS REQUESTED	LS	-	-	123.0
INSTALLED EQUIPMENT - OTHER APPROPRIATIONS	-	-	-	-

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Construct a 500,000 gallon Raw Sewage Holding Pond, along with dual pumps, recirculation valves, piping, and necessary electrical and mechanical work. The holding pond will be constructed by excavating and berming a 500,000 gallon hole and facing the excavated area with a suitable liner material.

11. REQUIREMENTS

PROJECT: Provide a Raw Sewage Holding Pond at the Courthouse Bay Sewage Treatment Plant with necessary piping, pumps, electrical and mechanical work.

REQUIREMENT: To provide a uniform flow rate into the Courthouse Bay Sewage Treatment Plant to help relieve peak loading problems.

CURRENT SITUATION: The plant capacity (525,000 GPD) is presently being exceeded on an intermittent basis due to excessive peak loading. As an example, the January peak load was 570,000 gallons.

IMPACT IF NOT PROVIDED: Additional loads created by Pollution Abatement and UEPH construction will create a higher frequency of National Pollution Discharge Elimination System (NPDES) permit violations.

VM

S/N 0102-LF-001-3910 ☆U. S. Government Printing Office: 1979—603-076/6547 2-1

1. COMPONENT	FY 19 82 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		5 MAR 1982

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
RAW SEWAGE HOLDING POND	P-817

SPECIAL CONSIDERATIONS

1. Pollution Prevention, Abatement, and Control: This project will not cause additional air or water pollution.

2. Flood Hazard Evaluation: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.

3. Environmental Impact: An Environmental Impact Assessment (EIA) is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.

4. Fallout Shelter Construction: Fallout shelter protection is not incorporated in this project.

5. Design for Accessibility of Physically Handicapped Personnel: Provisions for physically handicapped personnel are not required in this project.

6. Use of Air Conditioning: Not applicable.

7. Preservation of Historical Sites and Structures: This project does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.

8. "New Start" Criteria for Commercial or Industrial Activities Program (OMB Circular A-76): Not applicable.

S/N 0102-LF-001-3915 ☆U.S. GOVERNMENT PRINTING OFFICE: 1979—603-076/7127 2-1

1. COMPONENT	FY 19 82 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		5 MAR 1982

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
RAW SEWAGE HOLDING POND	P-817

FACILITY STUDY

1. Project and Specific Purpose. Provide a 500,000 gallon Sewage Holding Pond with pertinent piping and pumps. The specific purpose being supported by this project is to circumvent violation of NPDES permit which authorizes operation of Sewage Treatment Plants.

2. Current and Planned Future Workload with Regard to this Project. The percentage of usage for this facility is 100 percent of the time, and the duration of need is indefinite.

3. Description of Proposed Construction.

a. Type of Construction.

(1) Construct a permanent facility consisting of a 500,000 gallon, five foot high diked pond with liner, aeration system and dual sewage pumps.

(2) Pump and blower house, security fence and gravel access road.

b. Replacement. Not applicable.

c. Description of Work to be Done.

(1) Primary Facility. Five foot high diked area with membrane liner.

(a) Supporting Facilities. Pump and blower house and gravel access road.

(2) Energy Conservation. Not applicable.

(3) Collateral Equipment.

(a) Built-In MCON Funded.

1 Sewage Pumps

2 Aeration System

(4) Supporting Facilities. Five foot high diked pond and minimal site improvement.

S/N 0102-LF-001-3915 ☆U.S. GOVERNMENT PRINTING OFFICE: 1979—603-076/7127 2-1

1. COMPONENT	FY 1982 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		5 MAR 1982

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
RAW SEWAGE HOLDING POND	P-817

4. Cost Estimate. Area cost factor for Camp Lejeune, North Carolina, is 0.95. Cost data derived from A&E 35% cost estimate.

5. Justification for Project and for Scope of Project.

a. Justification for Project.

(1) Project. Proposed facility is required to provide a uniform flow into the Sewage Plant.

(a) The need for this facility was previously identified and submitted as a Minor Construction Project. The 35% cost estimate exceeds the $100,000 limitation of the Minor Construction Program.

(b) A usable completion date is required by FY-83. The long lead time for planning and programming of MCON projects would preclude adequate operation of the Sewage Plant within the constraints of the NPDES permit.

(c) There is no interim solution pending project completion through an annual SLMM Program.

(d) Due to added flow of new UEPH construction, and Pollution Abatement Projects and costs of previous Minor Construction Project, it is considered that this project is urgently required.

(2) Current Situation. Existing Sewage Plant is operating at designed capacity.

(3) Impact if not Provided. Operation of Sewage Plant in excess of design capacity and in violation of NPDES permit.

b. Justification for Scope of Project. The project scope of 500,000 gallons is the minimum size which will satisfy existing requirements and future growth in the Courthouse Bay and Amtrac Areas.

6. Equipment Provided from Other Appropriations. Not applicable.

7. Common Support Facilities. Not applicable.

8. Effect on Other Resources. The project will require approximately $3000 per year in increased O&MMC funds for increased utility services and operations. No additional personnel will be required to operate this facility. Proposed construction should be responsive to the challenges

S/N 0102-LF-001-3915 ☆U.S. GOVERNMENT PRINTING OFFICE: 1979—603-076/7127 2-1

presented by the energy situation and comply with the requirements of Executive Order 12003 of 20 July 1977 and implemented by NAVFACINST 4100.5A.

UTILITY REQUIREMENTS

a. Electricity.

Consumption:	97,423 KWH/YR
Peak Demand:	11 KW
Avg Demand:	8 KW

b. Steam. Not applicable.

c. Coal. Not applicable.

d. Adequate utility requirements are available.

9. Siting of the Project. The facility will be located in the Courthouse Bay Area. See enclosure (1).

10. Other Graphic Presentations, including Photographs. None.

11. Economic Analysis. The most economical type of construction and equipment will be utilized.

12. Environmental Impact Assessment. An Environmental Impact Assessment (EIA) is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.

13. Quantitative Data. Not applicable.

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

COST ESTIMATE

DATE PREPARED: 1-12-82

SHEET 1 OF 2

ACTIVITY AND LOCATION: Marine Corps Base, Camp Lejeune, N.C.

CONSTRUCTION CONTRACT NO.:

IDENTIFICATION NUMBER:

PROJECT TITLE: Raw Sewage Holding Basin

ESTIMATED BY: Larry Sneeden

CATEGORY CODE NUMBER:

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

JOB ORDER NUMBER:

ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		ENGINEERING ESTIMATE	
	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
Excavation	1140	CY	-	-	1.50	1710	1.50	1710
Membrane Liner	16675	SF	0.51	8500	0.20	3340	0.71	11840
Concrete	15	CY	50	750	100	1500	150	2250
Pumps & Controls		LS		9000		2000	-	11000
Check Valves 4"	2	EA	160	320	50	100	210	420
Plug Valves 4"	2	EA	240	480	50	100	290	580
Pipe 4" D.I. or PVC	10	LF	10	100	10	100	20	200
Pipe 15" C.M. or Conc.	30	LF	9	270	10	300	19	570
Pipe 8" D.I. or PVC	490	LF	8	3920	8	3920	16	7840
Pipe 3" G.S.	40	LF	1.50	60	3	120	4.5	180
Pipe 3" PVC	210	LF	0.90	190	3	630	3.90	820
Plug Valves 8"	3	EA	1500	4500	100	300	1600	4800
Aerator Structure	100	SF	10	1000	20	2000	30	3000
Blowers & Diffusers		LS		19000		2000		21000
Gravel Drive 4" Stone	25	Tons	9.00	220	3.00	80	12	300
Crossing	0.33	AC	500	170	1000	330	1500	500
Fencing	700	LF	3.00	2100	1.00	700	4.00	2800

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

COST ESTIMATE

DATE PREPARED

SHEET 2 OF 2

ACTIVITY AND LOCATION
Marine Corps Base, Camp Lejeune, N.C.

CONSTRUCTION CONTRACT NO.

IDENTIFICATION NUMBER

PROJECT TITLE
Raw Sewage Holding Basin

ESTIMATED BY
Larry Sneeden

CATEGORY CODE NUMBER

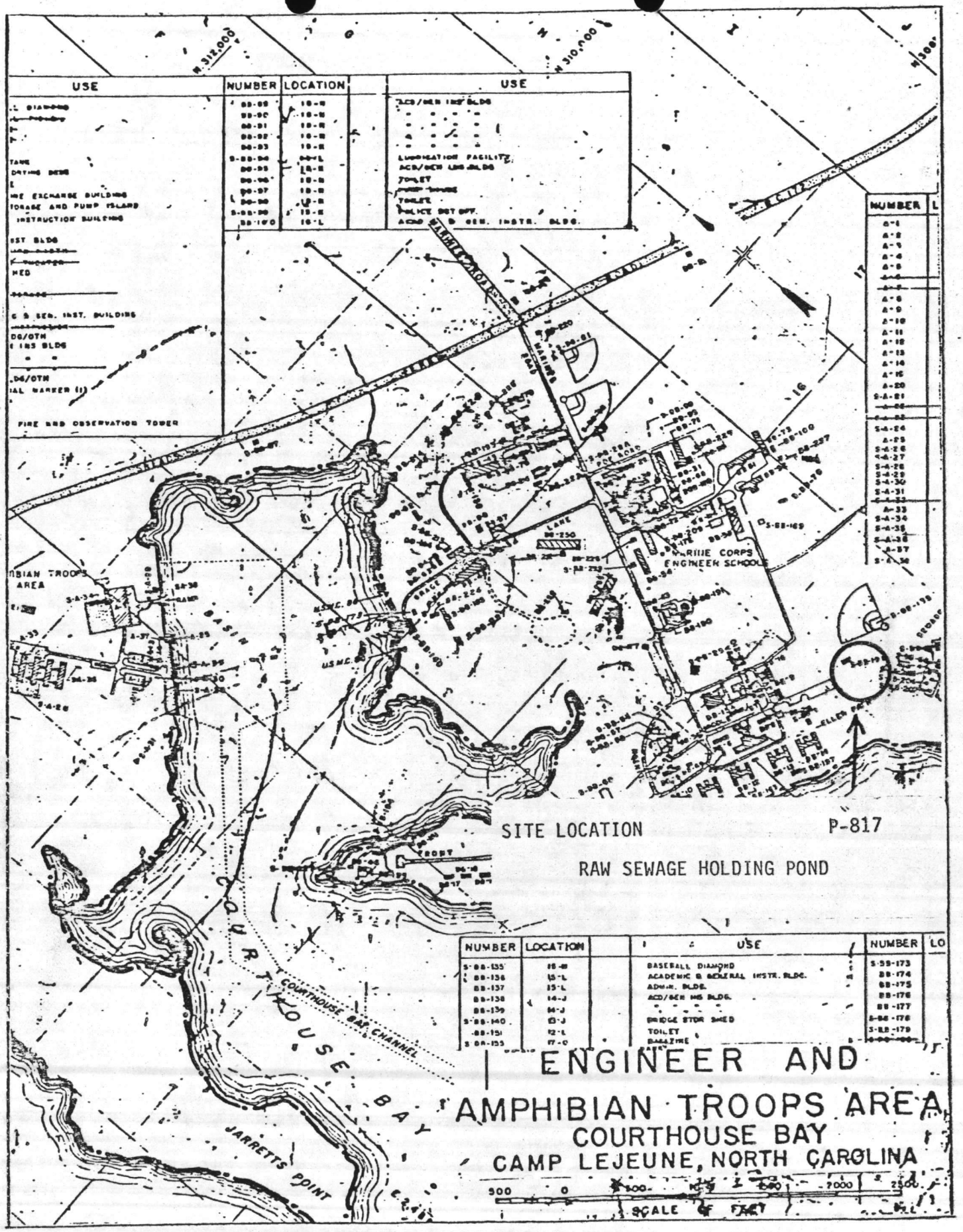
STATUS OF DESIGN
☐ PED ☒ 30% ☐ 100% ☐ FINAL ☐ Other (Specify) _____

JOB ORDER NUMBER

ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		ENGINEERING ESTIMATE	
	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
Electrical		LS		4500		4500		9000
Subtotal				55080		23730		78810
Tax & Insurance on Labor (16%)								3800
Sales Tax on Materials (4.0%)								2200
Subtotal								84810
Overhead & Profit (25%)								21200
Subtotal								106010
Contingency (10%								10600
Total Contract Cost								$116,610

NAVFAC 0105-LF-010-1335

* U.S. Government Printing Office: 1978—703-173/6038 3-1


SITE LOCATION
P-817
RAW SEWAGE HOLDING POND
ENGINEER AND
AMPHIBIAN TROOPS AREA
COURTHOUSE BAY
CAMP LEJEUNE, NORTH CAROLINA
COURTHOUSE BAY
COURTHOUSE BAY CHANNEL
JARRETTS POINT
MARINE CORPS ENGINEER SCHOOL
AMPHIBIAN TROOPS AREA
SCALE OF FEET

P-817 | 67001

COMMANDANT OF THE MARINE CORPS (CODE LFF-1)

FROM
Commanding General, Marine Corps Base, Camp Lejeune, NC 28542

CATEGORY CODE AND PROJECT TITLE	TYPE OF FUNDING	COST ($000)	PROGRAM YEAR
831-10, Raw Sewage Holding Pond	MCON	123.0	FY82

PROJECT DESCRIPTION
Provide 500,000 gallon sewage holding pond with pumps, piping, masonry building, and access road.

REMARKS
This is an Exigent Minor MCON Project.

REQUESTED BY (Typed name and signature)
R. E. CARLSON, CDR, CEC, USN
Public Works Officer

DATE
5 Mar 1982

TYPE OF MAP
Site Location (Encl (1))

DATE
-

ANALYSIS
(Place a check (✓) in box opposite each item. Y = Yes; N = No; NA = Not Applicable)

DATE RECEIVED

Y	N	NA	PROJECT SITING CONSIDERATION
			a. COMPATIBLE WITH ACTIVITY PLANNED DEVELOPMENT GOALS
			b. DEMONSTRATES SOUND PLANNING PRINCIPLES
			c. MEETS MINIMUM PLANNING AND SITING CRITERIA

Y	N	NA	PROJECT SITING CONSIDERATION
			d. COMPLIES WITH THE FOLLOWING CRITERIA:
			(1) AMMUNITION AND EXPLOSIVES
			(2) ELECTROMAGNETIC RADIATION
			(3) AIRFIELD SAFETY
			(4) NOISE INTENSITY
			(5) FIRE PROTECTION

COMPATIBLE WITH ACTIVITY MASTER PLAN (Check appropriate box)
- ☐ IDENTICAL
- ☐ DIFFERENT BUT CONSISTENT
- ☐ NOT SHOWN BUT CONSISTENT
- ☐ *NOT SHOWN AND INCONSISTENT
- ☐ *DIFFERENT AND INCONSISTENT

CRITERIA CERTIFICATION(S) REQUESTED (Check)
☐ DDESB ☐ CNO ☐ NAVSEA ☐ NAVELEX ☐ NAVAIR ☐ OTHER:

DATE

DATE CERTIFICATION(S) RECEIVED

DDESB	CNO	NAVSEA	NAVELEX	NAVAIR	OTHER

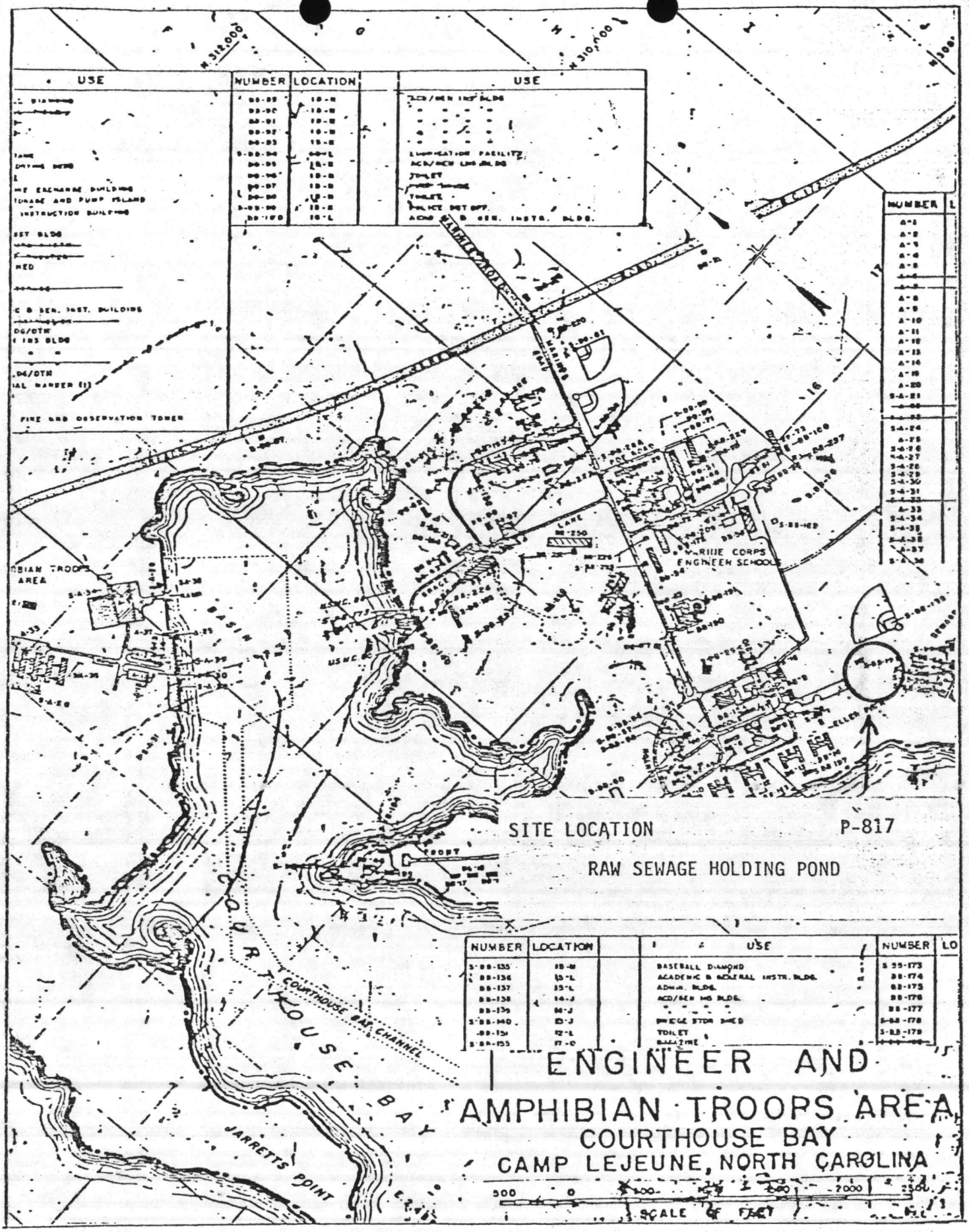
ACTION
☐ APPROVED ☐ DISAPPROVED ☐ DEFERRED

REMARKS

APPROVING OFFICIAL (Typed name and signature)

DATE

*quires approval of a major change to the master plan prior to site approval.


SITE LOCATION
P-817
RAW SEWAGE HOLDING POND
ENGINEER AND
AMPHIBIAN TROOPS AREA
COURTHOUSE BAY
CAMP LEJEUNE, NORTH CAROLINA
COURTHOUSE BAY
JARRETTS POINT
MARINE CORPS ENGINEER SCHOOL
SCALE

CERTIFICATE OF COMPLIANCE

For Minor Construction Projects Undertaken Under

Authority of 10 USC 2674

Military Department or Defense Agency: United States Marine Corps.

Installation: Marine Corps Base, Camp Lejeune, North Carolina.

Project description, specific purpose, and cost: P-817, Raw Sewage Holding Pond, is needed to alleviate peak loading of Courthouse Bay Sewage Treatment Plant.

This project will provide a holding pond, pumps, valves and piping as necessary to allow a uniform flow rate into the Courthouse Bay Sewage Treatment Plant.

The project cost is estimated to be $123,000.

This project has been determined to be urgently required due to peak loading plant capacity. Additional load from new construction (UEPH) and pollution abatement projects may result in violation of NPDES permit.

This Command does not have the resources, nor the funding authority to accomplish this project, nor would programming through the Military Construction Program provide a solution in a timely manner.

I certify that the project described above is in compliance with 10 USC 2674 and DOD implementing regulations. Further, the project is essential and represents the minimum requirement for the specific purpose to be supported by the project. I have taken every reasonable action to verify the accuracy of these statements.

Responsible Official:

Name, Position Title	Signature	Date
COMMANDING GENERAL MARINE CORPS BASE CAMP LEJEUNE, N. C. 28542	C. G. COOPER	31 MAR 1982

Approving Officers:

Name, Position Title	Signature	Date

ENCL (2)

TAB PLACEMENT HERE

DESCRIPTION:

Combat Vehicle maint. shop

(Includes French creek utility improvements)

☒ Tab page did not contain hand written information

☐ Tab page contained hand written information
*Scanned as next image

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

Includes FC Utility Improvements

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542	COMBAT VEHICLE MAINTENANCE SHOP

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	214-51	P-054	$5,400

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
COMBAT VEHICLE MAINTENANCE SHOP	SF	26,570	76.19	2,024
Building	SF	26,570	71.48	(1,899)
Built-In Equipment	LS	-	-	(75)
Solar Hot Water Heating System	LS	-	-	(50)
SUPPORTING FACILITIES	LS	-	-	398
Special Construction Features	LS	-	-	(23)
Utilities	LS	-	-	(115)
Roads, Parking, Sidewalks	LS	-	-	(144)
Site Improvements	LS	-	-	(78)
Vehicle Wash Apron w/Pollution Control	SY	756	50.00	(38)
STEAM DISTRIBUTION	LS	-	-	1,813
10" Steam Line & Associated Equipment	LF	7,800	108.95	(849)
Condensate Piping (6"/4"/3"/2") & Equip	LF	15,340	30.83	(474)
8" Steam Line & Associated Equipment	LS	-	-	(490)
WATER DISTRIBUTION	LS	-	-	321
12" Main	LF	12,000	16.29	(196)
10" Main	LF	2,050	12.92	(27)
Valves & Associated Equipment	LS	-	-	(98)
SANITARY SEWER DISTRIBUTION	LS	-	-	365
10" V.C. Pipe	LF	2,800	6.72	(19)
8" V. C. Pipe	LF	9,750	4.94	(48)
6" C.I. Force Main	LF	4,300	8.55	(38)
4" C.I. Force Main	LF	17,000	7.88	(13)
Manholes & Associated Equipment	LS	-	-	(31)
Pump Stations, complete	EA	3	40,819	(122)
Associated Equipment, Modification FC-203	LS	-	-	(94)
SUBTOTAL				4,921
CONTINGENCY - 5%				246
TOTAL CONTRACT COST				5,167
SUPERVISION, INSPECTION, & OVERHEAD - 5.5%				284
TOTAL REQUEST				5,451
TOTAL REQUEST (ROUNDED)				5,400
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS				-

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Two-story maintenance facility with high bays of reincorced concrete on pile foundation with masonry walls, concrete floors and roof, built-up roofing and insulation. Overhead doors in bay areas, fire protection and alarm systems, energy conservation and pollution abatement features are included in the project. Wash aprons, pavements, security fencing and lighting, and utility connections are also included. Upgrade utilities (water, steam, and sanitary sewer) to French Creek Area.

VM

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

11. REQUIREMENTS: 178,827 SF ADEQUATE: 35,100 SF SUBSTD: 5,068 SF

PROJECT: Provide Combat Vehicle Maintenance Shop for Headquarters and Service Battalion, 2d Force Service Support Group (2d FSSG). Also, upgrade water, steam, and sanitary sewer utilities for French Creek Area.

REQUIREMENT: Combat Vehicle Maintenance Shop is required to carry out the prescribed maintenance program.

CURRENT SITUATION: Maintenance programs are being performed in substandard WW-II buildings and metal buildings constructed in 1952 which do not meet the standards required to maintain the modern, sophisticated equipment used today and cannot be economically rehabilitated.

IMPACT IF NOT PROVIDED: The Headquarters and Service Battalion vehicles will remain adversely affected, and maintenance capability and combat readiness will continue to be impaired. Also, the French Creek Area will have inadequate water, steam, and sanitary sewer utilities in support of its mission.

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

SPECIAL CONSIDERATIONS

1. Pollution Prevention, Abatement, and Control: This project will not cause additional air or water pollution.

2. Flood Hazard Evaluation: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.

3. Environmental Impact: The project Environmental Impact Assessment (EIA) is being written and will be processed through the local EIA Review Board. No adverse environmental impact is anticipated.

4. Fallout Shelter Construction: Fallout shelter protection is not incorporated in this project.

5. Design for Accessibility of Physically Handicapped Personnel: Provisions for physically handicapped personnel are not required in this project.

6. Use of Air Conditioning: Ceiling "U" factors will be made to conform WITH DOD 4270.1-M.

7. Preservation of Historical Sites and Structures: This project does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.

8. "New Start" Criteria for Commercial or Industrial Activities Program (OMB Circular A-76): Not applicable.

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

FACILITY STUDY

1. Project. Provide a Combat Vehicle Maintenance Shop for the Headquarters and Service Battalion of the 2d Force Service Support Group. Also, upgrade utilities for the French Creek Area.

2. Current and Planned Future Workload with Regard to this Project. The percentage of usage for this facility is 100 percent of the time, and the duration of need is indefinite. There is no projected decrease in the necessary maintenance and repair of organizational equipment required to be performed in the facility.

3. Description of Proposed Construction.

a. Type of Construction.

(1) Permanent two-story wheel and tracked Combat Vehicle Maintenance Shop. Building of steel frame and masonry construction with piles and reinforced concrete foundation, floors and roof, masonry walls, built-up roof, insulation, interior and exterior utility systems. Upgrading area utilities consisting of steam, water, and sanitary sewer distribution.

(2) Reinforced concrete inspection/lube rack and wash aprons with pollution controls, walkways, parking pavements, security fencing and lighting, site improvements, and storage facilities.

b. Replacement. Existing facilities will be temporarily utilized to satisfy deficiencies until new facilities are constructed.

c. Description of Work to Be Done.

(1) Primary Facility. Modular reinforced concrete/steel/masonry structure on pile foundation.

(a) Support Facilities. Rigid and flexible pavements, demolition, security fencing and lighting, utilities, site improvements, storage facilities, and wash aprons.

(2) Energy Conservation. Energy efficient equipment and building orientation for maximum energy conservation will be utilized.

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

(3) Collateral Equipment:

(a) Built-In MCON-Funded:

*Venetian Blinds and Window Screens
*Used Oil System
*Air Conditioning, Heating, and Ventilating Systems
*Vehicle Fueling System
*Interior Steam System
*Sprinkler System
*Plumbing System
*Telephone, Fire Alarm, and Intercom Systems
*Compressed Air System
*Drinking Water Coolers

*Lockers

*Chalkboards

*Engine Starting Outlets: 12, 24, & 36 volts

*Tire Changer, elec-air,
Bismman Co., fractional HP,
280V, 3-phase, 3-wire,
150 PSI, comp air

*Air Hose Reel, 150 psi,
HD, w/hose stop (ceiling,
wall, or pedestal mounted),
provide water separator

*Elec Extension Cord Reel,
HD, w/cord stop (ceiling,
wall, or pedestal mtd),
120V, 1 phase

*Water Hose Reel, HD
w/hose control valve &
hose stop (ceiling, wall
or pedestal mtd), CW

*Hose Reels Assembly, w/control valves, HD, over-head,
automatic hose stops & meters, 150 PSI comp air,
1 chassis lube, 1 hydraulic oil, 2 mtr oil, 1 gear oil,
provide water separator

U.S. GOVERNMENT PRINTING OFFICE 1978—703-173/34312-1

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

*Exhaust System, overhead, fractional HP, 220V, 3-phase

*Deluge Shower, w/eye wash, CW

*Outlets for Portable Arc Welder (grounded)

*Acid Resistant Sink, CW

*Exhaust Hood (over), fractional HP, 110V, 1-phase

*Pass Window, 4' wide w/counter & "B" label roll-down shutter (w/fusible link), if required

*Counter, dispatcher's

*Lube Dispensing Equipment, w/access (couplers, valves, regulators, etc.)

*Air Pumps, 400 lb drums for oil (chassis, gear, motor oil, trans & hydraulic fluid), as required

*Twin Post Pneumatic Lifts, one HD, 24,000 lb cap, 150 psi comp air

*Air Compressor, 150 psi (2-stage, 32 CFM), 3-phase, 3-wire, 220V, 15 HP

*Twin Post Pneumatic Lift, LD, 11,000 lb cap, 150 psi comp air

*1-Ton Overhead Monorail, 1-½ HP, 220V, 3-phase, 60-cycle, 120V power to controls & switches

*Equipment with associated installation cost.

1. COMPONENT	FY 19_85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

(b) Expense Items

Description	Qty	Unit of Issue	Unit Price	Total Cost
Benches, work, portable, 48"X28"x34"H	30	EA	$225	$6,750
Benches, work, portable, 72"x28"x34"H	8	EA	340	2,720
Benches, work, stationary, 28"Cx34"H, steel top, standard, lead covered in battery shop	10	EA	375	3,750
Bins, parts, adj. shelving, 14"Wx24"D	10	EA	75	750
Rack, tire storage, 3-tiers high	2	EA	710	1,420
Bins, parts, rota, 3' dia, multi-bin	20	EA	360	7,200
Saw, power, hack, 1½ HP, 220V, 3-phase	1	EA	600	600
Welder, Heli-arc, AC/DC shop type, 300 AMP	1	EA	500	500
Riveter, brake shoe	1	EA	500	500
Tank, test (water), 24"x50"x18", CW	2	EA	360	720
Kit, acetylene, cutting & welding	1	EA	475	475
Grinder, brake shoe, 220V, 3-phase	1	EA	550	550
Charger, battery, 12V, 24V, 36V selenium type; battery tester, 12V, 24V, 36V, 2.2KW, 110/220V	3	EA	550	1,650
Vulcanizer, tire, HD, vulcanizing molds	1	EA	1,120	1,120
Shelving, 14" w/adj. standards	6	EA	120	720
Shelving, 12" w/adj. std, 6 shelves, 36" wide & 84" high	6	EA	90	540
Grinder, pedestal, 10", 110V, 1-phase	1	EA	450	450
Desk, flat top, dbl ped, 60"x30", walnut pattern top, no overhang	6	EA	315	1,390
Desk, flat top, 45"x30", walnut pattern top, no overhang	6	EA	240	1,440
Desk, flat top, w/attachment, f/sect. & gen. clerical purposes	6	EA	275	1,650
Chair, rotary, tilting seat & back, adj. seat height, w/arms, w/casters	12	EA	94	1,128

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

Description	Qty	Unit of Issue	Unit Price	Total Cost
Chair, secretarial, rotary, adj. seat height, w/o arms, w/casters	6	EA	$ 70	$ 420
Stand, office machine, 2 drop leaves, walnut pattern top, w/casters	5	EA	66	330
Cabinet, filing, 5-drawer, legal size, w/o lock	7	EA	220	1,540
Cabinet, storage, dbl. dr., 36"x18"x80-9/16"H	6	EA	190	1,140
Base, bookcase, 33"x13"x10"H	14	EA	20	280
Section, bookcase, w/o doors, 31"x12"x 14"H	42	EA	40	1,680
Top, bookcase, 33"x13"x2¾"H	14	EA	20	280
Chair, straight, w/o arms	18	EA	75	1,350
Costumer, wearing apparel, contemporary, 4 dbl hooks, round pole w/round base	20	EA	35	700
Rack, wearing apparel, contemporary, 6 mtl hangars, 78"x30"Lx20"D at base	8	EA	85	680
Basket, wastepaper, dark brown, 14½"Hx13"dia. top	20	EA	6	120
Receptacle, waste, w/cover	20	EA	45	900
Draperies, lined	8	PR	74	592
Draperies, blackout	4	PR	95	380
Lamp, desk	18	EA	45	810
Extinguisher, fire, 15 lb., CO_2	20	EA	85	1,700
Extinguisher, fire, water pressure, 2½ gal.	20	EA	40	800

S/N 0102-LF-001-3935

U.S. GOVERNMENT PRINTING OFFICE 1978—703-173 3431 2-1

COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

Description	Qty	Unit of Issue	Unit Price	Total Cost
Board, bulletin, cork, alum. frame, 4'x6'	9	EA	65	585
Table, general purpose, 60"x30"x29½"H	5	EA	105	525
Chairs, student, Heywood Wakefield Model HC-7730-PABS-PP	32	EA	70	2,240
Easel, portable, w/frame	2	EA	85	170
Racks, security, for tool boxes, 24 openings	7	EA	2,000	14,000
TOTAL EXPENSE ITEMS				67,745
Shipping, packing, handling, installation charges, & contingencies - 10%				6,775
(c) Investment Items: None				
(d) APA Equipment: None				
(e) Training Equipment:				
Projector, movie	1	EA	650	650
Screen, movie	1	EA	235	235
Projector, overhead	1	EA	375	375
TOTAL TRAINING EQUIPMENT				$1,260
Transportation & installation - 10%				126
(f) Equipment on Hand: None				
(g) Summary:				
Expense Cost				$74,646
Training Equipment				1,260
GRAND TOTAL				$75,906

S/N 0102-LF-001-3931 U.S. GOVERNMENT PRINTING OFFICE 1978—703-173/3431 2-1

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

(4) Supporting Facilities. Special piling, foundation, waste water collection system, collateral equipment, site improvement, solar hot water system, pollution abatement, and utility improvements.

