INSTALLATION MANAGEMENT COMMAND

U.S. ARMY
IMCOM-Korea Region
Installation Management Command

SUSTAIN SUPPORT DEFEND

U.S.ARMY
ARMY STRONG.

STANDARD OPERATING PROCEDURES
FOR
CONSTRUCTION CONTRACT MANAGEMENT

PUBLIC WORKS

19 June 2009

Message from the IMCOM-Korea Commanding General

Dear Garrison Commander,

To help reiterate the requirement to establish and implement management control procedures for contracted construction work, we have developed a Standard Operating Procedure (SOP) to aid in the accomplishment of the most important construction work we do – SERVING SOLDIERS!

Our mission supports readiness and power projection while continuing to provide top-quality facilities in which Soldiers, Civilians and their Families live, work and train to meet the operational demands in the Korean theater. This SOP establishes Korea wide standards to use in management of construction contracts at US Army Installations in Korea and mandatory compliance for all Garrison Directorate of Public Works (DPW) personnel in Korea. It will also help you to validate DPW's internal controls that are in place and operating effectively to ensure the contracted work is performed in accordance with the scope of works, line items and quantities are supported and reasonable, inspections are documented, and deficiencies are brought to the attention of the contracting office. The IMCOM-Korea Command Inspection Program procedures for contract management will include records checks for projects to ensure compliance with management controls.

Comments, additions, improvements, and any suggested changes should be forwarded to Mr. David Yang, Business Operations and Housing Branch, Public Works Division at david.m.yang@korea.army.mil.

JOHN OBERTI
Brigadier General, USA
Commanding

DEPARTMENT OF THE ARMY

INSTALLATION MANAGEMENT command KOREA
Public Works Division
UNIT #15742
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Construction Contract Management

1. Introduction

1-1. Purpose.

The purpose of this Installation Management Command Korea (IMCOM-K) Construction Contract Management Standard Operating Procedures (SOP) is to define the procedures and processes required to establish, maintain, and operate an effective and trustworthy Construction Contract Management program for Sustainment, Restoration and Modernization (SRM) funded construction projects in the Republic of Korea and supported by the United States Army 411th CSB/Contracting Command Korea (USACCK). This SOP is intended to establish IMCOM-K wide standards and to provide all commands and activities with a foundation upon which to build specific directives governing their programs within their respective organizations. Compliance with this SOP is mandatory for all Garrison Directorate Public Works (DPW) and Contracting Officers Representatives (COR) appointed by USACCK.

1-2. References.

a. AR 415-15, Army Military Construction Program Development and Execution

b. USFK Reg 715-2, Contracting for Supplies, Services and Construction.

c. ER 415-1-10, Contractor Submittal Procedures (Drawings and Materials).

d. ER 415-345-38, Transfer and Warranties.

e. USACCK HB-1910-1, Contracting Officer's Representative Handbook published by US Army Contracting Command, Korea (USACCK).

1-3. Applicability.

This SOP applies to MCA, NAF, and OMA funded construction for which the Real Property Maintenance Activity (RPMA) functions are Installation Management Command, Korea Region Office responsibility:

a. For 411th CSB/US Army Contracting Command, Korea (CCK) contract projects, it pertains to surveillance of contractor's performance and examination of materials.

b. For US Army Corp of Engineers (USACE) Far East District (FED) and Host Nation contract projects, it pertains to coordinating with FED, monitoring the progress of construction, and reporting unresolved problem areas.

1-4. General.

a. Inspection is the examination (including testing) of supplies and services (including, when appropriate, raw materials, components, and intermediate assemblies) to determine whether these supplies, materials, and construction quality conform to contract requirements, to include all applicable drawings, specifications, and purchase descriptions.

b. Acceptance, generally, is the act of an authorized representative of the Government by which the Government assents to ownership of supplies, or approves specific services rendered, as partial or complete performance of the contract. The Government thereby

acknowledges that the supplies or services are in conformity with contract requirements, including those of quality, quantity, packaging, and marking.

1-5. Policy.

a. Director of DPW will serve as the Command Contract Coordinator (CCC) for the Garrison for all construction and repair and maintenance contracts.

Chief of Engineering Division, DPW, US Army Garrison will serve as the Technical Contracting Officer's Representative (TCOR) without power of re-delegation for CCK administered construction contracts. The TCOR is CCK's designated authority to review and approve shop drawings and material submittals for construction contracts.

b. The TCOR or his designated representative is the Contracting Officer's Representative (COR) for CCK construction contracts in his area of responsibility.

c. The COR is a person appointed by a Contracting Officer with limited and specific authority to represent the Contracting Officer in administering a contract.

2. Responsibilities

2-1. Director of DPW (CCC)

a. Assist the Business Operations & Integration (BO&I) and Engineering Division in development of Contract Course Of Action (COA) and implementation of construction contract management and inspection function per this SOP.

b. Provide technical assistance on managing construction quality from contract award through final inspection. Coordinate and schedule IMCOM-K PWD staff assistance visits to assist construction contract managements with construction inspection procedures and resolution of technical problems encountered during and after the construction phases.

c. Approve/disapprove DPW Construction Permits, IMCOM-K Form 69 (Appendix G).

2-2. Chief of Business Operations and Integration (BO&I) Division

a. Advise the DPW Director, on all business practice matters including; effective organization, standards, methods, procedures and systems required to implement this SOP affecting the full range of construction management program.

b. Utilize business management and cost analysis techniques to determine COAs using contract vehicles (Appendix A) and methods of accomplishment of construction projects.

c. Provide overall management of automation systems, such as Common Level Support (CLS), Integrated facilities system (IFS), Installation Status Report (ISR), Project Prioritization System (PPS), Army Project Prioritization System (APPL), Real Property Planning Board (RPPB), etc.

2-3. Chief of Engineering Division (TCOR)

a. Manage the COR program to support Real Property Maintenance Activity/Agency (RPMA) mission to by ensuring qualified personnel are nominated; the necessary COR training has been received by the nominees; timely responses to problems identified with CCK; and coordination with CCK for an effective program.

b. Designate in writing, a COR and an Alternate Contracting Officer's Representative (ACOR) for CCK Contracts. CORs should normally have the following qualifications and the prospective COR should have a minimum of 9 months remaining before DEROS to learn the performance requirements of the contract and to satisfy the overall requirements of the position:

(1). Military officers or enlisted personnel E-6 and above, or U.S. civilian employees GS-7 and above, or Korean national employees KGS-7 and above.

(2). To the extent possible, be within close proximity to contract performance site.

(3). Possess qualifications and experience related to the contractual requirements.

c. Nominate replacement for any COR who exhibits substandard performance.

d. Review and provide input/feedback to COR performance report.

e. Ensure that the CORs attend scheduled meetings with contractors and CCK representatives listed in the COR files.

f. Forwarding original copies of DD form 577, Signature Card (Appendix G) to Commander, 411th CSB/USACCK, ATTN: EACCK-AP, APO 96205-0062 for all COR's and ACOR's authorized to sign for fund commitments.

g. Review/approve material submittals and shop drawings for compliance with the contract requirements.

h. Develop/prepare generic construction inspection checklists, generic minimum frequency test plan, and generic submittal register for materials for DPWs to monitor repair, maintenance and construction projects.

i. Participate in pre-final, final, acceptance, and warranty inspections and IMCOM-K staff assistance visits to DPWs as a part of Command Inspection Program (CIP) inspection.

2-4. Contracting Officer's Representative (COR).

a. Provide surveillance of Contractor's performance to ensure the Contractor furnishes the quality and quantity of materials and services as specified in the contract. The COR shall not change the contract terms and conditions such as price, quality, quantity and delivery (Contract Completion Date). Attending, pre-construction (post-award), pre-work, and other performance related conferences.

b. Resolve administrative problems arising during construction through coordination with the contracting agencies, FED and CCK.

c. Prepare and maintaining a complete COR file IAW CCK HB-1910-1, Contracting Officer's Representative Handbook.

d. Prepare reports on Contractor performance or supplies received in a timely manner and distributing reports as required.

e. Providing technical assistance to the Contractor as designated by the Contracting Officer in the letter of appointment.

f. Review Contractor Quality Control (CQC) plans and preparing Construction Quality Assurance (CQA) plans.

g. Establish controls for ensuring that all contract requirements have been met before acceptance or authorization of payment.

h. Assure Contractor's compliance with safety requirements IAW FAR 52.236-13 and EM 385-1-1.

i. Personally signing receiving reports, such as DD Form 250, Material Inspection and Receiving Report (Appendix G) and other contractual correspondence addressed to the Contracting Officer. COR's responsibilities may not be re-delegated; however, CORs may obtain assistance from persons over whom they have supervisory control.

j. Complete DAU COR course and attend CCK COR training prior to appointment as a COR for project.

k. Designate in writing, by name, DPW inspector(s) for each specific contract and ensuring inspectors receive mandatory training identified by DPW Academy Program.

l. Ensure inspectors conduct thorough inspections, maintain detailed records of tests, and complete all required reports on assigned contracts.

m. Ensure Contractors submit material submittals and shop drawings IAW Submittal Register to TCOR for review and approval.

n. Be responsible to:

(1) The Contracting Officer for monitoring a Contractor's activities.

(2) Accomplish the inspection function and supervising the assigned inspector(s).

(3) Prepare and staff of DPWs Construction Permit, IMCOM-K Form 69 (Appendix G) for DPW's approval.

(4) The TCOR for tailoring and submitting Construction Quality Assurance Plan.

