

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE J	PAGE OF PAGES 1 30
2. AMENDMENT/MODIFICATION NO. 01	3. EFFECTIVE DATE 22-Oct-2014	4. REQUISITION/PURCHASE REQ. NO. 0010592608-0001		5. PROJECT NO.(If applicable)
6. ISSUED BY INSTAL & VEHICLE SUP CONTRACTING DIV 6501 E. 11 MILE ROAD WARREN MI 48397-5000	CODE W56HZV	7. ADMINISTERED BY (If other than item 6) INSTAL & VEHICLE SUP CONTRACTING DIV RACHEL SERRA CCTA-HDC-B/MS350 RACHELL.SERRA.CIV@MAIL.MIL WARREN MI 48397-5000		CODE W56HZV
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) ROCK INDUSTRIES, INC. ROBERT BRUZA 340 ROCKWELL AVE PONTIAC MI 48341-0000			9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
			X	10A. MOD. OF CONTRACT/ORDER NO. W912JB-11-D-4013-BR01
			X	10B. DATED (SEE ITEM 13) 26-Sep-2014
CODE 3MPN1	FACILITY CODE 3MPN1			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer 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 completing Items 8 and 15, and returning _____ copies of the 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 ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS 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 each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual agreement by both parties by FAR 43.103(b)(1)				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: serrar1532 1. The purpose of modification P01 is to add Section C, Descriptions and Specifications. 2. As a result of the above changes, total contract value has not changed. 3. Except as provided here in all other terms and conditions remain unchanged and in full force and effect.				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) JOHN SARTI / CONTRACTING OFFICER TEL: 586-282-6524 EMAIL: john.m.sarti2.civ@mail.mil	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <u>John Sarti</u> (Signature of Contracting Officer)		16C. DATE SIGNED 22-Oct-2014

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION C - DESCRIPTIONS AND SPECIFICATIONS

The following have been modified:

DESCRIPTIONS & SPECIFICATIONS
DESCRIPTIONS AND SPECIFICATION

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- C.1. GENERAL
- C.2. CONTRACT COMPETITION
- C.3. CONTRACT REQUEST FOR PROPOSAL (RFP)
- C.4. CONTRACT INCLUDING DESIGN AND CONSTRUCTION SERVICES
- C.5. CONTRACT AWARD
- C.6. CONTRACT DATA REQUIREMENTS LIST
- C.7. FORMAL CONTRACT – ORDER OF PRECEDENCE
- C.8. REPORT OF ERROR AND DISCREPANCIES
- C.9. AMBIGUITY/CONTRACT INTERPRETATION
- C.10. DESIGNATION OF GOVERNMENT REPRESENTATIVES
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- C.12. CONTRACTOR STAFF AND EMPLOYEES
- C.13. PROPOSED KEY PERSONNEL AND PROPOSED MINIMUM QUALIFICATIONS
OF KEY PERSONNEL AND PROPOSED SUBCONTRACTORS
- C.14. CONSTRUCTION SCHEDULING, WORK PROGRESS AND PREPARATION OF
PROGRESS SCHEDULES AND REPORTS
- C.15. SUBMITTALS
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- C.17. LAYOUT AND GRADES
- C.18. SCHEDULING OF PRE-FINAL AND FINAL INSPECTIONS
- C.19. AS-BUILT RECORDS AND DRAWINGS, O & M MANUALS, AND WARRANTY
OF CONSTRUCTION
- C.20. EVALUATION OF CONTRACTOR PERFORMANCE
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- C.22. CONTRACTOR RESPONSE
- C.23. MATERIAL TESTING BY NATIONAL LABORATORIES
- C.24. TRANSPORTATION AND HANDLING
- C.25. MISPLACED MATERIALS
- C.26. STORAGE
- C.27. TELEPHONE AND COMMUNICATIONS SECURITY MONITORING
- C.28. UTILITIES
- C.29. UTILITY AND OTHER BASE INTERRUPTIONS
- C.30. TEMPORARY UTILITIES
- C.31. HOT WORK PERMITS
- C.32. WEATHER PROTECTION AND TEMPORARY HEATING
- C.33. CUTTING AND REPAIRING
- C.34. DAMAGES AND REPAIRS
- C.35. SITE CLEAN UP
- C.36. TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
- C.37. CONTRACTOR QUALITY CONTROL
- C.38. QUALITY CONTROL ORGANIZATION

C.1. GENERAL

C.1.1. The contractor shall furnish, upon receipt of award, all materials, supplies, tools, parts (to include system components), supervision, engineering review and design, transportation, quality control, management, and labor necessary to perform all work in strict accordance with the specifications and technical criteria listed in contract. The contractor's work and responsibility shall include all contractor planning, programming, administration, and management necessary to provide all repair and construction and related services as specified in contract. The contractor may be required to meet compressed schedules, to deal with emergency or urgent requirements. The site location for performance will be identified in contract. Work will require extensive knowledge of the functional operation relating to the efficient use of the facility, equipment, and facility support systems, and building structures. Since the facilities may be in operation, the contractor will be required to minimize interference with other contractors or by Government employees.

C.1.2. The work shall be conducted by the Contractor in strict accordance with the Unified Facilities Criteria (UFC), Army Regulations (AR), the Unified Facilities Guide Specifications (UFGS), the International Building Code (IBC), the Architectural Barriers Act (ABA), the National Fire Protection Association (NFPA) standards, the American National Standards Institute (ANSI) standards, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards, Michigan Occupational Safety & Health Administration (MIOSHA), Michigan Department of Environmental Quality, Michigan Department of Labor and Economic Growth, Macomb County Public Works Office, and all other Federal, state, and local laws, regulations, codes, standards, and directives. The compliance with codes and regulations shall be based on the most stringent requirements, in case there is a conflict between any two codes or any two regulations. The Contractor shall remain abreast of any changes in laws, regulations, codes, standards, and directives which impact these facilities. The UFC and UFGS are available at the Whole Building Design Guide (WBDG) website (<http://dod.wbdg.org/>). UFGS Specification Section 01 42 00 *SOURCES FOR REFERENCE PUBLICATIONS* includes a list of standards publishing organizations and contact information.

C.1.3. The contractor shall minimize environmental pollution and damage or potential damage that may result from their operations. Environmental resources within the project boundaries and those affected outside the limits of work shall be protected for the duration of the contract. The Contractor shall be responsible for work delay resulting from failure to comply with environmental laws and regulations. Failure to comply with environmental requirements is not grounds for an equitable adjustment. The contractor shall confine all activities to areas defined by the design drawings and specifications. The contractor shall be responsible for the actions of all subcontractors to ensure they adhere to all environmental requirements. The Army's goal is to have no enforcement actions at any installation. The contractor's actions and support are absolutely essential to achieve this goal at on the United States Army Garrison-Michigan (USAG-DTA). In the event the USAG-DTA is issued an enforcement action, the contractor shall be liable for the cost of all fines and penalties resulting from the violation of any laws due to their actions or failure to perform in accordance with (IAW) Federal, State or local environmental requirements. Also, the contractor shall be responsible to reimburse the Government for all expenses incurred because of the receipt of any enforcement actions. The contractor is responsible to insure that all subcontractors adhere to all environmental requirements. The contractor shall notify the Contracting Officer or Contracting Officer's Representative (COR) if any actual environmental issues are encountered or potential environmental issues may be encountered.

C.2. CONTRACT COMPETITION

C.2.1. This procurement is an 8(a) set-aside and falls under the exemption at FAR Part 5.202 (a)(4).

C.3. RESERVED

C.4. DESIGN AND CONSTRUCTION SERVICES

C.4.1. RESERVED

C.4.2. RESERVED

C.4.3. RESERVED

C.4.4. RESERVED

C.4.5. The design of architectural, structural, HVAC, plumbing, electrical, communications, fire protection, civil, or other engineering features of the work shall be accomplished or reviewed and approved by architects or engineers registered to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia. All plans shall be sealed by the review professional. The contractor shall identify the Designer of Record for each area of work, also to be indicated in the Design Quality Control Plan. One Designer of Record may be responsible for more than one area. All areas of design disciplines shall be accounted for by a listed, State Certified Designer of Record. The Designers of Record shall stamp, sign, and date each design drawing submitted under their responsible discipline for the 100 Percent Design; Corrected Final Design; and Released for Construction Design submittals. Designers of Record shall be employees of, or contracted directly by, the Prime contractor, or shall be an employee of an independent design firm that is contracted directly by the Prime contractor. Drawings, specifications, design analysis, and other design products shall be provided as stated in the RFP.

C.4.6. The Government shall have unlimited rights in all drawings, designs, specifications, notes and other works developed in the performance of a contract, including the right to use on any other Government design or construction without additional compensation to the contractor. The contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws. The contractor for a period of three years after completion of the project agrees to furnish the original or copies of all such works on the request of the Contracting Officer.

C.4.7. All designs, drawings, specifications, notes, and other works developed in the performance of contracts shall become the sole property of the Government and may be used on any other design or construction without additional compensation to the contractor. The Government shall be considered the “person for whom the work was prepared” for the purpose of authorship in any copyrightable work under 17 U.S.C.201(b). With respect thereto, the contractor agrees not to assert or authorize others to assert any rights nor establish any claim under design patent or copyright laws. The contractor for a period of three years after completion of the project agrees to furnish all retained works on the request of the Contracting Officer. Unless otherwise provided in this contract, the contractor shall have the right to retain copies of all works beyond such period.