4. Cost Estimate. Area cost factor for Camp Lejeune, NC is 0.95. Cost data derived from the Military Construction Cost Review Guide, FY-82 (DOD 4270.1-CG), and escalated to FY-83 to provide for this facility.

5. Justification for Project and for Scope of Project.

a. Justification for Project.

(1) Project. Proposed facilities are required to provide the Headquarters and Service Battalion with adequate and secure facilities to perform combat vehicle maintenance and operations. Also to provide adequate utilities for future expansion in the French Creek Area.

(2) Current Situation. Personnel are working in substandard temporary WW-II Butler type metal buildings with open bays and oil space heaters for heat, and makeshift facilities located in the Hadnot Point area.

(3) Impact If Not Provided. Personnel will continue to function in substandard and makeshift facilities, resulting in time-consuming and inefficient operations with loss of work time and wasted energy. Also, the existing utility distribution system cannot meet the demand of new facilities proposed between FY-82 and FY-87.

b. Justification for Scope of Project. The project scope, 26,570 SF, is the minimum size facility that can meet the space requirements for the Combat Vehicle Maintenance Shop needs of the Hqtrs & Service Battalion, 2d FSSG. See paragraph 13 for existing facilities presently in use. Also, the project scope of increased utility distribution is the minimum amount required to provide utilities for the future expansion in the French Creek Area.

6. Equipment Provided from Other Appropriations: Not applicable.

7. Common Support Facilities. There are no common support facilities available for the 2d FSSG.

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

8. Effect on Other Resources. The project will require approximately $19,379 per year in increased O&MMC funds for increased utility services and operations. No additional personnel will be required to operate this facility. The project will enhance and improve the morale of personnel presently working in substandard facilities. Proposed construction should be responsible to the challenges presented by the energy situation and comply with the requirements of Executive Order 12003 of 20 July 1977 and implemented by NAVFACINST 4100.5A.

UTILITY REQUIREMENTS

a. Electricity:
- Consumption 70,796 KWHR/yr
- Peak Demand 58 KW
- Avg. Demand 42 KW

b. Steam:
- Consumption 22,777,202 lbs/yr
- Demand 3,660 lbs/hr

c. Coal: 400 tons/yr

d. Adequate utility requirements are available.

9. Siting of the Project. The facility is located in the French Creek Area and is in compliance with the latest Camp Lejeune Master Plan. See enclosure (1).

10. Other Graphic Presentations, including Photographs. None.

11. Economic Analysis. This facility is being constructed on an undeveloped site in the French Creek Area. Economic saving will be in nominal energy consumption realized from efficient operations. This is a military operational project in support of an operational mission located in this area.

12. Environmental Impact. An Environmental Impact Assessment of the area has been made and it has been determined that this project will have neither a significant impact on the environment nor is it highly controversial.

13. Quantitative Data.

a. BFRL Requirement (French Creek Area (EA)): 178,827 SF. NAVFAC P-80 states that the requirement for Category Code 214-51, Combat Vehicle Maintenance Shop, is determined from definitive drawings given in NAVFAC P-272, Part IV. The total requirements are 178,827 SF.

1. COMPONENT	FY 1985 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

NAVFAC Drawing No.	Activity	Area (SF)
1294443, 1294499, 1294505	Headquarters & Service Battalion	26,570
-	2d Radio Battalion	11,480
1294447	2d Maintenance Battalion	12,180
1293380	2d Supply Battalion	10,650
1294449	8th Communication Battalion	16,120
1294448, 1294498, 1294505	8th Engineer Support Battalion	31,680
1294446, 1294505	8th Motor Transport Battalion	23,460
-	2d ANGLICO/Force Recon Company	14,413
1293376	2d Medical Battalion	8,500
1293378	2d Landing Support Battalion	18,280
	TOTAL:	173,333

b. Existing Asssets:

FACILITY NO.	TOTAL ASSETS (SF)	REMARKS
FC-100	(31,160)	Substd - to be converted to CCN 214-53.
GP-1	(4,000)	Substd - to be demolished upon completion of project P-255.
GP-19	(4,000)	Substd - to be demolished when deficiency is satisfied.
STC-776	(108)	Substd - to be demolished upon completion of project P-255.
739	(4,000)	Substd - to be dem. when deficiency satisfied.

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

FACILITY NO.	TOTAL ASSETS (SF)	REMARKS
746	(960)	Substd - To be demolished when deficiency is satisfied.

TOTAL FOR CCN 214-51: (45,188) SUBSTANDARD
0 ADEQUATE

c. Planned Facilities.

PROJ. NO.	AREA (SF)	STATUS
P-533	14,413	Completed; not in 10651.
P-255	11,480	Under construction.
P-562	18,280	FY-83 Program.
P-563	8,500	FY-84 Program.
P-240	10,650	FY-84 Program.
P-276	12,180	FY-84 Program.
P-054	26,570	FY-84 Program.
P-027	16,120	FY-86 Program.
P-517	23,460	FY-87 Program.
P-266	31,680	FY-87 Program.

SUBTOTAL: 173,333 PLANNED
SUBTOTAL: 0 TOTAL EXIST. ASSETS (ADEQUATE)

TOTAL: 173,333

BFRL TOTAL: 178,827

1. COMPONENT	FY 19 85 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1981

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	5. PROJECT NUMBER
COMBAT VEHICLE MAINTENANCE SHOP	P-054

14. Maintenance Facilities: Not applicable.

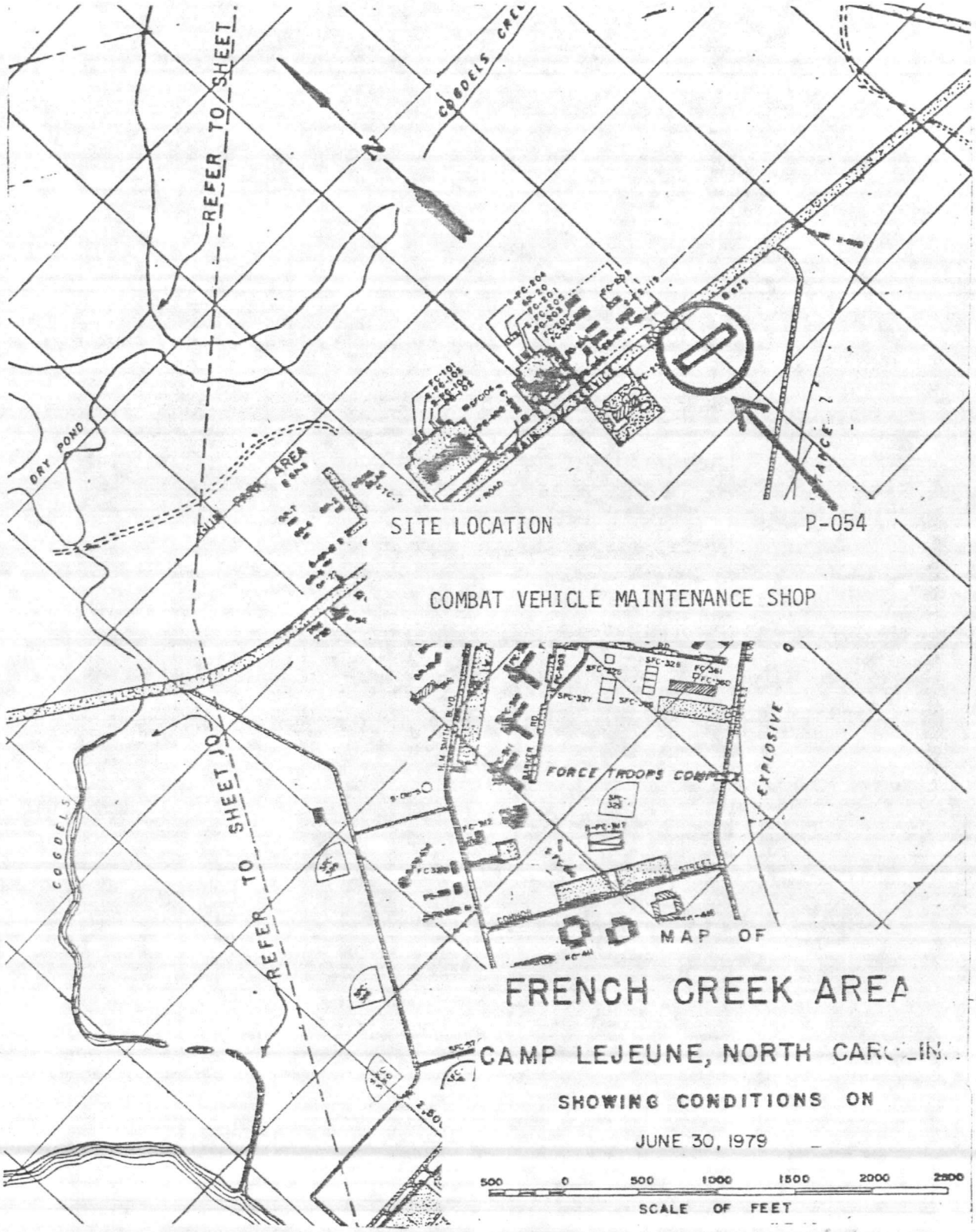
15. Morale, Welfare, and Recreation Facilities: Not applicable.

16. Relocation Facilities: Not applicable.

17. Storage Facilities: Not applicable.

18. Hazard Identification, Assessment, and Analysis: Not applicable.

S/N 0102-LF-001-3915 ☆U.S. GOVERNMENT PRINTING OFFICE: 1979—603-076/7127 2-1


REFER TO SHEET I
COGDELS CREEK
N
DRY POND
AREA
SITE LOCATION
P-054
COMBAT VEHICLE MAINTENANCE SHOP
REFER TO SHEET J
COGDELS
EXPLOSIVE
MAP OF
FRENCH CREEK AREA
CAMP LEJEUNE, NORTH CAROLINA
SHOWING CONDITIONS ON
JUNE 30, 1979
500 0 500 1000 1500 2000 2500
SCALE OF FEET

ENCLOSURE (1)

T-11008

PWO:408:EGJ:bjd
11000
13 Oct 1981

From: Public Works Officer
To: Assistant Chief of Staff, Facilities (ATTN: Mr. A. C. Austin)

Subj: Utilities, French Creek Area

Ref: (a) Phonecon btwn Mr. A. C. Austin (AC/S, Fac) and Mr. E. G. Jones (Planning Branch, PWD) of 7 Oct 1981
(b) Utility Study, French Creek Industrial Area, MCB, Camp Lejeune, prepared by MBTB Architects-Engineers, Inc. of Greenville, S. C., of 30 Oct 1978
(c) FY-85 MCON Project P-054, Auto Org Shop
(d) FY-84 MCON Projects P-538, Elec Comm Maint Shop; P-240, Auto Org Shop; P-563, Auto Org Shop; and P-276, Auto Org Shop

Encl: (1) Site Location Maps showing utilities as proposed by ref (a)

1. As requested during reference (a), the following information is hereby provided:

a. Reference (b) established requirements for steam, water, and sanitary utilities in the French Creek Industrial Area. Reference (c) was submitted with requirements as established by reference (b) as an integral part of the project. Reference (d) consists of the MCON projects submitted in our FY-84 through FY-88 Five-Year MCON Program. Enclosure (1) reflects the extension of utilities to support future area growth as established by reference (b).

b. Reference (d) projects have been authorized for selection of A&E services; however, extension of utilities is necessary for these projects to stay within scope and funding limitations. Therefore, it is recommended that the extension of utilities be deleted from FY-85 MCON Project P-054 and added to the scope of FY-84 MCON Project P-276. This will extend utilities needed for future construction, and the aforementioned FY-84 projects can be designed as submitted. This will increase project P-276 to a total of $4 million, and decrease project P-054 to a total of $2.7 million.

2. For further information, contact Mr. Gene Jones, Planning Branch, on extension 1833.

T. L. HUGUELET
By direction

Copy to: (w/o encl)
BMO (Attn: Mr. F. Cone)

T-1139: 13

MAIN/TH/rn
11300

JUN 0 2 1981

From: Base Maintenance Officer
To: Assistant Chief of Staff, Facilities

Subj: Modifications/Additions to Military Construction Program

Ref: FONECON btwn T. Hatcher, BMaintDept, and Al Austin, Fac, on 8 May 1981

Encl: (1) Expansion of Well Field, Hadnot Point Water Treatment Plant
(2) Water Trunk Main, Holcomb Boulevard and Hadnot Point Water Treatment Plants
(3) Additions to MCON Project P-790, Hadnot Point Sewage Treatment Plant
(4) French Creek Utility Distribution System Expansion

1. As discussed during reference (a), there are a number of utilities projects that need to be added to the subject Military Construction Program:

a. Expansion of Well Field, Hadnot Point Water Treatment Plant. A rapid decline in production from the existing well field at the Hadnot Point plant has resulted in significant reduction in raw water availability and the over-pumping of existing producing wells. Approximately 10 new wells, along with associated transport lines, will be required to restore the well field to an acceptable capacity of 150 percent of the plant capacity. Enclosure (1) contains a listing of the elements and associated FY-81 costs for this project.

b. Water Trunk Main, Holcomb Boulevard and Hadnot Point Water Treatment Plants. The trunk main system between the two plants needs to be reinforced. Due to the congested condition and lack of space in the vicinity of the Hadnot Point plant, no major expansion of this plant can occur. Accordingly, all future increases in water requirements for the Hadnot Point area will have to occur at the Holcomb Boulevard plant, which is scheduled for expansion in MCON Project P-785. The trunk system should be sized to allow delivery of approximately 5 million gallons per day from either area to the other in emergency conditions. This can be accomplished by one 24-inch line laid along Holcomb Boulevard. Enclosure (2) contains an element breakdown of the project along with FY-81 costs.

Either of the two water system upgrade projects can stand alone as MCON projects. However, combined with MCON Project P-785, Expansion of Holcomb Boulevard Water Treatment Plant, all of the present and future needs of the Hadnot Point area water supply will be satisfied in one project.

2. An update review of MCON Project P-790, Upgrade of the Hadnot Point Sewage Treatment Plant, indicates the need for several additions to the project:

a. Lift Station FC-315 receives sanitary waste from the entire French Creek Area and pumps it directly to the Hadnot Point Sewage Treatment Plant. Both of the 1000 gallons per minute pumps are required to handle peak influent flows into the station. A third 1000 gallons per minute pump is needed to serve as an alternate and as a reserve during periods when the other pumps are down for maintenance or repair.

b. Increasing amounts of grease and oil coming into the Hadnot Point Sewage Treatment Plant is creating operational problems at the plant. Under the present system, the oil and grease that can be skimmed from the primary tanks are pumped into the digesters. The growing volumes of grease and oil have created a requirement for frequent pumping of the digesters, and the increasing presence of oil and grease in other parts of the plant has further hindered plant operation. Project P-996, presently under construction, provides for collection of runoff from various areas of the base, with delivery to the sanitary sewer system. Although oil/water separators are being installed as a part of this project, additional oil residue can be expected to appear at the plant. In order to maintain satisfactory operation of the plant, an oil grease/skimming tank, with automatic skimmers, and a holding tank will be required.

Enclosure (3) contains an element listing of the project along with FY-81 costs.

4. The final area that needs to be reviewed for project development is the French Creek Area. Based on the proposed development between FY-82 and FY-87, 21 buildings will be added to the existing utility distribution system, creating a level of demand that cannot be met by the existing distribution system. Further complicating the situation is the possibility of construction of a new plant for burning solid waste and waste wood. A feasibility study by J. E. Sirrine Company, Contract No. 80-B-3801, for construction of the plant is presently underway. Based on known proposed construction and the need for spare capacity for future expansion, the following utility system upgrades are needed:

a. Steam Distribution System. Provision must be made for a new 10-inch steam line parallel to the existing 10-inch line from Building 1700, Central Heating Plant, to the French Creek Area, and a condensate return piping system from the French Creek Area to the existing 6-inch condensate return line. In order to provide utility service to the proposed development between Main Service Road and Sneads Ferry Road, an 8-inch steam line and a 4-inch condensate return line will be required.

b. Water Distribution System. The existing water distribution system should be expanded and looped within the French Creek Area to provide adequate domestic and industrial water supply, and fire protection.

c. Sanitary Sewer System. Gravity sewage collection systems for each of the French Creek areas where construction is to occur will be required. To meet the future growth, three new lift stations must be constructed, and the capacity of existing station FC-203 must be increased to handle the increased flow. A new combination 6-inch, 10-inch gravity line to existing FC-315 will be required to provide discharge from FC-203.

