

IMPORTANT

THIS AMENDMENT MUST BE ACKNOWLEDGED WHEN YOUR BID IS SUBMITTED. FAILURE TO ACKNOWLEDGE THE AMENDMENT MAY CONSTITUTE GROUNDS FOR REJECTION OF THE BID. IF YOUR BID HAS BEEN SUBMITTED PRIOR TO THE RECEIPT OF THIS AMENDMENT, ACKNOWLEDGEMENT MAY BE MADE BY TELEGRAM, WHICH SHOULD STATE WHETHER THE PRICE CONTAINED IN YOUR SEALED BID IS TO REMAIN UNCHANGED, IS TO BE DECREASED BY AN AMOUNT, OR IS TO BE INCREASED BY AN AMOUNT. THE ACKNOWLEDGEMENT MUST BE RECEIVED PRIOR TO BID OPENING TIME UNLESS THERE IS EVIDENCE THAT IT MAY BE ACCEPTED PURSUANT TO THE PROVISIONS OF THE DEFENSE ACQUISITION REGULATIONS.

NOTE: TELEGRAMS WILL NOT BE DELIVERED TO CAMP LEJEUNE UNLESS PHYSICAL DELIVERY IS SPECIFIED AT TIME OF FILING AND SHOWING THAT DELIVERY CHARGES HAVE BEEN PAID IN ADVANCE.

*If not completed by 5/7/84
notify David L*

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. AMENDMENT/MODIFICATION NO. <u>1</u>	2. EFFECTIVE DATE <u>18 July 83</u>	3. REQUISITION/PURCHASE REQUEST NO.	4. PROJECT NO. (If applicable) <u>Spec. No. 05-83</u>
5. ISSUED BY CODE _____ Officer in Charge of Construction Jacksonville, North Carolina Area Building 1005, Marine Corps Base Camp Lejeune, North Carolina 28542		6. ADMINISTERED BY (If other than block 5) CODE _____	

7. CONTRACTOR NAME AND ADDRESS CODE _____ FACILITY CODE _____ (Street, city, county, state, and ZIP Code)	8. AMENDMENT OF SOLICITATION NO. <input checked="" type="checkbox"/> <u>N62470-83-B-5842</u> DATED <u>28 July 1983</u> (See block 9) MODIFICATION OF CONTRACT/ORDER NO. _____ DATED _____ (See block 11)
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9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS
 The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers is extended, is not extended.
 Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods:
 (a) By signing and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

10. ACCOUNTING AND APPROPRIATION DATA (If required)

11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS
 (a) This Change Order is issued pursuant to _____
 The Changes set forth in block 12 are made to the above numbered contract/order.
 (b) The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12.
 (c) This Supplemental Agreement is entered into pursuant to authority of _____
 It modifies the above numbered contract as set forth in block 12.

12. DESCRIPTION OF AMENDMENT/MODIFICATION
REPAIR WATER WELLS, BLDGS. 610 and M-628
at the
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

SECTION 00101. BIDDING INFORMATION

1. CONTENTS

(c) Contract Documents

(v) General Provisions

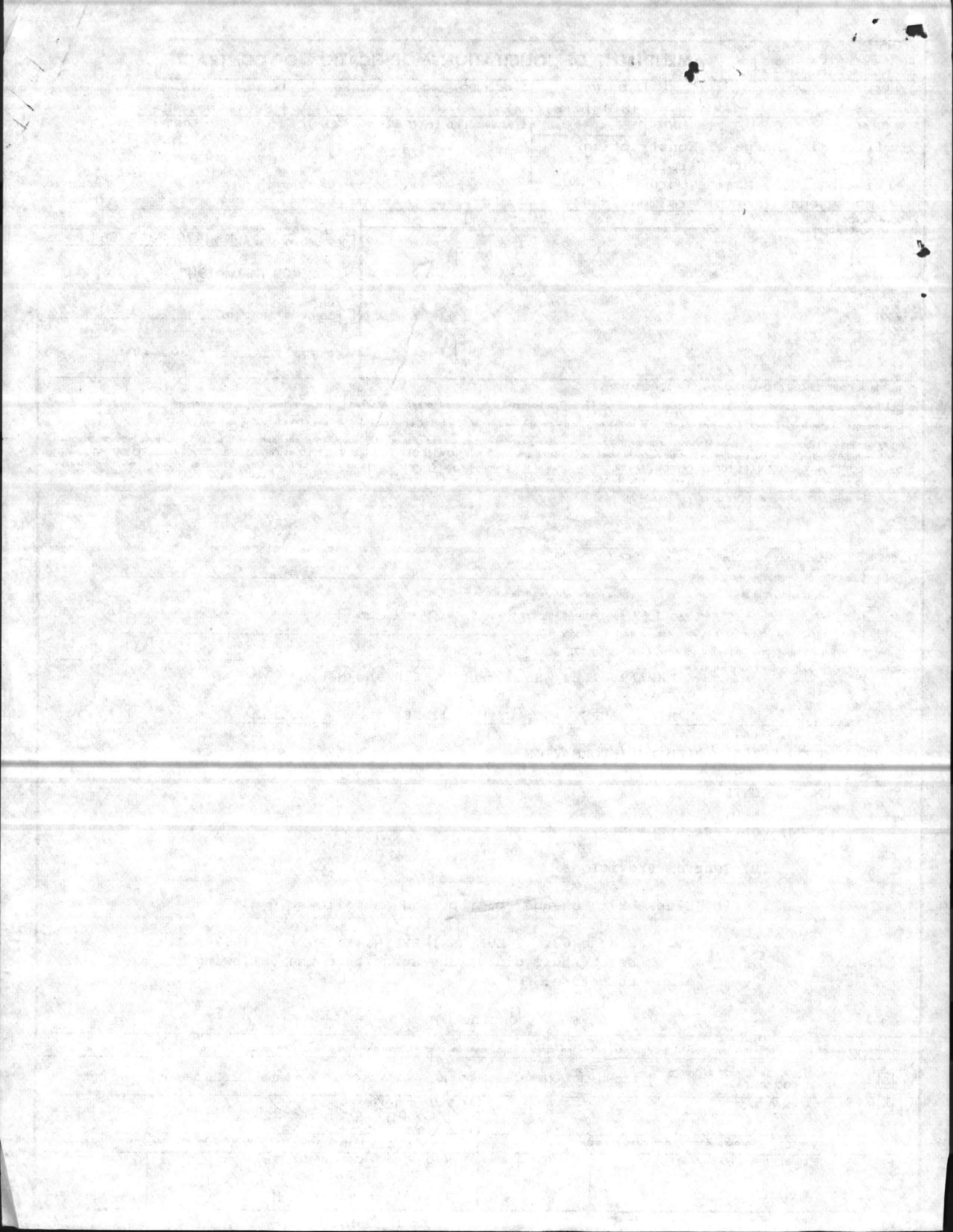
(b) Clause 97: Change "b." to read as follows:

"b. Clause 63. VALUE ENGINEERING INCENTIVE (1977 AUG):
Delete this clause and substitute the following
therefore:

(continued)

Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.

13. <input type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE	
14. NAME OF CONTRACTOR/OFFEROR BY _____ (Signature of person authorized to sign)	17. UNITED STATES OF AMERICA <i>M. L. Ennett</i> BY M. L. ENNETT By direction (Signature of Contracting Officer)
15. NAME AND TITLE OF SIGNER (Type or print)	16. DATE SIGNED
18. NAME OF CONTRACTING OFFICER (Type or print) R. E. CARLSON, CDR, CEC, USN for COMNAVFACENGCOM	19. DATE SIGNED 18 July 83



"63. VALUE ENGINEERING INCENTIVE--CONSTRUCTION (1980 DEC):

(a) Applicability. This clause applies to any Contractor developed, prepared, and submitted Value Engineering Change Proposal (VECP).

(b) Definitions.

(1) "Contractor's development and implementation costs" means those costs incurred on a VECP Government acceptance and those costs the Contractor incurs specifically to make the changes required by Government acceptance of a VECP.

(2) "Government costs" means those agency costs that result directly from developing and implementing the VECP and any net increases in the cost of testing, operations, maintenance, and logistic support. They do not include the normal administrative costs of processing the VECP.

(3) "Instant contract savings" means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs (including subcontractors' development and implementation costs). (See paragraph (g).)

(4) "Value Engineering Change Proposal (VECP) means a proposal that:

(i) requires a change to this, the instant contract, to implement; and
(ii) results in reducing the contract price or estimated cost without impairing essential functions or characteristics, provided that it does not involve a change in deliverable end-item quantities only.

(c) VECP preparation. As a minimum, the Contractor shall include the information described in (1) through (6) in each VECP. If the proposed change affects contractually required configuration management procedures, the instructions in the procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for both the affected portions of the existing contract requirement and the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (g). The Contractor shall also include a description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and supports costs.

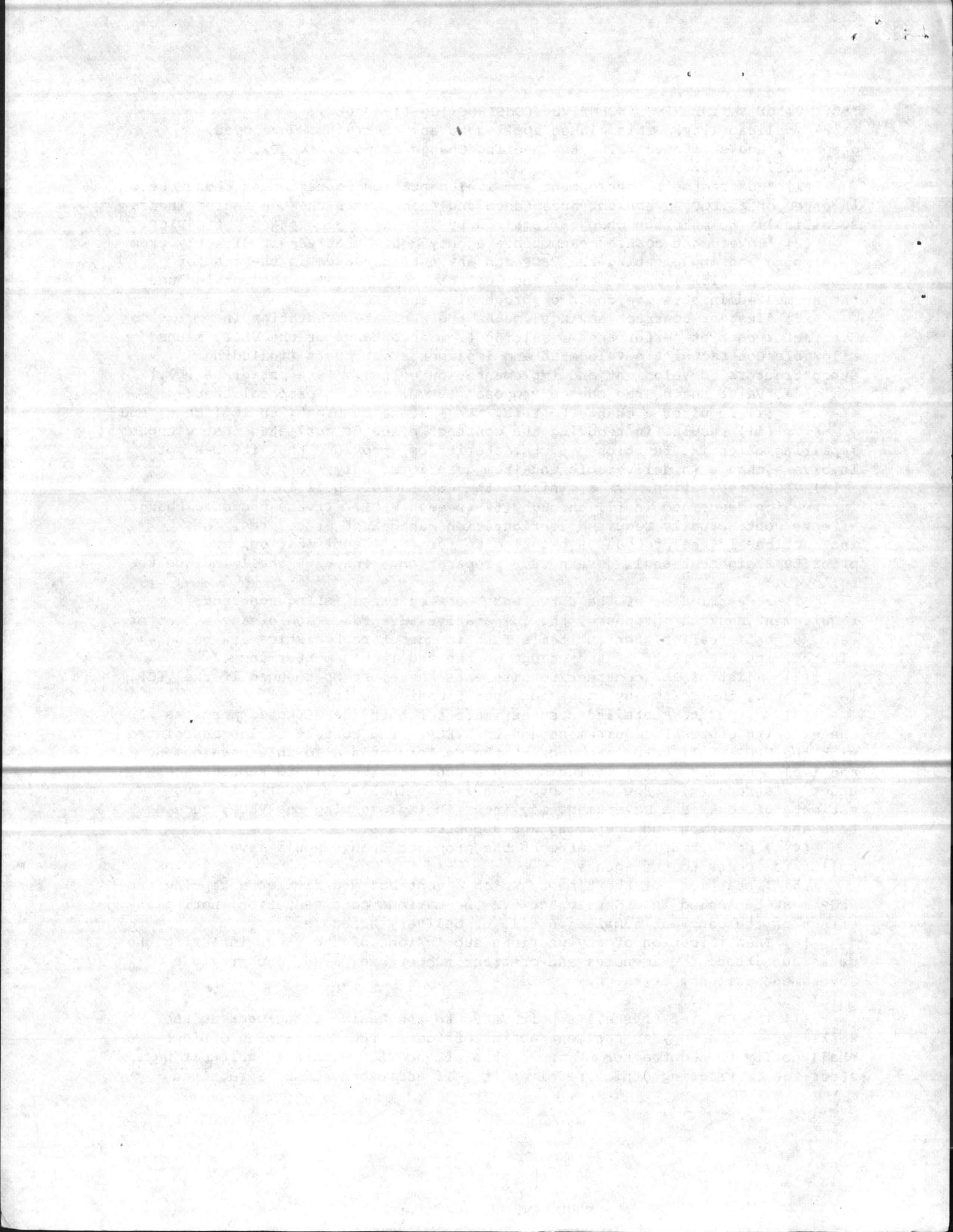
(4) A projection of any effects the proposed change would have on collateral costs to the agency.