C.4.8. RESERVED

C.4.9. RESERVED

C.4.10. Responsibility of the Contractor for Design. The contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and any other non-construction services furnished by the contractor under this contract. The contractor shall, without additional compensation, correct or revise any errors or deficiency in designs, drawings, specifications, and other non-construction services. Neither the Government’s review, approval or acceptance of, nor payment for, the services required under contract shall be construed to operate as a waiver of any rights under contract or of any cause of action arising out of the performance of a contract. The contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the contractor’s negligent performance of any of the services described under contract. The rights and remedies of the Government provided for under contract are in addition to any other rights and remedies provided by law.

C.4.11. Notice to Proceed (NTP). After receipt of the NTP, the contractor shall initiate design, comply with all design submission requirements, and obtain Government review of each submission. No construction may be started until the Government reviews the final design submission and determines it satisfactory for purposes of beginning construction. The Contracting Officer or COR will notify the contractor when the design is cleared for construction by issuing a Released for Construction letter. The Government will not grant any time extension for any design re-submittal required when, in the opinion of the Contracting Officer, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

C.4.12. If the Government allows the contractor to proceed with limited construction based on pending minor revisions to the reviewed final design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

C.4.13. Constructor's Role During Design Process. The contractor's construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements. In addition to the typical required construction activities, the contractor's involvement includes actions such as: ensuring constructability and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing the construction Quality Control program with the design Quality Control program, and maintaining and providing the design team with accurate, up to date redline and as-built documentation. The contractor shall require and manage the active involvement of key trade subcontractors in the above activities.

C.4.14. Sequence of Design-Construction (Non-Fast Track). After receipt of the NTP, the contractor shall initiate design, comply with all design submission requirements and obtain Government review of each submission. No construction may be started until the Government reviews the final design submission and determines it satisfactory for purposes of beginning construction. The Contracting Officer or COR will notify the contractor when the design is cleared for construction by issuing a Released for Construction letter. The Government will not grant any time extension for any design re-submittal required when, the initial submission fails to meet the minimum quality requirements as set forth in the contract.

C.4.15. Sequence of Design-Construction (Fast Track). After receipt of the NTP, the contractor shall initiate design, comply with all design submission requirements as covered in the Project Book, and obtain Government review of each submission. The contractor may begin construction on portions of the work for which the Government has reviewed the final design submission and has determined satisfactory for beginning construction. The Contracting Officer will notify the contractor when the design is cleared for construction by issuing a Released for Construction letter. The Government will not grant any time extension for any design re-submittal required when the initial submission fails to meet the minimum quality requirements as set forth in the contract. If the Government allows the contractor to proceed with limited construction based on pending minor revisions to the reviewed final design submission, the contracting officer may retain up to 10% of the amount of payment for any in-place construction related to the pending revisions until they are completed, resubmitted, and are satisfactory to the Government.

C.4.16. The contracting officer may retain up to 10% of the amount of payment for any in-place construction until all required submittals have been made, reviewed, and are satisfactory to the Government. Pending minor revisions to the reviewed final design submission, the contracting officer may retain up to 10% of the amount of payment for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

C.5. CONTRACT AWARD

C.5.1. Contract Type. The contract will be Firm-Fixed-Price.

C.5.2. Issuing Authority. The Contracting Officer is designated as issuing authority for contracts placed against the RFP.

C.5.3. Contract Issuance. Contract awards will be issued on SF Form 1442 and will be sent via e-mail. An authorized signer for the contractor must sign and return the contract for award. Upon award of a contract, the contractor shall acknowledge receipt of the contract.

C.5.4. RESERVED

C.5.5. Contract Format. Each contract shall contain the following information:

1. Effective date of contract.
2. Contract number.
3. Contract price, delivery and performance data.
4. Accounting and appropriation data.
5. Wage Determination.
6. Bonding Requirements.

7. Liquidated damages.
8. Scope of Work.
9. Drawings, if applicable.
10. Any other pertinent data determined appropriate by the Contracting Officer.

C.5.6. Bonding Requirements. Payment and performance bonds, if applicable shall be provided to the Contracting Officer within five calendar days after award.

C.5.7. Pre-Construction Meeting and Notice to Proceed. After receipt of acceptable performance and payment bonds, if required, a pre-construction meeting will be held prior to **any** start of work. A NTP agreement will be issued by the Contracting Officer and shall be signed by an official of the company authorized to sign contracts and has authority to bind the company. The contractor shall promptly commence the work specified and in accordance with the provisions contained herein.

C.5.8. Contractor Responsibility. The contractor will be held responsible for all requirements described in the contract documents and all work including that of his subcontractors, if any, shall be done in accordance with the contract documents. Failure to familiarize himself with their requirements will not relieve the contractor of this responsibility to comply.

C.5.8.1. The Contractor shall be responsible for fulfilling the requirements of all applicable parts of the specifications and drawings indicated in the contract. The Contractor shall also be responsible for meeting the following requirements:

C.5.8.2. The Contractor shall be required to prepare reports and correspondence as required by the contract. All correspondence shall reference the contract number and the title on all correspondence, including RFI's, submittals, E-mails.

C.5.8.3. The contractor shall furnish, upon receipt of a contract, all materials, supplies, tools, parts (to include system components), supervision, full and limited engineering, transportation, quality control, management, and labor necessary to perform all work in strict accordance with the specifications and technical criteria necessary to complete various maintenance, repair, alteration and new construction projects.

C.5.9. The Contractor's Site Supervisor and Government representatives shall hold weekly progress meetings for the duration of the contract.

C.6. CONTRACT DATA REQUIREMENTS LIST

C.6.1. Common Data Submittals and Frequencies. The frequency of submittals that may be required are listed below:

TITLE OF DATA ITEM	FREQUENCY
Corporate Safety Plan	Generic Corporate Plan, 30 days after contract award date
Site Specific Safety Plan	Generic Corporate Plan, 30 days after contract award date.
Quality Control Plan	Generic Corporate Plan, 30 days after contract award date.
Environmental Plan	Generic Corporate Plan, 30 days after contract award date.
Waste Management Plan	As required by contract
Soil and Erosion Plan	As required by contract
Dirt and Dust Control Plan	As required by contract
Design	As required by contract
Submittal Registry	As required by contract
Work Schedule	As required by contract
O&M Manuals	As required by contract
Training Plan	As required by contract
Equipment & Construction Warranties	As required by contract
Prepare As-Built Drawings	As required by contract
List of Equipment Installed	As required by contract
Warranty Management Plan	As required by contract

C.7. CONTRACT – ORDER OF PRECEDENCE

C.7.1. The contract between the Government and the successful offeror includes the standard contract clauses and schedules current at the time of award of the contract or modification of the contract. It also entails: all drawings, cuts and illustrations, and any modifications. The material contained in the contract constitutes and defines the entire agreement between the contractor and the Government. No documentation shall be omitted which in any way bears upon the terms of the agreement.

C.7.2. In the event of conflict or inconsistency between any of the provisions of the various portions of the contract, precedence shall be given in accordance with the clause at 52.215-8 Order of Precedence – Uniform Contract Format, as prescribed in FAR 15.209(h).

C.7.3. If there is a conflict between requirements specified in a contract and the Unified Facilities Guide Specifications (UFGS) then the requirements of the contract shall govern and shall be adhered to.

C.8. REPORT OF ERROR AND DISCREPANCIES

C.8.1. The contractor shall be responsible for any and all discrepancies in work due to failure to obtain dimensions and investigate conditions at the building before fabrication and installation.

C.8.2. The contractor shall bear all costs in replacing all materials and labor due to not observing the above paragraph and such replaced materials shall meet the approval of the COR.

C.8.3. The contractor shall promptly notify the Contracting Officer and COR in writing of any discrepancies.

C.8.4. Any proposed changes to the specifications by the contractor must be submitted in writing to the Contracting Officer and COR for approval prior to implementation.

C.9. AMBIGUITY/CONTRACT INTERPRETATION

C.9.1. It shall be the obligation of the contractor to exercise due diligence to discover and to bring to the attention of the Contracting Officer at the earliest possible time any patent ambiguities, discrepancies, inconsistencies, or conflicts in or between the specifications and the applicable drawings or other documents incorporated by reference herein.

C.10. DESIGNATION OF GOVERNMENT REPRESENTATIVES

C.10.1. Contracting Officer. The Contracting Officer is the administrating representative of all contracts. The Contracting Officer is the sole individual with authority to obligate the Government and change contract terms and conditions.

C.10.2. Contracting Officer's Representative (COR). The Contracting Officer shall appoint a qualified COR. The COR is designated as the technical representative of the Contracting Officer for the purpose of technical surveillance of workmanship and inspection of materials for work being performed under contract. This in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in terms of the contract.