(5) The Contracting Officer for submitting Monthly Construction Progress Report, IMCOM-K Form 80, with Contractor's Performance Rating, USFK form 173-R-E (Appendix G).

(6) The TCOR for furnishing a copy of a Consolidated Monthly Construction progress Report, IMCOM-K Form 73 (Appendix G), with Contractor's Performance Rating, USFK Form 173-R-E, NLT the 10th working day of each month to the Contracting Officer.

2-5. Construction Inspector

a. Perform required inspections on assigned contract(s) to observe progress and quality of work and to ensure the contractor is complying with all contractual requirements.

b. Prepare and submit a monthly Contractor's Performance Rating on USFK Form 173-R-E to the COR, and for other tasks assigned by the COR.

c. Submit daily inspection reports to the COR for review.

d. Inventory construction materials (GFM and CFM).

e. Attend preconstruction, mutual understanding and preparatory meetings to assist COR in the discussion of all the topics included.

f. Perform surveillance and status reporting of potential and actual slippage in contract schedules.

g. Assures contractor's compliance with safety requirements and contractor's performance reports are received on a timely manner.

h. Recommend changes to the contract drawings and specifications based on project requirement.

i. Review contractor's submittal of materials, equipment and shop drawings to assure compliance with contract drawing and specifications prior to start of construction or delivery of materials.

j. Receive from the contractor all required manuals and records of changes and document files.

k. Conduct warranty inspections at the four and nine month after completion and acceptance of all projects.

3 Procedures

3-1. Contract Procurement Phase

The contract phase starts with submission of a purchase request package (PRP) to CCK and lasts until award of the contract to the contractor.

a. Chief, Engineering Division (TCOR), reviews PRPs, including COR nominations and Construction Quality Assurance Plan, for adequacy and submits to CCK.

b. COR will thoroughly read and understand all provisions of technical specifications and appendices and become familiar with what exactly is to be furnished by the Contractor services, equipment, maintenance, amount, when, where, how, etc.).

c. COR will become familiar with the Government responsibilities for Government Furnished Materials (GFM) for issuance and turn-in.

d. COR will thoroughly study the plans and specifications of the projects and have thorough full knowledge of a Construction Quality Assurance Plan including Construction Inspection Checklist and Minimum Frequency Test Plan, using the generic Construction Inspection Checklist (Appendix B) and generic Minimum Frequency Test Plan (appendix E). Submit the same to TCOR for review within 10 working days from the contract award.

e. After studying the PRP, the COR will determine those items to be carefully inspected/emphasized or to be questioned for clarification and identify the measures which are to be used in determining satisfactory or unsatisfactory contractor performance and the degree thereof.

f. COR shall review each aspect of the contract, and areas that might be considered potential problems shall be examined thoroughly. Tentative resolution or correction should be made prior to the pre-construction meeting in coordination with CCK. All unresolved problems and issues shall be brought to TCOR for technical assistance and resolution.

g. Assignment of Inspectors. When notified of the COR appointment, the COR will assign an inspector by name to the contract. COR will also notify the Contracting Officer and the TCOR of assigned inspectors and their DEROS dates if applicable.

3-2. Pre-Construction Phase

The pre-construction phase starts with award of the contract and lasts until the Contractor physically starts working on the project. The pre-construction phase is an important phase because it lays the foundation for the Contractor's Quality Control (CQC) program. Government input is required during this phase, which effectively will preclude or minimize CQC issues. At the completion of this phase, the Contractor should understand clearly what is expected of him. Activities during this period are as follows:

a. Pre-Construction Meeting

The purpose of the pre-construction meeting is to ensure the Contractor clearly understands the administrative procedures required in executing the work under the contract. The pre-construction meeting should be held within ten (10) working days after the contract is awarded. The Contractor should submit his CQC plan and construction progress schedule to the COR at the pre-construction meeting. The items that will be discussed during the meeting are:

(1) Introduction of DPW/USER/Contractor's key personnel, their functions, and authorities.

(2) Local regulations.

(3) DPW Construction Permit.

(4) Construction schedule with identification of major construction phases and definitive features of work.

(5) Progress payments.

(6) Contract changes, if applicable.

(7) Differing site conditions.

(8) Default.

(9) Warranty of construction.

(10) Gratuities.

(11) Performance evaluation of contractors.

(12) Other topics (i.e., utility outages, street closures, correspondence procedures, etc.).

b. Mutual Understanding Meeting.

The purpose of the mutual understanding meeting is to ensure that the Contractor clearly understands his responsibilities. It is also for review of Contractor's procedures in implementing effective accident prevention and CQC programs. It is additionally for the Contractor's interface with the Government's quality assurance program. The contract clauses, special clauses, and other items that will be discussed during the meeting are listed below.

(1) CQC plan.

(2) Safety plan.

(3) Submittals IMCOM-K Form 74 and ENG Form 4025

(4) Other topics (i.e., deficiency tracking, documentation).

c. Submission and Acceptance of CQC Plan

After receiving the CQC Plan from the Contractor at the pre-construction meeting, the COR must keep in file for record. The COR should review the CQC Plan and proposed construction progress schedule to ensure all definitive features of work are identified on inclusion in the preparatory meeting and initial inspection phases of the three-step inspection process. COR must pay particular attention to items of specialty that are frequently found in the Standard Technical Specifications (STS) portion of the technical specifications. Furthermore, phases of work should be broken down, so that each feature of work can be adequately covered in a separate preparatory meeting. The COR should scrutinize the Contractor's testing procedures. The format for each test report should be included. The CQC plan should be corrected and submitted until accepted by the COR. Once accepted, the COR provide a written acceptance letter with a serial number to the contractor. If only minor corrections are required, it may be conditionally accepted pending inclusion of the COR's comments.

d. Submission and Acceptance of Contractor's Safety Plan

The Contractor shall submit a safety plan to the COR within twenty (20) working days from the contract awarded day. All major phases of work must be included. The COR and the assigned construction inspector will review the plan to ensure it is in compliance with the contract and special clauses. The safety plan should be corrected and submitted until accepted by the COR.

e. Submittals

(1) Prior to the pre-construction meeting, the Contractor shall submit Submittal Register, IMCOM-K Form 74, (Appendix G) to COR for TCOR review and approval. The Contractor shall list all major items of the construction on the form with the dates Contractor proposes to furnish the submittals by referring to Appendix G, Generic Submittal Register, which the Contractor would be requested to submit for review.

(2) Submittal and Approval of Shop Drawings and Material Samples, ENG Form 4025, (Appendix G).

(a) The submittal system will be explained to the contractor during the mutual understanding meeting. Submittal adequacy, completeness, accuracy, and compliance with the contract requirements will be considered in contractor evaluations.

(b) COR must ensure that all submittals for upcoming work have been submitted and/or approved, and that critical, long lead-time, off-shore item submittals are approved on schedule. The Contractor should have an excessive number of delinquent submittals, the COR will inform the Contractor in writing and request a revised submission schedule for the delinquent submittals.

(3) Submittal Procedures.

(a) In compliance with the submittal schedule (Submittal Register, IMCOM-K Form 74, Appendix G), the Contractor shall submit the original and three (3) copies of materials submittals, ENG Form 4025's to COR for TCOR review and approval by using Transmittal of Shop Drawings and Material Submittals for Approval, IMCOM-K Form 133 (Appendix G).

(b) COR will ensure the submittals as to whether the Contractor has submitted all items of the submittals to TCOR in accordance with the approved submittal schedule.

(c) TCOR will review the submittals for compliance with the contract requirements and return the original of the submittals to the Contractor and furnish a copy of the same to COR and Contracting Officer for their files.

(d) IMCOM-K Form 134, Review Comments of Shop Drawings and Material Submittals for Approval (Appendix G): TCOR will assign action codes along with review comments for action codes other than "A" to instruct the Contractor of required further actions for conformance with the contractual requirements.

3-3. Construction Phase

The construction phase starts with actual construction work on the job site and lasts through completion of the construction work. At the completion of this phase, the Contractor should have a completed facility fully in compliance with the contract requirements and ready for acceptance inspections. The inspector or COR shall immediately issue the Contractor a notice of Non-compliance, IMCOM-K Form 75 (Appendix G) for a noted deficiency. Activities during this period are as follows:

a. Three-step Inspection Process

The Contractor's quality control plan is the means by which the Contractor assures that construction complies with the requirements of the contract plans and specifications. The Contractor must have adequate controls to cover all construction operations, including both on-site and off-site fabrication, and should be keyed to the proposed construction sequence. Controls shall include at least three phases for all definitive features of work:

(1) Preparatory Meeting

This meeting shall occur prior to beginning any definitive feature of work on the project. The COR shall be notified at least 24 hours in advance of beginning any new phase of work decided at the preparatory meeting. The construction inspector will attend all of the preparatory meetings. Appendix F contains a checklist for conducting the preparatory meeting. The results of the preparatory meeting shall be made a matter of record in the Contractor's quality control documentation (Daily CQC Report). Subsequent to the preparatory meeting and prior to commencement of work, the Contractor shall instruct each applicable worker as to the acceptable level of workmanship required in order to meet contract specifications and drawings. It shall include:

(a) A review of contract requirements.

(b) A check to assure all materials and/or equipment have been tested, submitted and approved.

(c) A check to assure provisions have been made to provide required quality control testing, including a complete listing of the frequency of such inspections and tests.

(d) An examination of the work area to ascertain that all preliminary work has been completed.

(e) A physical examination of materials, equipment and sample work to assure they conform to approved shop drawings submittal data, and that all materials and/or equipment are on hand.

(f) A review of the activity hazard analysis (AHA). AHAs that involve welding, temporary electrical work or lighting, will be scrutinized closely.