(5) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(6) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submissions.

(1) The Contractor shall submit VECPs to the Resident Engineer at the worksite, with a copy to the Contracting Officer. The Contracting Officer shall notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required



because of extenuating circumstances, the Contractor shall be notified within the 45-day period and provided the reason for the delay and the expected date of the Contracting Officer's decision. VECPs shall be processed expeditiously; however, the Government shall not be liable for any delay in acting upon a VECP.

(2) If the VECP is not accepted, the Contracting Officer shall provide the Contractor written notification fully explaining the reasons for rejection. The Contractor may withdraw, in whole or in part, any VECP not accepted by the Government within the period specified in the VECP. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(e) Acceptance. Any VECP may be accepted in whole or in part by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The Contracting Officer's decision to accept all or part of any VECP shall be final and not subject to the Disputes clause.

(f) Sharing.

(1) Rates. The Contractor's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by 55 percent for fixed-price contracts and 25 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to:

(i) accept the VECP;

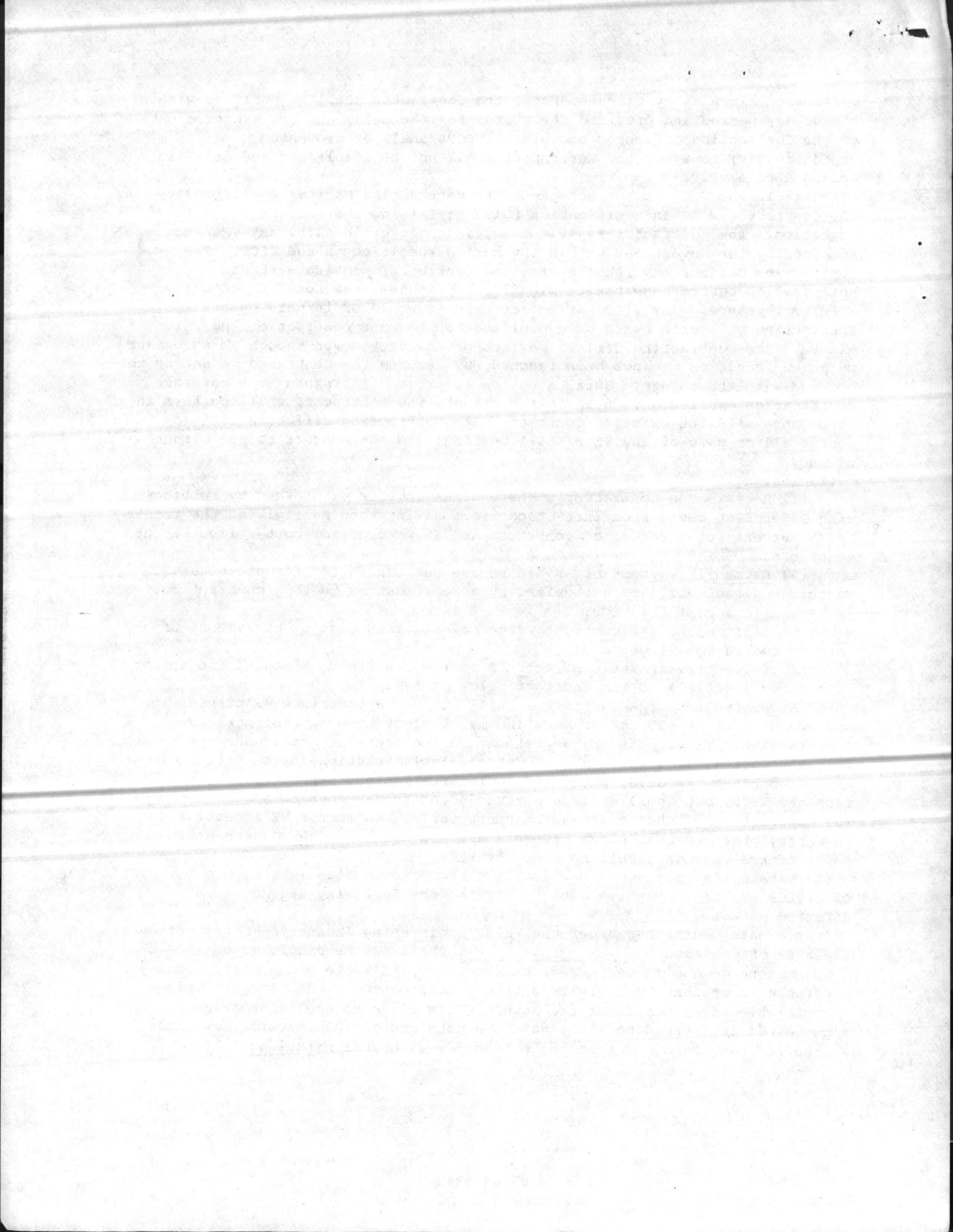
(ii) reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) provide the Contractor's share of savings by adding the amount calculated in (f)(1) to the Contract price or fee.

(g) Subcontracts. The Contractor shall include appropriate VE clauses in any subcontract of \$50,000 or more and may include them in subcontracts of lesser value. To compute any adjustment in the contract price under paragraph (f), the Contractor's VECP development and implementation costs shall include any subcontractor's development and implementation costs that clearly result from the VECP, but shall exclude any VE incentive payments to subcontractors. The Contractor may choose any arrangement for subcontractor VE incentive payments, provided that these payments are not made from the Government's share of the savings resulting from the VECP.

(h) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering Incentive--Construction clause of Contract _____, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a VECP submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations."



If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data."

SECTION 00101. BIDDING INFORMATION

1. CONTENTS

(c) Contract documents

(v) General Provisions

(b) After the above change to this clause, insert the following:

"c. Clause 97. AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (1978 SEP): Change the date of this clause to "(1982 FEB)".

SECTION 01012. ADDITIONAL GENERAL PARAGRAPHS:

12. AS-BUILT DRAWINGS: At the end of this paragraph insert the following:

"12.1 Finished Reproducible As-Built Drawings on 8-1/2 inch by 11 inch paper shall be provided for:

a. Well screens including type of metal and size of slots at a minimum

b. lead packer

c. Well profile showing locations of screens, piping, static water level, pumping level and maximum drawdown level."

SECTION 15201. WELL REHABILITATION

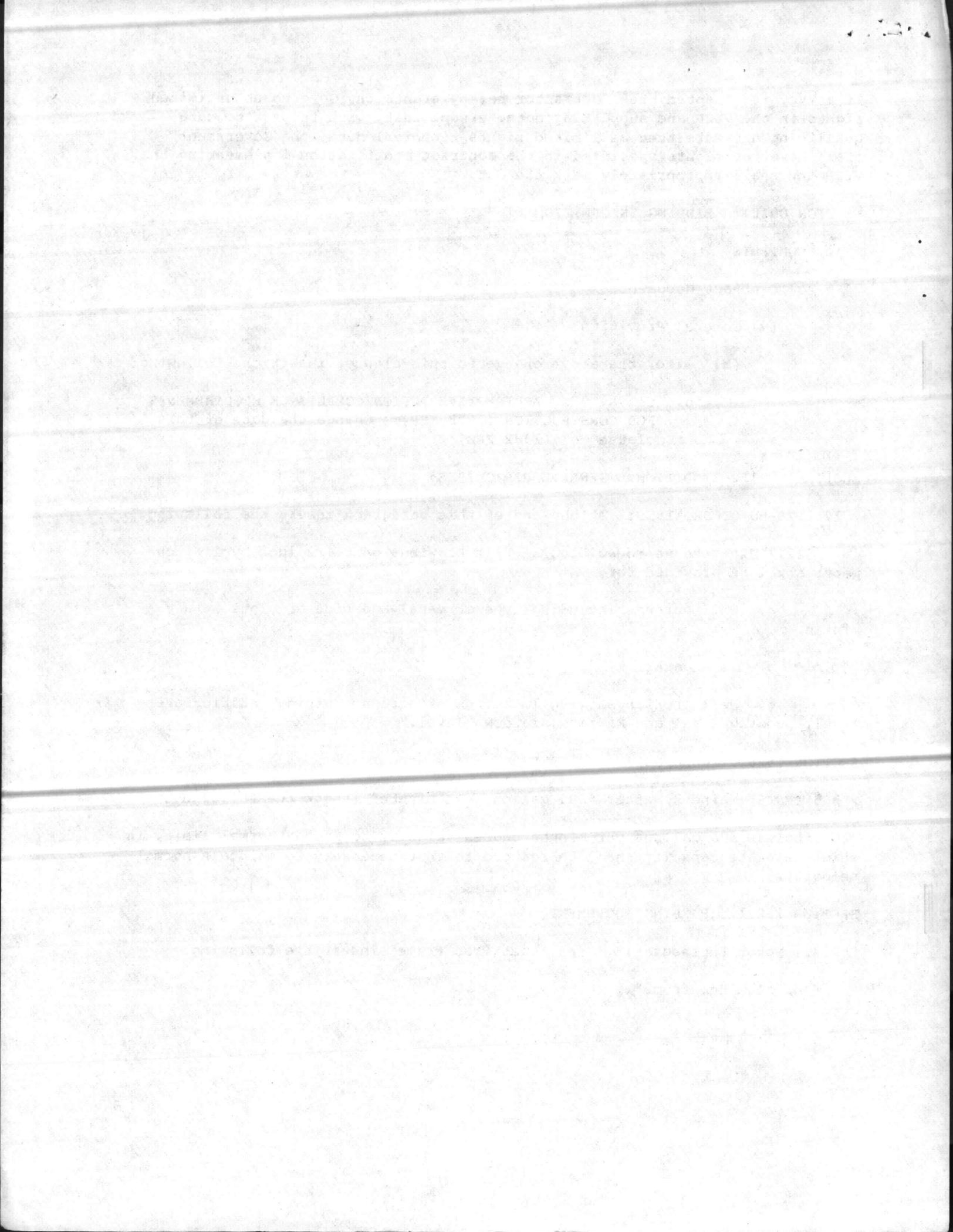
3.5 TESTS: Line 3, after "500 gallons per minute" insert the following:

"unless 500 gallons per minute causes velocity to exceed normal limit, in which case the capacity shall be reduced to that necessary to maintain normal velocity."