C.11. COMPLIANCE WITH STATE AND FEDERAL LAWS AND REQUIREMENTS

C.11.1. The contractor, his employees, and his subcontractors are subject to, and shall abide by and comply with, all relevant statutes, ordinances, laws and regulations of the United States (including Executive Orders of the President) and any State (or other public authority now or hereafter in force). The contractor agrees to observe and comply with all applicable state and Federal requirements regarding social security, workman's compensation, unemployment insurance, and any other matters concerning employment applicable to the performance of a contract or rules, regulations, directions and order not inconsistent herewith as may from time to time be issued by the Government. The unilateral act of any Governmental body against any employee of the contractor for the violation

of a state or Federal law or regulation shall not excuse the contractor from full compliance with the terms and conditions the contract.

C.12. CONTRACTOR STAFF AND EMPLOYEES

C.12.1. Contractor Information. The contractor shall provide the Contracting Officer with a telephone number, fax number, and e-mail address at which the contractor or their representative may be contacted at any time during regular working hours and an emergency number at which the contractor may be contacted in situations requiring immediate action.

C.12.2. Staffing. The manpower and staffing requirements for work will vary. Work requirements are set forth herein. The contractor shall employ adequate manpower capabilities to perform the functions detailed in each contract.

C.12.3. Contractor's Quality Control Manager. The Contractor shall execute the work under the direction of a Contractor's Program Manager. All work shall be accomplished with adequate internal controls and review procedures that will eliminate conflicts, errors, and omissions and ensure the technical accuracy of all output. See Section C.37, "Contractor Quality Control" for further guidance.

C.12.4. Superintendence. The contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Contracting Officer, at the work site while work is in progress, with authority to act. The contractor's superintendent is responsible for the overall production and quality of work on the job. The superintendence shall maintain a physical presence at the site at all times and shall be responsible for construction and construction related activities at the site.

C.12.5. Supervision. The contractor's personnel shall, at all times, be under the supervision of the contractor and not Government personnel, whether uniformed or civilian and regardless of rank. The Government shall not exercise any supervision or control over the contractor employees performing services under this contract. Such employees shall be accountable not to the Government, but solely to the contractor, who in turn is responsible to the Government.

C.12.6. Personnel. The contractor shall be responsible to employ and utilize only experienced journeymen overseeing certified apprentices in the field they are working and capable persons in the performance of work under contract. All employees must be citizens of the United States or authorized aliens and shall be able to furnish proof of citizenship or a legal work visa if asked to do so by the Contracting Officer. Only authorized contractor personnel shall be admitted to the worksite at all times.

C.12.7. Removal of Personnel. The Contracting Officer may require the contractor to remove from the job those employees who endanger persons or property; those who manufacture, distribute, dispense, possess, or use controlled substances at the worksite and those whose continued employment under this contract is inconsistent with the interest of military security.

C.12.8. Liability. The contractor hereby agrees to release the Government (to include its officer, enlisted personnel, agents, and employees) from any liability for any loss, damage, or injury sustained by the contractor or his employees during the performance of this contract. The contractor also agrees to indemnify the Government for any loss, damage, or injury to Government personnel or agents or other third parties, provided such loss to the Government is caused by the negligence of the contractor or his personnel while performing this contract.

C.13. PROPOSED KEY PERSONNEL AND PROPOSED MINIMUM QUALIFICATIONS OF KEY PERSONNEL AND PROPOSED SUBCONTRACTORS

C.13.1. RESERVED

C.13.2. Personnel qualifications for all personnel working on a contract shall be in accordance with Unified Facilities Guide Specifications (UFGS).

C.13.2.1. The Project Manager shall have a minimum ten years experience as a Project Manager on construction projects similar to this contract and similar in size and complexity. In addition, the Project Manager shall complete the course entitled "Construction Quality Management for Contractors" prior to the start of construction. For further information, contact the nearest United States Army Corps of Engineers (USACE) Construction Division Office.

C.13.2.2. The Superintendent shall have a minimum ten years experience as a Superintendent on construction projects similar to this contract and similar in size and complexity. In addition, the Project Manager and Superintendent shall complete the course entitled "Construction Quality Management for Contractors" prior to the start of construction. For further information, contact the nearest USACE Construction Division Office.

C.13.2.3. The Contractor's Quality Control (CQC) Manager shall have a minimum of ten years construction experience on construction projects similar to this contract and similar in size and complexity. In addition, the CQC Manager shall complete the course entitled "Construction Quality Management for Contractors" prior to start of construction. For further information, contact the nearest USACE Construction Division Office.

C.14. CONSTRUCTION SCHEDULING, WORK PROGRESS AND PREPARATION OF PROGRESS SCHEDULES AND REPORTS

C.14.1. A weekly progress meeting will be held between the contractor, COR, and Contracting Officer, if necessary, to discuss work progress, problems and potential change orders. Contractors shall attend these meetings at no additional cost to the Government.

C.14.2. Prior to specific work elements of a project, the contractor shall confer with the COR and agree on a sequence of procedures and means of access to premise and buildings; space for storage of materials and equipment; delivery of materials and use of approaches, use of corridors, stairways, and similar means of passage.

C.14.3. Portable furniture in the immediate project area shall be moved by the contractor to a location designated by the COR and replaced to its original position, or an alternate location as determined by the COR, upon completion of the work. Schedules for movement of furniture and equipment and delivery of materials shall be incorporated in the progress schedule and shall be made with a minimum of interference to Government operations and personnel. So far as practicable, the work shall be completed by section and confined to limited areas. Coordination with the COR and the user activity shall be accomplished at least three days in advance.

C.15. SUBMITTALS

WHERE THE FOLLOWING REQUIREMENTS DIFFER FROM REQUIREMENTS ESTABLISHED BY A SPECIFIC CONTRACT, THE CONTRACT REQUIREMENTS SHALL GOVERN.

C.15.1. RESERVED

C.15.2. RESERVED

C.15.3. RESERVED

C.15.4. Approved Submittals. The approval of submittals by COR shall not be construed as a acceptance but will indicate only that the general method of construction, materials, detailing, and other information are satisfactory. Approval will not relieve the contractor of the responsibility for providing adequate quality control measures, compliance with contract requirements, and satisfactory construction of all work. After the COR has approved submittals, no re-submittal for the purpose of substituting materials or equipment will be given consideration unless accompanied by an explanation as to why a substitution is necessary. Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so signed and dated. Electronic copy of the submittal will be retained by the COR and a copy of the submittal will be returned to the contractor.

C.15.5. Disapproved Submittals. The contractor shall make all corrections required by the Contracting Officer and COR and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. If the contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under the contract clause 52.243-4, entitled "Changes" shall be given promptly to the Contracting Officer.

C.15.6. Withholding Payment. Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

C.15.7. Submittal Execution.

C.15.7.1. The contractor, upon receipt of contract and prior to beginning execution of any work on the project, shall submit shop drawings to the COR for approval.

C.15.7.2. The Contracting Officer shall have 14 calendar days after date of receipt in which to approve or reject the submittals.

C.15.7.3. The contractor shall include time for this submittal process in the project schedule.

C.15.7.4. If approved by the COR, each copy of the submittals will be identified as having received such approval by being so stamped and dated.

C.15.7.5. The contractor shall make all corrections required by the COR.

C.15.7.6. The approved drawings shall not be construed as acceptance but will indicate only that the general method of construction and detailing is satisfactory. Approval of such drawings will not relieve the contractor of the responsibility for providing adequate quality control measures, compliance with contract requirements, and satisfactory construction of all work.

C.15.7.7. Submittals shall be submitted to the address specified by the contract.

C.15.7.8. RESERVED

C.15.7.9. RESERVED

C.15.8. Certification. The contractor is responsible for and shall certify that the submittals comply with contract requirements. For design-build construction, both the Contractor Quality Control System Manager and the Designer of Record are to stamp and sign to certify that the submittal meets contract requirements.

C.15.8.1. Drawings. Each drawing shall be not more than 28 inches high by 42 inches wide, with a USAG-DTA title. Title block shall contain subcontractors or fabricator's name, contract number, description of item(s), bid item number, and a revision block. The contractor shall submit the required number of prints of any type and CD copy in MicroStation format. Where drawings are submitted for assemblies of more than one piece of equipment or systems of components dependent on each other for compatible characteristics, complete information shall be submitted on all such related components at the same time. The contractor shall ensure that information is complete and that sequence of drawing submittal is such that all information is available for reviewing each drawing. Drawings for all items and equipment, of special manufacture or fabrication, shall consist of complete assembly and detail drawings. All revisions after initial submittal shall be shown by number, date, and subject in revision block. All drawings shall be submitted on a CD in MicroStation format and Adobe Acrobat Portable Document Format.

C.15.8.2 Printed Material. All requirements for shop drawings shall apply to catalog cuts, illustrations, printed specifications, or other data submitted. Inapplicable portions shall be marked out and applicable items such as model numbers, sizes, and accessories shall be indicated.

C.15.8.3 Changes To Previous Submittals. It is the Government's intent to standardize equipment and materials utilized and installed. In the event the contractor desires to change materials or equipment previously submitted, the

contractor must annotate the transmittal block of the ENG Form 4025 as "Change to previous transmittal number ", and forward the submittal for Government approval.

C.15.8.4. Processing of Government Approved Submittals. Submittals requiring Government approval shall be submitted as specified in this contract. Having a completed copy of ENG Form 4025 attached to it shall identify each copy submitted. Submittals will be reviewed and processed as stated in UFGS Specification Section 01 33 00, *SUBMITTAL PROCEDURES*.