Enclosure (4) contains an element breakdown of the project along with FY-81 costs.

MAIN/TH/rn
11300

5. For additional information on subject additions to the MCON Program, contact Terry Matcher, Director, Utilities Division, ext. 5161.

F. H. MOUNT

Steam Distribution

10" steam line (7800 LF) and associated equipment	$849,380
Condensate Piping, French Creek Area to M.H. 9 (6", 4", 3", 2"), and associated equipment (15340 LF)	473,259
8" steam line and associated equipment	490,176
Total Construction	$1,812,815
SIOH (5.5%)	99,704
Contingency (10%)	191,252
Total CWE	$2,103,771
Design (6%)	126,226
Total	$2,229,997

Water Distribution

12" D.I. Main (12,020 LF)	$ 195,809
10" D.I. Main (2,050 LF)	26,489
Valves, Associated Equipment	98,260
Subtotal	$ 320,558
SIOH (5.5%)	17,631
Contingency	33,819
Total CWE	$ 372,008
Design (6%)	22,320
Total	$ 394,328

Sanitary Sewer Distribution

10" v.c. pipe (2800 LF)	$ 18,826
8" v.c. pipe (9750 LF)	48,191
6" C.I. Force Main (4300 LF)	36,766
4" C.I. Force Main (1700 LF)	13,367
Manholes, Associated Equipment	30,941
Pump Stations, Complete (3 each)	122,457
Associated Equipment, Modification FC-203	94,219
Total Construction	364,767
SIOH (5.5%)	20,062
Contingency (10%)	38,482
Total CWE	423,312
Design (6%)	25,399
Total	$ 448,711

Enclosure (4)

TAB PLACEMENT HERE

DESCRIPTION:

Boiler Plant oxygen sensing

+ Trim system

☒ Tab page did not contain hand written information

☐ Tab page contained hand written information
*Scanned as next image

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

HEADQUARTERS MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

Revised Project
To Be Submitted -

Date 24 Sep 83

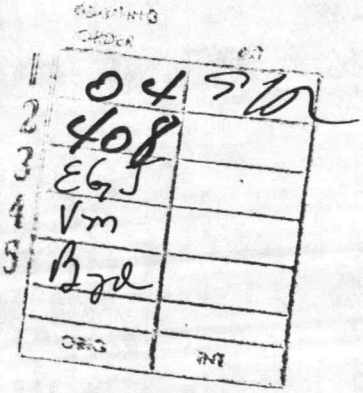
JEC
10-22-82

From: Assistant Chief of Staff Facilities
To: PWO (Planning)

Subj: P-793 EXIGENT, Boiler plant Oxygen Sensing & trim Systems,

1. Subj Project "lost" @ HQMC.
2. Discussion w/ Major Larson on 21 Sep 82
   (a) re-submit Project as if new
   (b) Cull out all Non-Payback Boilers
3. Contact FMO (UTILITIES, Fred Cone) for any Possible modifications,

VR



MCBCL 5216/9

P-793

Fac Acq
6 July 81

1. Loren Wasson Def-2 called to say the New (Last Div. Est) Est for P-793 oxygen trim, Boiler Plts was $1,480,000.

2. NAVFAC is arguing that the Project should be broken down Building-by-building (R1 & R2)

3. HQMC Gang Combus

4. 5 Boilers will not pay back 2 in Paradise Pt 3 Terrace.

5. We may have to re-write 1391 w/ Lants cost & Deleting 5 Bldgs.

P-793

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
200 STOVALL STREET
ALEXANDRIA, VA 22332

IN REPLY REFER TO

13 May 1981

SECOND ENDORSEMENT on Commanding General, Marine Corps Base, Camp Lejeune, North Carolina ltr PWO:408:DVM:hf P-793 of 27 Mar 1981

From: Commander, Naval Facilities Engineering Command
To: Commandant of the Marine Corps (Code LFF)

Subj: Exigent Minor Construction Project P-793, Boiler Plant Oxygen Sensing and Trim System, Marine Corps Base, Camp Lejeune, North Carolina

Ref: (b) FONECON between Cdr Struthers (NAVFAC 21C) and Major Wasson (HQMC LFF-1) on 4 March 1981

1. Forwarded for further action in accordance with reference (b).

C. M. BRUNE
By direction

Copy to:
MARCORB CAMLEJ
COMLANTNAVFACENGCOM

P-793 · R · 6

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511

TELEPHONE NO.
444-7521
IN REPLY REFER TO:
09A21E:MLB
11010/MARCORB CAMLEJ

27 APR 1981

FIRST ENDORSEMENT on Commanding General, Marine Corps Base, Camp Lejeune, North Carolina ltr PWO:408:DVM:hf P-783 of 27 Mar 1981

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commandant of the Marine Corps (Code LFF-1)
Via: (1) Commander, Naval Facilities Engineering Command

Subj: Exigent Minor Construction Project P-793, Boiler Plant Oxygen Sensing and Trim System, Marine Corps Base, Camp Lejeune, North Carolina

Encl: (5) Revised Cost Estimate
(6) Economic Analysis of Installing Oxygen Trim and Sensing System versus Current Operating Losses

1. The subject project has been reviewed and the cost estimate revised to a new budget amount of $480,000 as shown by enclosure (5). Based on the revised cost estimate, an economic analysis has been prepared, enclosure (6), which supports the alternative of immediately installing the oxygen trim and sensing system versus continuing with current operating losses.

BY DIRECTION

Copy to:
NAVFACENGCOM
→ MARCORB CAMLEJ

Delete
BB - 12, 13
TT - all 3

Title: BOILER PLANT OXYGEN SENSING & TRIM SYSTEM Costs Escalated to: DEC. 1981

Location: MCB, CAMP LEJEUNE, N.C. Escalation: 7%

Prepared by: JM Date: 4/16/81 Contingency: 10%

	$/SF	S/SYS	SYS QUAN	TOTAL	~~BUILDING~~ EACH	BUILT-IN EQUIPMENT
OXYGEN SENSING & TRIM SYSTEM W/TEMP. PROBES & RECORDING METERS			4 EA		18,785	75,139
OXYGEN SENSING & TRIM SYSTEM W/RECORDING METERS			25 EA		13,393	334,830
Sub-Total Building				$	$*	$* 409,969
						*
						*
						*
						*
						*
Sub-Total Supporting Facilities				* $		

Total Estimated Contract Cost: ~~JAN~~ DEC 1981	$	409,969
Contingency 10%	$	450,966
SIOH 5.5%	$	475,769
Total Budget Cost	$	
Rounded	$	480,000

*Asterisk indicates those

AL & LABOR COST ESTIMATE — 5ND LANTDIV 4-11012/5 (REV. 10/74)

RED BY _____

AVAI. _____

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

Const. Contr. No. P-793

DATE 4/16/81

CT Boiler Plant Oxygen Sensing & Trim Syster LOCATION MCB, Camp Lejeune ☒ PRELIM. ☐ FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
INVESTMENT COST								
								CLEAVER BROOKS-
TH TEMP. PROBE -								MODEL TS-MF
RECORDER	4	EA	7500	30,000	500	2,000		& TS-SS
TEMP. PROBE	4		1500	6,000	1000	4,000		
METER FOR TEMP. PROBE	4		1075	4,300	500	2,000		
ELECTRICAL WORK	4		200	800	200	800		
MISC WORK	4		200	800	200	800		(esc)
				41,900		9,600		70,223 X 1.07 =
		M.U.		X 1.33		X 1.51		75,139
				55,727		14,496	70,223	
THOUT TEMP PROBE -	25	EA	6500	162,500	2,000	50,000		
ELECTRICAL WORK	25		100	2,500	100	2,500		
MISC WORK	25		200	5,000	200	5,000		
				170,000		57,500		312,925 X 1.07 =
		M.U.		X 1.33		X 1.51		334,830
				226,100		86,825	312,925	
CONSTRUCTION COST							383,148	
ESCALATION $\frac{\text{DEC}}{\text{APRIL}} = \frac{2.019}{1919} = 1.07$							X 1.07	
							409,968	
SIOH (5.5%)							432,516	
CONTINGENCY (10%)							475,768	
ROUNDED							480,000	

L & LABOR COST ESTIMATE — 5ND LANTDIV 4-11012/5 (REV. 10/74)

D BY JM

VAL.

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

SHEET ____ of ____

Const. Contr. No. P-793

DATE 4/16/81

BOILER PLANT OXYGEN SENSING & TRIM SYSTEM — LOCATION MCB, CAMP LEJEUNE, N.C. — ☒ PRELIM. ☐ FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
ENERGY RATES:								
COAL-								
APRIL 1981 $2.34/MBTU × Oct. 81 1.05 × Oct. 82 1.10 = $2.70/MBTU								
APRIL – OCT. 81 = 6/12 × 10% = 5%								
OCT. – OCT. 82 = 10%								
OIL –								
APRIL 1981 $5.72/MBTU × Oct. 81 1.07 × Oct. 82 1.14 = $6.98/MBTU								
APRIL – OCT. 81 = 6/12 × 14% = 7%								
OCT – OCT. 82 = 14%								

L & LABOR COST ESTIMATE — 5ND LANTDIV 4-11012/5 (REV. 10/74) — SHEET 3 of

D BY

AI.

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

Const. Contr. No. P-793

DATE 4/16/81

BOILER PLANT OXYGEN SENSING & TRIM SYSTEM — LOCATION MCB, CAMP LEJEUNE, N. C. — ☒ PRELIM. ☐ FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
PERATIONS								
LTERNATE A								
COAL – 770,787 MBTU/YR			x $2.70/MBTU	= $2,081,125				
#6 OIL – 826,113 MBTU/YR			x $6.98/MBTU	= 5,766,269			6,230,564	
#2 OIL – 66,518 MBTU/YR			x $6.98/MBTU	= 464,295				
COAL								
YEAR 1	2,081,125 x 1.05 = 2,185,181							
2	2,185,181 x 1.05 = 2,294,440							
3	2,294,440 x 1.05 = 2,409,162							
OIL								
YEAR 1	6,230,564 x 1.08 = 6,729,009							
2	6,729,009 x 1.08 = 7,267,330							
3	7,267,330 x 1.08 = 7,848,716							
TOTALS – YEAR 1:	2,185,181 + 6,729,009			= 8,914,190				
2:				= 9,561,770				
3:				= 10,257,878				

AL & LABOR COST ESTIMATE — 5ND LANTDIV 4-11012/5 (REV. 10/74) — SHEET 4 of

RED BY

AVAI.

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND

NORFOLK, VIRGINIA

Const. Contr. No. P-793

DATE 4/16/81

CT BOILER PLANT OXYGEN SENSING & TRIM SYSTEM — LOCATION MCB, CAMP LEJEUNE, N. C. — ☒ PRELIM. ☐ FINAL

ITEMS	QUANTITY	UNIT	MATERIAL COST UNIT	MATERIAL COST TOTAL	LABOR COST UNIT	LABOR COST TOTAL	TOTAL COST	REMARKS
OPERATIONS (CONTINUED)								
ALTERNATE B								
COAL - 780,939 MBTU/YR			$ x 2.70/MBTU	= 2,108,535				
#6 OIL - 847,366 MBTU/YR			$ x 6.98/MBTU	= 5,914,615			6,390,986	
#2 OIL - 68,248 MBTU/YR			$ x 6.98/MBTU	= 476,371				
COAL								
YEAR 1	2,108,535 x 1.05			= $ 2,213,962				
2	2,213,962 x 1.05			= 2,324,660				
3	2,324,660 x 1.05			= 2,440,873				
OIL								
YEAR 1	6,390,986 x 1.08			= $ 6,902,265				
2	6,902,265 x 1.08			= 7,454,446				
3	7,454,446 x 1.08			= 8,050,801				
TOTALS - YEAR 1	: 2,213,962 + 6,902,265			= 9,116,227				
2	:			= 9,779,106				
3	:			= 10,491,694				

ECONOMIC ANALYSIS OF SHORE FACILITY

DATE: APRIL 16, 1981

ACTIVITY (Name and Location): MCB, CAMP LEJEUNE, N.C.

PROJECT TITLE: BOILER PLANT OXYGEN SENSING & TRIM SYSTEM

P NO.: 793

DESCRIPTION OF ALTERNATIVES

ALT. A. INSTALL OXYGEN TRIM & SENSING SYSTEMS

ALT. B. CONTINUE TO OPERATE SYSTEM WITH CURRENT ENERGY LOSSES

PROJECT COST PROJECTIONS BY ALTERNATIVES

ALTERNATIVE A: INSTALL OXYGEN TRIM & SENSING SYSTEM — ECONOMIC LIFE: 3 YRS.

DESCRIPTION AND YEAR	COSTS ($) ONE TIME	COSTS ($) RECURRING	DISCOUNT FACTOR	PRESENT VALUE ($)
INVESTMENT	480,000			480,000
OPERATIONS YEAR 1	8,914,190		.954	8,504,137
YEAR 2	9,561,770		.867	8,290,054
MAINTENANCE YEAR 3	10,257,878		.788	8,083,207
PERSONNEL				
TERMINAL VALUE				
OTHER:				

TOTAL PRESENT VALUE ALTERNATIVE A - $ 25,357,398 ÷ _____ (DISCOUNT FACTOR) = _____ (UNIFORM ANNUAL COST)

ALTERNATIVE B: CURRENT OPERATING LOSSES — ECONOMIC LIFE: 3 YRS.

DESCRIPTION AND YEAR	COSTS ($) ONE TIME	COSTS ($) RECURRING	DISCOUNT FACTOR	PRESENT VALUE ($)
INVESTMENT YEAR 1	9,116,227		.954	8,696,880
OPERATIONS YEAR 2	9,779,106		.867	8,478,485
MAINTENANCE YEAR 3	10,491,694		.788	8,267,455
PERSONNEL				
TERMINAL VALUE				
OTHER:				

TOTAL PRESENT VALUE ALTERNATIVE B - $ 25,442,820 ÷ _____ (DISCOUNT FACTOR) = _____ (UNIFORM ANNUAL COST)

REMARKS

RECOMMEND ACCOMPLISH WITH EXIGENT MINOR FUNDS, BECAUSE TOTAL PRESENT VALUE FOR ALTERNATIVE A IS LOWER THAN ALTERNATIVE B.

T-11300)

MAIN/TH/rn
11370
FEB 1 1 1981

From: Base Maintenance Officer
To: Public Works Officer

Subj: Development of a Self-Amortizing Exigent Minor Construction Project, Boiler Plant Oxygen Sensing and Trim Systems

Encl: (1) DD Form 1391
(2) DD Form 1391c
(3) ECIP Economic Analysis Summary

1. The development of a self-amortizing exigent minor construction project for installation of the subject oxygen sensing and trim systems is requested. Enclosures (1), (2), and (3) contain data necessary to prepare the project.

B. W. ELSTON
By direction

Copy to: ACIS Inc

1. COMPONENT	FY 1981 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		10 Feb 1981

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542	Boiler Plant Oxygen Sensing and Trim Systems

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
			$346

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Boiler Oxygen Sensing and Trim Systems	LS	-	-	298
- Systems with Temperature Probe and Recorder	EA	4	15,094	(60)
- Systems with Recorder	EA	25	9,500	(238)
TOTAL COST				298
CONTINGENCY - 10%				30
ESTIMATED CONTRACT COST				328
SUPERVISION, INSPECTION, OVERHEAD 5.5%				18
TOTAL FUNDS REQUESTED				346

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Install oxygen trim and sensing systems, including all wiring and mechanical modifications to dampers and oil valves necessary to interface these systems to 29 boilers.

11. REQUIREMENTS:

PROJECT: Install oxygen sensing and trim systems on four coal fired boilers and 25 oil fired boilers.

REQUIREMENT: To reduce fuel useage in these boilers by improving the combustion characteristics of the boilers.

CURRENT SITUATION: Since these boilers do not presently have sensing and trim systems, they can not be maintained at peak operating performance.

IMPACT IF NOT PROVIDED: Fuel and energy waste due to boiler operation at less than peak efficiency.