(g) A review of common recurring deficiencies.

(h) A review of the procedures, tolerances, or other pertinent requirements in the specifications.

(2) Initial Inspection

This inspection starts as soon as a representative portion of the particular feature of work has been accomplished. The inspection shall include examination of the quality of workmanship, a review of control testing, and a review of the system being employed to test for compliance with contract requirements. The work shall be inspected for defective or damaged materials, omissions, and dimensional requirements. The COR shall be notified at least 24 hours in advance of the time of the initial inspection, if the inspection is to be held on Tuesday through Friday. The COR shall be notified at least 72 hours in advance if the inspection is to be held on Saturday through Monday or on a Korean or U.S. holiday. The inspector shall attend the initial inspections for work that is being done under contract. The inspection results shall be

made a matter of record in the Contractor's quality control documentation (Daily CQC Report). The initial inspection shall be repeated for each new crew to work on site, or if acceptable standards of workmanship are not being met.

(3) Follow-up Inspection

Daily inspections, including control testing, shall be performed until completion of the particular feature of work to assure continuing compliance with contract requirements. Such inspections shall be made a matter of record in the Contractor's quality control documentation (Daily CQC Report). Final follow-up inspections shall be conducted and deficiencies shall be corrected prior to starting new features of work.

b. Contractor's Daily CQC Report, IMCOM-K Form 76 (Appendix G): The Contractor shall conduct daily quality control inspections and shall maintain complete inspection records. The records shall be available to the Government for review. The construction inspector will ensure that failed test results are noted and subsequent re-tests are documented on a later daily report. Deficient daily reports will be directed for correction.

c. Construction Inspector's Daily Inspection Report, IMCOM-K Form 70 (Appendix G): Daily inspections reports will be completed by the inspector. COR will ensure alternate construction inspectors are assigned to perform inspection on contracts in the event the primary construction inspector is on an extended absence, such as leave or TDY. The COR shall review the construction inspector's daily inspection report.

d. Quality Assurance Inspections of CCK projects during Contract Execution.

(1) Quality assurance inspections will be performed each working day by the construction inspector except when such circumstances as inclement weather, stop work order, etc., prohibit Contractors from work. Results will be recorded each day, on the Daily Inspection Report and will be available for review by the COR and the TCOR. If for some reasons the construction inspector did not visit the site on a particular day of construction, the reason for non-visit and pertinent observations of events which had occurred during the period of absence will be included in the Daily Inspection Report for the next subsequent visit day. Problematic areas requiring correction during the progress of construction which do not receive timely attention and correction by the Contractor will be promptly reported by the inspectors to COR, and then by COR to the Contracting Officer.

(2) For the contract requirements, COR shall verify the amount of work for each line item performed by the Contractor on a weekly basis base on the approved construction progress schedule. COR shall have Contractor submit a Weekly Construction Progress Report for the amount of work (line items) scheduled and performed, IMCOM-K Form 72 (Appendix G), to the COR for monitoring Contractor's performance. The reports shall be filed into the COR file for future reference as a back-up document of a partial payment. All delivery orders and modifications shall be submitted to TCOR for technical sufficiency review.

e. Quality Assurance Inspection of FED projects during Contract Execution: Quality assurance inspections by DPW personnel will be informally performed, whenever possible, a minimum of three inspections during 25%, 50%, & 75% of the project completion stages. Chief of Engineering Division should be invited to jointly participate in the pre-final and final inspections of all projects executed by FED. There will be a beneficial occupancy inspection conducted at the time of project completion. This will be formal in nature as it occurs at the

point of acceptance. All deficiencies identified must be directed to FED project manager and not to the Contractor except when necessary for an immediate cure of a life-safety hazard. The deficiencies which do not receive timely attention by FED inspectors and correction by the Contractor will be promptly reported in writing to the FED Resident Office and project manager.

e. Deficiency Management

The COR maintain one log by using the Master Deficiency Tracking Log, IMCOM-K Form 77, (Appendix G) to track and manage all construction and safety related deficiencies.

g. Unsatisfactory Performance by Contractors.

(1) Contractor's performance will be monitored throughout the life of the contract and be formally evaluated monthly. Inspector and COR must be alert for unsatisfactory performance by Contractors so that corrective actions can be taken early. When a Contractor's quality control is unsatisfactory, it is important that the Government point out the specific aspects of the Contractor's performance which are not satisfactory so that corrective action(s) can be taken by the Contractor. It is also important that unsatisfactory performance and Government attempts to bring about corrections are documented. If the Contractor fails to take corrective action(s), severe Government action can be taken against the Contractor.

(2) Should a Contractor's performance be unsatisfactory, a number of actions in listed below by the Government are allowed under the contract which should be used to motivate a Contractor to upgrade his performance.

(a) Warning letter to Contractor.

(b) Unsatisfactory monthly rating.

(c) Non-payment for deficient work.

(d) Withholding of retains.

(e) Removal of Contractor's quality control manager or project manager from the project.

(f) Interim unsatisfactory Contractor performance rating.

(g) Termination and/or exclusion from Government projects.

(3) To remedy unsatisfactory performance, the following procedures should be used to bring about corrective action by the Contractor.

(a) COR sends a warning notice to contractor in writing, noting deficiencies and corrective actions required. COR meets with Contractor to discuss contents of the warning notice. Maximum retains that can be withheld each month is withheld until performance improves. Deficient work is not paid for until corrected.

(b) Contractor's performance is monitored for twenty (20) days and COR informs Contracting Officer if performance does not adequately improve.

(c) Contractor's performance is monitored for an additional fifteen (15) days. If performance does not reach a satisfactory level, the COR prepares and forwards an interim unsatisfactory contractor performance evaluation to Contracting Officer.

(d) If performance fails to improve within fifteen (15) days of issuing an interim unsatisfactory rating, the Contracting Officer will refer the matter to the Commander of CCK.

h. Modifications.

(1) When COR is notified by the Contractor that the Contractor proposes and/or must deviate from plans and specifications in his construction, the construction inspector or COR will obtain all of the information necessary to reach a sound decision and complete page one of IMCOM-K Form 78, Construction Conflict Report (Appendix G). If the COR decides a modification is necessary and in the best interest of the U.S. Government, the COR shall forward the report to TCOR for review.

(2) The TCOR shall review the Construction Conflict Report (CCR) and complete Construction Conflict Evaluation Report (CCER) (Appendix G), and forward to the contracting officer for further process. When the TCOR decided the modification is required, the TCOR and staff will complete a proposed modification package per CCR and CCER for contract modification within 10 workdays from the receipt of the Construction Conflict Report.

3-4. Final Inspection Phase

a. The final inspection phase starts from the Contractor completion of work, and until all deficiencies have been corrected. COR will be notified a minimum of 10 working days prior to all pre-final and final inspections. Upon final acceptance, Notice to Building Occupants, IMCOM-K Poster 420-1 (Appendix G), will be posted in the buildings to report contract deficiencies within the 1-year of warranty period. The COR will complete and submit IMCOM-K Form 79, Project Closeout Checklist (Appendix G), along with DD Form 1354, Transfer and Acceptance of Military Real Property (Appendix G), to DPW Real Property Office (RPO) for review and acceptance. Prior to submission of DD form 1354 to DPW RPO for acceptance, COR shall obtain TCOR's initial in column 26, "Remarks", of the form for concurrence of the COR's planned schedule of action for each outstanding construction deficiency and for verification of the project design cost.

b. The contractor shall submit as-built drawings in accordance with contract specification for indicating any changes and discrepancies between original design and actual construction to COR at the final inspection phase. The COR shall review and provide acceptance of final as-built drawings prior to final payment is made to the contractor, and the COR hands it to the Engineering Division and Master Planning Division for updating real property information.

3-5. Warranty Phase

a. Warranty inspections for both FED and CCK contracts will be programmed and performed by DPW, User, FED, and CCK, during the 4th and 9th months after the date of final acceptance. Warranty inspection results shall be logged on the IMCOM-K Form 71, Record of Warranty Inspections and Tracking Log (Appendix G). Deficiencies will be reported immediately to FED for FED contracts, and to the Contracting Officer for CCK contracts. CCK and FED will be notified if deficiencies noted have not been corrected. A copy of the deficiencies will be furnished to TCOR and Chief of BO&I Division.

b. The COR is responsible for maintaining a Record of Warranty Inspection Tracking Log (IMCOM-K Form 71) during the warranty period of one (1) year from the date of final acceptance of the facility.

APPENDIX A
Contract Vehicles for Construction Work

The Indefinite Delivery Indefinite Quantity Contract (IDIQ) contract method, also called "open end", is an expedient contract used for projects that do not require extensive design. This is a type of contract that provides for an indefinite quantity of work during a fixed period of time. The legal origin of IDIQ contracts comes from the Federal Acquisition Regulations (FAR), section 16.501(a). The IDIQ contract includes unit prices that establish a unit price to be paid for each of a multitude of contract line items including pre-priced/pre-negotiated items of work and materials. Awards are usually for base years as well as option years. The Government places delivery orders or task orders against a contract for individual requirements. Minimum and maximum quantity limits are specified in the basic contract as either number of units or as dollar values. The Government uses an IDIQ contract when it cannot predetermine, above a specified minimum, the precise quantities of work that the Government will require during the contract period.