C.15.8.5. Processing of Information Only Submittals. Copies of submittals that are submitted for information only shall be submitted prior to ordering of the material or equipment to the job site. Each copy submitted shall be identified by having a completed copy of ENG Form 4025 attached to it. ENG Form 4025 shall be marked as follows to identify the contractor approved submittals. An asterisk shall be placed in column "h" and the words "contractor approved information copy only" shall be placed in the remarks block of the form. Submittals will be monitored and spot checks will be made. When such checks indicate noncompliance, the contractor will be notified by the same method used for Government approvals. In the event the contractor requests evidence of Government receipt of submittals, an additional completed ENG Form 4025 shall be submitted (without attachments) which will be returned to the contractor to signify that the submittal has been received.

C.15.8.6. Transmittal Checklist. The following checklist is intended to aid in the preparation of ENG Form 4025 and related transmittals and is intended only as a partial summary of requirements stated elsewhere within this specification.

- a. DO NOT submit multiple 5-digit specification sections on one ENG Form 4025.
- b. Transmittal # 1 shall be the Submittal Register. Subsequent submittals shall be numbered sequentially as submitted except for re-submittals. Re-submittals must be related to the parent (original) transmittal, i.e. transmittal no. 2 re-submittal would be number 2A, etc.
- c. Government Approval; Submit the number of copies as specified in this contract for enclosures; each with ENG Form 4025 attached. Information only; submit the number of copies specified in this contract for enclosures, each with ENG Form 4025 attached.
- d. Break the submittal into items that can be reviewed independently. For a transmittal with more than 9 items use multiple sets of ENG Form 4025.
- e. Item numbers must be written on the enclosures and the ENG Form 4025.
- f. Only ONE copy with the information required by items 2 and 5 above should be collated by items into a booklet form.
- g. Enter the specification technical paragraph for each Item in column "e" on the ENG Form 4025.
- h. Identify the contract drawing number that applies, if applicable, in column "2" on ENG Form 4025.
- i. Variations shall be identified in Description of Material column on ENG Form 4025 and justified in the Remarks Block on the reverse of the form.
- j. Cross out inapplicable portions of submitted data or point to exact equipment being used on the project.
- k. Allow a minimum 14 calendar days for submittals requiring Government Approval.
- l. DIGITALLY SIGN the ENG Form 4025.

C.16. METHOD OF CARRYING ON THE WORK

C.16.1. All work under the contract shall be arranged and carried on in such a manner as to complete work in the least possible time. The contractor shall consult with the Contracting Officer and the COR as to methods or sequence of carrying on the work.

C.16.2. Activities in the vicinity of this project may be kept in full or partial operation during construction. The contractor shall coordinate with the COR and schedule construction activities.

C.17. LAYOUT AND GRADES

C.17.1. All lines and grade work not presently established at the site shall be laid out by the contractor in accordance with the drawings and specifications. The contractor shall maintain all established boundaries and benchmarks and replace as directed any which are destroyed or disturbed.

C.18. SCHEDULING OF PRE-FINAL AND FINAL INSPECTIONS

C.18.1. Notification for Pre-Final Inspection. The contractor and the Government will jointly conduct a pre-final inspection prior to any final inspection. Prior to requesting a pre-final inspection, the contractor shall inspect his work thoroughly and make required corrections. Request for the pre-final inspection shall be made in writing to the COR at least five calendar days prior to the desired date.

C.18.2. Pre-Final Inspection. Discrepancies noted will be furnished by the COR. The COR is responsible for furnishing a complete punch list, in writing, to the contractor. Items noted on the punch list will be completed prior to scheduling a final inspection.

C.18.3. As-Built drawings, real property data, warranties, O&M manuals, equipment list etc., shall be submitted as specified in the contract.

C.18.4. Notification for Final Inspection. When the contractor is ready for final inspection, he shall request so in writing to the COR or his duly authorized representative at least five calendar days prior to the desired date.

C.18.5. Final Inspection. The final inspection will be performed with the contractor by the COR, consultant team, and representative of the using activity. Discrepancies noted will be corrected within the time specified by the COR.

C.19. AS-BUILT RECORDS AND DRAWINGS, O & M MANUALS AND WARRANTY OF CONSTRUCTION

WHERE THE FOLLOWING REQUIREMENTS DIFFER FROM REQUIREMENTS ESTABLISHED BY A SPECIFIC CONTRACT, THE CONTRACT REQUIREMENTS SHALL GOVERN.

C.19.1. SUBMITTAL PROCEDURES

C.19.2. AS-BUILT FIELD DATA:

C.19.2.1. General. The Contractor shall keep at the construction site a complete set of full size blue line prints or drawings/sketches, reproduced at Contractor expense. As-built drawings shall be provided in accordance with UFGS Specification Section 01 78 00 CLOSEOUT SUBMITTALS. During construction, these prints shall be marked to show all deviations in actual construction from the contract drawings. The color red shall be used to indicate all deletions, green to indicate all additions, and blue to indicate special information, coordination, or special detailing or detailing notes in accordance with UFGS requirements. The drawings shall show the following information:

C.19.2.1.1. The locations and description of any utility lines and other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

C.19.2.1.2. The locations and dimensions of any changes within the building or structure, and the accurate location and dimensions of all underground utilities and facilities.

C.19.2.1.3. Correct grade or alignment of roads, structures, and utilities if any changes were made from contract plans.

C.19.2.1.4. Correct elevations if changes were made in site grading from the contract plans.

C.19.2.1.5. All changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the contractor.

C.19.2.1.6 The topography and grades of all drainage installed or affected as part of the project construction.

C.19.2.1.7. All changes or modifications from the design and from the final inspection.

C.19.2.1.8. These deviations shall be shown in the same general detail and quality utilized in the contract drawings. Marking of the full-size drawing shall be performed continuously during construction to keep them up to date. This information shall be maintained in a current condition at all times until the completion of the work. The resulting field-marked prints and data shall be referred to and marked as "As-Built Field Data" and shall be used for no other purpose. They shall be made available for inspection by the Contracting Officer and a responsible representative of the contractor prior to submission of each monthly pay estimate. Failure to keep the As-Built Field Data (including Equipment-in-Place lists) current shall be sufficient justification to withhold a retained percentage from the monthly pay estimate.

C.19.2.2. Submittal of the As-Built Drawings: As-Built Drawing submittal shall be submitted to the COR as specified in the contract. Redline as-built drawings shall be provided to the COR at the time of the pre-final and final inspections.

C.19.2.3. The contractor shall provide as-built drawings in MicroStation format and Adobe Acrobat Portable Document Format to the Government as specified in the contract. The CAD and Adobe Acrobat PDF drawings shall be as built and submitted to the COR for approval. The contractor shall also prepare as-built drawings for their own design-build drawings in MicroStation format, as specified in the contract, and shall incorporate all As-Built Field Data.

C.19.2.4. As-Built Contract Original Record Tracings:

C.19.2.4.1. Approved preliminary as-built drawings will be returned to the contractor. These drawings are part of the permanent records of this project and the contractor will be held responsible for their protection and safety until they are returned to the COR. Any drawings damaged or lost by the contractor shall be satisfactorily replaced in like medium, quality, and size as the originals at the contractor's expense.

C.19.2.4.2. As-Built drawings shall be provided in conformance with the U.S. National CAD Standard and the DPW Drawing Standard. Additions and corrections to the construction drawings shall be in conformance with the U.S. National CAD Standard. The contractor shall provide as-built drawings in MicroStation format in conformance with the U.S. National CAD Standard regardless of the software and standard in which the CADD drawings are provided to the contractor by the Government. Conversions and corrections to the drawings provided by the Government to the contractor shall be made by the contractor. Line work, line weights, lettering, layering conventions, and symbols shall be in conformance with the U.S. National CAD Standard. If additional drawings are required, they shall be prepared in MicroStation format and shall be in conformance with the U.S. National CAD Standard. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings.

C.19.2.4.3. All work by the contractor shall be done on files in MicroStation format. Translation of files to a different format, for the purpose of as-built production, and then retranslating back to the format originally provided, will not be acceptable unless the Government provided the files in AutoCAD format. If the Government provided drawings are in AutoCAD format then the contractor shall convert the files to MicroStation format and provide the drawings in MicroStation format. The Government will review final as-built drawings for accuracy and the contractor shall make all required corrections, changes, additions, and deletions.

C.19.2.4.4. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the contractor. All other contract drawings shall be marked in the bottom right-hand corner of each drawing either "AS-BUILT" drawing denoting no revisions on the sheet, or "REVISED AS-BUILT" denoting one or more revisions. Original contract drawings shall be dated in the revision block."

C.19.2.4.5. Approval and acceptance of the final as-built record drawings shall be accomplished before final payment is made to the contractor.