1. COMPONENT	FY 1981 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		10 Feb 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	

FACILITY STUDY

1. Project: This project will reduce energy consumption by providing the means to ensure peak operating efficiency in the boilers. This project will provide for an oxygen sensing and trim system, including temperature probes and recording meters for four coal fired steam generating boilers, and oxygen sensing and trim systems with recording meters for 25 oil fired boilers.

a. Site Location:

(1) Hadnot Point Area: Boilers 1, 2, 3, and 4 - Bldg 1700.

(2) Paradise Point Area: Boilers 9 and 10, Bldg 2615; boilers 80 and 81, Bldg 5400; boilers 12 and 13, Bldg 825.

(3) Geiger Area: Boilers 83, 84, and 85 - Bldg G-650.

(4) MCAS(H): Boiler 11 - Bldg AS-705.

(5) Montford Point: Boilers 33, 73, and 74 - Bldg M-625; Boilers 38, 39, and 40 - Bldg M-230.

(6) Courthouse Bay Area: Boiler 50 - Bldg A-1.

(7) Tarawa Terrace Area: Boilers 78 and 79 - Bldg TT-60; Boilers 31 - Bldg TT-2455.

(8) French Creek Area: Boilers 62 and 63, Bldg FC-202.

(9) Onslow Beach Area: Boilers 64 and 65 - Bldg BA-106.

(10) Midway Park Area: Boiler 21 - Bldg LCH-4003.

2. Current and Planned Future Workload with Regard to this Project: The steam plants involved in this project are presently producing approximately 1.5 billion pounds of steam annually. The demand on these facilities for producing steam at the current levels or higher is expected to continue as a necessary requirement through the life of the proposed project.

3. Description of Proposed Construction:

a. Type of Construction: Permanent.

b. Replacement: Not applicable.

1. COMPONENT	FY 19_81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		10 Feb 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	

c. Description of Work to be Done:

(1) Primary Facility: This project will consist of the installation of an oxygen sensing and trim system, including recorders and temperature probes on 29 boilers located in the Camp Lejeune complex.

(2) Energy Conservation: This project will conserve 33,135 MBtu of energy each year.

4. Cost Estimate: Area Construction Index is 0.95; contingency factor to be utilized is 10 percent. The data is applicable to FY-81. Cost data derived utilizing standard manufacture's estimate for this type of equipment and its installation costs.

5. Justification for Project and Scope of Project:

a. Justification for Project.

(1) Project: The proposed project will provide for energy conservation through more efficient operation of fuel consuming boiler plants.

(2) Requirement: Marine Corps Order 4100.4A of 27 April 1979 requires a 20 percent energy use reduction measured against FY-1975 by FY-1985. Energy shortages and substantially increased costs for energy have also made energy conservation a necessity.

(3) Current Situation: The boilers included in this project are not presently equipped with oxygen sensing and trim systems.

(4) Impact if Not Provided: Energy losses due to operation of boiler plants at less than peak efficiency.

b. Justification for Scope of Project: The boilers included in this project provide the majority of the steam generated for the Camp Lejeune complex.

6. Equipment Provided from Other Appropriations: None.

7. Common Support Facilities: Common support facilities that can satisfy the requirements for the proposed project are not available.

8. Effect on Other Resources: The project will require approximately $15,000 per year in increased funding for maintenance and operations.

U.S. GOVERNMENT PRINTING OFFICE 1973-703-173 343

1. COMPONENT	FY 19 81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		10 Feb 1981

3. INSTALLATION AND LOCATION
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	

9. Siting of the Project: See Site Location Map.

10. Economic Analysis: An ECIP Economic Analysis Summary has been made by the Base Maintenance Department, Marine Corps Base, Camp Lejeune. See Attachment 1.

11. Quantitative Data: Not applicable.

S/N 0102-LF-001-3915 U.S. GOVERNMENT PRINTING OFFICE 1978 - 703-173 34312-1

ECIP ECONOMIC ANALYSIS SUMMARY

ACTIVITY & LOCATION Marine Corps Base, Camp Lejeune P-_____

TITLE OF PROJECT Boiler Plant Oxygen Sensing and Trim Systems FY-81

INVESTMENT

1. PROJECT COSTS (Economic life of 15 years)
   a. Project cost escalated to end of program year.... $290,609
   b. Design costs not yet obligated ..... $ 7,266
   c. Total Project Cost (a + b) $297,875

SAVINGS

2. ANNUAL ELECTRICITY SAVINGS: KWH:_____
   a. Equivalent energy: KWH x 0.0116 .....(MBTU's: $_____)
   b. Cost per KWH at end of program year ..... $_____
   c. First year annual dollar savings (KWH x b) ..... $_____
   d. Differential escalation present worth factor ....
   e. Discounted savings (c x d) ..... $_____

3. ANNUAL ENERGY SAVINGS (TYPE: Oil MBTU's: 22,983)
   a. Cost per MBTU at end of program year ..... $ 5.95
   b. First year annual dollar savings $136,749
   c. Differential escalation present worth factor 13.112
   d. Discounted savings (b x c) $1,793,053

4. ANNUAL ENERGY SAVINGS (TYPE: Coal MBTU's: 10,152)
   a. Cost per MBTU at end of program year ..... $ 2.287
   b. First year annual dollar savings ..... $ 23,218
   c. Differential escalation present worth factor 10.798
   d. Discounted savings (b x c) $250,708

5. ANNUAL OTHER-THAN-ENERGY SAVINGS (OR COSTS)
   a. Labor ..... $(13,894)
   b. Material & Other ..... $ (1,000)
   c. Total (a + b) ..... $(14,894)
   d. 10% Discount Factor 7.98
   e. Discounted Other-than-energy savings (or costs) . $(118,854)

6. TOTAL FIRST YEAR ANNUAL SAVINGS (2c + 3b + 4b + 5c) .. $ 174,861

7. TOTAL DISCOUNTED SAVINGS (2e + 3d + 4d + 5e) ..... $ 2,162,615

COST ESCALATION

Current rates as of _____	Elec	$_____	x _____	x _____	x _____	x _____	=	$_____
	Oil	$ 5.95	x _____	x _____	x _____	x _____	=	$ 5.95
	Gas	$_____	x _____	x _____	x _____	x _____	=	$_____
	Coal	$2.287	x _____	x _____	x _____	x _____	=	$ 2.287

RATIOS

8. DISCOUNTED SAVINGS/INVESTMENT RATIO (Line 7 ÷ 1c) 7.26
9. TOTAL MBTU SAVINGS 33,185 ÷ (Line 1a ÷ 1000) 114
10. SIMPLE PAYBACK PERIOD (1a ÷ Line 6) ..... 1.70 YRS

NOTE: For ETAP projects use line 1c in lines 9 and 10 in lieu of 1a.

Enclosure (3)

Fi
ECEP
Sellen
T. A.

UNITED STATES MARINE CORPS
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO

PWO:408:DVM:hf
P-793
27 MAR 1981

From: Commanding General
To: Commandant of the Marine Corps (Code LFF-1)
Via: (1) Commander, Atlantic Division, Naval Facilities Engineering Command, Norfolk, VA 23511
(2) Commander, Naval Facilities Engineering Command, Alexandria, VA 22332

Subj: Exigent Minor Construction Project P-793, Boiler Plant Oxygen Sensing and Trim System

Ref: (a) MCO P11000.12A

Encl: (1) Project Package consisting of DD Form 1391 and NAVFAC Form 11013/7 dtd 13 Mar 1981
(2) Site Location Map
(3) Certificate of Compliance
(4) Economic Analysis Package

1. Reference (a) provides detailed guidance for submission of Exigent Minor MILCON Projects. A project to reduce oil consumption in 29 boilers is submitted as enclosures (1) through (4) in accordance with reference (a). The basis of submission is the savings from quick payback.

2. Inclusion in a subsequent MILCON Program will significantly delay completion of the project, resulting in continued excessive energy usage of existing boilers. Installation of Oxygen Sensing and Trim Systems is supported by enclosure (4).

3. Approval of the project at a total funded cost of $346,000 is requested.

D. B. BARKER

Advance Copy to:
CMC (LFF-1)(w/encl)

Blind Copy to: (w/encl)
AC/S, Fac
BMaintO

1. COMPONENT	FY 19 81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		13 MAR 1981

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542	BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	821-09	P-793	$346

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
BOILER OXYGEN SENSING AND TRIM SYSTEMS	LS	-	-	298
- SYSTEMS WITH TEMPERATURE PROBE AND RECORDER	EA	4	15,094	(60)
- SYSTEMS WITH RECORDER	EA	25	9,500	(238)
TOTAL COST	LS	-	-	298
CONTINGENCY - 10%	LS	-	-	30
ESTIMATED CONTRACT COST	LS	-	-	328
SUPERVISION, INSPECTION, OVERHEAD - 5.5%	LS	-	-	18
TOTAL FUNDS REQUESTED	LS	-	-	346
PLANNING AND DESIGN - 6%	LS	-	-	20.8
INSTALLED EQUIP OTHER APPROPRIATIONS	-	-	-	-

10. DESCRIPTION OF PROPOSED CONSTRUCTION

INSTALL OXYGEN TRIM AND SENSING SYSTEMS, INCLUDING ALL WIRING AND MECHANICAL MODIFICATIONS TO DAMPERS AND OIL VALVES NECESSARY TO INTERFACE THESE SYSTEMS TO 29 BOILERS.

11. REQUIREMENTS:

PROJECT: INSTALL OXYGEN SENSING AND TRIM SYSTEMS ON FOUR COAL-FIRED BOILERS AND 25 OIL-FIRED BOILERS.

REQUIREMENT: TO REDUCE FUEL USAGE IN THESE BOILERS BY IMPROVING THE COMBUSTION CHARACTERISTICS OF THE BOILERS.

CURRENT SITUATION: SINCE THESE BOILERS DO NOT PRESENTLY HAVE SENSING AND TRIM SYSTEMS, THEY CANNOT BE MAINTAINED AT PEAK OPERATING PERFORMANCE.

IMPACT IF NOT PROVIDED: FUEL AND ENERGY WASTE DUE TO BOILER OPERATION AT LESS THAN PEAK EFFICIENCY.

DVM

S/N 0102-LF-001-3910 ☆U. S. Government Printing Office: 1979—603-076/6547 2-1

ENCL (1)

1. COMPONENT	FY 19 81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		13 MAR 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	P-793

SPECIAL CONSIDERATIONS TO BE APPLIED, AS APPLICABLE:

1. Pollution Prevention, Abatement, and Control: This project will not cause additional air or water pollution.

2. Flood Hazard Evaluation: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.

3. Environmental Impact: The project Environmental Impact Assessment has been made, reviewed, and where required, the design concepts give consideration to eliminating adverse environmental effects consistent with applicable directives.

4. Fallout Shelter Construction: Fallout shelter protection is incorporated in the facility.

5. Design for Accessibility of Physically Handicapped Personnel: Provisions for physically handicapped personnel are not required in this facility.

6. Use of Air Conditioning: Ceiling "U" factors will be made to conform with DOD 4270.1-M.

7. Preservation of Historical Sites and Structures: The project facility does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.

8. "New Start" Criteria for Commercial or Industrial Activities Program (OMB Circular A-76): Not applicable.

1. COMPONENT	FY 1981 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		13 MAR 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	P-793

FACILITY STUDY

1. Project: This project will reduce energy consumption by providing the means to ensure peak operating efficiency in the boilers. This project will provide for an oxygen sensing and trim system, including temperature probes and recording meters for four coal fired steam generating boilers, and oxygen sensing and trim systems with recording meters for 25 oil fired boilers.

a. Site Location:

(1) Hadnot Point Area: Boilers 1, 2, 3, and 4 - Bldg 1700.

(2) Paradise Point Area: Boilers 9 and 10, Bldg 2615; boilers 80 and 81, Bldg 5400; boilers 12 and 13, Bldg 825.

(3) Geiger Area: Boilers 83, 84, and 85 - Bldg G-650.

(4) MCAS(H): Boiler 11 - Bldg AS-705.

(5) Montford Point: Boilers 33, 73, and 74 - Bldg M-625; Boilers 38, 39, and 40 - Bldg M-230.

(6) Courthouse Bay Area: Boiler 50 - Bldg A-1.

(7) Tarawa Terrace Area: Boilers 78 and 79 - Bldg TT-60; Boilers 31 - Bldg TT-2455.

(8) French Creek Area: Boilers 62 and 63, Bldg FC-202.

(9) Onslow Beach Area: Boilers 64 and 65 - Bldg BA-106.

(10) Midway Park Area: Boiler 21 - Bldg LCH-4003.

2. Current and Planned Future Workload with Regard to this Project: The steam plants involved in this project are presently producing approximately 1.5 billion pounds of steam annually. The demand on these facilities for producing steam at the current levels or higher is expected to continue as a necessary requirement through the life of the proposed project.

3. Description of Proposed Construction:

a. Type of Construction: Permanent.

b. Replacement: Not applicable.

S/N 0102-LF-001-3915 U.S. GOVERNMENT PRINTING OFFICE: 1978—703-173/3431 2-1

1. COMPONENT	FY 19_81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		13 MAR 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	P-793

c. Description of Work to be Done:

(1) Primary Facility: This project will consist of the installation of an oxygen sensing and trim system, including recorders and temperature probes on 29 boilers located in the Camp Lejeune complex.

(2) Energy Conservation: This project will conserve 33,135 MBTU of energy each year.

4. Cost Estimate: Area Construction Index is 0.95; contingency factor to be utilized is 10 percent. The data is applicable to FY-81. Cost data derived utilizing standard manufacture's estimate for this type of equipment and its installation costs.

5. Justification for Project and Scope of Project:

a. Justification for Project.

(1) Project: The proposed project will provide for energy conservation through more efficient operation of fuel consuming boiler plants.

(2) Requirement: Marine Corps Order 4100.4A of 27 April 1979 requires a 20 percent energy use reduction measured against FY-1975 by FY-1985. Energy shortages and substantially increased costs for energy have also made energy conservation a necessity.

(3) Current Situation: The boilers included in this project are not presently equipped with oxygen sensing and trim systems.

(4) Impact if Not Provided: Energy losses due to operation of boiler plants at less than peak efficiency.

b. Justification for Scope of Project: The boilers included in this project provide the majority of the steam generated for the Camp Lejeune complex.

6. Equipment Provided from Other Appropriations: None.

7. Common Support Facilities: Common support facilities that can satisfy the requirements for the proposed project are not available.

8. Effect on Other Resources: The project will require approximately $15,000 per year in increased funding for maintenance and operations.

S/N 0102-LF-001-3915 U.S. GOVERNMENT PRINTING OFFICE: 1978 - 703-173/34312-1

1. COMPONENT	FY 19 81 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		13 MAR 1981

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS	P-793

9. Siting of the Project: See enclosure (1).

10. Economic Analysis: An Economic Analysis has been made in support of this project submission. See enclosure (2).

11. Quantitative Data: Not applicable.

U.S. GOVERNMENT PRINTING OFFICE: 1978 — 703-173/3431 2-1

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

COST ESTIMATE

DATE PREPARED: 13 MAR 1981

SHEET 1 OF 1

ACTIVITY AND LOCATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA 28542

CONSTRUCTION CONTRACT NO.