SECTION 15221. PUMPING EQUIPMENT

2.2.2 Motor Enclosures: After "cast iron frame" insert the following:

"or aluminum frame".



NOTICE:

Bids to be opened at 2:00 P.M.
28 JUL 1983 at the office of
Officer in Charge of Construction
Jacksonville, North Carolina Area
Building 1005, Marine Corps Base
Camp Lejeune, North Carolina 28542

CONTRACT N62470-83-B-5842

NAVFAC SPECIFICATION
NO. 05-83-5842

REPAIR WATER WELLS, BLDGS. 610 & M-628

at the

MARINE CORPS BASE,
CAMP LEJEUNE, NORTH CAROLINA

DESIGN BY:

Design Branch, Public Works Division
Marine Corps Base, Camp Lejeune, North Carolina

SPECIFICATION PREPARED BY:

J. H. Fitch, P.E.

APPROVED BY:

E. L. Rouse, P.E.
Director, Design Branch

R. E. Carlson, Commander, CEC, U. S. Navy
for Commander, Naval Facilities Engineering Command

05-83-5842

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SECTION 00101. Bidding Information

DIVISION

1. GENERAL REQUIREMENTS

SECTION

- 01011. General Paragraphs
- 01012. Additional General Paragraphs
- 01401. Quality Control
- 01560. Environmental Protection

2. DETAILED REQUIREMENTS

SECTION

- 15011. Mechanical General Requirements
- 15201. Well Rehabilitation
- 15221. Pumping Equipment
- 15272. Check Valves and Water Meters
- 16400. Electrical Work

SECTION 00101
BIDDING INFORMATION

1. CONTENTS: This Invitation for Bids, IFB NO.N62470-83-B-5842, consists of the following documents:

(a) Bid Instruction Documents

- (i) Invitation for Bids (Standard Form 20, January 1961 Ed.)
- (ii) Bidding Information
- (iii) Instructions to Bidders, dated March 1979

(b) Bid Submittal Documents

- (i) Bid Form (Standard Form 21, December 1965 Ed.)
- (ii) Representations and Certifications, Standard Form 19-B, June 1976 Ed. (REV 1980 AUG), including Appendix "A", dated August 1980
- (iii) Bid Guaranty (Standard Form 24, June 1964 Ed.)
(See Instructions to Bidders)

(c) Contract Documents

- (i) Construction Contract (Standard Form 23, Jan 1961 Ed.)
- (ii) Performance Bond (Standard Form 25, June 1967 Ed.)
- (iii) Payment Bond (Standard Form 25A, June 1964 Ed.)
- (iv) Labor Standards Provisions, dated November 1979)
- (v) General Provisions dated March 1981 (Rev 12/81)
 - a. Clause 43. ACCIDENT PREVENTION (1977 Jun): Change the date of the Corps of Engineers Manual, EM 385-1-1, from "1 June 1977" to "1 April 1981"
 - b. Clause 97, AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (1978 SEP): Change the date of this clause to "(1982 FEB)". The remainder of the clause is correct as printed. Only the date is changed.
- (vi) NAVFAC Specification No. 05-83-5842
- (vii) Drawings identified in Section 01011 of the specification
- (viii) Wage Determination Decision No. NC81-1148, for Water & Sewage Construction

2. BIDS:

2.1 Instructions to Bidders: Instructions to Bidders and Invitation for Bids, Standard Form 20, January 1961 edition, shall be observed in the preparation of bids. Bidders shall affix their names and return addresses in the upper left corner of bid envelope. Envelopes containing bids must be sealed.

2.2 Bid Guaranty: A bid guaranty will be required as stipulated in the Instructions to Bidders.

2.3 Items of Bids: Bids shall be submitted in duplicate on Standard Form 21, Bid Form, and shall be accompanied by Standard Form 19B, Representations and Certifications, with Appendix "A" and by Bid Guaranty, all in accordance with the Bid Instruction Documents listed in paragraph 1(a) hereinbefore upon the following item:

BASE BID: Price for the entire work, complete in accordance with the drawings and specifications.

2.4 TELEGRAPHIC MODIFICATIONS OF BIDS in accordance with the instructions to bidders may be made. Two signed copies of the telegram in a sealed envelope marked "Copies of telegraphic modification of bid for Repair Water Wells, Buildings 610 and M-628, Marine Corps Base, Camp Lejeune, North Carolina, Specification No. 05-83-5842 should be forwarded immediately to the office to which written bids were submitted.

2.5 TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS will be considered as specified herein. TELEPHONIC RECEIPT OF TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS WILL NOT QUALIFY THE TELEGRAM AS TIMELY. The telegram must be received at the place specified for receipt of bids prior to the exact time set for receipt of bids.

2.6 HAND DELIVERED BIDS: All hand delivered bids must be deposited with personnel in the Contract Branch, Room No. 26, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina 28542, prior to the time and date set for bid opening. Any bids submitted by hand after the time set for receipt will not be accepted.

3. PRE-BID SITE VISITATION: To inspect the site of the work prior to bid opening, prior appointment must be made with the Officer in Charge of Construction, Jacksonville, North Carolina Area, telephone 919-451-2581. Bidders are urged and expected to inspect the site where the services are to be performed and to satisfy themselves as to all general and local conditions that may affect the cost of performance of the contract to the extent such information is reasonably obtainable. In no event will a failure to inspect the site constitute grounds for withdrawal of a bid after opening or for a claim after award of the contract.

4. CONTROLLED MATERIALS DATA: The Contracting Officer will issue a DO-C2 priority rating for procurement of critical materials. See General Provision entitled "PRIORITIES, ALLOCATIONS AND ALLOTMENTS".

5. INQUIRIES:

5.1 Plans and Specifications: Questions regarding the plans and specifications occurring prior to bid opening shall be presented to the Public Works Design Division, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina 28542, telephone 919-451-5507. Questions requiring interpretation of drawings and specifications must be submitted at least ten days before bid opening. Interpretations or modifications to specifications made as a result of questions will be made by amendment only, and unless so done, all bidders should base their bids on the plans and specifications as issued.

5.2 Bidding Procedures: All questions concerning the bidding procedures shall be presented to OICC-ROICC Contract Branch, Room 26, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina, telephone 919-451-2581.

6. AVAILABILITY OF SPECIFICATIONS, STANDARDS AND DESCRIPTIONS (1977 JUN): Specifications, standards and descriptions cited in this solicitation are available as indicated below:

a. Unclassified Federal, Military and Other Specifications and Standards (Excluding Commercial), and Data Item Descriptions: Submit request on DD Form 1425 (Specifications and Standards Requisition) to:

Commanding Officer
U. S. Naval Publications and Forms Center
5801 Tabor Avenue, Philadelphia, Pennsylvania 19120

The Acquisition Management Systems and Data Requirements Control List: DOD Directive 5000.19L, Volume II, may be ordered on the DD Form 1425. The Department of Defense Index of Specifications and Standards (DODISS) may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. When requesting a specification or standard, the request shall indicate the title, number, date and any applicable amendment thereto by number and date. When requesting a data item description, the request shall cite the solicitation. When DD Form 1425 is not available, the request may be submitted in letter form, giving the same information as listed above, and the solicitation or contract number involved. Such request may also be made to the activity by TELEX No. 834295, Western Union No. 710-670-1685, or telephone 215-697-3321 in case of urgency.

b. Commercial Specifications, Standards and Descriptions: These specifications, standards and descriptions are not available from Government sources. They may be obtained from the publishers.

c. Availability for Examination of Specifications, Standards, Plans, Drawings, and other Pertinent Documents: The specifications, standards, plans, drawings, and other pertinent documents cited in this solicitation may be examined at the following location:

Public Works Division
Specifications and Estimates Section
Building 1005, Marine Corps Base
Camp Lejeune, North Carolina

7. RECOVERED MATERIAL: The Contractor certifies by signing this bid/proposal/quotation that recovered materials as defined in DAR 1-2500.4 will be used as required by the applicable publications.

8. REFERENCE TO AMENDMENTS: Each bidder shall refer in his bid to all amendments to this specification; failure to do so may constitute an informality in the bid.

9. CERTIFICATE OF CURRENT COST OR PRICING DATA: (This paragraph applies to negotiated contracts of \$100,000 or more, except where the price is based on adequate competition, and to change orders of \$100,000 or more, to any contract.) The Contractor shall submit to the Contracting Officer a certificate in the form set forth below as soon as practicable after agreement is reached on the contract price:

This is to certify that, to the best of my knowledge and belief, cost or pricing data defined in DAR 3-807.1(a)(1) submitted, either actually or by specific identification in writing (see DAR 3-807.3(a)) to the Contracting Officer or his representative in support of _____*
are accurate, complete, and current as of _____**
day month year

This certification includes the cost or pricing data supporting any advance agreement(s) and forward pricing rate agreements between the offeror and the Government which are part of the proposal.

Firm _____
Name _____
Title _____

Date of Execution ***

*Describe the proposal, quotation, request for price adjustment or other submission involved, giving appropriate identifying number (e.g. RFP No. _____).***

**The effective date shall be the date when price negotiations were concluded and the contract price was agreed to. The responsibility of the Contractor is not limited by the personal knowledge of the Contractor's negotiator if the Contractor had information reasonably available at the time of agreement, showing that the negotiated price is not based on accurate, complete and current data.

***This date should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.

END OF SECTION

SECTION 01011
GENERAL PARAGRAPHS

1. GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide and secure water well repairs, complete and ready for use. This is a fixed-price contract awarded on a lump sum basis.

2. GENERAL DESCRIPTION: The work includes placing new screen and pipe, pumps, meters, valves, new wiring in conduit, and incidental related work.

3. LOCATION: The work shall be located at the Marine Corps Base, Camp Lejeune, approximately as shown. The exact location will be indicated by the Contracting Officer. "Contracting Officer" and "Officer in Charge of Construction (OICC)" are used interchangeably in this specification and have the same meaning.

4. COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK: The Contractor will be required to commence work under the contract 15 calendar days after the date of receipt of Notice of Award, to prosecute said work diligently, and to complete the entire work ready for use within 180 calendar days. The time stated for completion shall include final cleanup of the premises. The contract completion date will be computed starting 15 calendar days after the date of Notice of Award. This 15-day period is to allow for mailing of the notice of Award and the Contractor's submission of required bonds.