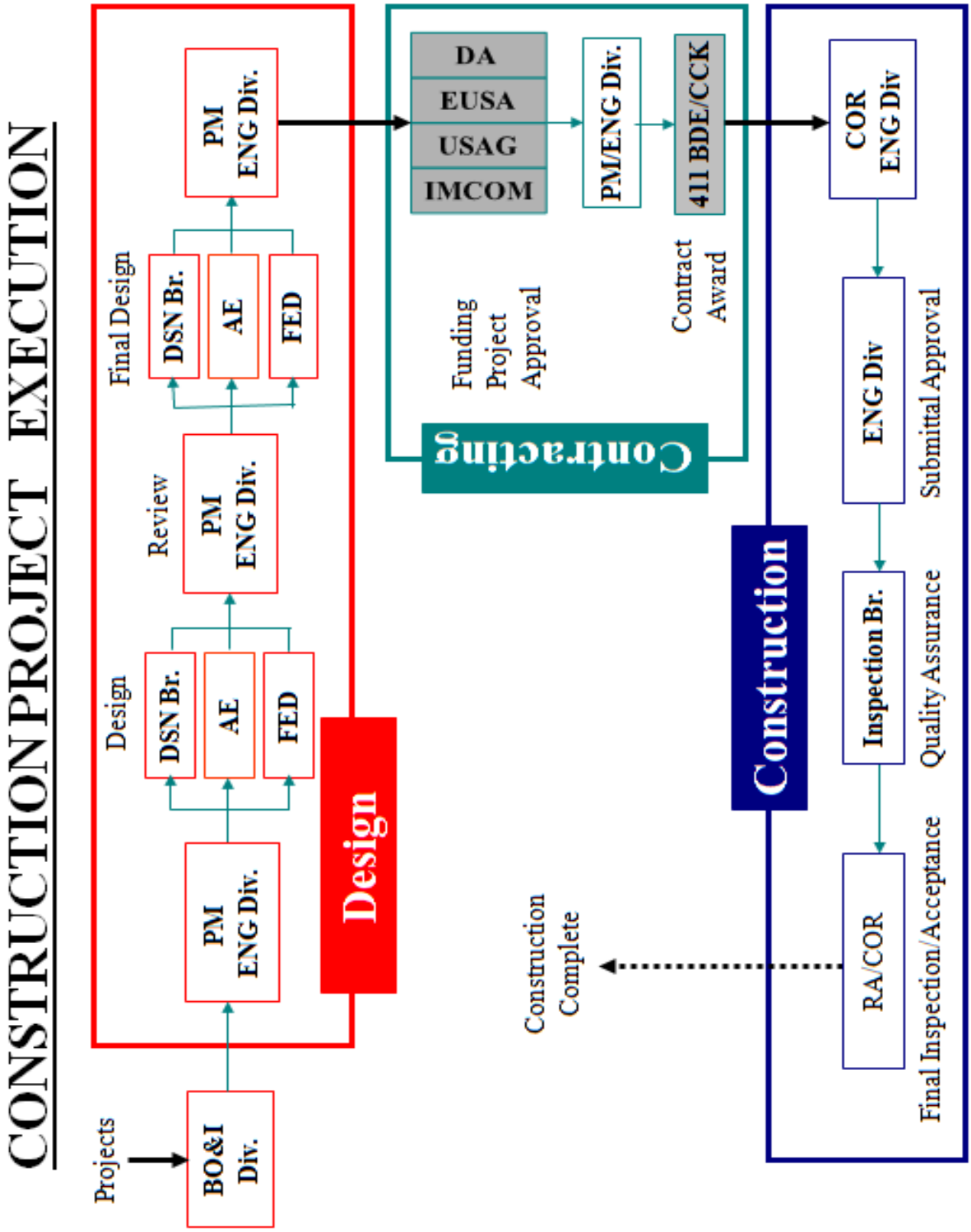
Multiple Award Task Order Contract (MATOC) is another expedient contracting method and it is the combination of IDIQ and Open Bid Firm Fixed Price that provides opportunities for competition between pre-qualified multiple contractors. MATOC allow the Government to procure services and supplies more quickly using streamlined acquisition procedures while using the advantage of competition to obtain optimum prices. The MATOC is usually broad in scope and not required for design work, it can be executed based on work plan. However, the broad scope of the MATOC may make it difficult to establish accurate pricing during the contract award process. Therefore, for the multiple awards process, selection of contractors should focus on technical ability. The selected contractors are invited for bids and they provide a bid with technical proposal of how they are planning to accomplish the work.

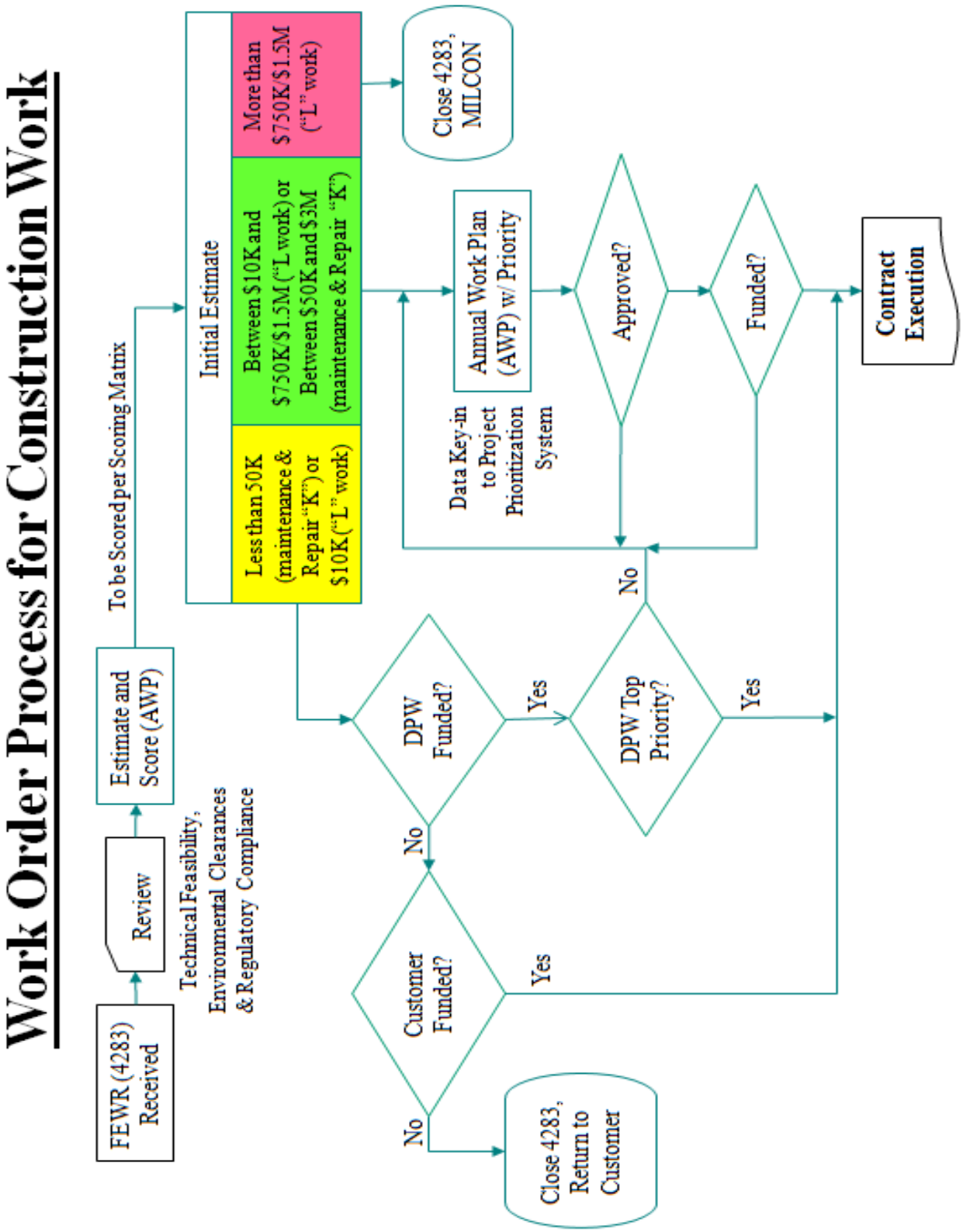
Job Order Contracting (JOC) is a firm fixed price, indefinite delivery, and indefinite quantity type contract used to execute sustainment, restoration, and modernization (SRM) projects at the installation. JOC is flexible and responsive and reduces engineering and procurement lead times. The contract includes a unit price book (UPB) that establishes a unit price to be paid for each of a multitude of construction line items including pre-priced/pre-negotiated items of work and materials. There are a number of commercial-off-the-shelf systems suitable for the UPB, as well as, the automated system that manages the pricing database. JOC projects usually do not require extensive design; if your project does, it may not be best suited to this contract method.

Full and Open Bid is conventional construction contracts for work orders for which neither ID/IQ nor JOC are appropriate. Conventional contracts are designed and solicited through the standard advertising, open bidding, and full and open competition award process. The designer, either in-house or a consultant architect engineer (A-E) prepares the plans, sketches, maps, technical specifications, cost estimates, bidding and work schedules in accordance with the scope developed with requiring activity at the pre-design conference. The contract can be awarded based on process through best value evaluation or lowest bid.