IDENTIFICATION NUMBER: P-793

ESTIMATED BY: V. MARSHBURN

CATEGORY CODE NUMBER: 821-09

PROJECT TITLE
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS

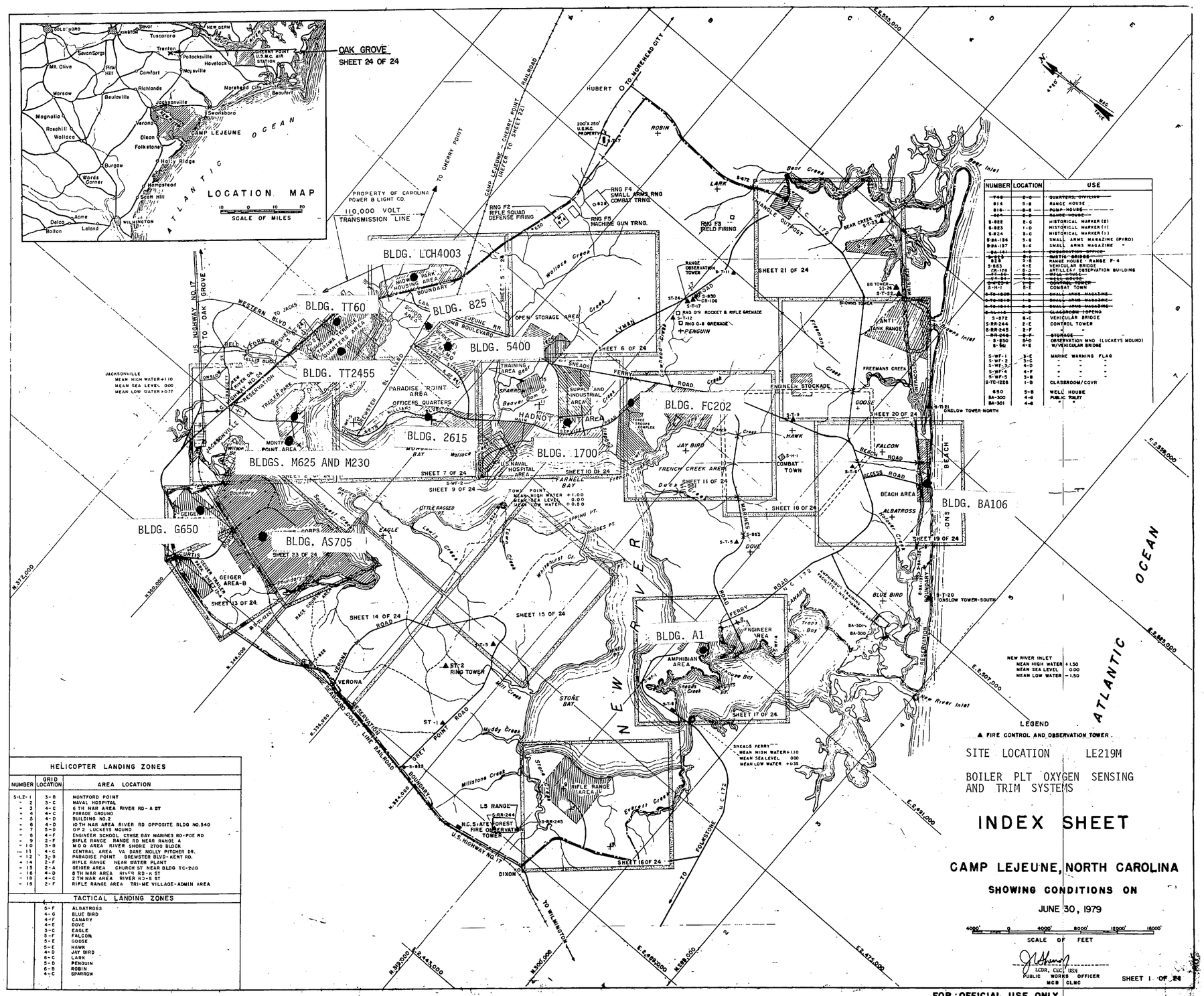
STATUS OF DESIGN: [X] PED [ ] 30% [ ] 100% [ ] FINAL [ ] Other (Specify) _____

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
INSTALL SENSING SYSTEM WITH TEMPERATURE								
PROBE & RECORDER	4	EA	-	-	-	-	15,094	60,000
INSTALL SENSING SYSTEM W/RECORDER	25	EA	-	-	-	-	9,500	238,000
SUBTOTAL	-	LS	-	-	-	-	-	298,000
CONTINGENCY - 10%	-	LS	-	-	-	-	-	29,800
SUBTOTAL	-	LS	-	-	-	-	-	327,800
S. I. O. H. - 5.5%	-	LS	-	-	-	-	-	18,000
TOTAL							SAY:	346,000

S/N 0105-LF-010-1335

☆U. S. Government Printing Office: 1979—603-076/8486 2-1



NUMBER	LOCATION	USE
~~940~~	~~2-D~~	~~QUARTERS, OFFICER~~
814	5-B	RANGE HOUSE
818	5-B	PUMP HOUSE
~~664~~	~~5-B~~	~~RANGE HOUSE~~
S-82E	E-C	HISTORICAL MARKER (E)
S-82S	I-D	HISTORICAL MARKER (I)
S-82A	I-C	HISTORICAL MARKER (I)
S-84-136	5-B	SMALL ARMS MAGAZINE (PYRO)
S-84-137	5-C	SMALL ARMS MAGAZINE "
~~84-141~~	~~5-C~~	~~PYROTECHNICS OFFICE~~
~~825~~	~~5-B~~	~~RANGE HOUSE - RANGE F-4~~
S-863	4-E	VEHICULAR BRIDGE
S-RR-105	5-J	ARTILLERY OBSERVATION BUILDING
~~84-84~~	~~5-J~~	~~SHELTER~~
~~84-84~~	~~5-J~~	~~WELL HOUSE~~
S-H-1	5-E	CONTROL TOWER
S-H-1	5-E	COMBAT TOWN
~~S-TC-1606~~	~~1-B~~	~~SMALL ARMS MAGAZINE~~
~~S-TC-1611~~	~~1-B~~	~~SMALL ARMS MAGAZINE~~
~~S-TC-1612~~	~~1-B~~	~~SMALL ARMS MAGAZINE~~
~~S-TC-1613~~	~~1-B~~	~~CLASSROOM (COVD)~~
S-872	6-C	VEHICULAR BRIDGE
S-RR-244	2-E	CONTROL TOWER
S-RR-245	2-F	" "
~~AR-266~~	~~5-F~~	~~STORAGE~~
S-850	5-D	OBSERVATION MND (LUCKEYS MOUND)
S-96	4-E	W/VEHICULAR BRIDGE
S-WF-1	5-E	MARINE WARNING FLAG
S-WF-2	5-C	" " "
S-WF-3	4-D	" " "
S-WF-4	4-F	" " "
S-WF-5	5-B	" " "
S-TC-1226	1-B	CLASSROOM/COVR
650	5-B	WELL HOUSE
BA-300	4-B	PUBLIC TOILET
BA-301	4-B	" "

HELICOPTER LANDING ZONES		
NUMBER	GRID LOCATION	AREA LOCATION
S-LZ-1	3-B	MONTFORD POINT
" 2	3-C	NAVAL HOSPITAL
" 3	4-C	6 TH MAR AREA RIVER RD- A ST
" 4	4-C	PARADE GROUND
" 5	4-D	BUILDING NO.2
" 6	4-D	10TH MAR AREA RIVER RD OPPOSITE BLDG NO.540
" 7	5-D	OP 2 LUCKEYS MOUND
" 8	4-F	ENGINEER SCHOOL CTHSE BAY MARINES RD-POE RD
" 9	2-F	RIFLE RANGE RANGE RD NEAR RANGE A
" 10	3-B	M O Q AREA RIVER SHORE 2700 BLOCK
" 11	4-C	CENTRAL AREA VA. DARE HOLLY PITCHER DR.
" 12	3-B	PARADISE POINT BREWSTER BLVD-KENT RD.
" 14	2-F	RIFLE RANGE NEAR WATER PLANT
" 15	2-A	GEIGER AREA CHURCH ST NEAR BLDG TC-200
" 16	4-D	8 TH MAR AREA RIVER RD-A ST
" 18	4-C	2 TH MAR AREA RIVER RD-E ST
" 19	2-F	RIFLE RANGE AREA TRI-ME VILLAGE-ADMIN AREA

TACTICAL LANDING ZONES	
5-F	ALBATROSS
4-G	BLUE BIRD
4-F	CANARY
4-E	DOVE
3-C	EAGLE
5-F	FALCON
5-E	GOOSE
5-E	HAWK
4-D	JAY BIRD
6-C	LARK
5-D	PENGUIN
6-B	ROBIN
4-C	SPARROW

LEGEND

▲ FIRE CONTROL AND OBSERVATION TOWER

SITE LOCATION LE219M

BOILER PLT OXYGEN SENSING AND TRIM SYSTEMS

INDEX SHEET

CAMP LEJEUNE, NORTH CAROLINA

SHOWING CONDITIONS ON

JUNE 30, 1979

4000' 0 4000' 8000' 12000' 16000'

SCALE OF FEET

LCDR, CEC, USN
PUBLIC WORKS OFFICER
MCB CLNC

SHEET 1 OF 24

FOR OFFICIAL USE ONLY

CAMP LEJEUNE, N.C.

ENGL (2)

CERTIFICATE OF COMPLIANCE

For Minor Construction Projects Undertaken Under

Authority of 10 USC 2674

Military Department or Defense Agency: United States Marine Corps

Installation: Marine Corps Base, Camp Lejeune, North Carolina

Project description, specific purpose and cost: P-793, Install Oxygen Sensing and Trim System on 29 Boilers.

This project will install Oxygen Sensing and Trim Systems on 29 boilers basewide. The installation of this equipment is necessitated by the high cost of fuel oil which has greatly increased the cost of steam production. An economic analysis accompanies this certificate as supporting documentation for project accomplishment.

The project cost is estimated to be $346,000.

This project has been determined to be urgently required because of excessive wasting of energy by existing boiler operations.

This Command does not have resources, nor the funding authority to accomplish this project, nor would programming through the Military Construction Program provide a solution in a timely manner.

I certify that the project described above is in compliance with 10 USC 2674 and DOD implementing regulations. Further, the project is essential and represents the minimum requirement for the specific purpose to be supported by the project. I have taken every reasonable action to verify the accuracy of these statements.

Responsible Official:

Name, Position Title	Signature	Date

Approving Officers:

Name, Position Title	Signature	Date
Name, Position Title	Signature	Date

COST ANALYSIS FOR
EXIGENT MINOR MILCON PROJECT P-793
BOILER PLANT OXYGEN SENSING AND TRIM SYSTEMS
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

I. Background, Objective, and Alternatives

This analysis investigates the economy of installing oxygen sensing and trim systems on 29 boilers throughout Marine Corps Base, Camp Lejeune, and Marine Corps Air Station (Helicopter), New River. Presently there are 4 coal-fired and 25 oil-fired boilers in operation.

The objective is to continue producing industrial-processed steam in the most economical manner. The alternatives are:

Alternative A - Continue with current operating procedures ("Status Quo")

The 29 boilers do not have sensing and trim systems. Therefore, they cannot be maintained at peak operating performance. Continued operation will result in fuel and energy wastes.

Alternative B - Install Oxygen Sensing and Trim Systems

This project will reduce energy consumption by providing the means to ensure peak operating efficiency in the boilers. The estimated construction cost is $346,000.

II. Discounted Payback Summary

The costs for Alternatives A and B are discussed in Attachments "A" and "B", respectively. The following is a summary of Present Value (PV) costs for three years:

	Alternative A	Alternative B
Investment	0	$ 346,000
PV 3 year O&M	$18,856,462	$18,478,267

Cumulative Present Value Savings are:

Project Year	Alt. A Cost	Alt. B Cost	Savings	Discount Factor	PV Savings	Cumulative PV Savings
1	$7,227,468	$7,082,510	$144,958	.954	$138,289	$138,289
2	7,227,468	7,082,510	144,958	.867	125,678	263,967
3	7,227,468	7,082,510	144,958	.788	114,226	378,193

Payback occurs within the three-year period. The discounted payback period is estimated, using linear interpolation, as shown on the next page:

x = Discounted Payback Period in years

$$\frac{x - 0}{1 - 0} = \frac{\$346,000 - 0}{\$138,289 - 0} = 2.5 \text{ years}$$

The discounted payback period is 2.5 years, within the three year payback criterion.

III. Assumption

Installation of oxygen sensing and trim equipment will necessitate the following increase in O&MMC funds: Labor - $13,894; Material - $1,000. Recurring fuel cost will be decreased as summarized in Attachment "B".

IV. Cost and Present Value Summaries

Costs for Alternatives A and B are summarized on the attached formats; cost estimate was derived from current suppliers' prices.

V. Other Considerations

An Environmental Impact Assessment has been made, and it has been determined that the proposed project will not have a significant impact on the environment nor is it highly controversial. If Alternative A is not implemented, the boilers will continue to operate; however, potential savings will not be realized. If Alternative B is implemented, the PV savings over the first three years will be $378,193. Furthermore, energy savings for the three years will be 99,405 MBTU, or equivalent to 721,371 gallons #2 fuel oil.

VI. Conclusion and Recommendation

Implementation of Alternative B will provide a rapid payback primarily through saving FY-1982 and FY-1983 O&MMC funds. Therefore, it is recommended that Project P-793 be funded through the Exigent Minor MILCON program.

TYPE II ECONOMIC ANALYSIS
SUMMARY OF COSTS
FORMAT A

1. Submitting Department of the Navy Component: MCB, Camp Lejeune, NC

2. Date of Submission:

3. Project Title: Install Oxygen Sensing and Trim System, P-793.

4. Description of Project Objective: Continue present operation.

5. Alternative: A - Status Quo.

6. Economic Life: Three-year payback criterion.

8. Program/Project Costs						
7. Project Year(s)	a. Nonrecurring		b. Recurring	c.	d.	e.
	R&D	Investment	Operations	Annual Cost	Discount Factor	Discounted Cost
1	0	0	7,227,468	7,227,468	.991	7,162,420
2	0	0	7,227,468	7,227,468	1.964	14,194,747
3	0	0	7,227,468	7,227,468	2.919	21,096,979
9. TOTALS						42,454,146

10a. Total Project Cost (discounted) 42,454,146
10b. Uniform Annual Cost (without terminal value)

11. Less Terminal Value (discounted)
12a. Net Total Project Cost (discounted) 42,454,146
12b. Uniform Annual Cost (with terminal value)

SECONDARY ECONOMIC ANALYSIS
SUMMARY OF COSTS
FORMAT A

13. Source/Derivation of Cost Estimates: (Use as much space as required)

a. Non-Recurring Costs:

1.) Research & Development:

2.) Investment:

b. Recurring Cost(s):

Fuel Costs: $7,227,468

c. Net Terminal Value:

d. Other Considerations:

14. Name & Title of Principal Action Officer	Date

ATTACHMENT "A" FOR ALTERNATIVE A

Present operations include 29 boilers (25 oil-fired and 4 coal-fired). Cost of coal and fuel oil is current rate being charged to this facility.

✓ 1. Boilers 1, 2, 3, & 4, Bldg. 1700:

Coal:

(31,771.3 tons) ($56.21) = $1,785,865

(31,771.3 tons) (24.58 MBTU/ton) = 780,939 MBTU

#6 Fuel Oil:

(2,506,170 gal) ($0.87/gal) = $2,180,367

(2,506,170 gal) (0.1524 MBTU/gal) = 381,940 MBTU

2. Boilers 9 & 10, Bldg. 2615:

#6 Fuel Oil:

(318,122 gal) ($0.87/gal) = $276,766

(318,122 gal) (0.1524 MBTU/gal) = 48,481 MBTU

3. Boilers 12 & 13, Bldg. 825:

#2 Fuel Oil:

(51,186 gal) ($1.22/gal) = $62,446

(51,186 gal) (0.1378 MBTU/gal) = 7053 MBTU

✓ 4. Boilers 33, 73, & 74, Bldg. M-625:

#6 Fuel Oil:

(851,575 gal) ($0.87/gal) = $740,870

(851,575 gal) (0.1524 MBTU/gal) = 129,780 MBTU

✓ 5. Boilers 38, 39, & 40, Bldg. M-230:

#2 Fuel Oil:

(119,252 gal) ($1.22/gal) = $145,487

(119,252 gal) (0.1378 MBTU/gal) = 16,432 MBTU

6. Boiler 50, Bldg. A-1:

   #2 Fuel Oil:

   (20,632 gal) ($1.22/gal) = $25,171

   (20,632 gal) (6.1378 MBTU/gal) = 2,843

✓ 7. Boilers 62 & 63, Bldg. FC-202:

   #2 Fuel Oil:

   (60,601 gal) ($1.22/gal) = $73,933

   (60,601 gal) (0.1378 MBTU/gal) = 8,350 MBTU

8. Boilers 64 & 65, Bldg. BA-106:

   #2 Fuel Oil:

   (139,521 gal) ($1.22/gal) = $170,215

   (139,521 gal) (0.1378 MBTU/gal) = 19,225 MBTU

9. Boilers 80 & 81, Bldg. 5400:

   #2 Fuel Oil:

   (22,739 gal) ($1.22/gal) = $27,741

   (22,739 gal) (0.1378 MBTU/gal) = 3,133 MBTU

✓ 10. Boilers 83, 84, & 85, Bldg. G-650:

   #6 Fuel Oil:

   (1,884,290 gal) ($0.87/gal) = $1,639,332

   (1,884,290 gal) (0.1524 MBTU/gal) = 287,165 MBTU

11. Boiler 11, Bldg. AS-705:

   #2 Fuel Oil:

   (36,058 gal) ($1.22/gal) = $43,990

   (36,058 gal) (0.1378 MBTU/gal) = 4,968 MBTU

12. Boilers 78 & 79, Bldg. TT-60:

#2 Fuel Oil:

(20,563 gal) ($1.22/gal) = $25,086

(20,563 gal) (0.1378 MBTU/gal) = 2,833 MBTU

13. Boiler 31, Bldg. TT-2455:

#2 Fuel Oil:

(9,754 gal) ($1.22/gal) = $11,899

(9,754 gal) (0.1378 MBTU/gal) = 1,344 MBTU

14. Boiler 21, Bldg. LCH-4003:

#2 Fuel Oil:

(15,000 gal) ($1.22/gal) = $18,300

(15,000 gal) (0.1378 MBTU/gal) = 2,067 MBTU

15. TOTALS (Annual):

Fuel Costs: $7,227,468

Energy Usage: 1,696,553 MBTU

TYPE II ECONOMIC ANALYSIS
SUMMARY OF COSTS
FORMAT A

1. Submitting Department of the Navy Component: Marine Corps

2. Date of Submission:

3. Project Title: Install Oxygen Sensing and Trim System, P-793

4. Description of Project Objective: Reduce fuel consumption in 29 boilers.

5. Alternative: B - Install equipment.

6. Economic Life: Three-year payback criterion.

8. Program/Project Costs						
7. Project Year(s)	a. Nonrecurring		b. Recurring	c.	d.	e.
	R&D	Investment	Operations	Annual Cost	Discount Factor	Discounted Cost
0	0	346,000	0	346,000	1.000	346,000
1	0	0	7,082,510	7,082,510	.991	7,018,767
2	0	0	7,082,510	7,082,510	1.964	13,910,049
3	0	0	7,082,510	7,082,510	2.919	20,673,846
9. TOTALS						41,948,662

10a. Total Project Cost (discounted) 41,948,662
10b. Uniform Annual Cost (without terminal value)

11. Less Terminal Value (discounted)
12a. Net Total Project Cost (discounted) 41,948,662
12b. Uniform Annual Cost (with terminal value)

SECONDARY ECONOMIC ANALYSIS
SUMMARY OF COSTS
FORMAT A

13. Source/Derivation of Cost Estimates: (Use as much space as required)

a. Non-Recurring Costs:

1.) Research & Development:

2.) Investment:

Project P-793: $346,000

b. Recurring Cost(s):

Fuel:	$7,067,616
Labor:	13,894
Material:	1,000
	$7,082,510

c. Net Terminal Value:

d. Other Considerations:

14. Name & Title of Principal Action Officer	Date

ATTACHMENT "B" FOR ALTERNATIVE B

A. Proposed project will install oxygen sensing and trim systems on 29 boilers (25 oil-fired and 4 coal-fired). Costs of coal and fuel oil are the current rates being charged to this facility. The following cost/ energy savings will be realized if this project is approved:

1. Boilers 1, 2, 3 & 4, Bldg. 1700:

   Trim system should provide 1.3% annual reduction in fuel use.

   Coal:

   (31,771.3 tons) (0.013) = 413.03 tons

   (413.03) ($56.21) = $23,216.42

   (413.03 tons) (24.58 MBTU/ton) = 10,152.58 MBTU

   #6 Fuel Oil:

   (2,506,170 gal) (0.013) = 32,580.2 gal

   (32,580.2 gal) ($0.87/gal) = $28,344.78

   (32,580.2 gal) (0.1524 MBTU) = 4,965.22 MBTU

2. Boilers 9 & 10, Bldg. 2615:

   #6 Fuel Oil:

   Trim system - 2.8% savings.

   (318,122 gal) (0.028) = 8,907 gal

   (8,907 gal) ($0.87/gal) = $7,749

   (8,907) (0.1524) = 1,357 MBTU

3. Boilers 12 & 13, Bldg. 825:

   #2 Fuel Oil:

   1% savings

   (51,186 gal) (0.01) = 512 gal

   (512 gal) (1.20/gal) = $624

   (512 gal) (0.1378 MBTU/gal) = 71 MBTU

4. Boilers 33, 73, 74, Bldg M-625:

   #6 Fuel Oil:

   2.43% savings

   (851,575 gal)(0.0243) = 20,693 gal

   (20,693) ($0.87) = $18,003

   (20,693) (0.1524) = 3,154 MBTU

5. Boilers 38, 39, 40, Bldg M-230:

   #2 Fuel Oil:

   2.05% savings

   (119,252) (0.0205) = 2,445 gal

   (2,445) ($1.22) = $2,983

   (2,445) (0.1378) = 337 MBTU

6. Boiler 50, Bldg A-1:

   #2 Fuel Oil:

   6.3% savings

   (20,632 gal) (0.063) = 1,300 gal

   (1,300) ($1.22) = $1,586

   (1,300) (0.1378 MBTU) = 179 MBTU

7. Boilers 62, 63, Bldg FC-202

   #2 Fuel Oil:

   2.2% savings

   (60,601) (0.022) = 1,333 gal

   (1,333 gal) ($1.22) = $1,626

   (1,333 gal) (0.1378) = 184 MBTU

8. Boilers 64, 65, Bldg BA-106:

   #2 Fuel Oil:

   2.35% savings

   (139,521 gal) (0.0235) = 3,279 gal

   (3,279) ($1.22) = $4,000

   (3,279) (0.1378) = 452 MBTU

9. Boilers 80, 81, Bldg 5400:

   #2 Fuel Oil:

   4.7% savings

   (22,739 gal) (0.047) = 1,069 gal

   (1,069) ($1.22) = $1,304

   (1,069) (0.1378) + 147 MBTU

10. Boilers 83, 84 85, Bldg G-650:

    #6 Fuel Oil:

    4.1% savings

    (1,884,290) (0.041) = 77,276 gal

    (77,276) ($0.97) = $67,230

    (77,276) (0.1524) = 11,777 MBTU

11. Boiler 11, Bldg AS-705:

    #2 Fuel Oil:

    2.1% savings

    (36,058) (0.021) = 757 gal

    (757) ($1.22) = $924

    (757) (0.1378) = 104 MBTU

12. Boilers 78, 79, Bldg TT-60:

    #2 Fuel Oil:

    4.2% savings

    (20,563 gal) (0.042) = 864 gal

    (864) ($1.22) = $1,054

    (864) (0.1338) = 119 MBTU

13. Boiler 31, Bldg TT-2455:

    #2 Fuel Oil:

    4% savings

    (9,754 gal) (0.04) = 390 gal

    (390) ($1.22) = $476

    (390) (0.1378 MBTU) = 54 MBTU

14. Boiler 21, LCH-4003:

    #2 Fuel Oil:

    4% savings

    (15,000) (0.04) = 600 gal

    (600) ($1.32) = $732

    (600) (0.1378) = 83 MBTU

Total Annual Savings

	COSTS	ENERGY
#2 Fuel	$108,291	18,018 MBTU
#6 Fuel	28,345	4,965 MBTU
Coal	23,216	10,152 BMTU
Total:	$159,852	33,135 MBTU

Operating Costs after Installation of Oxygen Sensing and Trim System

($7,227,468) - ($159,852) = $7,067,616

Energy Savings after Installation of Oxygen Sensing and Trim System = 33,135 MBTU/Year

B. Installation of this equipment will require an increase in labor and material costs:

Labor - $13,894/year

Material - $1,000/year

TAB PLACEMENT HERE

DESCRIPTION:

Install Energy management system.

☒ Tab page did not contain hand written information

☐ Tab page contained hand written information
*Scanned as next image

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

INSTALL ENERGY MANAGEMENT SYSTEM

T-4300
ECIP File
7.4.

UNITED STATES MARINE CORPS
Marine Corps Base
Camp Lejeune, North Carolina 28542

DFM/SFP/imj
11010
MAR 10 1981

From: Base Commander
To: Commandant of the Marine Corps (Code LFF-3)

Subj: Improvement Project Development EC 1-81

Ref: (a) Telecon btwn HqMC (Code LFF-3) Mr. Onderdonk and Dir, Fam Hsg, Mr. Brinn on 24 Feb 81

Encl: (1) Project Package for EC 1-81, Install Energy Management System consisting of DD Form 1391 and 1391c of 6 Mar 81; NAVFAC Form 11013/7 of 6 Mar 81; Economic Analysis Study of 6 Mar 81; and Site Location Maps (3)

1. As requested by the reference, enclosure (1) is forwarded for continuing action.

L. D. BRINN
By direction

Blind copy to:
PWO (less encl 1)
BMaintO
Fam Hsg, Fac Mgmt Br (Willie)

1. COMPONENT	FY 1982 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		6 Mar 81

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542	Install Energy Management System

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	711-XXX	HC 1-81	522.5

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Total cost	LS	-	-	458.9
Contingencies - 10%	LS	-	-	45.9
Estimated contractcost	LS	-	-	504.8
Supervision, inspections, overhead - 3.5%	LS	-	-	17.7
Total funds requested	LS	-	-	522.5
Design costs - 6%	LS	-	-	31.4
Installed equip other appropriations	-	-	-	-

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Install radio-controlled load-shedding equipment to control family housing hot water heaters and air conditioners. Interface new equipment with station energy management control system.

11. Requirement

Project. Install load shedding equipment.

Requirement. To control electrical demand in family housing with minimum inconvenience to tenants.

Current Situation. Increased costs and uncontrol of electrical usage has resulted in excessive costs to the government.

Impact if not Provided. The station will continue to pay excessive electrical costs.

Additional. An economic analysis has been prepared for this project. The simple payback period is 1.58 years.

1. COMPONENT	FY 1982 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		6 Mar 81

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
Install Energy Management System	HC 1-81

1. PROJECT. Provide radio-controlled load-shedding equipment in 3,751 Marine Corps Family Housing Units.

2. CURRENT AND PLANNED FUTURE WORKLOAD WITH REGARD TO THIS PROJECT. The percentage of usage for these units is 100 percent of the time and the duration of need is indefinite.

3. DESCRIPTION OF PROPOSED CONSTRUCTION

a. Type of Construction

(1) Installation of electrical load-shedding equipment in family housing unit.

b. Replacement. NA

c. Description of Work to be Done

(1) Primary Facilities. Radio controlled electrical load shedding equipment to be installed in the following houses:

(a) Capehart - 1235 ea.

(b) Wherry Housing - 1842 ea.

(c) Pre-1950 Housing - 423 ea.

(d) Townhouses - 250 ea.

(2) Energy Conservation. Installed equipment will reduce consumption at MCB and MCAS as reflected in attached economic analysis.

4. COST ESTIMATE. Cost data derives from information provided by MCAS, Beaufort, SC.

5. JUSTIFICATION FOR PROJECT AND FOR SCOPE OF PROJECT

a. Justification for Project

(1) Project. Proposed project is required to reduce energy consumption and peak demand in family housing.

(2) Current Situation. Increased electrical costs and uncontrol of electrical usage has resulted in excessive costs to the government.

(3) Impact if not Provided. Excessive electrical costs will continue.

1. COMPONENT	FY 1982 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		6 Mar 81

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
Install Energy Management System	HC 1-81

6. JUSTIFICATION FOR SCOPE OF PROJECT. The project scope is required to meet the desired decrease in electrical usage and demand charges.

7. COMMON SUPPORT FACILITIES. The station energy management control system will be utilized in monitoring and controlling load-shedding equipment.

8. EFFECT ON OTHER RESOURCES. This project will decrease O&MMC utility funds an estimated $337,027 as reflected in attached economic analysis.

9. SITING OF THE PROJECT. Load shedding equipment will be installed in the following areas:

a. Berkeley Manor

b. Paradise Point

c. MCAS(H) New River

d. Tarawa Terrace I and II

e. Courthouse Bay

f. Rifle Range

g. Naval Regional Medical Center

h. Watkins Village

10. OTHER GRAPHIC PRESENTATIONS, INCLUDING PHOTOGRAPH. NA

11. ECONOMIC ANALYSIS. An economic analysis is attached in support of this project.

12. ENVIRONMENTAL IMPACT. An environmental impact assessment of the area has been made and it has been determined that this project will have neither a significant impact on the environment nor is it highly controversial.

13. QUANTITATIVE DATA

a. BFRC Requirement. NA

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

COST ESTIMATE

DATE PREPARED: 6 March 1981

SHEET 1 OF 1

ACTIVITY AND LOCATION: Marine Corps Base, Camp Lejeune, North Carolina

CONSTRUCTION CONTRACT NO.:

IDENTIFICATION NUMBER: HC 1-81

ESTIMATED BY: V. Marshburn

CATEGORY CODE NUMBER: 711-XXX

PROJECT TITLE: Install Energy Management System

STATUS OF DESIGN: [X] PED [ ] 30% [ ] 100% [ ] FINAL [ ] Other (Specify) _____

JOB ORDER NUMBER:

ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		ENGINEERING ESTIMATE	
	NUMBER	UNIT	UNIT COST	TOTAL	UNIT COST	TOTAL	UNIT COST	TOTAL
Install load-shedding equipment	3751	EA	-	-	-	-	118.88	445,937
Interface with EMCS system	1	LS	-	-	-	-	LS	13,000
Subtotal								458,937
Contingencies (10%)								45,893
Subtotal								504,830
S.I.O.H. (3.5%)								17,670
Subtotal								522,500
Design costs (6%)								31,350
Total estimated cost								553,850

S/N 0105-LF-010-1775

ECIP ECONOMIC ANALYSIS SUMMARY

ACTIVITY & LOCATION: Marine Corps Base, Camp Lejeune, NC — P- HC 1-81

TITLE OF PROJECT: Install energy management system — FY-81

INVESTMENT

1. PROJECT COSTS (Economic life of 15 years)
   - a. Project cost escalated to end of program year.... $ 522,500
   - b. Design costs not yet obligated ..... $
   - c. Total Project Cost (a + b) ..... $ 522,500

SAVINGS

2. ANNUAL ELECTRICITY SAVINGS: KWH: 2,805,335
   - a. Equivalent energy: KWH x 0.0116 .....(MBTU's: $ 32541.9)
   - b. Cost per KWH at end of program year ..... $ .02473
   - c. First year annual dollar savings (KWH x b) ..... $ 69375
   - d. Differential escalation present worth factor 12.278
   - e. Discounted savings (c x d) ..... $ 851786

3. ANNUAL ENERGY SAVINGS (TYPE: _____ MBTU's: _____)
   - a. Cost per MBTU at end of program year ..... $
   - b. First year annual dollar savings ..... $
   - c. Differential escalation present worth factor .....
   - d. Discounted savings (b x c) ..... $

4. ANNUAL ENERGY SAVINGS (TYPE: Elec demand KW MBTU's: 42017)
   - a. Cost per MBTU at end of program year ..... $ 6.37
   - b. First year annual dollar savings ..... $ 267652
   - c. Differential escalation present worth factor 12.278
   - d. Discounted savings (b x c) ..... $ 3286231

5. ANNUAL OTHER-THAN-ENERGY SAVINGS (OR COSTS)
   - a. Labor ..... $
   - b. Material & Other ..... $
   - c. Total (a + b) ..... $
   - d. 10% Discount Factor .....
   - e. Discounted Other-than-energy savings (or costs) . $

6. TOTAL FIRST YEAR ANNUAL SAVINGS (2c + 3b + 4b + 5c) .. $ 337,027

7. TOTAL DISCOUNTED SAVINGS (2e + 3d + 4d + 5e) ..... $ 4,138,017

COST ESCALATION

Current rates as of _____								
	Elec	$ ____	x ____	x ____	x ____	x ____	=	$ .02473
	Oil	$ ____	x ____	x ____	x ____	x ____	=	$ ____
	Gas	$ ____	x ____	x ____	x ____	x ____	=	$ ____
	Demand	$ ____	x ____	x ____	x ____	x ____	=	$ 6.37

RATIOS

8. DISCOUNTED SAVINGS/INVESTMENT RATIO (Line 7 ÷ 1c) 7.92
9. TOTAL MBTU SAVINGS _____ ÷ (Line 1a ÷ 1000) 36.8
10. SIMPLE PAYBACK PERIOD (1a ÷ Line 6) ..... 1.58 YRS

NOTE: For ETAP projects use line 1c in lines 9 and 10 in lieu of 1a.

* U.S. GOVERNMENT PRINTING OFFICE: 1979--684-396/2150

ENERGY CALCULATIONS

Electrical Consumption Reductions, 3,751 Marine Corps Family Housing

8760 Hrs/Year
Scheduled Automatic Off Period = 14 min/hr - 0.23 hr
Scheduled for 24 Hour Period Continuous

A/C Unit 3.5 KW/Unit Avg.