5. LIQUIDATED DAMAGES: In case of failure on the part of the Contractor to complete the work within the time fixed in the contract or any extensions thereof, the Contractor shall pay to the Government as liquidated damages pursuant to General Provisions clauses entitled "Termination for Default - Damages for Delay - Time Extensions", and "Damages for Delay - Defense Materials System and Priorities" the sum of \$15 for each day of delay.

6. DRAWINGS ACCOMPANYING SPECIFICATIONS: The following drawings accompany this specification and are a part thereof. Drawings are the property of the Government and shall not be used for any purpose other than that contemplated by the specification.

NAVFAC

DWG. NO. TITLE

4088997 Site Location Map

4088998 Plans and Details

7. NORTH CAROLINA SALES AND USE TAX IS REQUIRED. See section entitled "Additional General Paragraphs".

8. SCHEDULING THE WORK:

8.1 General Scheduling Requirements: Notwithstanding the requirements of clause entitled "Progress Charts and Requirements for Overtime Work" of the General Provisions, immediately after award the Contractor shall meet with the Contracting Officer and present a schedule of work, prepared in accordance with said clause, for review by the Contracting Officer. The schedule will be reviewed at this meeting and will be retained by the Contracting Officer for final review and approval.

8.2 Work Outside Regular Hours: If the Contractor desires to carry on work outside regular hours or on Saturdays, Sundays, or holidays, he shall submit application to the Contracting Officer, but shall allow ample time to enable the Government to make satisfactory arrangements for inspecting the work in progress. At night he shall light the different parts of the work in an approved manner.

9. SAFETY PROGRAM: The Contractor shall implement a safety program conforming to the requirements of Federal, State and local laws, rules and regulations. The program shall include, but is not limited to, the following:

a. "Occupational Safety and Health Standards" which can be examined at the office of the Contracting Officer or be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

b. Department of the Army, Corps of Engineers "General Safety Requirements" which may be examined at the office where bids are being received or may be purchased from the Superintendent of Documents, U. S. Government Printing Office.

c. General Provisions clause entitled "Accident Prevention".

d. NFPA 241-1975, Safeguarding Building Construction and Demolition Operations, which may be examined in the Design Branch, Public Works Division, Building 1005, Marine Corps Base, Camp Lejeune, or may be purchased from the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210

10. MATERIALS AND EQUIPMENT TO BE SALVAGED: General Provisions clause entitled "Salvage Materials and Equipment" is hereby deleted. Except where specifically specified otherwise herein, all existing materials and equipment which are required to be removed or disconnected to perform the work, but are not indicated or specified for use in the new work, shall become the property of the Contractor and shall be removed from Government property.

11. TRAILER OR STORAGE BUILDINGS will be permitted on the job site, where space is available, subject to the approval of the Contracting Officer. The trailers or buildings shall be suitably painted and kept in a good state of repair. Failure of the Contractor to maintain his trailers or storage buildings in good condition will be considered sufficient reason to require their removal from the job site.

12. FACTORY INSPECTION of material and equipment for which tests at the place of manufacture are required in reference specifications will be waived if notarized copies of factory reports are furnished that show compliance with the specification requirements. Factory inspection will be required only where specified herein or in the technical sections of this specification. Factory inspection will not be required for lumber if it is grade marked and trademarked by the association under whose rules it is graded, or if it is accompanied by certificates of inspection issued by the association under whose rules it is graded or by another inspection agency that is satisfactory to the Contracting Officer. The Government reserves the right to charge to the Contractor any additional cost of Government inspection and tests when materials and equipment are not ready at the time inspection and tests are requested by the Contractor.

SECTION 01012. ADDITIONAL GENERAL PARAGRAPHS

1. UTILITIES:

1.1 Government-Furnished Utilities: The Government will furnish water and electricity from the nearest available outlet free of charge for pursuance of work under this contract. If the nearest available outlet cannot be utilized by the Contractor because of improper voltage, insufficient current, improper pressure, incompatible connectors, etc., it shall be the responsibility of the Contractor to provide temporary utilities as required.

1.2 Energy and Utilities Conservation: The Contractor shall carefully conserve utilities furnished without charge. The Contractor, at his own expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines and remove the same prior to final acceptance of the construction. (DAR 7-603.30)

1.3 Operation of Station Utilities: The Contractor shall not operate nor disturb the setting of any control devices in the Base utilities system, including water, sewer, electrical and steam services. The Government will operate the control devices as required for normal conduct of the work. The Contractor shall notify the Contracting Officer, giving reasonable advance notice, when such operation is required.

1.4 Location of Underground Utilities: Where existing piping, utilities, and underground obstructions of any type are indicated in locations to be traversed by new piping, ducts, and other work provided hereunder, and are not indicated or specified to be removed, the elevations of the existing utilities and obstructions shall be determined before the new work is laid closer than the nearest manhole or other structure at which an adjustment in grade could be made. For any additional work required by reason of conflict between the new and existing work, an adjustment in contract price will be made in accordance with General Provisions clause entitled "Differing Site Conditions (1968 FEB)." The Base Telephone Officer, telephone 451-2531, will show the Contractor approximate locations of all buried telephone and fire alarm cables after receiving 10 days notice. The locations of underground utilities shown is only approximate and the information is incomplete.

2. CHANGED CONDITIONS: Wherever changed conditions as defined in General Provisions clause entitled "Differing Site Conditions (1968 FEB)" are encountered, and wherever conditions exposed during the course of the work necessitate a change from quantities indicated or specified as either estimated quantities or as a basis for bids, whether or not provisions for a change in price for such variation is specified, the Contracting Officer must be notified in writing and written directions to do so must be obtained before quantities stated in the contract documents are exceeded.

3. SUBCONTRACTORS AND PERSONNEL: Promptly after the award of the contract, the Contractor shall submit to the Contracting Officer, in triplicate, a list of his subcontractors and the work each is to perform. On this form shall appear the names of the key personnel of the Contractor and subcontractors, together with their home addresses and telephone numbers, for use in event of emergency. From time to time as changes occur and additional information becomes available, the Contractor shall amplify, correct, and change the information contained in previous lists.

4. PRINTS FURNISHED TO CONTRACTOR: Six copies of the project specifications, and six sets of the drawings accompanying the specifications, will be furnished the Contractor. Additional sets of the specifications and drawings can be obtained, if required, by application to the Contracting Officer, provided that the need therefor is justified to the satisfaction of the Contracting Officer.

5. SCHEDULE OF PRICES: The original and seven copies of the Schedule of Prices shall be submitted to the Contracting Officer for approval. Payments will not be made until the Schedule of Prices has been submitted and approved.

6. CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT: Requests for payment in accordance with the terms of the contract shall consist of:

- a. Contractor's Invoice on Form NAVFAC 10-7300/30(4/68), which shall show, in summary form, the basis for arriving at the amount of the invoice
- b. Contractor's Monthly Estimate for Voucher (5ND GEN 5265/1)
- c. Affidavit to Accompany Invoice (5ND LANTDIV 4-4235/4) (Rev 1/68)

Forms will be furnished by the Contracting Officer. Monthly invoices and supporting forms for work performed through the 15th of the month shall be submitted to the Contracting Officer by the 20th of the month in the following quantities:

- a. Contractor's Invoice - Original and five copies
- b. Contractor's Monthly Estimate for Voucher - Original and two copies
- c. Affidavit - Original

7. OPTIONAL REQUIREMENTS: Where a choice of materials or methods is permitted herein, the Contractor will be given the right to exercise the option unless stated specifically otherwise.

8. QUARANTINE FOR IMPORTED FIRE ANT (CLNC 2/82): All of Onslow, Jones and Carteret Counties and portions of Duplin and Craven Counties have been declared a generally infested area by the United States Department of Agriculture for the imported fire ant. Compliance with the quarantine regulations established by this authority as set forth in USDA Quarantine No. 81 dated 9 October 1970, and USDA Publication 301.81-2A of 23 July 1976, is required for operations hereunder

8.1 The quarantine applies to materials originating from Camp Lejeune and the Marine Corps Air Station (Helicopter), New River, which are to be transported outside the Onslow County or adjacent suppression areas.

8.2 Certification is required for the following articles, and they shall not be moved from the reservation to any point outside the Onslow County and adjacent designated areas unless accompanied by a valid inspection certificate issued by an officer of the Plant Protection and Quarantine Program, USDA:

(1) Bulk soil

(2) Used mechanized soil-moving equipment

(3) Any other products, articles, or means of conveyance if it is determined by an inspector that they present a hazard of spread of the imported fire ant and the person in possession thereof has been so notified.

8.3 Authorization for movement of equipment outside the imported fire ant regulated area shall be obtained from USDA, APHIS, PPQ, Rural Route 6, Box 53, Wilmington, NC 28504; telephone (919) 343-4667. Requests for inspection shall be made at least two days in advance of the date of movement to permit arrangements for the services of authorized inspectors. The equipment shall be prepared and assembled so that it may be readily inspected. All soil on or attached to equipment, supplies and materials shall be removed by washing with water and/or such other means as necessary to accomplish complete removal. Resulting spoil shall be wasted as directed.

9. EMERGENCY MEDICAL CARE: Only emergency medical care is available at Camp Lejeune Government facilities for Contractor employees who suffer on-the-job injury or disease. Emergency care will be rendered at the prevailing rates established in BUMEDINST 6320.4 series. Reimbursement shall be made by the Contractor to the Naval Regional Medical Center Collection Agent upon receipt of a monthly statement.

10. PROPRIETARY NAMES: Names indicated for colors, textures and patterns of materials are for the purpose of color, texture and pattern selection only. Other manufacturer's materials are acceptable provided they closely approximate colors, textures and patterns indicated and provided they conform to all other requirements.

11. NORTH CAROLINA STATE AND LOCAL SALES AND USE TAX (1977 JAN):

(a) As used throughout this clause, the term "materials" means building materials, supplies, fixtures and equipment which become a part of or are annexed to any building or structure erected, altered, or repaired under this contract.

(b) If this is a fixed-price contract as defined in the Defense Acquisition Regulation, the contract price includes the North Carolina state and local sales and use taxes to be paid with respect to materials, notwithstanding any other provision of this contract. If this is a cost-reimbursement type contract as defined in such regulation, any North Carolina state and local sales and use taxes paid by the Contractor with respect to materials shall constitute an allowable cost under this contract.

(c) At the time specified in paragraph (d) below:

(i) The Contractor shall furnish the Contracting Officer certified statements setting forth the cost of the materials purchased from each vendor and the amount of North Carolina state and local sales and use taxes paid thereon. In the event the Contractor makes several purchases from the same vendor, such certified statement shall indicate the invoice numbers, the

inclusive dates of the invoices, the total amount of the invoices and the North Carolina state and local sales and use taxes paid thereon by the Contractor. Any local sales or use taxes included in the Contractor's statements must be shown separately from the state sales or use tax. The Contractor shall furnish such additional information as the Commissioner of Revenue of the State of North Carolina may require to substantiate a refund claim for sales or use taxes.

(ii) The Contractor shall obtain and furnish to the Contracting Officer similar certified statements by its subcontractors.