C.19.2.5. List of Equipment-In-Place

- a. Prior to the final acceptance inspection on a contract, the Contractor shall identify all new equipment and all equipment removed by submitting a completed Equipment Checklist. Furthermore, the listing shall include the location of each item and nameplate date. This list shall be updated and kept current throughout construction, and shall be jointly inspected for accuracy and completeness by the Contracting Officer's Representative and a responsible representative of the contractor prior to submission of each monthly pay estimate.
- b. Listing shall include: air conditioners, air handling units, condensers, fans, pumps, air compressors, transformers, unit heaters, regulators, direct current power supplies, latrine fixtures, motors, engines, motor or engine-driven equipment, cranes, drinking fountains, sinks, water coolers, generators, space heaters, water heaters, refrigerators, freezers, coolers, meters, gas detectors, humidifiers dehumidifier, air purifier, ovens, power units, fuel tanks, water tanks, elevators, welders, recorders, reels, scales, hydrants, intrusion detection equipment, fire detection and alarm equipment, emergency light sets, emergency eye wash, deluge showers, washers, dryers, dishwashers, bridge cranes, and like items of equipment.
- c. Final payment will not be made to the contractor until the Government has received and approved the listing.

C.19.2.6. Military Real Property Data – DD Form 1354. The DD Form 1354, Transfer and Acceptance of Military Real Property shall be provided electronically in Adobe Acrobat PDF format.

C.19.2.6.1. Contractors shall furnish real property data to the Government via DD Form 1354, or in a format prescribed on the DD Form 1354, of each new construction and/or renovation project awarded unless otherwise notified. The contractor is responsible for accuracy of data current up to the time of submission. For non-complex projects, projects where simple real property data is not anticipated (e.g., paving projects) or projects expected to be completed within 12 months, the contractor shall furnish this data 30 days prior to completion of the project. Dependent upon the type of project and complexity of data required in certain cases, contractors are advised to record information on the DD Form 1354 (or approved facsimile) as the project progresses.

C.19.2.6.2. For major renovation and complex projects or those expected to exceed 12 months, the contractor shall furnish real property data no less than on a quarterly basis. Frequency of submission shall be standard throughout the duration of the project. Contractors are advised to record information on the DD Form 1354 (or approved facsimile) as the project progresses due to the volume of data required to be furnished. Upon completion of the project, the contractor shall furnish a final, comprehensive DD Form 1354.

C.19.2.6.3. The DD Form 1354 accounts for five percent (5%) of the total contract amount and therefore 5% must be shown on the DD Form 1354 or similar breakdown of costs submitted for payment purposes. Upon acceptance of data by the real property specialist, the contractor may invoice for submission of real property data.

C.19.2.6.4. For questions pertaining to the DD Form 1354, contractors should contact the COR. For construction data assistance, contractors may consult with the COR assigned to the project.

C.19.3. Operation and Maintenance Manuals

C.19.3.1 General. The contractor shall provide Operation and Maintenance (O&M) manuals for the complete facility as applicable under contract, including all contractor furnished and installed equipment, systems and materials. O&M manuals shall be provided in accordance with UFGS Specification Section 01 78 23 *OPERATION AND MAINTENANCE DATA* and as specified in the contract. Included herein are requirements for compiling and submitting the O&M data. The O&M data shall be separated by facility into distinct systems and within each distinct system, further separated by the following disciplines: Mechanical, Electrical, Fire Protection, Security, and Architectural/General. The O&M manuals for any particular system shall include narrative and technical descriptions of the interrelations with other systems. This narrative shall include a description on how the system works with notable features of the system, including normal and abnormal operating conditions. The explanation of

the system is to be short and concise with reference to specific manufacturer's equipment manuals for details. Provide overall system schematic with narrative for each discipline. If the quantity of material is such that it will not fit within one binder then it shall be divided into volumes, as required.

C.19.3.1.1. The O&M manuals shall be prepared for each individual facility of multi-facility projects.

C.19.3.1.2. The contractor shall provide the quantity of O&M manuals as specified in the contract. If the number of copies of O&M manuals is not specified in the contract, then the contractor shall provide one electronic Adobe Acrobat Portable Document Format (PDF) copy of the entire submittal package (including the electronic digitally signed ENG Form 4025).

C.19.3.2. O&M Manual and Data Submittal: To establish and assure uniform O&M manual format, the contractor shall submit and receive COR approval on one complete system prior to submissions for remaining systems.

C.19.3.2.1. O&M data on equipment or systems shall be submitted so all data will be approved and bound in the O&M manuals in the required quantity by the time the project reaches 90 percent completion. Failure to furnish approved, bound manuals in the required quantity by the time the project is 90 percent complete, will be cause for the COR to hold or adjust the retained percentage in accordance with Contract Clause 52.232-5, "Payments Under Fixed Price Construction Contracts". For equipment or systems requiring personnel training, the final O & M data must be approved by the COR prior to the scheduling of the training. For equipment or systems requiring acceptance testing, the final O & M data must be approved by the COR prior to the scheduling of the testing.

C.19.3.3. Binders.

C.19.3.3.1. Construction and Assembly. Manuals shall be three ring binder, sliding posts or screw-type aluminum binding posts (three screws) with spine, but only one type shall be used for all manuals. The manuals shall be hardback covered, cleanable, plastic, not over three inches thick and designed for 8-1/2 x 11 inch paper.

C.19.3.3.2. Marking. Each binder shall have the following information, as a minimum, printed on both the spine and cover; or printed on insert in plastic sleeve of notebook binder. BUILDING OR FACILITY NAME, IDENTIFICATION NUMBER (Building No.), LOCATION, AND SYSTEM (Mechanical, Electrical, etc.). Contractor's name and address as well as the contract title and contract number shall be printed on the inside of the front cover.

C.19.3.3.3. Color. Color of binder and markings shall be the option of the contractor except that: (a) labeling color shall contrast with binder color, and (b) colors shall be the same for all manuals on a particular contract.

C.19.3.3.4. Content. The O&M manuals shall be structured to address each of the following topics.

- a. Warning Page. A warning page shall be provided to warn of potential dangers (if they exist), such as high voltage, toxic chemicals, flammable liquids, explosive materials, carcinogens, or high pressures. The warning page shall be placed inside the front cover, in front of the title page.
- b. Index. Each manual shall have a master index at the front identifying all manuals and volumes and subject matter for each. Following the master index, each manual shall have an index of its enclosures listing each volume and tab numbers., as necessary to readily refer to a particular operating or maintenance instruction. Rigid tabbed flyleaf sheets shall be provided for each separate product, equipment, or system in the manual. All pages shall be numbered with the referenced number included in the index.

C.19.3.4. Warranties.

- a. The contractor shall warrant that work performed on a contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of one year from the date of final acceptance of the work. If the Government takes possession of any part of

the work before final acceptance, this warranty shall continue for a period of one year from the date the Government takes possession.

- b. The Contractor shall provide extended parts and labor warranties on all equipment, products, and items, including roofs, HVAC equipment, pumps, motors, transformers, fire protection and fire alarm equipment, lightning protection equipment, and all other equipment as specified in the Unified Facilities Guide Specifications (UFGS). In addition to submitting warranty information when specified in the Unified Facility Guide Specifications, all product warranty information shall also be provided at the time product data information is submitted to the Government for review. Parts and labor warranties shall be provided for the maximum duration specified in the Unified Facilities Guide Specifications for all products.

C.20. EVALUATION OF CONTRACTOR PERFORMANCE

C.20.1. The contractor's performance shall be evaluated upon completion of a contract of \$650,000 or more or termination of the contract per FAR 42.1502(e). Contractor's performance shall be evaluated using Construction Contractor Appraisal Support System (CCASS).

C.20.2. The Government reserves the right to evaluate contract performance under \$650,000 when determined to be in the best interest of the Government. Interim evaluations for a contract in excess of \$150,000 may be prepared at any time during contract performance when determined to be in the best interest of the Government.

C.20.3. Any specific requirements for contract quality control and quality assurance by the Government personnel will be defined in the contract. The contractor will be rated in the areas of contract quality control, timely performance, effectiveness of management, compliance with labor standards, and compliance with safety and environmental standards. The contractor will be notified of any rating entered into CCASS, either in an individual element or in the overall rating, prior to completing the evaluation, and all contractor comments will be made a part of the official record. Performance evaluation reports will be available to all DoD Contracting Officer's for their future use in determining contractor responsibility.

C.21. DIVISION OF WORK

C.21.1. The various divisions of the specifications shall not be considered as negotiations of the material and labor involved. The arrangement and order of these divisions have been made for convenience only, and it is not the intent, nor shall it be so construed, a particular trade or subcontractor must perform that work included in any one division.

C.21.2. Any item mentioned under any division heading must be supplied even though it is not specified under the heading for the respective work, but is shown on the drawings. No claims for extras arising out of real or alleged error in such arrangement or order of the various divisions will be given consideration.

C.21.3. The organization of the specifications into divisions, sections, and articles, and the arrangement of the drawings shall not control the contractor in dividing the work among subcontractors or in establishing the extent of the work to be performed by any trade.

C.22. CONTRACTOR RESPONSE

C.22.1. The contractor shall maintain an off-site location that will not hinder or prohibit the required response times. For non emergency situations, the contractor is required to respond to notification within two calendar days of such notification. For emergency situations, the contractor shall respond within 60 minutes of notification.

C.23. MATERIAL TESTING BY NATIONAL LABORATORIES

C.23.1. Electrical materials and equipment shall be new and bear the UL label or be listed in UL Electrical Construction Materials Directory or Electrical Appliance and Utilization Equipment Directory, wherever standards have been established by the agency.