Summary of Advantages and Disadvantages for each Contract Type

CONTRACT VEHICLE	ADVANTAGE	DISADVANTAGE	AVERAGE PROCESS TIME (DAYS)	
			DESIGN	CONTRACT AWARD
MATOC (Multiple Award Task Order Contract)	1. Short Procurement Lead Time 2. Not Limited to Pre-priced Item 3. No Design Required 4. Better Price thru Competition 5. No Limited Work Scope	1. Possible Contractor Collusion 2. Difficult for Small Project	60	60
CCK - IDIQ (Indefinite Delivery Indefinite Quantity Contract)	1. No Design Required 2. No Price Negotiation 3. No Procurement Lead Time 4. Efficient for Small Project 5. Less Post Award Work	1. Limited Work Scope 2. No Competition 3. High Contract Cost	10	7
FED - IDIQ (Indefinite Delivery Indefinite Quantity Contract)	1. No Design Required 2. No Price Negotiation 3. Efficient for Small Project 4. Less Procurement Time 5. Less Post Award Work	1. Limited Work Scope 2. No Competition 3. High Contract Cost	10	14
FED JOC (Job Order Contract)	1. Short Procurement Lead Time 2. No In-House Work	1. No Competition 2. High Contract Cost 3. 30% Design Required 4. Limited Work Scope	30	40
CCK Full & Open Bid	1. Lower Contract Cost 2. Not Limited Work Scope 3. Open Competition	1. 100% Design Required 2. Longer Contract Lead Time 3. Difficult In-House 4. Lack of Staff for Construction Management	120	180


CONSTRUCTION PROJECT EXECUTION
Projects
BO&I Div.
PM ENG Div.
Design
Design
DSN Br.
AE
FED
Review
PM ENG Div.
Final Design
DSN Br.
AE
FED
PM ENG Div.
Design
Construction Complete
DA
EUSA
USAG
IMCOM
Funding Project Approval
PM/ENG Div.
Contract Award
411 BDE/CCK
Contracting
Construction
COR ENG Div
ENG Div
Submittal Approval
Inspection Br.
Quality Assurance
RA/COR
Final Inspection/Acceptance


Work Order Process for Construction Work
FEWR (4283) Received
Review
Technical Feasibility, Environmental Clearances & Regulatory Compliance
Estimate and Score (AWP)
To be Scored per Scoring Matrix
Initial Estimate
Less than 50K (maintenance & Repair "K") or $10K("L" work)
Between $10K and $750K/$1.5M ("L" work) or Between $50K and $3M (maintenance & Repair "K")
More than $750K/$1.5M ("L" work)
Close 4283, MILCON
Data Key-in to Project Prioritization System
Annual Work Plan (AWP) w/ Priority
Approved?
Funded?
Contract Execution
DPW Funded?
Yes
No
DPW Top Priority?
Yes
No
Customer Funded?
Yes
No
Close 4283, Return to Customer

Appendix B
Construction Inspection Checklist

Contents

A. General Requirements

1. Project Documentation.	YES	NO	REMARKS
a. Are the daily inspection reports completed by DPWs inspectors and reviewed by the COR/ACOR?			
b. Are test results and samples as required by the various sections of the specifications being furnished by the contractor IAW specifications?			
c. Are warranty inspections for CCK contracts being scheduled and recorded?			
d. Have all deficiencies been corrected and the field office been removed before the final payment is approved?			
2. Plans and Specifications.			
a. Did the inspector take necessary action for correcting any discrepancy between plans and specifications?			
b. Did the inspector highlight or make notes of those provisions which need special attention, such as repetitive deficiencies?			
c. Did the Contractor submit as-built drawings?			
3. Shop Drawings.			
a. Have all shop drawings been reviewed to ensure for technical adequacy and to check as to whether any item deviates from contract requirements?			
b. Have materials and equipment to be installed been checked against the approved shop drawings?			
4. Storage of Materials.			
a. Was adequate space available for the contractor's operations and storage areas?			
b. Were all material and equipment properly Stored and protected?			
c. Were flammable/explosive materials stored IAW NFPA and OSHA?			
d. Are temporary structures secured against wind damage?			
e. Was necessary heating and ventilation provided to protect materials and equipment stored on site?			
5. Layout.			
a. Ascertain that the Government-established points have been found, and they are maintained and preserved by the Contractor.			
b. Ensure the Contractor utilizes these Government points and establishes additional points as necessary to have complete control over the layout of his work.			
c. Is the Contractor's layout work accurately performed, and are complete notes maintained?			
6. Project Site.			
a. Has the Contractor provided a project sign IAW O&MA Specs, Sec 01500, para 3?			
b. Has the Contractor provided job-site office space IAW O&MA Specs, Sec 01500, para 5.1 for use by Government supervisory and inspection personnel?			
c. Has the Contractor provided temporary toilet facilities for his personnel?			
d. Has the Contractor provided project safety signs?			

B. Civil

1. Demolition.	YES	NO	REMARKS
a. Has the Contractor set-up procedure for safety, protection of property coordination of work, disconnection of utility services?			
b. Has Contractor maintained an inventory of all item specifically			
2. Asbestos Removal.			
a. Has the Contractor submitted an asbestos protection and quality control plan IAW O&MA Specs, Sec 02051?			
b. Has a bilingual caution sign been posted?			
c. Has the Contractor set up a decontamination facility?			
d. Has the asbestos been removed and disposed of in a safe manner?			
e. Was air monitoring performed during period of asbestos removal?			
f. Was the asbestos area cleaned and tested at completion of project?			
3. Clearing and Grubbing.			
a. Are all clearing and grubbing works executed IAW O&MA Specs, Sec 02110?			
b. Has disposal of materials for salable timbers stockpiled at locations as directed by the COR?			
c. Was burning or removing work from site completed IAW O&MA Specs, Sec 02110?			
4. Excavation, filling and Backfilling for Building, Structures and Walls.			
a. Do the foundation bearing materials agree with the borings?			
b. Has proper fill been provided for all depressed areas or holes? Fill is not permitted beneath footings to correct over-excavation.			
c. Have adequate measures been implemented for preventing damage to adjoining property?			
d. Are there provisions for dewatering excavations and water disposal?			
e. Are there provisions to ensure that footing beds in dewatered areas are not disturbed or softened?			
f. Is a written approval of CO/COR obtained for modification or change of established elevation?			
g. Is over-excavation corrected by placing approved, compacted backfill or concrete fill, depending on location?			
h. Is a detailed record of any such corrective work documented?			
i. Is backfill of satisfactory materials adjacent to any and all types of structures placed and compacted IAW O&MA Specs, Sec 02221?			
j. Is pavement, base course, subbase course and compacted subgrade disturbed by trenching operations replaced IAW O&MA Specs, Secs 02225,02232 02233, 02234, and 02551?			
k. Is backfill material deposited in six 96) inches maximum thickness layers and compacted with suitable tampers to the density of the adjacent soil IAW O&MA Specs, Sec 02221?			
l. Are fuel lines laid on a bed of inert coarse sand or gravel as shown on the DWG and compacted IAW O&MA Specs, Sec 02221 and 02222?			
m. Was the remainder of trench except under pavements, backfilled with material IAW O&MA Specs, Sec 02222?			
n. Is backfill, under pavement compacted in six (6) inch layers, to at least 90% laboratory maximum density and 95% laboratory maximum density for cohesive and cohesionless soils, respectively.			
o. Is backfill under turfed, sidewalk and nontraffic areas compacted in twelve inch layers to at least, 85% laboratory maximum density and 90% laboratory maximum density for cohesive and cohesionless soils, respectively.			

5. Grading.	YES	NO	REMARKS
a. Is ground surface on which fill is to be placed stripped of live, dead, or decayed vegetation, rubbish, debris, and unsatisfactory materials IAW O&MA Spec 02210?			
b. Is fill being constructed at the locations and to lines and grades indicated?			
c. Is fill of satisfactory material free from roots, other organic material, trash, and stones having maximum dimension greater than three (3) inches IAW O&MA Specs, Sec 02210?			
d. Is satisfactory material placed in horizontal layers not exceeding eight (8) inches in loose depth for power compacted layers and not exceeding six (6) inches in loose depth for hand-compacted layers IAW O&MA Specs, Sec 02210?			
e. Is compaction performed by rolling with approved tamping rollers, pneumatic-tired rollers, three-wheel power rollers, or other approved equipment well suited to the soil being compacted?			
f. Is the maximum density IAW O&MA Specs, Sec 02210?			
g. Is compaction testing IAW O&MA Specs, Sec 02210?			
h. Is the capillary water barrier placed beneath the concrete floor on grade, six (6) inches thick and constructed in one layer and compacted with minimum of four passes of a hand-operated plate-type vibrator compactor?			
i. Was non-frost susceptible material (NFSM) IAW O&MA Spec 02221 placed under concrete slabs-on-grade?			
j. Was each layer of capillary water barrier or NFS materials compacted through the full depth to at least 100% CE 55 maximum density?			
k. Is the stripping of topsoil IAW O&MA Specs, Sec 02210?			
l. Is topsoil free from roots, stones and other undesirable materials?			
m. Did stockpiling of topsoil interfere with other work?			
6. Excavation, Trenching, and Backfilling for Utilities Systems.			
a. Was the excavation of ditches accomplished by cutting accurately to the cross sections, grades, and elevations shown?			
b. Were all roots, stumps, rock and foreign matter removed from the sides and bottoms of ditches?			
c. Was excavated material deposited more than three(3) feet from the edge of the ditch?			
d. Are foundation pits of sufficient size to permit the placement an removal of forms for the full length and width of structure footings and foundations as shown on the drawing?			
e. Was care given in order not to disturb the bottom of excavation when concrete is to be placed in an excavated are IAW O&MA Specs, Sec 02222?			
f. Are the bottoms of the trenches accurately graded to provide uniform bearing and support for each section of the pipe?			
g. Was the pipe bedding of satisfactory materials and compacted to at least 90% laboratory maximum density for cohesive material and95% laboratory maximum density for ohensionless material?			
g. Were separate trenches excavated for sewer, water and fuel pipe lines?			
i. Was care given to minimize disturbance to the capillary water barrier and compacted subgrade?			
j. Is drainage provided continually during excavation progress?			
k. Is there adequate cover over pipes, cables and ducts IAW O&MA Specs, Sec 02222?			