(d) If this contract is completed before the next October 1, the certified statements to be furnished pursuant to paragraph (c) above shall be submitted within 60 days after completion. If this contract is not completed before the next October 1, such certified statements shall be submitted on or before the 30th day of November of each year and shall cover taxes paid during the twelve-month period which ended the preceding September 30.

(e) The certified statements to be furnished pursuant to paragraph (c) above shall be in the following form:

I hereby certify that during the period _____ to _____, (name of Contractor or subcontractor) paid North Carolina state and local sales and use taxes aggregating \$ _____ (state) and \$ _____ (local) with respect to building materials, supplies, fixtures and equipment which have become a part of or annexed to a building or structure erected, altered or repaired by (name of Contractor) for the United States of America, and that the vendors from whom the property was purchased, the dates and numbers of the invoices covering the purchases, the total amount of the invoices of each vendor, the North Carolina state and local sales and use taxes paid thereon, shown separately, and the cost of property withdrawn from warehouse stock and North Carolina state and local sales or use taxes paid thereon are as set forth in the attachments hereto.

12. AS-BUILT DRAWINGS: During the progress of the work, one full-size print of each of the drawings accompanying this specification shall be neatly and clearly marked in red to show all variations between the construction actually provided and that indicated or specified in the contract documents. The as-built drawings shall be kept up-to-date at the work site at all times during the contract, and shall be available for inspection by the Contracting Officer upon request. The Contractor shall also mark the drawings to indicate the exact location of any underground utility lines discovered in the course of the work. Where a choice of materials and/or methods is permitted herein, and where variations in the scope or character of the work indicated or specified are permitted either by award on bidding items specified for that purpose or by subsequent change to the contract, the as-built drawings shall define the construction actually provided. The representation of such variations shall conform to standard drafting practice and shall include such supplementary notes, legends, and details as may be necessary for legibility and clear portrayal of the as-built construction; the marked prints shall be subject to approval of the Contracting Officer before acceptance. Upon completion of the work, the completed as-built drawings shall be presented to the Contracting Officer.

*** END OF SECTION ***

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01012 - 4

SECTION 01401. QUALITY CONTROL

1. APPLICABLE PUBLICATION: The following publication of the issue listed below, but referred to thereafter by basic designation only, forms a part of this specification to the extent indicated by the references thereto:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):

ASTM E329-77 Standard Recommended Practices for Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

2. QUALITY CONTROL of this contract will be administered under the General Provisions Clause entitled "Contractor Inspection System".

3. DEFINITIONS:

3.1 Factory Tests: Tests made on various products and component parts prior to shipment to the job site, including but not limited to such items as transformers, boilers, air conditioning equipment, electrical equipment, and precast concrete.

3.2 Field Tests: Tests or analyses made at, or in the vicinity of, the job site in connection with the actual construction.

3.3 Product: The term "product" includes the plural thereof and means a type or a category of manufactured goods, construction, installations and natural and processed materials or those associated services whose characterization, classification or functional performance determination is specified by standards.

3.4 Person: The term "person" means associations, companies, corporations, educational institutions, firms, government agencies at the Federal, State and Local level, partnerships, and societies, as well as divisions thereof, and individuals.

3.5 Testing Laboratory: The term "testing laboratory" means any "person", as defined above, whose functions include testing, analyzing, or inspecting "products", as defined above, and/or evaluating the designs or specifications of such "products" according to the requirements of applicable standards.

3.6 Certified Test Reports: Reports of tests signed by a qualified professional attesting that the test results reported are accurate and that items tested either meet or fail to meet the stated minimum requirements. These test reports include those performed by Factory Mutual, Underwriters' Laboratories, Inc., and others.

3.7 Certified Inspection Reports: Reports signed by approved inspectors attesting that the items inspected meet the specification requirements other than any exceptions included in the report.

3.8 Manufacturer's Certificate of Conformance or Compliance: A certificate signed by an authorized manufacturer's official attesting that the material or equipment delivered meets the specification requirements.

4. SUBMITTALS shall be prepared in accordance with this specification and the General Provisions and submitted to the Contracting Officer for approval. Each submittal shall be accompanied with a cover letter signed by the Contractor. Each item proposed to be incorporated into the contract shall be clearly marked and identified in the submittals, and shall be cross-referenced to the contract drawings and specifications so as to identify clearly the use for which it is intended. Each sheet of submittal shall be stamped with the Contractor's certification stamp. Data submitted in a bound volume or on one sheet printed on two sides, may be stamped on the front of the first sheet only. The Contractor's certification stamp shall be worded as follows:

"It is hereby certified that the (equipment)(materials) shown and marked in this submittal is that proposed to be incorporated into Contract Number _____, is in compliance with the contract drawings and specifications, can be installed in the allocated spaces, and is submitted for Government approval. Certified by _____
Date _____"

The person signing the certification shall be one designated in writing by the Contractor as having that authority. The signature shall be in original ink. Stamped signatures are not acceptable.

4.1 Submittal Status Logs: The Contractor shall maintain at the job site an up-to-date submittal status log showing the status of all submittals required by the contract. A sample format of an acceptable log is attached at the end of this section. While the use of this sample format is not required, any other format must contain the same information as shown on the sample.

4.2 Samples, shop drawings, manufacturer's data, certifications and data required of the Contractor: Specification MIL-D-1000 shall be used as a guide and its use is encouraged, for all drawings and data submitted by the Contractor. Conformance to the provisions of Specification MIL-D-1000 is not mandatory for maps, sketches, presentation drawings, perspectives, renderings, and all other drawings not requiring Naval Facilities Engineering Command drawing numbers. Before starting the fabrication or installation of any of this work, the Contractor shall submit to the Contracting Officer for, and receive approval of, in accordance with the General Provisions, such drawings as may be required, including all items specified in the applicable paragraphs of the technical sections of this specification. Seven copies of all submittals to be approved by the Contracting Officer shall be forwarded.

4.3 Identification: All catalog cuts, shop drawings, samples and other data submitted for approval shall specifically identify the specification paragraph or contract drawing by number where each item submitted is required to be provided. All submittals shall be clearly marked in

ink to indicate the specific item(s) submitted for approval. Samples shall be clearly labeled with strong tags, firmly affixed, or indelible markings to identify the contract number, contractor, manufacturer, and item name.

4.4 Certified Test Reports: Before delivery of materials and equipment, four certified copies of the reports of all tests listed in the technical sections and referenced publications shall be submitted and approved. The testing shall have been performed in a laboratory meeting the requirements specified herein. The tests shall have been performed within three years of submittal of the reports for approval. Test reports shall be accompanied by certificates from the manufacturer certifying that the material and equipment proposed to be supplied is of the same type, quality, manufacture, and make as that tested.

4.5 Manufacturer's Certificates of Conformance or Compliance: Manufacturer's certification furnished by the Contractor on items of materials and equipment incorporated into the work will be accepted only when this method will assure full compliance with the provisions of the contract, as determined by the Contracting Officer. Preprinted certifications will not be acceptable. All certifications shall be in the original. The original of all manufacturer's certifications shall name the appropriate item of equipment or material, specification, standard, or other document specified as controlling the quality of that item and shall have attached thereto certified copies of test reports upon which the certifications are based. All certificates shall be signed by the manufacturer's official authorized to sign certificates of conformance or compliance.

4.6 Laboratory Reports shall cite the contract requirements, the test or analysis procedures used, the actual test results, and include a statement that the item tested or analyzed conforms or fails to conform to the specification requirements. Each report shall be conspicuously stamped on the cover sheet in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements as the case may be. All test reports shall be signed by the representative of the testing laboratory authorized to sign certified test reports. The Contractor shall arrange for immediate and direct delivery of the signed original of all reports, certifications, and other documentation to the Contracting Officer.

4.7 Tabulation of Tests: In addition to the General Provisions requirements for CQC test reports, prior to final payment the Contractor shall obtain from each laboratory a tabulation of all tests it has performed in connection with the construction contract, including conforming or nonconforming, and repeated test results. The tabulation(s) shall be certified as complete, and signed by the authorized representative of the laboratory, and shall be delivered to the Contracting Officer.

5. QUALITY CONTROL REQUIREMENTS: In accordance with the General Provisions Clause entitled "Contractor Inspection System", the Contractor shall inspect and test all work under the contract and maintain records of the inspections and tests. Approvals, except those required for field

installations, field applications, and field tests, shall be obtained before delivery of materials and equipment to the project site. Surveillance of the inspection system will be performed by the Contracting Officer.

5.1 Factory Tests: Unless otherwise specified, the Contractor will arrange for factory tests when they are required under the contract.

5.2 Factory Inspection: Unless otherwise specified, the Contractor will arrange for factory inspection when required under the contract.

5.3 Field Inspections and Tests by the Contractor: The Contractor shall furnish all equipment, instruments, qualified personnel, and facilities necessary to inspect all work and perform all tests required by the contract. All inspections and tests performed and test results received each day shall be included in the Daily Report to Inspector.

5.5 Approval of Testing Laboratories: All laboratory work under this contract shall be performed by a laboratory approved by the Government, whether the laboratory is employed by the Contractor, or is owned and operated by the Contractor. The basis of approval includes the following:

a. Testing laboratories performing work in connection with concrete, steel, and bituminous materials shall comply with ASTM E329, except that the Contracting Officer will perform the function of paragraphs 3.4 and 3.5 therein in the absence of other Government approval.

b. Testing laboratories performing work not in connection with concrete, steel, or bituminous materials shall comply with sections 3 and 4 of ASTM E329, except that the Contracting Officer will perform the functions of paragraphs 3.4 and 3.5 therein in the absence of other Government approval.

5.6 Repeated Tests and Inspections: The Contractor shall repeat tests and inspections after each correction made to nonconforming materials and workmanship until tests and inspections indicate the materials, equipment, and workmanship conform to the contract requirements. The retesting and reinspections shall be performed at no additional cost to the Government.

5.7 Daily Report to Inspector: The Daily Report to the Inspector Form NAVFAC 4330/34 shall be submitted to the Contracting Officer by 10:00 A.M. on the working day following the day the work was performed.

INSTRUCTIONS

1. This form may be used by the Contractor for listing all material submittals that require action by either the Contractor or the Government.
2. Columns (a) through (e) should be completed by the Contractor and must include all submissions that are required by the specifications.
3. As submittals are received and processed, the remaining columns are to be completed by the Contractor.
4. In those instances where the Contractor has approved the submittal under his contract responsibility, there may be a dual Action Code under column (f); e.g., "A/E", indicating approved as submitted and forwarded to the OICC for record purposes.
5. In column (f) for those items requiring OICC action (Action Code "D"), the reason for forwarding to the OICC should be entered in the column (1), the Remarks column; e.g., gov't approval required; waiver requested because of variance, substitution, etc.
6. Where no Government action is required, (for Contractor review/approval items), there need be no entry in columns (h) and (i).
7. Column (j) is completed when material or equipment is delivered to the project. Column (k) is completed only after verification that the delivered item is that represented by the approved submittal.