C.23.2. The contractor shall submit proof that the material or equipment, which he proposes to furnish under this specification, conforms to the standards of Underwriters Laboratories. The label of Underwriters Laboratories (UL) shall be accepted as conforming to this requirement.

C.23.3. In lieu of the label, the contractor may submit a written certification from any recognized testing agency, adequately equipped and competent to perform such services, that the material or equipment has been tested and conforms to the standards, including the methods of testing used.

C.24. TRANSPORTATION AND HANDLING

C.24.1. The contractor shall coordinate with suppliers and shippers to ensure incoming materials are properly identified with the contractor's name, contract number, and project title. The contractor shall be available to receive shipment.

C.25. MISPLACED MATERIALS

C.25.1. Any material that is deposited elsewhere than areas designated as approved by the COR shall be re-handled and deposited in accordance with contract requirements. No payment will be made for re-handling such material. The Contracting Officer will notify contractor of any noncompliance with the foregoing provisions.

C.26. STORAGE

C.26.1. No secure storage space will be provided by the Government. The Government will not be responsible for property belonging to or under the present control of the contractor. The contractor is to protect their materials. An unsecured, open area will be designated by the COR for storage of construction equipment and materials during the period covered by a contract.

C.26.2. The contractor shall construct such temporary sheds as they may require for the use of their workmen and as required for tool cribs and storage of all work on a contract. Temporary sheds shall be confined to the space assigned by the COR.

C.26.3. Sheds shall be of approved construction and wood floors, lighting, and heat shall be provided in all parts used by workmen. Exterior of sheds shall be painted, all parts maintained in good condition throughout the life of the contract, and at completion, all parts shall be removed and the premises shall be cleaned up by the contractor at its expense.

C.26.4. Storage of supplies, materials, and equipment on the project site shall be accomplished in such a manner to prevent mechanical and climatic damage and loss due to vandalism or theft. Equipment temporarily removed in the performance of work and stored on the job site shall be stored and protected in accordance with the previous paragraphs, and shall be replaced in a condition compatible with its original state. Security for equipment and material removal from the job site or for temporary storage until reuse shall be the responsibility of the contractor.

C.27. TELEPHONE AND COMMUNICATIONS SECURITY MONITORING

C.27.1. All communications with DoD organizations are subject to communication security (COMSEC) review. Contractor personnel will be aware telephone communication networks are continually subject to intercept by unfriendly intelligence organizations. The DoD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls originating from, or terminating at, DoD organizations. Therefore, civilian contractor personnel are advised any time they place a call to, or receive a call from, a U.S. Army organization, they are subject to COMSEC procedures. The contractor will assume the responsibility for ensuring wide and frequent dissemination of the above information to all employees dealing with DoD information.

C.28. UTILITIES

C.28.1. If it becomes determined by the government that Government-operated utilities (to be specified in the

contract) are adequate they will be furnished to the contractor without charge where existing outlets are available. The contractor is responsible for installing temporary service outlets, as necessary, and charges will be made in accordance as determined by the Contracting Officer. Any expense incurred to gain access to these utilities shall be the responsibility of the contractor and all utilities shall be returned to their original configurations at the end of the contract. No alterations to existing utilities shall be accomplished without the written permission of the COR.

C.28.2. The contractor shall notify the COR and obtain Fire Department approval prior to connecting to any base fire hydrant.

C.29. UTILITY AND OTHER BASE INTERRUPTIONS

C.29.1. If it becomes necessary to interrupt work activities in buildings or areas for construction purposes, permission to do so must be requested in writing to the COR at least 14 calendar days prior to commencing work and shall be subject to COR approval. Written requests for street closing or parking impacts shall be submitted for approval to the Contracting Officer and COR at least 14 calendar days prior to closing the street.

C.29.2. Shutoff of utilities that will cause interruption of Government work operation as determined by the COR shall be accomplished during Government non-work hours or on non-work days of the Using agency without any additional cost to the Government.

C.29.3. The contractor shall communicate all vehicular, pedestrian, and utility interruptions in detail by submitting the Construction Impact Notification Form. A copy of the current Construction Impact Notification Form can be obtained from the COR upon request. The Directorate of Public Works (DPW) Chief of Engineering Plans & Services must have 14 calendar days notice from the contractor prior to permission being secured.

C.29.4 Work in connection with this contract which requires utility outages (electrical, water, gas, steam,.) which will close down or limit (as determined by the COR) normal activities in the building, construction area, or other affected areas, shall be performed by the contractor at a time other than regular working hours of the organization occupying the facility. Work required by the contractor on non-standard basis or at premium pay shall be done at no additional cost to the Government.

C.29.5. The contractor's progress schedule shall include preliminary listing of all proposed shutdown dates. Every effort shall be made to make all shutdowns as brief as possible and as limited in extent as possible.

C.30. TEMPORARY UTILITIES

C.30.1. The contractor shall provide all temporary utilities used for work under this contract including temporary lines and connections. The contractor shall remove all temporary lines and all temporary utilities at the completion of the work.

C.31. HOT WORK PERMITS

C.31.1. A hot work permit is required for all operations requiring ignition of a combustible. This permit is required prior to commencement of any hot work. To obtain permit call: 586-282-6448 (TACOM Reg. 420-8) or 586-282-6021. Any work within the confines of the installation, in or out of doors, that will produce sparks, flames, or heat will require the issuance of a hot work permit.

C.31.2. Hot work permits are issued on a day-to-day basis by the Detroit Arsenal Fire Inspectors. Each contractor requiring a permit must contact the Fire Station via the business numbers provided. Only the Prime contractor's superintendent or safety office will be issued a hot work permit.

C.31.3. After completion of an inspection of the work area a hot work permit will be issued. The contractor will be required to have the proper size and type fire extinguisher at the work site (contractors are not permitted to utilize the government fire extinguisher located in the building). The contractor responsible for the work being done will be required to sign the hot work permit.

C.31.4. After all hot work is completed for the day and a 60-minute cool down period (per EM 385-1) has been observed, the contractor must contact the DTA Fire Department to close the permit. The Fire Department will send a representative to re-inspect the work site. If all conditions are safe, the permit will be cancelled out.

C.31.5. All subcontractors shall adhere to the above requirements in order to maintain hot work permits.

C.31.6. WARNING: contractors shall not leave the job site without closing the permit. Failure to do so will result in no further hot work permits being issued to the contractor.

C.32. WEATHER PROTECTION AND TEMPORARY HEATING

C.32.1 The contractor shall provide and maintain weather protection as may be required to properly protect all parts of the structure from damage during construction.

C.32.2 The contractor shall be responsible for repairs and maintenance to the heating system or units during the period during progress of building construction and shall deliver same to the Government, at termination of such use, in perfect condition, cleaning out all air ducts and replacing all filters. Any temporary heating shall be at the expense of the contractor.

C.33. CUTTING AND REPAIRING

C.33.1. Unless otherwise specified hereinafter, the contractor shall do all necessary cutting, drilling, fitting, and patching of work and corresponding work that may be required to make several parts come together and fit it to receive, or be received, by work of other trades shown upon, or reasonably implied, by the drawings and specifications for the completed project.

C.33.2. The contractor shall be held responsible for all cutting, replacement, and repairing of work that is due to faulty workmanship and which is not specifically covered by specifications for trades which are affected. The contractor will also be held responsible for providing, without extra cost to the Government, any small incidental items which are not specifically mentioned in trade specifications, but which are necessary to complete the work in accordance with the drawings, and under the general understanding that the work, when completed, shall be a finished and workmanlike job.

C.34. DAMAGES AND REPAIRS

C.34.1. All damages by the contractor's operations due to the failure to use reasonable care shall be repaired or replaced, at the contractor's expense, as directed by the Contracting Officer. Any Government property damaged as a result of the work, materials, or operations of the contractor due to the failure to use reasonable care shall be restored at no additional expense to the Government.

C.34.2. All existing sidewalks, curbs, and pavement disturbed, broken, or removed or otherwise damaged by the contractor due to failure to use reasonable care during performance of the work under this contract shall be replaced by the contractor at his own expense. Replaced sidewalks, curbs, and pavements shall be smooth, shall blend into the existing work, and shall not present depressions or humps.

C.35. SITE CLEAN UP

C.35.1. The contractor shall maintain the construction site in a clean and orderly condition. All refuse and salvage material shall be gathered and disposed of periodically to maintain the site in this condition. All roadways within the work area, or used by the contractor, shall be swept and vacuumed daily. The cleaning operation shall be accomplished with self-propelled sweepers equipped with pick-up devices. The method of cleaning and equipment employed shall be subject to the approval of the COR.

C.35.2. During and after periods of rain, this construction site may have a very high water table or areas of standing surface water. Dewatering techniques are a contractor's option; however, the COR shall approve the method prior to start of work to ensure compliance with environmental requirements and regulations.

C.35.3. Following completion of the work, the contractor shall clean the entire area from any debris and excess of misplaced material due to his operation and obtain COR approval of this finished work.

C.35.4. Cleanup and disposal of debris and fill materials:

C.35.4.1. At the end of each workday, the contractor shall clean up the work and storage areas and stack all materials in a manner approved by the COR. Upon completion of a project, the contractor shall insure that all dirt, trash, and debris resulting from the construction operations are removed from the work area. Disposal of debris shall be made at the contractor's expense and shall be delivered to a state approved disposal site located off Government property. Debris shall not be left in such a manner that wind or other weather conditions can cause the debris to be scattered outside the work area.