	YES	NO	REMARKS
l. Are the bottoms of the trench for sanitary sewers rounded so that at least the bottom quadrant of the pipe can rest firmly on undisturbed soil or satisfactory backfill?			
n. Was a three (3)-inch layer of sand or stone-free earth laid in the bottom of electrical trenches and compacted to the approximate density of the surrounding soil where the bottom of trench comprises materials other than sand or earth?			
o. Is there six (6) inches of granular fill beneath the fuel pipeline and a min. of two (2) feet cover provided over the top of the pipe in unpaved areas?			
p. Was six (6) inches of granular fill provided beneath the fuel pipe and a min. of two (2) feet of earth cover provided over the top of pipe as measured from the bottom of the concrete slab for rigid pavement, or as measured from the bottom of the compacted subgrade for flexible pavement?			
7. Earthwork for Roadways, Railroads, and Airfields.			
a. Satisfactory, unsatisfactory and cohesionless/cohesive materials shall be classified on the job site - were they?			
b. Is the degree of embankment and subgrade compaction required by O&MA Specs, Sec 02225 applied for the work?			
c. Was the classification of excavation specified in O&MA Specs, Sec 02225 done on a classified basis?			
d. Were all unsatisfactory materials removed from excavation areas IAW O&MA Specs, Sec 02225?			
e. Were all excavations executed IAW O&MA Specs, Sec 02225?			
f. Safety and Health Requirements.			
(1) Were safety measures furnished and installed as necessary to protect workmen, banks adjacent to paving, structures, and utilities in accordance with EM 385-1-1?			
(2) Are banks more than five (5) feet high shored, laid back to a stable slope, or provided with other equivalent protection where employees may be exposed to moving ground or cave-ins?			
(3) Are locations of sanitary and storm drains, electrical cables and communication cables identified and protected from damage or displacement?			
(4) Are sufficient stairs, ladders, or ramps provided where personnel are required to enter excavations over four (4) feet?			
(5) Are side slopes and faces of all excavations maintained in safe condition by scaling, ice removal, benching, barricading, rock bolting, wire mesh, or other means?			
(6) Are guardrails, fences, or barricades and warning lights or other illumination maintained from sunset to sunrise at all excavation which are adjacent to paths, walkways, driveways, and other pedestrian or vehicle thoroughfares?			
(7) Is adequate physical protection provided at all remotely located excavations?			
(8) Are bridges or walkways with guardrails provided where people or equipment are required or permitted to cross over excavations?			
(9) Are diversion ditches, dikes, or other means used to prevent surface water entering an excavation and to provide good drainage of the area adjacent to the excavation?			
8. Graded-Crushed-Aggregate Base Course.			
a. Is the graded-crushed aggregate for base course conforming to the requirements specified in O&MA Specs, Sec 02233?			

	YES	NO	REMARKS
b. Have all materials been stockpiled in the manner and at the locations designated IAW O&MA Specs, Sec 02233?			
c. Has the preparation of the underlying course been constructed IAW O&MA Specs, Sec 02233?			
d. The underlying course shall conform to O&MA Specs, Secs 02233 and 02232. Were these Spec requirements fulfilled?			
e. Has grade control of construction been accomplished and maintained IAW the Special Clauses and drawings?			
f. Have mixing of materials, placing, compacting and finishing works been performed IAW O&MA Specs, Sec 02233?			
g. Did all proof-rolling, edging, smoothness test, thickness control and maintenance of the base course meet with O&MA Specification requirements.			
9. Sub-base Course.			
a. Are the materials and installation IAW O&MA Specs, Sec 02234?			
b. Are copies of test results furnished to the COR Officer thirty (30) days prior to starting the work?			
c. Were the required tests such as sieve analysis (ASTM C 136, D 422 & D 1140), liquid limit and plasticity index (ASTM D 4310), Density Tests (ASTM D 1556) and wear test (ASTM C 131) conducted by the contractor?			
a. Were samples of the materials to be used submitted for tentative approval thirty (30) days prior to starting the work and thereafter at regular intervals during production, as required by COR?			
10. Pre-Stressed Concrete Piling.			
a. Are the piles pretensioned spun concrete, KSF 4301 or KSF 4303?			
b. Were test piles driven IAW O&MA Specs, Sec 02366?			
c. Are all installations IAW O&MA Specs, Sec 02366?			
d. Did All equipment meet with the requirements as specified in O&MA Specs, Sec 02366?			
11. Storm Drainage System.			
a. Are the materials delivered to site conforming to the requirements of O&MA Specs, Sec 02720 and free from damage?			
b. Were plastic materials stored in direct sunlight?			
c. Are the ladders and inserts galvanized after fabrication?			
d. Is a safety fence, not less than four (4) feet high, provided along the larger channels?			
e. Is the pipeline laid to the grade and alignment indicated on the plans?			
f. Was diversion of drainage or dewatering of trenches as necessary provided during construction?			
g. Was selected material from the excavation or borrow areas placed and compacted along both sides of the pipe in layers not exceeding six (6) inches in compacted depth?			
h. Was compaction under traffic areas including adjacent shoulder areas not less than 90% of laboratory maximum density for cohesive material and 95% of laboratory maximum density for cohesionless material?			
i. Were tests for determination of density performed, and test samples furnished by the Contractor?			
12. Stone Protection (Rip-Rap and Stone Masonry).			
a. Is stone for the protection work dense, hard, sound, and durable stone free of cracks, seams, and other defects?			
b. Are suitable tests and service records used to determine the acceptability of the stone?			

	YES	NO	REMARKS
c. Is the work installed per project SPEC?			
13. Fence, Chain-Link.			
a. Are all materials conforming to the requirements as specified in O&MA Specs, Sec 02831?			
b. Is the ground along the fence line solid and to such grade that the vertical clearance between bottom of fence fabric and ground is a maximum of two (2) inches?			
c. Area straight runs between braced posts not more than 500 feet?			
d. Are post, rails, plates, and grate frames welded, cleaned and painted with two (2) coats of paint conforming to FS TT-P-641?			
e. Is the fence grounded on each side of every gate, at each corner, and, where crossed by high-voltage 600 volt or more lines at points approximately 150 feet on each side of the high-tension-line crossings?			
f. Is the fence grounded by ¾" Dia x 10 feet along grounding rods spaced not over 650 ft?			
14. Concrete Sidewalks, Curbs, Gutters and Swales.			
a. Is the maximum size of coarse aggregate one and a half inches (1 ½), and the slump not more than two (2) inches?			
b. Is the air content of the concrete by volume maintained between 5 - 7& based on measurements made immediately after discharge from the mixer? Air content shall be determined in accordance with ASTM C 173.			
c. Do expansion joint fillers and joint sealers conform to ASTM D 1751 or D 1752, and ASTM D 3405 or COE CRD-C-527, respectively?			
d. Has the work been performed IAW O&MA Specs, Sec 02511,03250 and 03300?			
15. Turf.			
a. Was the turfed area removed and replaced?			
b. Are the site preparation of seeding and sodding, sprigging areas completed IAW O&MA Specs, Sec 02935?			
c. Are the seeding, sodding and sprigging performed IAW O&MA Specs, Sec 02935?			
d. Are all erosion control measures conforming to the requirements specified on O&MA Specs, Sec 02935?			
e. Does the turf establishment period meet with the requirements of O&MA Specs, Sec 02935?			
16. Trees, Shrubs, Ground Covers, and Vines.			
a. Are all sources for plant materials and topsoil inspected at the sites to determine their acceptability?			
b. Are the samples and test reports for the required materials submitted IAW O&MA Specs, Sec 02950?			
c. Do materials delivery, storage and handling conform to the requirements as specified in O&MA Specs, Sec 02950?			
d. Do products including plants/topsoil through to edging materials conform to the requirements of O&MA Specs, Sec 02915?			
e. Have site preparation and inspection been conducted IAW O&MA Specs, Sec 02915?			
f. Do all installations of materials conform to the requirements as specified in O&MA Specs, Sec 02915?			
g. Is plant establishment conforming to the requirements of O&MA Specs, Sec 02915?			
h. Have preliminary and final inspections of the plant establishment been made IAW O&MA Specs, Sec 02915?			