ACTION CODE: To be used when completing columns (f) and (h)

- A - Approved as submitted
- B - Approved as noted
- C - Disapproved
- D - Forwarded to OICC for action
- E - Forwarded to OICC for record purposes

END OF SECTION

SECTION 01560
ENVIRONMENTAL PROTECTION

PART 1. GENERAL

1.1 ENVIRONMENTAL PROTECTION PLAN: The Contractor may be responsible for the preparation and submission of an Environmental Protection Plan. After the contract is awarded, but prior to the commencement of the work, the Contractor shall meet with the Contracting Officer, or his representative, and discuss the proposed Environmental Protection Plan. The meeting shall develop mutual understanding relative to details of environmental protection, including required reports and measures to be taken should the Contractor fail to provide adequate protection in an adequate and timely manner. Not more than 14 days after the meeting, the Contractor shall submit for approval his proposed Environmental Protection Plan, if so required.

1.2 GENERAL REQUIREMENTS: The Contractor shall provide and maintain environmental protection during the life of the contract as defined herein. The Contractor's operations shall comply with all Federal, State and Local regulations pertaining to water, air, solid waste, and noise pollution.

2. PRODUCTS

2.1 DEFINITIONS OF POLLUTANTS:

2.1.1 Non-Hazardous Wastes: Solid or liquid substances that are to be discarded by the Contractor and that normally do not constitute a hazard to man or to the environment. This includes, but is not limited to, paper, metal (other than toxic metals such as lead and mercury), masonry, wood, brick, stone, asphaltic concrete, plastics, rubber, rubbish and concrete.

2.1.2 Hazardous Wastes: Solid and liquid substances that are to be discarded by the Contractor and that constitute a significant active or potential hazard to man and/or to the remainder of the environment. This includes, but is not limited to asbestos, glass, lead, mercury, pesticides, herbicides, other toxic chemicals and waste, liquid petroleum products, human excrement, garbage, sediment and radioactive materials.

2.1.3 Protection of Natural Resources: It is intended that the natural resources within the limits of permanent work performed under this contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. The Contractor shall confine his construction activities to areas defined by the work schedule, plans, and specifications.

3. EXECUTION

3.1 CONTROL AND DISPOSAL OF HAZARDOUS AND NON-HAZARDOUS WASTES:

3.1.1 Non-hazardous wastes, except rubble, shall be picked up and disposed of daily or placed in containers which are emptied on a weekly schedule. All handling and disposal shall be so conducted as to prevent contamination of the site and other areas. The Contractor shall transport all such waste off the Base, unless he desires to use the Base Sanitary Landfill or rubble disposal areas.

3.1.2 If transporting any material off Government property, the Contractor shall provide the Contracting Officer a copy of State and/or local permit which reflects the responsible agency's approval of the disposal area and proposed waste disposal methods.

3.1.3 Rubble such as masonry, stone, concrete without reinforcing steel, and brick may be deposited as directed on the Base. Upon completion, the work and disposal area shall be left clean and natural looking. All signs of temporary construction and activities incidental to construction of the required permanent work in place shall be obliterated.

3.1.4 Optional use of Base Landfill shall require compliance with Landfill rules. Such rules do not allow accepting recyclable metals nor reusable wood or lumber over six feet in length.

3.2 HAZARDOUS WASTES:

3.2.1 Garbage Disposal: The Contractor shall transport any garbage to the Base Sanitary Landfill. However, the preparation, cooking and disposing of food are strictly prohibited on the project site.

3.2.2 Liquid wastes shall be stored in corrosion-resistant containers, removed from the project site, and disposed of not less frequently than monthly unless directed otherwise. Disposal of liquid waste shall be in accordance with Federal, State and Local regulations. Fueling and lubricating of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. For oil and hazardous material spills which may be large enough to violate Federal, State and Local regulations, the Contracting Officer shall be notified immediately. The Base Sanitary Landfill will not accept liquid wastes nor empty drums.

3.2.3 Asbestos disposal in the Base Sanitary Landfill will be mandatory when friable asbestos is encountered. If such asbestos is encountered, provisions for handling or disposal shall comply with the applicable section of this specification; if not specified, such requirements shall be as directed.

SECTION 15011
MECHANICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 APPLICATION: This section applies to all sections of Division 15, "Mechanical" of this project except as specified otherwise in each individual section.

1.2 SUBMITTALS: Submit shop drawings, manufacturers data and certificates for equipment, materials and finish, and pertinent details for each system where specified in each individual section, and have them approved before procurement, fabrication or delivery of the items to the job site. Partial submittals will not be acceptable and will be returned without review. Submittals shall include the manufacturer's name, trade name, catalog model or number, nameplate data, size, layout dimensions, capacity, project specification and paragraph reference, applicable Federal, Military, industry and technical society publication references, and other information necessary to establish contract compliance of each item the Contractor proposes to furnish.

1.2.1 Shop Drawings: Drawings shall be a minimum of 8.5 inches by 11 inches in size, except as specified otherwise. Drawings shall include floor plans, sectional views, wiring diagrams, installation details of equipment; and equipment spaces identifying and indicating proposed location, layout and arrangement of items of equipment, accessories, piping, and other items that must be shown to assure a coordinated installation. Drawings shall indicate adequate clearance for operation, maintenance and replacement of operating equipment devices. If equipment is disapproved, drawings shall be revised to show acceptable equipment and resubmitted.

1.2.2 Manufacturer's Data: Submittals for each manufactured item shall be manufacturer's descriptive literature of cataloged products, equipment drawings, diagrams, performance and characteristic curves, and catalog cuts.

1.2.3 Standards Compliance: Where materials or equipment must conform to the standards of organizations such as the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturer's Association (NEMA), and Underwriters' Laboratories, Inc. (UL), proof of such compliance shall be submitted to the Contracting Officer for approval. If an organization uses a label or listing to indicate compliance with a particular standard, the label or listing will be acceptable evidence, unless otherwise specified in the individual sections. In lieu of the label or listing, the Contractor shall submit a certificate from an independent testing organization, which is competent to perform acceptable tests and is approved by the Contracting Officer. The certificate shall state that the item has been tested in accordance with the specified organization's test methods and that the item conforms to the specified organization's

standard. For materials and equipment whose compliance with organizational standards or specifications is not regulated by an organization using its own listing or label as proof of compliance, a certificate of compliance from the manufacturer shall be submitted for approval. The certificate shall identify the manufacturer, the product, and the referenced standard and shall simply state that the manufacturer certifies that the product conforms to all requirements of the project specification and of the referenced standards listed.

1.2.4 Certified Test Reports: Before delivery of materials and equipment, certified copies of all test reports specified in the individual sections shall be submitted for approval.

1.2.5 Certificates of Conformance or Compliance: Submit certification from the manufacturer attesting that materials and equipment to be furnished for this project comply with the requirements of this specification and of the reference publications. Pre-printed certifications will not be acceptable; certifications shall be in the original. The certification shall not contain statements that could be interpreted to imply that the product does not meet all requirements specified, such as "as good as"; "achieve the same end use and results as materials formulated in accordance with the referenced publications"; "equal or exceed the service and performance of the specified material". The certification shall simply state that the product conforms to the requirements specified.

1.3 DELIVERY AND STORAGE: Equipment and materials shall be carefully handled, properly stored, and adequately protected to prevent damage before and during installation, in accordance with the manufacturer's recommendations and as approved by the Contracting Officer. Damaged or defective items, in the opinion of the Contracting Officer, shall be replaced.

1.4 CATALOGED PRODUCTS: Materials and equipment shall be cataloged products of manufacturers regularly engaged in production of such materials or equipment and shall be manufacturer's latest design that complies with the specification requirements. Materials and equipment shall duplicate items that have been in satisfactory commercial or industrial use at least two years prior to bid opening. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the items need not be the products of the same manufacturer. Each item of equipment shall have the manufacturer's name, address, model number and serial number on the nameplate securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

END OF SECTION

SECTION 15201
WELL REHABILITATION

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

FEDERAL SPECIFICATION

GG-G-76D Gages, Pressure and Vacuum, Dial Indicating

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):

A120-77 Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses
B88-76 Seamless Copper Water Tube (ANSI/ASTM B88)
C150-78 Portland Cement (ANSI/ASTM C150)

AMERICAN WATER WORKS ASSOCIATION (AWWA):

A100-66 Deep Wells
C601-68 Disinfecting Water Mains

1.2 SUBMITTALS:

1.2.1 Certificates of Conformance or Compliance are required for the following:

- a. Casings
- b. Screens
- c. Air Gage
- d. Lead Packer

1.2.2 Catalog Cut of the lead packer and the name and phone number of the manufacturer shall be provided.

1.3 DELIVERY, STORAGE AND PROTECTION: Deliver materials in an undamaged condition. Carefully store materials off the ground to provide proper protection against oxidation caused by ground contact. Replace defective or damaged materials.

PART 2 - PRODUCTS

2.1 INNER CASINGS: ASTM A120.

2.2 WELL SCREENS: Type 304 or 316 stainless steel. Screens shall have adequate strength to resist all external forces to which they will be subjected, both during and after installation. Water velocity through openings shall not exceed 0.1 feet per second. Fit a back-pressure valve to the bottom of the screen to permit washing without the inflow of sand into the screen. Joints shall be of the same material as the screen, and shall be either threaded rings or butt type welding rings.

2.3 LEAD PACKER shall be a packing device which is the standard catalog product of a manufacturer of well apparatus. The packer shall be designed for installation to seal the opening between the existing outer casing and the new inner casing.

2.4 DRAWDOWN GAGE: Fed. Spec. GG-G-76, Class 1, Style X, 4-1/2 inch, brass case, bronze tube, calibrated in feet of water.

2.5 AUXILIARY EQUIPMENT: Provide the necessary discharge piping to dispose of pumped water during developing and testing of well a sufficient distance from each well so as to prevent flooding of the site and flow back into the well, as approved by the Contracting Officer.

2.6 ACID FOR ACID TREATMENT shall be Commercial Muriatic Acid of 27.92 percent acid grade.

PART 3 - EXECUTION

3.1 INNER CASING, WELL SCREENS AND GRAVEL: Install the inner casing and well screens concentrically in the outer casing and drilled hole and completely seal the inner casing and well screens to the outer casing with a lead packer.

3.2 ACID CLEANING: Acid shall be used full strength. A volume of acid of 1-1/2 to 2 times the volume of water shall be introduced into the well at the screen levels with a conductor pipe. The conductor pipe shall be moved vertically while introducing the acid in increments of less than five feet along the screen. Agitation of the well shall begin using a bailer or surge block and continue agitating for two hours, then left idle for six hours and agitation applied again for two hours.

3.3 ACID REMOVAL shall be done with a bailer and the well surged and backwashed until clear. Water samples shall be taken and tested.

3.4 DEVELOPMENT OF WELL: Furnish all necessary pumps, compressors, plungers, bailing, or other needed equipment and fully develop the well as necessary to give the maximum yield of water per foot of drawdown and to limit the amount of sand which may be drawn into the well during the life of the well.