Hot Water Heater: Assume 1 element on at a time. (4.65 KW) ÷ 2 = 2.25 KW

Total Load: AC: 3.5 KW
HWH: 2.25 KW
5.75 KW

A/C summer only:
Cooling degree hrs: 1481 hrs (CLNC)

(1481 c.d. hrs) X (.23 hr/hr off) = 340 hrs saved

A/C consumption savings:
(340 hrs) 3.5 KW/Unit) = 1192 KWH/Unit/Year
(1192 KWH) (3751 units) = 4,471,192 KWH/Year

Hot Water Heater Savings

Assume 1.28 Hr/Day operation (on)
(365 days) 1.28 hr/day) = 467.4 hrs
(467.4 hrs) (2.25KW) = 1051.67 KWH/Year/Unit
(1051.67 KWH) (3751 Units) = 3,944,814 KWH/Year

Total Savings

A/C Savings	=	4,471,192 KWH
HWH Savings	=	3,944,814 KWH
Total Potential		8,416,006 KWH

ASSUME = 1/3 ACTUAL SAVINGS = 2,805,335 KWH

TAB PLACEMENT HERE

DESCRIPTION:

Amphib Vehicle maint shop

P-346

☒ Tab page did not contain hand written information

☐ Tab page contained hand written information
*Scanned as next image

Confidential Records Management, Inc.
New Bern, NC
1-888-622-4425
9/08

1. COMPONENT	FY 1983 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542	AMPHIB VEHICLE MAINT SHOP

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
	213-75	P-346	$6,400

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
VEHICLE MAINTENANCE SHOP	SF	53,250	76.23	4,059
BUILDING	SF	53,250	71.46	(3,805)
BUILT-IN EQUIPMENT	LS	-	-	(152)
SOLAR HOT WATER HEATING SYSTEM	LS	-	-	(102)
SUPPORTING FACILITIES	LS	-	-	1,741
SPECIAL CONSTRUCTION FEATURES	LS	-	-	(56)
UTILITIES	LS	-	-	(205)
6" INSULATED STEAM LINE	LS	-	-	(358)
2" INSULATED CONDENSATE LINE	LS	-	-	(121)
STEAM LINE SUPPORT POSTS, ETC.	LS	-	-	(89)
STEAM PLANT EXPANSION	LS	-	-	(225)
ROADS, PARKING, SIDEWALKS	LS	-	-	(288)
SITE IMPROVEMENTS/DEMOLITION	LS	-	-	(197)
REFUEL STA, 4 VEH W/OIL TANK & POL DUMP	LS	-	-	(94)
VEH WASH APRONS/INSPECTION & LOAD RAMPS	LS	-	-	(108)
SUBTOTAL				5,800
CONTINGENCY - 5%				290
TOTAL CONTRACT COST				6,090
SUPERVISION, INSPECTION & OVERHEAD - 5.5%				335
TOTAL REQUEST				6,425
TOTAL REQUEST (ROUNDED)				6,400
EQUIPMENT PROVIDED FROM OTHER APPROPRIATIONS				-

Two-story maintenance facility with high bays. Constructed of reinforced concrete/steel frame building; masonry walls; pile foundation; concrete floors with built-up insulated roof; air-conditioned administrative space; shop; storage; mechanical, toilet, and vending areas. Project includes utility connections with supporting facilities (i.e., concrete and flexible pavements, refuel station, oil tank, POL dump, ramps, pits, wash station, security lighting, fencing, and fire alarm system.) Pollution abatement and energy conservation are included for this project. 6,370 feet of 6" insulated steam line, 6,370 feet of 2" insulated condensate return line and overhead support post and brackets. Expansion of present steam plant, BB-9. Air conditioning: 8 tons.

11. REQUIREMENTS: 53,250 SF ADEQUATE: 0 SF SUBSTANDARD: 55,840 SF
PROJECT: Provide two-story maintenance facility with utility connections and supporting facilities for the 2d Marine Division Amphibian Battalion.
REQUIREMENT: There is a deficiency of 53,250 SF of adequate Amphibian Vehicle Maintenance Shop which is required to carry out the prescribed maintenance program for the Amphibian Battalion's vehicles.
CURRENT SITUATION: Maintenance programs are being performed in substandard World War II metal buildings which fail to meet the standards required to maintain the modern sophisticated equipment and support components and cannot be rehabilitated economically.

S/N 0102-LF-001-3910 ☆U. S. Government Printing Office: 1979—603-078/6547 2-1

MAS. HIGGINBOTHAM 7383 7109

ENCL (3)

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINTENANCE SHOP	P-346

IMPACT IF NOT PROVIDED: The 2d Marine Division Amphibian Battalion vehicles and support components will be adversely affected, and maintenance capability and combat readiness will continue to be seriously impaired.

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINT SHOP	P-346

SPECIAL CONSIDERATIONS

1. Pollution Prevention, Abatement, and Control: This project will not cause additional air or water pollution.

2. Flood Hazard Evaluation: Requirements of Executive Order No. 11296 (Flood Hazards) are not applicable.

3. Environmental Impact: The project Environmental Impact Assessment has been made, reviewed, and where required, the design concepts give consideration to eliminating adverse environmental effects consistent with applicable directives.

4. Fallout Shelter Construction: Fallout shelter protection is incorporated in the facility.

5. Design for Accessibility of Physically Handicapped Personnel: Provisions for physically handicapped personnel are not required in this facility.

6. Use of Air Conditioning: Ceiling "U" factors will be made to conform with DOD 4270.1-M.

7. Preservation of Historical Sites and Structures: The project facility does not directly or indirectly affect a district, site, building, structure, object, or setting which is listed in the National Register or otherwise possesses a significant quality of American history.

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINT SHOP	P-346

FACILITY STUDY

1. Project. Provide an Amphibian Vehicle Maintenance Shop, complete with connecting utilities and support facilities.

2. Current and Planned Future Workload with Regard to this Project. The percentage of usage for this facility is 100 percent of the time and the duration of need is indefinite. There is no projected decrease in the necessary maintenance and repair of organizational equipment required to be performed in the facility.

3. Description of Proposed Construction.

a. Type of Construction.

(1) Permanent two-story Amphibian Vehicle Maintenance Shop building of steel frame and masonry construction with pile and reinforced concrete foundation, floors and roof, masonry walls, built-up roof, insulation, interior and exterior utility systems, refuel station, oil tank, and POL dump.

(2) Reinforced concrete wash aprons with pollution controls and steam; rigid and flexible walks and parking pavements; security fencing; exterior lighting; site improvements; demolition; erosion control, etc.

(3) Installation of 6,370 feet of overhead 6" insulated steam line and 2" insulated condensate return line. Expansion of BB-9 steam plant.

b. Replacement. Not applicable. Existing facilities will be temporarily utilized to satisfy deficiencies until new facilities are constructed at which time they will be demolished.

c. Description of Work to be Done.

(1) Primary Facility. Modular reinforced concrete/steel masonry structures on pile foundation.

(a) Support Facilities. Rigid and flexible pavements, security fencing and lighting, utilities, site improvement, refuel station, oil tank, POL dump, and wash station.

(2) Energy Conservation. Energy efficient equipment and building orientation for maximum energy conservation will be utilized.

(3) Collateral Equipment.

S/N 0102-LF-001-3915 U.S. GOVERNMENT PRINTING OFFICE: 1978—703-173/3431 2-1

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINT SHOP	P-346

Description	Qty	Unit of Issue	Unit Price	Total Cost
Shipping, Packing, Handling, Installation Charges, & Contingencies - 10%				8,918
(c) Investment Items: None				
(d) APA Equipment: None				
(e) Training Equipment:				
Projector, movie	2	EA	650	1,300
Screen, movie	2	EA	235	470
Projector, overhead	2	EA	375	750
TOTAL TRAINING EQUIPMENT:				2,520
Transportation & Installation - 10%				252
(f) Equipment on Hand: None				
(g) Summary:				
Expense Cost				$98,356
Training Cost				$ 2,520
GRAND TOTAL				$100,876

(4) Supporting Facilities. Special piling, foundation, refuel station, wash rack, oiltank, POL dump, collateral equipment, site improvements, pollution abatement, solar hot water system, and demolition of the following facilities upon completion of project:

Category Code	Bldg. No.	Total Assets (SF)	Adeq.	Substandard	Inadeq.	Year Built	Type Constr.
21375	A2	13,600		X		1942	P
21375	A3	42,240		X		1942	P
		55,840 TOTAL SF					

U.S. GOVERNMENT PRINTING OFFICE: 1978—703-173/34312-1

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINT SHOP	P-346

4. Cost Estimate. Area cost factor for Camp Lejeune, N. C. is 0.95. Cost data derived from the Military Construction Cost Review Guide, FY-82 (DOD 4270.1-CG), and escalated to FY-82 to provide for this proposed facility.

5. Justification for Project and for Scope of Project.

a. Justification for Project.

(1) Project: Proposed facility is required to provide the 2d Assault Amphibian Battalion adequate and secure facilities to perform track vehicle and organizational equipment maintenance.

(2) Current Situation: Personnel are working in substandard and makeshift facilities, temporary WW-II Butler type metal buildings with open bays and oil space heaters for heat located in the Courthouse Bay Area.

(3) Impact If Not Provided. Personnel will continue to function in substandard and makeshift facilities, resulting in time-consuming and inefficient operations with loss of work time and wasted energy.

b. Justification for Scope of Project: The project scope is the minimum size facility that can meet the deficiency requirements of 53,250 SF of space to replace existing facilities presently in use. See Item 13.

6. Equipment Provided from Other Appropriations: Not applicable.

7. Common Support Facilities: There are no common support facilities available in the Courthouse Bay Area.

8. Effect on Other Resources: The project will require approximately $12,000 per year increased O&MMC funds for increased utility services and operations. No additional personnel will be required to operate this facility. The project will enhance and improve the morale of personnel presently working in substandard facilities. Proposed construction should be responsible to the challenges presented by the energy situation and comply with the requirements of Executive Order 12003 of 20 July 1977 and implemented by NAVFACINST 4100.5A.

UTILITY REQUIREMENTS:

a. Electricity:

Consumption	139,920	KWHR/yr
Peak Demand	109	KW
Avg. Demand	79	KW

1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542

4. PROJECT TITLE	5. PROJECT NUMBER
AMPHIB VEHICLE MAINT SHOP	P-346

b. Steam: Consumption 20,776,107 lbs/yr
Demand 7,440 lbs/hr

c. Coal: 812.4 tons/yr

9. Siting of the Project: The facility is located in the 2d Marine Division, Assault Amphibian Battalion, Courthouse Bay Area. Siting of facility is in compliance with the latest Camp Lejeune Master Plan. See enclosure (1).

10. Other Graphic Presentations, including Photographs: See enclosure (2).

11. Economic Analysis: This facility is being constructed on an undeveloped site adjacent to a developed area. Economic saving will be in nominal energy consumption savings to be realized from efficient operations. This is a military operational project in support of an operational mission located in this area.

12. Environmental Impact: An Environmental Impact Assessment of the area has been made and it has been determined that this project will have neither a significant impact on the environment nor is it highly controversial.

13. Quantitative Data.

a. BFRL Requirement (Courthouse Bay Area (IA)): 53,250 SF. NAVFAC P-80 states that the requirement for Category Code 213-75. Amphibian Vehicle Maintenance Shop, is determined from definitive drawings given in NAVFAC P-272, Part IV. The total requirements are 53,250 SF.

NAVFAC Drawing No.	Activity	Area (SF)
1294442(M)	2d Assault Amphibian Bn., 2d Marine Division	53,250

b. Existing Assets: (To be demolished upon completion of project.)

FACILITY NUMBER	TOTAL ASSETS (SF)	ADEQUATE	SUBSTD	INADEQUATE	YEAR BUILT	TYPE CONSTRUCTION
A2	13,600		13,600		1942	P
A3	42,240		42,240		1942	P
	55,840 TOTAL		55,840 TOTAL			

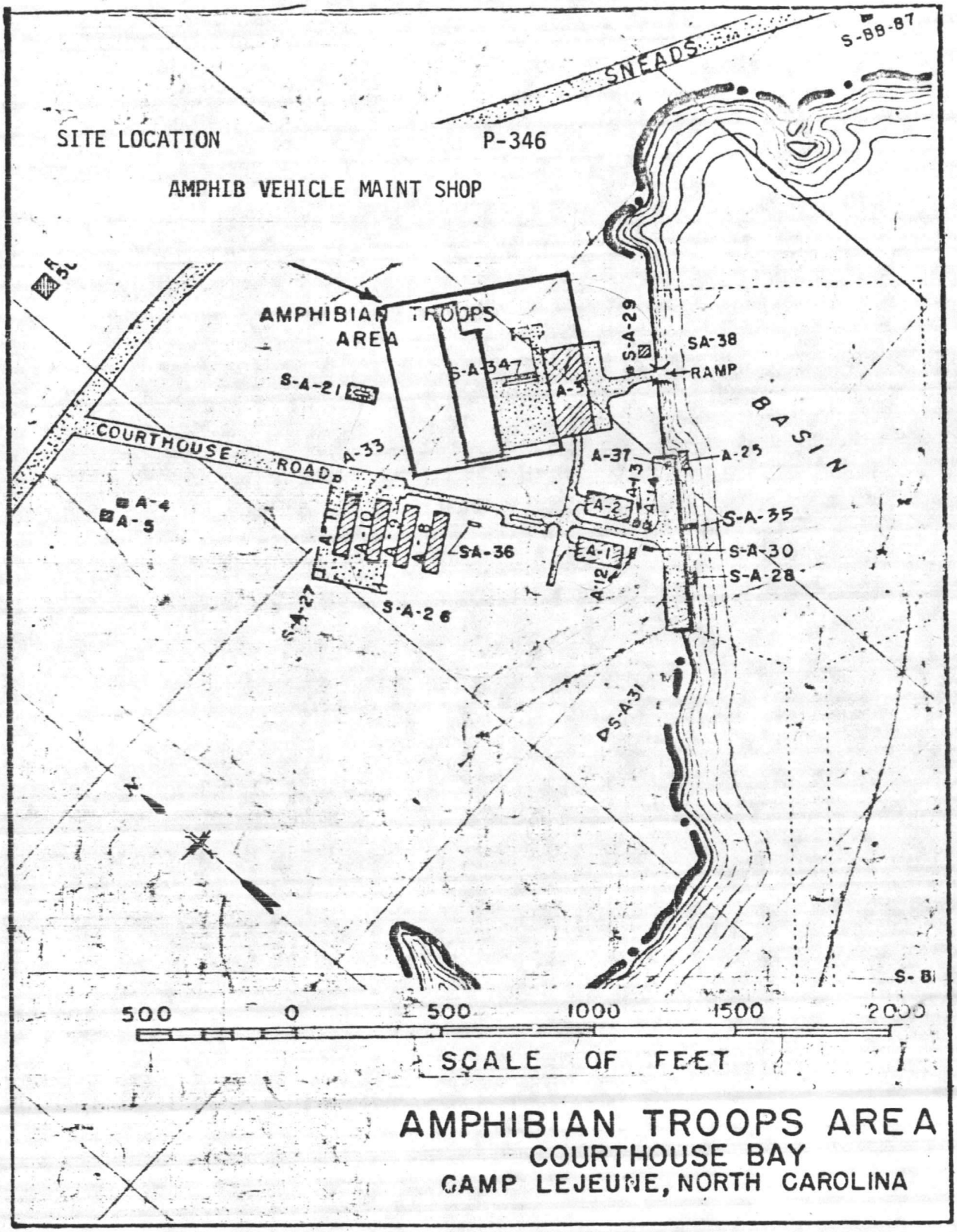
1. COMPONENT	FY 19 83 MILITARY CONSTRUCTION PROJECT DATA	2. DATE
NAVY		1 AUG 1980

3. INSTALLATION AND LOCATION	
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA 28542	
4. PROJECT TITLE	**5. PROJECT NUMBER**
AMPHIB VEHICLE MAINT SHOP	P-346

c. Planned Facilities:

Project No.	Area (SF)	Status
P-346	53,250	FY-83 Program

S/N 0102-LF-001-3915
U.S. GOVERNMENT PRINTING OFFICE: 1978—703-173/34312-1


SNEADS
S-88-87
SITE LOCATION
P-346
AMPHIB VEHICLE MAINT SHOP
AMPHIBIAN TROOPS AREA
S-A-34
S-A-29
SA-38
RAMP
S-A-21
A-3
BASIN
COURTHOUSE ROAD
A-33
A-37
A-25
A-4
A-5
A-2
A-13
A-14
S-A-35
SA-36
A-1
S-A-30
S-A-28
A-12
S-A-27
S-A-26
DS-A-31
500 0 500 1000 1500 2000
SCALE OF FEET
AMPHIBIAN TROOPS AREA
COURTHOUSE BAY
CAMP LEJEUNE, NORTH CAROLINA

ENCLOSURE (1)