	YES	NO	REMARKS
i. Has a final inspection of all plants been held after the replacement planting is completed.			
17. Bituminous Paving (JMF) for Roads, Streets, and Open Storage Area (Central Plant Hot-Mix).			
a. Are individual materials meeting the requirements as specified in O&MA Specs, Sec 02551?			
b. Are equipment, tools, and machines used in the performance of the work in satisfactory working condition?			
c. Is the newly paved area being protected? After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until it has cooled 60 degree centigrade and hardened for at least six (6) hours.			
d. Were samples of the finished pavement and plant mixtures taken for testing to determine conformance with O&MA Specs, Sec 02551?			
e. Is all work in conformance with O&MA Specs, Sec 02551?			
f. Is execution of work from the base course conditioning stage through to pavement placing stage, including jointing, IAW O&MA Specs, Sec 02551?			
18. Bituminous Tack coat.			
a. Does the bituminous material conform to ASTM D 977, D 2397, or KS M 2202, grade RC-0,RC-1 or KS M2203, Grade RS©-4?			
b. Does the application of the tack coat conform to the requirements of O&MA Specs, Sec 02558?			
c. Were daily quantity records of applied bituminous tack coat kept?			
d. Have the copies of certified laboratory test reports been submitted for approval prior to delivery of bituminous materials?			
19. Bituminous Prime Coat.			
a. Do the bituminous materials conform to ASTM D 977, D 2397, or KS M 2202 designation MC-1?			
b. Did the application of the prime coat conform to the requirements of O&MA Specs, Sec 02558?			
c. Are daily records kept of quantities of bituminous prime coat used?			
20. Water Lines.			
a. Have shop drawings been submitted for approval prior to delivering materials to the job site?			
b. Are the materials IAW the specifications and requirements of O&MA Specs, Sec 02660?			
c. Is the interior of pipe and accessories thoroughly cleaned of foreign matter before being lowered into the trench, and kept clean during laying operations by plugging or other approved method?			
d. Are the sections of pipe inspected for defects before installation?			
e. Are rubber gaskets (not to be used immediately) stored in a cool and dark place?			
f. Are PVC pies and fittings handled and stored in accordance with the manufacturer's recommendations?			
g. Are the storage facilities classified and marked in accordance with NFPA 704, NFPA 49, and NFPA 325M?			
h. Are water mains installed IAW O&MA Specs, Sec 02660?			
i. Is the waterline laid in the same trench with sewer line, gas line, or electric wiring?			
j. Is copper tubing installed in the same trench with ferrous piping material?			
k. Are the shutoff valves installed in standard locations, as far as practicable, so that they can easily be found in emergencies?			

	YES	NO	REMARKS
l. Are blowoff valves or fire hydrants provided at the ends of dead-end mains to allow periodic flushing of the mains?			
m. Are air-release and vacuum valves provided at prominent peaks on long supply mains? n. Is frost protection of risers from frost line depth to floor line adequately provided?			
o. Are fire hydrants located 6-7 feet from the edges of paved roadway surfaces?			
p. Are all fire hydrants marked in accordance with NFPA 291?			
q. Does the waterline have the minimum required earth cover depth for frost protection?			
r. Is the water pipe laid with the bells facing in the direction of laying?			
s. Was the water pipe which had its grade or joint disturbed after laying taken up and re-laid?			
t. Are the field joints for galvanized-steel pipe given one (1) coat of coal-tar primer and two (2) coats of coal-tar enamel conforming to AWWA C 203?			
u. Were concrete thrust blocks provided at locations of plugs, caps, tees and bends of 11-1/4 degrees or more, either vertically or horizontally, installed on water lines four (4) inches in diameter or larger, and on fire hydrants?			
v. Have hydrostatic pressure tests for all newly laid piping or any valved section of piping been made as specified in O&MA Specs, Sec 02660?			
21. Sanitary Sewers.			
a. Did the materials conform to the respective specifications and other requirements IAW O&MA Specs, Sec 02730?			
b. Did the pipe laying proceed upgrade with the spigot end of bell-and-spigot pipe and tongue ends of tongue and groove pipe pointing in the direction of the flow?			
c. Is the pipe laid and centered so that the sewer has a uniform invert?			
d. Are storage facilities for plastic pipe, fittings, joint materials and solvents classified and marked in accordance with NFPA Standard 70 with classification as indicated in NFPA 49 and NFPA 325M?			
e. Were the sewer lines tested for leakage by either infiltration tests or exfiltration tests as appropriate?			
f. Were the cast-iron and ductile iron frames and covers conformed to			
g. Are the distribution and collection lines for subsurface sand filters laid true to line and grade with open concentric joints of approximately ¼ inch width but not over 3/8 inch width?			
h. Is the surface of the sand filter and the adjacent disturbed areas top soiled, and sodden?			
h. Is the bottom slab "holed" for demolition of existing septic tanks? Two (2) holes for 850 gallons capacity and four (4) holes for 1,000 gallons capacity and over shall be provided. The holes shall be not less than 12-inch in diameter.			

C. Architectural

1. Concrete.	YES	NO	REMARKS
a. General. Is full cooperation given other trades to install sleeved items such as piping, conduits, etc?			
b. Materials.			
(1) Are materials conforming to the requirements shown in O&MA Specs, Sec 03300?			
(2) Is perimeter insulation 50 mm (2 inches) thick and one of following types? Polystrene, Polyurethane or Cellular Glass?			
(3) Are waterstops conforming to O&MA Specs, Sec 03150?			
c. Samples and Testing.			
(1) Have samples been furnished?			
(2) Have shop drawings for steel reinforcement and embedded items been approved?			
d. Formwork.			
(1) Has formwork been accomplished in accordance with ACI 347R?			
(2) Have forms been oiled, wetted, or sealed?			
(3) Have clean-outs been provided in the bottom of the forms.			
(4) Are all joints located as shown on the drawings or as otherwise approved?			
(5) Is removal of forms done in a manner to ensure complete safety of the structure per the requirements specified in O&MA Specs, Sec 03100?			
e. Reinforcement			
(1) Is all reinforcement positioned in accordance with approved shop drawings?			
(2) Are laps or splices made in conformance with ACI 318?			
(3) Does reinforcement detailing and placement including concrete protection for steel reinforcement conform to ACI 318 and ACI detailing manual?			
f. Strength of Concrete. Are strength requirements of concrete in conformance with O&MA Specs, Sec 03300?			
g. Proportioning of Concrete Mixes.			
(1) Does the concrete exposed to freezing and thawing cycles contain air content as determined by ASTM C 231?			
(2) Was the slump determined in conformance with O&MA specs,			
(3) Is slump within the specified limits IAW O&MA Specs, Sec 03300?			
h. Footings and Foundations.			
(1) Has capillary water barrier material been compacted to specified density?			
(2) Has waterproof paper or polyethylene covering been applied as specified in contract drawings?			
i. Perimeter Insulation.			
(1) Is perimeter insulation applied with adhesive to the interior surface of foundation walls?			
(2) Is the depth of perimeter insulation below the local freezing depth?			
j. Joints.			
(1) Are all joints (expansion, contraction, construction) located as shown on drawings?			
(2) Are joints made IAW O&MA Specs, Sec 03150?			
k. Placing Concrete.			
(1) Has concrete been placed in the forms IAW O&MA Specs, Sec 03300?			

	YES	NO	REMARKS
(2) Is the time interval between mixing and placing IAW O&MA Specs, Sec 03300?			
l. Compaction.			
Immediately after placing, was each layer of concrete compacted by internal concrete vibrators IAW O&MA Specs, Sec 03300?			
m. Slabs on Grade.			
(1) Immediately prior to placing concrete, was vapor barrier sheeting provided on the capillary water barrier layer IAW O&MA Specs, Sec 03300?			
(2) Have crack control joints been provided IAW O&MA Specs, Sec 03300?			
n. Setting of Base Plates and Bearing Plate.			
Are column base plates, bearing plates for beam and similar structural members and equipment provided with full bearing IAW O&MA Specs, Sec 03300?			
o. Finishes.			
(1) Are all surface defects remedied within 12 hours after forms are removed IAW O&MA Specs, Sec 03300?			
(2) Are concrete floor and roof slabs pitched to drain as indicated on drawings?			
(3) Has bloom finish been given to exterior building entrances, concrete stairs, and landings IAW O&MA Specs, Sec 03300?			
p. Curing.			
Is all concrete cured by an approved method for the period of time IAW O&MA Specs, Sec 03300?			
q. Hardener.			
Has hardener been applied to exposed interior concrete floors where indicated on the drawings and O&MA Specs, Sec 03300?			
r. Protection.			
(1) Is adequate covering provided to protect concrete from damage by other construction activities?			
(2) Are precautions taken to protect surface from rain, snow, or flowing water until they have set sufficiently to resist damage?			
2. Masonry.			
a. General.			
Have shop drawings for reinforcing bars, glazed structural units been submitted and approved prior to delivery of material to the job site?			
b. Materials.			
(1) Do all materials conform to the requirements IAW O&MA Specs, Sec 04200?			
(2) Are sizes and defects within permissible tolerances?			
(3) Are CMU units having a bull-nose of 25mm (1 inch) radius used throughout interior spaces at vertical corners of interior CMU walls to be exposed or painted?			
(4) Is specified gauge wire used for joint reinforcement IAW O&MA Specs, Sec 04200?			
(5) Is lintel reinforcement provided IAW O&MA Specs, Sec 04200?			
(6) Are splices of reinforcing bars of specified length IAW O&MA Specs, Sec 04200?			
(7) Has specified insulation been installed?			
c. Erection.			
(1) Is erection of masonry performed IAW O&MA Specs, Sec 04200?			
(2) Are coverings provided at the end of each work day?			