3.5 TESTS: Upon rehabilitation of the well, provide a temporary pump in the well for measuring the flow and drawdown. The temporary pump shall have a capacity of not less than 500 gallons per minute. After determining the static water level in the well, begin pumping at a rate of approximately 100 gallons per minute and check the drawdown at 15 minute intervals until it stabilizes. Continue pumping at that rate for two hours and check the water level at 30 minute intervals. The pumping rate shall then be increased in uniform increments not exceeding 50 gallons per minute and the described procedure repeated at each increment of increased rate until the capacity of the well is determined. The capacity of the well shall be the flow obtained at a drawdown level 10 feet above the top of the uppermost screen. After the

safe maximum yield of the well has been determined, conduct a continuous 24 hour pumping test at that rate and check the drawdown at hourly intervals. Provide the necessary pipe and ditches to take the water away from the well site. Submit methods of disposing of the discharge to the Contracting Officer for approval. Furnish a complete written log of the test, showing static water level, pumping rate, and drawdown at the specified intervals. At the end of the 24 hour test, water samples shall be taken and tested by an approved testing laboratory for complete chemical and bacteriological analysis. Furnish additional samples in suitable containers.

3.6 WATER QUALITY DETERMINATION: Collect and have analysed by a testing laboratory approved by the Government, samples of water from all water bearing strata encountered so as to accurately show the quality of water from each stratum. Include bacteriological and physical-chemical analysis, and further include all field and routine analysis data set forth in Parts I and III of DD Form 710, Physical and Chemical Analysis of Water, which accompanies this specification. In addition, analyze the water for any additional suspected minerals or contaminants which would make it unfit for human consumption, such as nitrate, flouride, and mercury.

3.7 DISINFECTION: Disinfect well, equipment, and material therein in accordance with AWWA A100. Disinfect piping in accordance with AWWA C601.

3.8 SANITARY SEAL: Provide a sanitary seal for the well to prevent contamination until the pump foundation and pump are installed on the well.

PHYSICAL AND CHEMICAL ANALYSIS OF WATER				SAMPLE NO.	
FROM: (Station or unit)				DATE	
TO: (Name and location of laboratory)					
SAMPLE FROM (Location of sampling point)					
COLLECTED BY		DATE	HOUR	SOURCE (Designate ground, surface, run, treated)	
REASON FOR EXAMINATION			EXAMINATION REQUESTED BY		
NOTE: All results reported in parts per million unless otherwise noted except for pH, temperature, and specific conductance. One liter of potable water is assumed to weigh one kilogram.					
I. FIELD ANALYSIS			III. ROUTINE LABORATORY ANALYSIS		
1. pH	TEMPERATURE		(CHECK ONE)		
	°F	°C	REQUESTED	NOT REQUESTED	
ITEM		PPM	1. COLOR		
2. CARBON DIOXIDE (CO ₂)			2. TURBIDITY		
3. DISSOLVED OXYGEN (O ₂)			3. ALKALINITY (CaCO ₃)		
4. HYDROGEN SULFIDE (H ₂ S)			P	MD	
5. CHLORINE DEMAND (Cl ₂)			4. TOTAL HARDNESS (CaCO ₃)		
FIELD ANALYSIS BY			5. NON-CARBONATE HARDNESS (CaCO ₃) (By Computation)		
DATE OF ANALYSIS			6. CARBONATE HARDNESS (CaCO ₃) (By Computation)		
II. SPECIAL LABORATORY ANALYSES			7. TOTAL DISSOLVED SOLIDS		
Check (X) individual items to be included in the Special Analyses. Request determination only of those substances suspected of being present in significant amounts.					
(X)	ITEM	PPM	8. SPECIFIC CONDUCTANCE (Microhm/cm)		
	1. As		ITEM		PPM
	2. Se		9. CALCIUM (Ca)		
	3. Pb		10. MAGNESIUM (Mg)		
	4. B		11. SODIUM (Na) AND POTASSIUM (K)		
	5. Cu		12. HYDROXIDE (OH) ^a		
	6. Zn		13. BICARBONATE (HCO ₃) ^a		
	7. Cr (Hexavalent)		14. CARBONATE (CO ₃) ^a		
	8. PO		15. SULFATE (SO ₄)		
	9. Cd		16. CHLORIDE (Cl)		
	10. CN		17. NITRATE (NO ₃)		
	11. Phenolic Compounds (PPB)		18. IRON (Fe) TOTAL		
	12. Others (Specify)		19. MAGANESE (Mn)		
	13.		20. SILICA (SiO ₂)		
	14.		21. FLUORIDE (F)		
	15.		^a State whether determined or computed from P and MD alkalinity.		
	16.				
REMARKS (Such as unusual appearance, taste, odor, etc.)					
LABORATORY ANALYSIS BY					DATE OF ANALYSIS

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SECTION 15221
PUMPING EQUIPMENT

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

FEDERAL SPECIFICATIONS:

GG-G-76 Gages, Pressure and Vacuum, Dial Indicating
TT-E-489F Enamel, Alkyd, Gloss
TT-E-496B(1) Enamel, Heat-Resisting (400 degrees F), Black
TT-P-28E Paint, Aluminum, Heat-Resisting (1000 degrees F)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):

A53-80 Welded and Seamless Steel Pipe
A120-80 Black and Hot Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe

AMERICAN WATER WORKS ASSOCIATION (AWWA):

E101-77 Deep Well Vertical Turbine Pumps - Line Shaft and Submersible Types

NATIONAL FIRE PROTECTION ASSOCIATION:

70-1981 National Electrical Code

1.2 SUBMITTALS REQUIRED: Shop drawings, manufacturer's data and certificates for equipment, materials, finish, and pertinent details for each system shall be submitted and approved before procurement, fabrication or delivery of such items to the job site. Partial submission will not be acceptable. Descriptive data shall be annotated to show the specific model, type and size of each item the Contractor proposes to furnish. The submittal requirements of Section 15011, General Requirements, Mechanical, applies to the following lists.

1.2.1 Manufacturer's Data:

- a. Pumps
- b. Motors and Controllers
- c. Battery and Battery Charger
- d. Paint and Coating Systems

1.2.2 Shop Drawings: Drawings shall show complete layout of pumping system showing arrangement of pumps, motors, drives, existing diesel engine and controllers, and fuel and exhaust systems.

1.2.3 Certificates: Submit notarized certificates from the manufacturer attesting that each of the following items conforms to all requirements of this specification and of reference publications.

- a. Pumps
- b. Motors and Controllers
- c. Battery Charger
- d. Paints and Coatings

1.2.4 Pump Characteristics Curves: The Contractor shall furnish with each pump and drive, prior to shipment, certified characteristics curves showing the capacity, head, efficiency, and brake horsepower throughout the entire range of the pump.

1.3 GENERAL REQUIREMENTS: Section 15011, General Requirements, Mechanical, applies to all work in this section. The pump for Building 610 shall be electric motor driven with combination right angle drives for use with the existing auxiliary diesel engines. The pump for Building M-628 shall be electric motor driven with no right angle drive. Each installation shall be provided complete, tested, and in operation.

PART 2 - PRODUCTS

2.1 PUMPS: All pumps shall be of the deep well, turbine type, water-lubricated, open line shaft pumps with surface discharge, and shall conform to AWWA E101 as modified herein. Each pump shall be provided with a non-reverse ratchet to prevent reverse rotation. Each pump shall have an efficiency of not less than 80 percent.

2.1.1 Pump Materials: Materials for all components of the pumps shall be as set forth in "Table 1" and "Section A4-Specifications" of AWWA E101, as modified herein. Impellers shall be of bronze, and of the enclosed type. The steel pipe for the pump columns shall be of standard weight zinc-coated steel pipe conforming to ASTM A53 or A120. Strainer is required on the suction pipe.

2.1.2 Pumping Conditions: Speed of pumps shall be coordinated with standard speed of electric motor used and shall be nominally 1750 RPM. Bids shall be based on pumps operating with the indicated capacity against the heads indicated, and with motor horsepowers and electrical characteristics indicated. Total dynamic head on each pump shall also include the lift in the well, as determined by flow tests of the respective completed well. Pumps shall be provided with sufficient column and line shaft to prevent breaking suction. In case actual conditions differ from those specified or shown, or both, the contract price will be adjusted in accordance with the contract.

2.1.3 Right Angle Drive: Pumps for Building 610 shall be provided with combination electric motor and right angle gear drive for dual drive arrangement. The drive shall have one-to-one gear ratio to transmit the power from the engine to the pump at normal operating speed and shall be of the vertical, hollow shaft, spiral bevel gear type equipped with anti-friction bearings and a base flange matching the pump head flange. It shall be

conservatively rated to transmit the maximum power requirements of the pump and be equipped with a heavy duty ball thrust bearing capable of carrying the hydraulic thrust of the pump and the weight of the rotating element. An oil reservoir of ample capacity shall supply adequate lubrication to the gears and bearings. A suitable motor stand shall be furnished which provides ample room for a sliding clutch for alternating the prime mover. A sliding clutch shall be mounted on the head shaft so the gears do not operate when the pump is driven by the electric motor. A non-reverse ratchet shall be incorporated in the clutch to prevent backspin in the event of reverse rotation.

2.2 MOTORS: Electric motors shall be designed and built to meet all applicable standards for long unattended service under the conditions specified. The following standard conditions shall apply:

- a. Temperature: 40° C. maximum ambient
- b. Duty: Continuous
- c. Voltage: Variation of approximately 10%
- d. Frequency: Variation of approximately 5%
- e. Altitude: 0-3300 feet.

2.2.1 Motors for Building 610 shall have bearings compatible with right-angle drive, and shall be hollow shaft vertical squirrel cage induction type for three phase, 60 hertz, 1800 RPM operation at the indicated voltage. Motors shall be premium High Efficiency Type.

2.2.2 Motor enclosures shall be drip-proof with cast iron frame, end brackets, conduit box and fan shroud. Insulation shall be Class B, 1.15 service factor with premium treatment for humid conditions.

2.3 SAFETY GUARDS: The interconnecting shafting between the diesel engine and the combination drive and all other rotating units shall be provided with approved safety guards for protection of operating personnel.

2.4 MOTORS shall be furnished with their respective pieces of equipment and shall conform to and shall have all electrical connections provided under this section and the section entitled "Interior Electrical Systems". The cost of providing additional electrical service and related work shall be included under this section when motors and equipment furnished are larger than sizes indicated. Electrical work is specified in the section entitled "Electrical Work".

2.5 PAINTING OF EQUIPMENT: Exterior surfaces of new equipment and above ground piping equipment shall be provided with, as a minimum, one coat of primer and two coats of paint. It is desirable that all coats be shop applied; however, if the manufacturer's standard shop painting system does not meet the requirements, field applied coats shall be provided. Shop coats shall be lightly sanded before application of field applied coats.

2.5.1 Field applied paint shall be applied to a dry film thickness of not less than one mil for each coat; paint shall conform to TT-E-489, except heat resisting paint shall conform to TT-E-496, Type II for surface temperatures between 120 and 400 degrees Fahrenheit, and to TT-P-28 for surface temperatures greater than 400 degrees Fahrenheit. Equipment painting, both shop and field, shall be provided under this section.