C.35.4.2. The hauling and disposal of excess fill material including rock, gravel, sod, broken concrete or asphalt, and plaster shall be the responsibility of the contractor. Disposal shall be off USAG-DTA property unless otherwise stated within the contract.

C.35.5. Prior to acceptance of the facility and at such times as directed by the Contracting Officer, the contractor shall thoroughly clean all exposed surfaces of the building where work under this contract was completed. All protective coatings, except lacquers, shall be removed from finish surfaces and the finish surfaces shall be washed and cleaned. The contractor shall be held responsible for all damaged materials and at completion shall replace, at his own expense, all such damaged materials.

C.36. TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

C.36.1. During the period 15 November through 15 April there may occur extended periods (periods in excess of 15 calendar days or more) where weather conditions exist which the Government determines are unsuitable for performance. In the event such conditions exist, the Government reserves the right to suspend performance by unilateral modification. Modification shall state the period of the applicable weather exclusion period and the adjusted contract completion date. Contract completion date will be adjusted by adding the number of exclusion days to the prior completion date. Weather exclusion periods shall be at no additional cost to the Government.

C.36.2. The following paragraph specifies the procedure for the determination of time extensions for unusually severe weather. In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

C.36.2.1. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

C.36.2.2. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the contractor.

C.36.2.3. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependant activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(16)	(12)	(07)	(05)	(04)	(04)	(04)	(04)	(04)	(04)	(05)	(11)

C.36.3. Upon acknowledgment of the NTP and continuing throughout the contract, the contractor will record on the daily QCQ report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delays must prevent work on critical activities for 50 percent or more of the contractor's scheduled

workday.

C.36.4. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in the previous month) shall be calculated chronologically from the first to the last day of each month, and shall be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated according to the paragraph above, the Contracting Officer may convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather workdays, and may issue a bilateral modification.

C.37. CONTRACTOR QUALITY CONTROL

C.37.1. General. The contractor is responsible for quality control and shall establish and maintain an effective quality control system in accordance with FAR 52.246-12, "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction and demolition operations, both on-site and off-site, and shall be keyed to the proposed sequence.

C.37.1.1. References. The following publications form a part of this specification to the extent referenced. The publications are referred to in the next by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (latest edition) Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.

ASTM E 329 (latest edition) Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

C.37.2. Quality Control Plan. The contractor shall furnish for review by the Government, no later than 30 days after the award of the contract, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the FAR 52.246-12, "Inspection of Construction". The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

C.37.3. Content of the Basic CQC Plan. The Basic CQC Plan shall be submitted to cover the intended CQC organization for the contract and shall include the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three-phase control system (see Section C. 38.7, Control) for all aspects of the work specified. The staff shall include a CQC Manager who shall report to the Project Manager or someone higher in the contractor's organization. The Project Manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.
- b. An employment resume to include the name, qualifications duties, responsibilities, and authorities of each person assigned a QC function.
- c. A copy of the letter to the CQC Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC Manager including authority to stop work which is not in compliance with the contract. The CQC Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to the Government.

- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section SUBMITTALS.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. Laboratory facilities will be approved by the Contracting Officer.
- f. Definable Features of Work is a task that is separated and distinct from other tasks and has separate control requirements. Each section of the specification can be considered as a definable feature of work. However, there may be more than one definable feature under a section of the specifications. The list shall be cross-referenced to the contractor's construction schedule and the specification section.
- g. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- h. Procedures for tracking deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.
- i. Reporting procedures, including proposed reporting formats. This shall include a copy of the Daily CQC report form.

C.37.4. Contract Addendum CQC Plan. Contractor shall submit a CQC Addendum Plan, if required, within ten days of receipt of the contract's Notice to Proceed. Proposed changes to file Basic Plan or items requiring additional details of description required implementing the Basic CQC Plan or of a site specific nature shall be covered in the Addendum Plan. Include a list of the definable features of work for the contract. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting. Any proposed changes to the basic CQC organization shall be approved before commencement of construction.

C.37.5. Acceptance of Plans. Acceptance of the contractor's basic and addendum plans is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the contractor to make changes in their CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

C.37.5.1. Design-Build Requirements. The contractor shall submit for government acceptance, a Design Quality Control Plan in accordance with Contractor Quality Control specifications before design may proceed for design-build requirements.

C.37.5.2. Design-Bid-Build Requirements. The contractor shall submit for government acceptance, a Design Quality Control Plan in accordance with Contractor Quality Control specifications before construction may proceed for design-bid-build requirements.

C.37.5.3. Notification of Changes. After acceptance of the CQC Plan, the contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

C.37.6. Contractor Quality Control Coordination. After the Pre-construction Meeting before start of construction, and prior to acceptance by the Government of the CQC Quality Control Plan, the contractor shall meet with the Contracting Officer or Authorized Representative and discuss the contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of contractor's Management and control with the Government's Quality Assurance. There may be

occasions when subsequent conferences may be called by either party to reconfirm mutual understandings or address deficiencies in the CQC system or procedures that may require corrective action by the contractor.

C.37.7. Payment. Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the pricing schedule.

C.38. QUALITY CONTROL ORGANIZATION

C.38.1. General. The requirements for the CQC organization are a CQC Manager and Design quality manager (for Design-Build projects only) to ensure contract compliance. The CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action to ensure contract compliance.

C.38.2. CQC Organizational Staffing. A staff shall be maintained under the direction of the CQC Manager to perform all QC activities. The staff must be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the construction. The QC plan will clearly state the duties and responsibilities of each staff member. The contractor shall provide a CQC staff, which shall be at the site of work at all times during progress, with complete authority to take any action necessary to ensure compliance with the contract.

C.38.3. CQC Staff. The strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the contractor will add additional staff at no cost to the Government. This listing of minimum staff requirements that follow in no way relieves the contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

C.38.3.1. CQC Manager. The contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the contractor. This CQC Manager or designated CQC staff representative shall be on the site at all times during construction and will be employed by the contractor, except as noted in the following.

C.38.3.1.1. The CQC manager may serve as the Safety Manager or it may be a separate position. The CQC Manager may serve as the Safety Manager but shall not have any other duties outside of these two positions. An alternate for the CQC Manager will be identified in the plan to serve in the event of the system manager's absence. Period of absence may not exceed two weeks at any one time. The requirements for the alternate will be the same as for the designated CQC Manager.

C.38.3.1.2. The CQC manager shall be an experienced construction person, with a minimum of ten years construction experience on similar type work. In addition to the above experience, it is required that the CQC Manager have completed the course entitled "Construction Quality Management for Contractors" prior to start of field work and maintain current certification. For further information, contact the nearest USACE Construction Division Office.

C.38.4. Organizational Changes. The contractor shall obtain Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

C.38.5. CQC Submittals. The CQC organization shall be responsible for certifying that all submittals comply with the contract requirements. The Government will furnish copies of test report forms upon request by the contractor. The contractor may use other forms as approved.

C.38.6. Definable Features of Work.

C.38.6.1. General Requirements.

- a. Special project procedures to include coordination of work, project meetings, submittals, and quality

- control.
- b. Administrative Requirements.
- c. Environmental Protection.
- d. Job Conditions.

C.38.6.2. Site Work.

- a. Excavation, Trenching and Backfilling for utilities Systems to include sewer, gravity, drainage, and water lines.
- b. Clearing and grubbing, backfilling for buildings.
- c. Grading.
- d. Fence, chain-link.
- e. Concrete for sidewalks and curbs.
- f. Bituminous Paving.

C.38.6.3. Concrete.

- a. Concrete materials, concrete procedures, concrete formwork, forms, form ties and accessories, concrete reinforcement, concrete finishing, concrete curing and grouting.
- b. Testing.

C.38.6.4. Masonry.

- a. Masonry procedures, mortar, mortar accessories, unit masonry, cavity wall construction to include bringing inner and outer withes up simultaneously, reinforcement, wall ties, flashing, and cleaning.
- b. Acceptance of Sample Panel.
- c. Testing.

C.38.6.5. Metals.

- a. Structural steel, framing to include metal materials and methods, metal fastening, metal joints, welding, expansion control, and miscellaneous metals
- b. Steel Roof Decking.
- c. High Strength Bolts.

C.38.6.6. Thermal and Moisture Protection.

- a. Damproofing
- b. Fireproofing
- c. Sealants

C.38.6.7. Doors and Windows. Metal doors and frames, special doors, metal windows, glazing and miscellaneous hardware, caulking.

C.38.6.8. Finishes.

- a. Ceramic tile.
- b. Gypsum wallboard.
- c. Acoustical treatment to include metal suspension system for acoustical tile and lay-in panel ceiling.
- d. Resilient flooring.
- e. Painting.
- f. Furring (metal).

C.38.6.9. Specialties.

- a. Metal toilet partitions
- b. Fire extinguisher cabinets
- c. Toilet accessories

C.38.6.10. Equipment. Fueling system for motor vehicles

C.38.6.11. Furnishings. Lockers

C.38.6.12. Special Construction.

- a. Pre-engineered structures
- b. Liquid storage tanks

C.38.6.13. Mechanical

- a. Insulation to include:
 - (1) Pipes
 - (2) Ducts
 - (3) Equipment
 - (4) High density inserts, insulation protective shields, clips or U-bolt support for multiple pipe hanger supports.
- b. Plumbing systems
 - (1) Waste/vent piping to include; underground soil piping, above ground soil piping.
 - (2) Interior piping rough-in to include; galvanized, black iron and copper, including drains, fittings, valves, and piping supports.
 - (3) Plumbing fixtures to include flush valves, faucets, and accessories.
 - (4) Cleaning and operational testing.
- c. Heating systems
 - (1) Equipment and system accessories
 - (2) Fuel oil/gas piping and supports
 - (3) System testing and balancing
- d. Air distribution systems
 - (1) Equipment and accessories.
 - (2) Duct work to include galvanized supports, dampers, louvers, diffusers, duct line support and fire dampers.
- e. Automatic temperature control systems
 - (1) Equipment and materials
 - (2) Installation of materials and equipment
 - (3) System testing
- f. Sprinkler Systems
 - (1) Equipment
 - (2) Piping and supports
 - (3) Accessories

C.38.6.14. Electrical.

- a. Exterior Electric Distribution, Aerial
 - (1) Pole setting.
 - (2) Placement of crossarms, pins, insulators, pole line hardware and conductors.
 - (3) Placement of fuse cutouts, surge arresters, reclosers, potheads, pole mounted transformers to include grounding conductors, grounding conductor testing and cable terminations.
- b. Exterior electrical distribution, underground
 - (1) Duct line excavation, placement of ducts and miscellaneous materials.
 - (2) Placement of in ground junction or pull boxes and manholes.
 - (3) Placement of duct bank concrete encasement.
 - (4) Transformer pad placement.
 - (5) Mounting of pad mounted transformers.
 - (6) Cable placement to include splicing, fire-proofing, and cable terminations.
 - (7) Grounding conductors and testing.
- c. Electrical distribution, interior
 - (1) Wiring methods to include conduit rough-in, raceway boxes, outlet boxes, panelboard cabinets, placement of conductors and conduit placement below the slab for slab-on-grade construction.
 - (2) Wiring devices, panelboards, switch-boards, and lighting fixtures.
 - (3) Motors and transformers.
 - (4) Testing.
- d. Fire Detection and Alarm System
 - (1) Wiring methods to include conduit, ground rods, detectors, control panels, power supply, door

holders, audible fire alarm and annunciator panel.
(2) Testing.

C.38.7. Control. Contractor Quality Control is the means by which the contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and will be keyed to the proposed construction sequence and construction schedule. The controls shall include at least three phases of control to be conducted by the CQC Manager for all definable features of work, as follows:

C.38.7.1. Preparatory Phase. This phase shall be performed prior to beginning work on each definable feature of work and shall include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract plans.
- c. A check to assure that all materials and equipment have been tested, submitted, and approved.
- d. A check to assure that provisions have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to "approved" shop drawing or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. The Government shall be notified at least 48 hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC Manager and shall be attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC Manager and attached to the daily QC report. The contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

C.38.7.2. Initial Phase. This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verification of full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 48 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC Manager and shall be attached to the daily QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work on-site or any time acceptable specified quality standards are not being met.

C.38.7.3. Follow-up Phase. Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation and shall document specific results of inspections for all features of work for the day or shift. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work that will be affected by the deficient work. The contractor shall not build upon or

conceal non-conforming work.

C.38.7.4. Additional Preparatory and Initial Phases. Additional preparatory and initial phases may be conducted on the same definable features of work as determined by the Government if the quality of on-going work is unacceptable; or if there are changes in the applicable QC staff or in the on-site production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

C.38.8. Tests. Inspections and tests are for the sole benefit of the Government and shall not relieve the contractor of the responsibility of providing quality control measures to ensure that the work strictly complies with the contract requirements. No inspection or test by the Government shall be construed as constituting or implying acceptance.

C.38.8.1. Testing Procedure. The contractor shall perform tests specified or required to verify that control measures are adequate to provide a product, which conforms to contract requirements. The contractor shall procure the services of a licensed testing laboratory. The contractor shall submit a written certification from any recognized testing agency, adequately equipped and competent to perform such services, that the material or equipment has been tested and conforms to the standards, including the methods of testing used. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Notify the KO prior to performing any test. Results of all tests taken, both passing and failing tests, will be recorded on the Quality Control report for the date taken. Subsequent testing of those materials that fail to meet specifications will be accomplished by the contractor at no cost to the Government. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract. Test results shall be signed by an Engineer registered in the state where the tests are performed.
- f. Samples used for testing shall be selected as specified for the various tests elsewhere in the specifications but in every case the method of selecting samples and the location for selection shall be as approved by the Contracting Officer.
- g. Tests shall be made in accordance with the specified testing procedures and/or methods and otherwise as required to provide compliance with all contract requirements. Tests shall be made by independent, commercial testing laboratories approved in writing by the Contracting Officer.
- h. Results of all tests shall be recorded on certified test reports of the commercial testing laboratories. Reports shall include a statement that the materials tested do or do not meet the requirements of the contract specifications. Six copies of all reports shall be forwarded directly to the Contracting Officer for approval within five calendar days of the actual performance of the test. The testing agency shall immediately notify (verbally) the Contracting Officer of any tests that indicate failure to meet the contract requirements.
- i. The contractor will provide an emergencies plan, with contractors to accomplish the repairs in the event of utility and/or communications emergencies.

C.38.8.2. Testing Laboratories. Laboratory facilities, including personnel and equipment, utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329, and be accredited by the American Association of Laboratory Accreditation (AALA), National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State

Highway and Transportation Officials (AASHTO), or other approved national accreditation authority. All personnel performing concrete testing shall be certified by the American Concrete Institute (ACI).

C.38.9. Completion Inspection.

C.38.9.1. Procedure for Completion Inspection. Provisions for the QC Manager to conduct completion inspections of the work and develop a "punch list" of the items that do not conform to the contract requirements. The QC Manager shall make a second completion inspection to ascertain that all "punch list" items have been corrected and so notify the government. The completion inspection and any "punch list" item corrections will be accomplished within the time stated for completion of the work. The plan must include project completion turnover procedures. These may include:

- a. Warranty information
- b. O&M Manuals
- c. System operations and sequence verification
- d. Final system testing
- e. Instruction and training procedures
- f. Punch-out
- g. Pre-final inspection to include the government
- h. Final inspection to include the government
- i. Punch list correction and verification
- j. Turnover of extra materials and spare parts
- k. Turnover of keys
- l. Completion of as-built drawings

C.38.9.2. Punch Out Inspection. At the completion of all work or any increment thereof established by a completion time stated in the contract, the CQC manager shall conduct an inspection of the work and develop a "punch list" of items that do not conform to the approved plans and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC Manager shall make a second inspection to ascertain that all deficiencies have been corrected and notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

C.38.9.3. Pre-Final Inspection. The government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. The government pre-final inspection punch list may be developed as a result of this inspection. The CQC manager shall ensure that all items on the list have been corrected before notifying the government, so that a final inspection can be scheduled. Correct any items noted on the pre-final inspection in a timely manner.

C.38.9.4. Final Acceptance Inspection. Provide notice to the government and include contractor's assurance that all specific items previously identified to the contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection.

C.38.10. Documentation. Quality control includes the means to produce the Daily CQC report. The contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of subcontractors and suppliers. These records shall be on an acceptable form and shall be a complete description of inspections, the results of inspections, daily activities, and tests including the following:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed today, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along

- with corrective action.
- e. Material received with statement as to its acceptability and storage.
- f. Identify submittals reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. List instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.
- k. A report shall be submitted by the responsible CQC inspectors for the contract. The report shall contain a record of inspections for all work accomplished subsequent to the previous report. Separate reports for different phases of work may be submitted by the responsible CQC inspectors or the reports may be consolidated into one report if all CQC activities and results are covered and the responsible CQC inspectors are identified.
- l. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in file work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government weekly, except that reports need not be submitted for weeks in which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work. All calendar days shall be accounted for throughout the life of the contract. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

The Contractor shall complete and submit the Contractor Quality Control Report and the Contractor Production Report in accordance with UFGS Specification Section 01 45 00.00 20 QUALITY CONTROL. The Contractor Production Report shall be submitted to the COR electronically by 0800hrs the day after the date covered in the report.

C.38.11. Deficiency Tracking. The Contractor shall track deficiencies. Deficiencies identified by the Contractor will be identified and tracked as QC punch list items. The contractor shall maintain a current log of its QC punch list items. The government may notify the contractor with deficiencies, which shall be identified and tracked as QA punch list items. The contractor shall regularly update the corrective status of both QC and QA punch list items.

C.38.12. Notification of Noncompliance. The Contracting Officer will notify the contractor of any detected noncompliance with the foregoing requirements. The contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the contractor at the site of the work, shall be deemed sufficient for the purpose of notification. If the contractor fails or refuses to comply promptly, the Contracting Officer may issue an order suspending all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such suspension of work orders shall be made the subject of a request for equitable adjustment for extension of time by the contractor.

(End of Summary of Changes)