2.5.2 Factory finishes damaged during transit, handling, and installation shall be restored to original condition. Bolts and other anchorage devices shall be painted with paint systems equal to that specified for the equipment.

2.6 GAGES shall conform to GG-G-76, Class 1, Style A, Type 1, with 4-1/2 inch dial, brass case, bronze tube, and scale calibrated in feet of water.

PART 3 - EXECUTION

3.1 INSTALLATION: All equipment shall be provided with the equipment manufacturer's printed installation instructions, and the equipment shall be installed in strict accordance with these printed instructions. Pump motors and engine shall be set accurately, properly aligned, and securely mounted to supporting construction.

3.2 PERFORMANCE TESTS: Each pumping unit and right angle drive diesel engine, after being put into operation, shall be tested to demonstrate conformance with specified requirements. Pumps and diesel engine shall be operated at the design capacities for a period of at least two hours and shall be observed during this period. The Contractor will not be held responsible for defects in diesel engine operation, but tests with normal electric motor drive and with auxiliary engine drive shall be conducted. All other defects shall be corrected. Equipment which fails to meet the specified requirements shall be removed and replaced with proper equipment, at no additional cost to the Government.

END OF SECTION

SECTION 15272
CHECK VALVES AND WATER METERS

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

MILITARY SPECIFICATION:

MIL-V-18436C & Am 2	Valves, Check: Bronze, Cast-Iron, and Steel Body
MIL-C-18480	Coating Compound, Bituminous, Solvent, Coal Tar Base

AMERICAN WATER WORKS ASSOCIATION (AWWA):

C 600-82	Installation of Ductile Iron Water Mains
C 601-81	Disinfecting Water Mains
C 704-76a	Cold Water Meters - Propeller Type for Main Line Applications

UNDERWRITERS' LABORATORIES (UL):

UL 312	Check Valves for Fire-Protection Service
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1.2 GENERAL REQUIREMENTS: Section 15011, General Requirements, Mechanical, also applies to this section except as specified otherwise. The work includes provision of water piping and appurtenances both inside and outside of well houses.

1.3 SUBMITTALS REQUIRED: Shop drawings, manufacturer's data and certificates for equipment, materials, finish, and pertinent details for each system shall be submitted and approved before procurement, fabrication or delivery of such items to the job site. Partial submission will not be acceptable. Descriptive data shall be annotated to show the specific model, type and size of each item the Contractor proposes to furnish. The submittal requirements of Section 15011, General Requirements, Mechanical, applies to the following lists:

1.3.1 Manufacturer's Data and Printed Installation Recommendations:

- a. Valves
- b. Meters
- c. Gages

1.3.2 Certificates: Submit certificates from the manufacturer attesting that each of the following items conform to all requirements of this specification and of referenced publications.

- a. Valves
- b. Meters
- c. Gages

PART 2 - PRODUCTS

2.1 CHECK VALVES shall conform to MIL-V-18436 or to UL 312. Valves shall have flanged ends. Swing-check valves shall have clear-port opening. Valves conforming to MIL-V-18436 shall be Type III, shall have cast-iron or steel bodies with bronze trim, and shall be designed for a hydraulic working pressure of 175 psi.

2.2 WATER METERS shall conform to AWWA C 704, propeller type for main line applications. Meter shall register in U.S. gallons. Certificate of testing water meters for conformance to accuracy and capacity requirements in accordance with the applicable AWWA standard shall be furnished.

PART 3 - EXECUTION

3.1 INSTALLATION shall be in accordance with manufacturer's recommendations. Printed copies of these recommendations shall be furnished to the Contracting Officer prior to installation. Installation of the item will not be allowed to proceed until the recommendations are received. Failure to furnish these recommendations can be cause for rejection of the material.

3.2 FIELD PAINTING: After installation and testing, paint all exposed surfaces of above ground cast gray and ductile iron pipe and fittings and valves and all equipment, except glass or prefinished surfaces shall not be painted. Damages to shop applied coatings shall be touched up before application of field paint. Paint shall be applied to clean, dry surfaces only. Where more than one coat of paint is specified, the first coat shall be allowed to dry thoroughly before application of the second coat. Cast gray and ductile iron pipe and fittings shall receive a coal tar base coating conforming to MIL-C-18480, applied to a minimum dry film thickness of 30 mils. Cast gray and ductile iron valves shall receive two coats of paint of the same type as factory applied paint; each coat shall be applied to a dry film thickness of not less than 1.0 mil.

3.3 TESTING FOR LEAKS AT JOINTS AND FITTINGS shall be in accordance with AWWA C 600, except as specified otherwise herein. The amount of leakage on lines with push-on or mechanical joints shall not exceed the amounts given in AWWA C 600. No leakage will be allowed at flanged or soldered joints.

3.4 CHECK VALVE TEST: The pump shall be shut down and left off for sufficient time to determine if raw water distribution system is causing water backflow or seepage through the check valve. This test shall be repeated for a total of five tests. If any backflow or seepage occurs, the valve shall be repaired or replaced and fully retested.

3.5 DISINFECTION shall be in accordance with AWWA C 601 including the inside of the water meter and check valve.

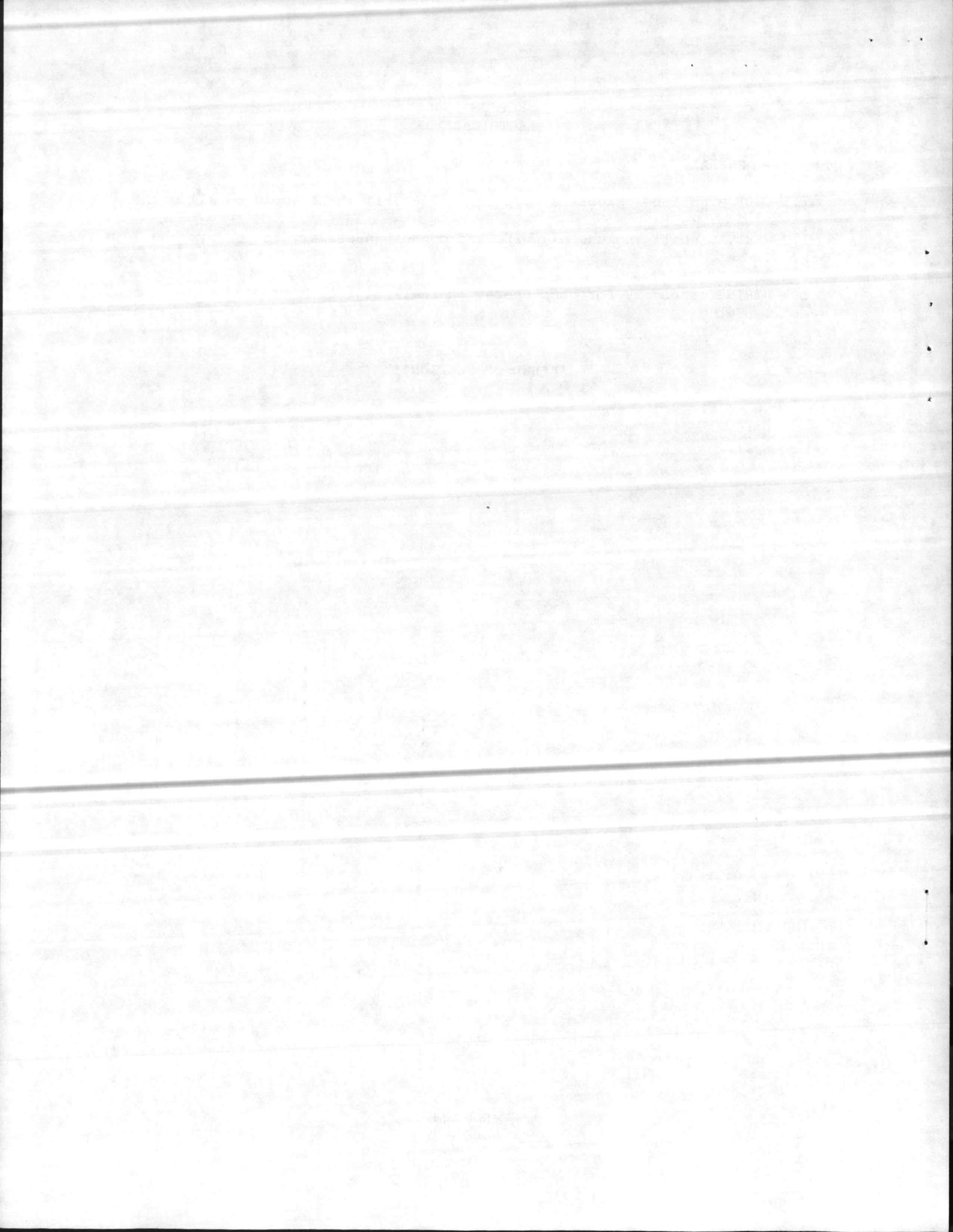
END OF SECTION

SECTION 16400
ELECTRICAL WORK

PART 1 - GENERAL

- 1.1 CODE - National Electric Code (NFPA 70-1981) shall apply to all work.
- 1.2 REMOVAL shall include all wire and conduit necessary to perform the work.
- 1.3 WIRING necessary for pump operation shall be reconnected.

END OF SECTION



SUPERSIDES DECISION

STATE: NORTH CAROLINA
 DECISION NUMBER: NC81-1148
 Supersedes Decision No.: NC79-1125, September 7, 1979, 44 FR 52577
 DESCRIPTION OF WORK: Water and Sewer construction projects and Heavy construction projects excluding ~~Land~~ construction projects

COUNTIES: Statewide
 DATE: Date of publication

	Basic Hourly Rates	Fringe Benefits Payments			
		H & V	Pensions	Vocational	Education and/or Appr. Tr.
Bricklayers	\$4.47				
Carpenters	5.16				
Cement masons	5.01				
Fence erectors	4.04				
Ironworkers:					
structural	4.81				
Laborers:					
asphalt makers	3.95				
pipelayers	3.98				
powdermen	5.95				
unskilled	3.37				
Manhole builders	4.00				
Millwrights	4.00				
Painters	5.50				
Piledrivermen	6.29				
Plumbers & Pipefitters	5.25				
Power Equipment Operators:					
asphalt paver	3.98				
backhoe	4.99				
boom operator	4.00				
bulldozer	4.50				
compactor	3.75				
crane	5.87				
dragline	5.50				
drill:					
air	4.81				
well	4.50				
loader	4.48				
mechanic	5.16				
motor grader	4.25				
oiler	3.75				
pump operator	3.75				
roller	3.35				
scraper (pan)	4.25				
screed	4.03				
tractor	4.75				
trenching machine	5.00				
Truck drivers	3.67				
*ELECTRICIAN	6.50				

Unlisted classifications needed for work not included within the scope of this classification may be added only after award as provided in the labor standards contract clauses (29 CFR, 5.5 (c) (1) (iii)).

*MODIFICATION NO. 1 (45 FR 86200 - DECEMBER 30, 1980)

WAGE DETERMINATION

05-83-5842

Any Meter
for 610

610
Air Line

70' -

TOP Screw

61' to 73'

70
51
19

88 to 109

129 to 141