	YES	NO	REMARKS
(3) Are masonry facing tied to abutting walls, columns, or structural steel framing IAW O&MA Specs, Sec 4200.			
(4) Have masonry dimensions been checked against foundations and structural framing?			
(5) Is mortar placed in final position within2 ½ hours after mixing?			
(6) Are reinforced masonry lintels provided above openings over 12 inches wide?			
(7) Are sleeves set in place as masonry is erected?			
(8) Have spaces around metal door frames and other built-in items been filled with mortar?			
(9) Has jointing work been accomplished O&MA Specs, Sec 04200?			
(10) Are thru-wall flashing & weep holes provided at base of cavity wall?			
(11) Is spacing of cavity and ties IAW O&MA Specs Sec 04200?			
(12) Has brick work been performed IAW O&MA Specs, Sec 04200?			
(13) Has CMU work been performed O&MA Specs, Sec 04200?			
(14) Are all lintels of specified depth and with minimum of 200 mm (8 inch) bearing?			
d. Parging.			
(1) Have outside of below grade exterior CMU walls been parged with mortar IAW O&MA Specs, Sec 04200?			
(2) Is parging not less than 13 mm (1/2 in) thick?			
e. Insulation			
(1) Has board type insulation been applied directly to the masonry with adhesive?			
(2) Is vapor barrier of the insulation placed facing the warm sides of the room?			
f. Crack Control.			
(1) Have crack control treatments such as joint reinforcement, bond beam or control joints been provided IAW O&MA Specs, Sec 04200?			
(2) Are sections of joint reinforcing lapped the specified amount?			
(3) Is joint reinforcement disconnected at control joints?			
g. Expansion Joints.			
Are expansion joints located where indicated on the drawing and made IAW O&MA Specs, Sec 04200?			
h. Cleaning.			
(1) Have all defects in joints of masonry to be exposed or painted been raked out before completion of work?			
(2) Has cleaning operation been started after mortar is thoroughly set and cured?			
3. Structural Steel.			
a. General.			
Has fabrication and erection of structural building steel been performed IAW AISC Specifications?			
b. Materials.			
(1) Do all materials conform to the requirements indicated in O&MA Specs, Sec 05120?			
(2) Is materials handling being done in such a manner to prevent distortion or damage during unloading and storage?			
c. Erection and Fabrication.			
(1) Are all foundations and anchor bolts checked prior to steel erection?			
(2) Are temporary connections provided to hold all steel in proper position before permanent welds are accurately fitted?			

	YES	NO	REMARKS
(3) Are base plates and beading plates provided IAW O&MA Specs, Sec 05120?			
(4) Are all steel members accurately fitted, leveled, and plumbed?			
(5) Are specified types, lengths and sizes of bolts, and sizes and types of washers used?			
(6) Are all holes for bolts aligned?			
(7) Are field welded structural connections completed before load is applied?			
(8) Are field bolt heads and nuts, field welds, and any abrasions in the shop coat, primed after erection?			
4. Steel Joists.			
a. General.			
Have steel joists and joist girders been manufactured in accordance with the applicable SJI-AISC (Steel Joist Institute-American Institute of Steel Construction) standard specifications?			
b. Fabrication.			
(1) Do steel joists and joist girders conform to the SJI-AISC standard specifications.			
(2) Are joists and accessories shop-painted with a rust inhibiting primer paint?			
c. Erection.			
Has installation of joists been performed in accordance with the applicable SJI-AISC standard specifications?			
5. Miscellaneous Metal.			
a. Materials.			
(1) Do materials conform to the requirements in O&MA Specs, Sec 05500?			
(2) Does galvanizing (hot dipped zinc coating) conform to the requirements in O&MA Specs, Sec 05500?			
(3) Have galvanized surfaces damaged by welding or other construction operation been cleaned and painted with 3 coats of paint IAW the O&MA Specs, Section 09900?			
(4) Are aluminum items in standard mill finish? Do the coatings conform to AA standards?			
b. Fabrication.			
Are all misc. metal items fabricated IAW O&MA Specs, Sec 05500?			
6. Roof Decking.			
a. Material.			
(1) Are all materials IAW SDI 30, Design Manual for composite decks, form decks, acoustical decks and roof decks?			
(2) Are roof decks primer-coated in accordance with manufacturer's standard paint or zinc-coated IAW ASTM A 653, G90 or aluminum-zinc coated IAW ASTM A 792?			
b. Fabrication.			
(1) Do the decking units conform with O&MA Specs, Sec 05300?			
(2) Are all metal accessories of the same materials as the decking?			
c. Erection.			
Has erection of decking and accessories been IAW SDI (Steel Deck Institute) Design manual?			
7. Carpentry (Rough and Finish Carpentry).			
a. General.			
(1) Are all species of lumber delivered to site equivalent to the American species listed in O&MA Specs, Sec 06100 or 06200?			

	YES	NO	REMARKS
(2) Are all species of lumber not indicated in the O&MA Specs 06100 or 06200 approved by COR?			
(3) Do all grades of lumber have the minimum allowable unit stresses specified in O&MA Specs, Sec 06100?			
b. Materials			
(1) Do all materials conform to the requirements specified in O&MA Specs, Secs 06100 and 06200?			
(2) Are all materials delivered to site, equivalent to the approved sample?			
c. Grading and Marking.			
Do all finish and structural lumber bear grademark or stamps?			
d. Size.			
(1) Do all lumber sizes conform to requirements of the rules or standard under which produced?			
(2) Are all lumber surfaced on four sides?			
e. Moisture Content.			
At the time lumber and other materials were delivered and installed, was the moisture content IAW O&MA specs, Secs 06100 and 06200?			
f. Preservative Treatment.			
(1) Are lumber and plywood indicated in O&MA Specs, Sec 06100 preservative -treated by immersion methods IAW AWPA (American Wood-Preservers' Association)?			
(2) Is lumber in contact with soil or water treated IAW AWPA M4 (American Wood-Preserver's Association)?			
(3) Is lumber in contact with built-up roofing materials treated by waterborne pressure method?			
(4) Are all cut surfaces brush-coated with the same preservative treatment IAW AWPA M4?			
g. Fire Retardant Treatment.			
(1) Has lumber been pressure-treated for fire retardant purpose IAW AWPA C20?			
(2) Has plywood been pressure-treated for fire retardant purpose IAW AWPA C27?			
h. Installation of Framing.			
(1) Is framing kept at least 50 mm (2 inches) away from chimneys and 100 mm (4 inches) away from fireplace backwalls?			
(2) Are sill plates set level and anchor bolted IAW O&MA Specs, Sec 06100.			
(3) Has wall framing and partition been erected IAW O&MA Specs, Sec 06100?			
(4) Have floor and ceiling framings been erected O&MA Specs, Sec 06100?			
(5) Have roof framing or rafters been erected IAW O&MA Specs, Sec 06100?			
i. Installation of Sheathing.			
(1) Is plywood or wood sheathing installed IAW O&MA Specs, Sec 06100?			
(2) Do end joints occur only over framing members?			
(3) Does sheathing extend over top and bottom plates?			
(4) Is specified sheathing paper being installed as soon as practical after sheathing installation?			
j. Installation of Subflooring and Underlayment.			
(1) Is installation similar to sheathing?			

	YES	NO	REMARKS
(2) Is a clearance of 6 mm (1/4 inch) provided at walls?			
(3) Have subflooring for walls of handball courts been damp proofed on the back side with two coats of aluminum enamel?			
(4) Are surfaces including joints and fastener locations smooth for finish flooring?			
k. Installation of Moisture Barrier Is moisture barrier applied IAW O&MA Specs, Sec 06100?			
l. Exterior Finish.			
(1) Is prefinished siding sealed and finished exactly as specified in O&MA Specs, Sec 06100?			
(2) Are end joints of siding made at supports?			
(3) Has preservative treatment been provided as specified in O&MA Specs, Sec 06100?			
m. Interior Finish.			
(1) Has installation of woodwork items been installed IAW O&MA Specs, Sec 06200?			
(2) Are exposed surfaces sanded smoothly?			
(3) Are joints tight, sawed and fitted accurately, and made to conceal shrinkage?			
(4) Are bases set in place after floor is laid?			
8. Waterproofing.			
a. General.			
(1) Is the ambient temperature above 4 degrees C (40 degrees F)?			
(2) When waterproofing in an enclosed space, is adequate ventilation provided?			
(3) Where pipes, conduits, or other items pass through the areas to be waterproofed, is the waterproofing installed after the flashing?			
b. Materials.			
(1) Do materials conform to the requirements specified in O&MA Specs, Sec 07132?			
(2) Are materials delivered to the site in sealed containers bearing the manufacturer's original labels?			
c. Application.			
(1) Has application of bituminous waterproofing been performed IAW O&MA Spec, Sec 07132?			
(2) Are surfaces coated uniformly with primer at the rate of not less than one 0.2 liters per square meter (1/2 gallon per 100 sq ft)?			
(3) Is the membrane applied to vertical surfaces nailed through the top layer with specified fasteners?			
(4) Is reinforcing consisting of two plies of fabric and mopping of bitumen provided over the specified areas?			
(5) Are waterproofed areas against which backfill is to be placed protected by a single thickness of insulation boards?			
9. Damp proofing.			
a. General.			
(1) Is the ambient temperature above 4 degrees C (40 degrees F)?			
(2) Is the cold-application method used in only confined spaces?			
b. Materials. Do all materials conform to the requirements shown in O&MA Specs, Sec 07110?			
c. Application.			
Is damp proofing applied to the interior surface of single width, exterior, furred concrete or masonry walls above grade conforming to O&MA Specs, Sec 07110?			

	YES	NO	REMARKS
10. Sheet Metal Work, General.			
a. General.			
(1) Is sheet metal work installed without waves, warps, buckles, fastening stresses or distortion?			
(2) Are joints installed as specified in O&MA Specs, Sec 07600?			
(3) Are bottom edges of exposed vertical surfaces angled to form angle drips?			
(4) Is application of flashing works over roofing works accomplished in accordance with requirements of roof work?			
b. Materials			
(1) Do all materials conform to the respective requirements in O&MA Specs, Sec 07600?			
(2) Is gauge thickness and weight of galvanized steel IAW O&MA Specs, Sec 07600?			
(3) Have dissimilar materials been isolated from each other?			
c. Installation.			
(1) Are joints in sheet metals selected and made IAW Table II in O&MA Specs, Sec 07600?			
(2) Are types of fastening selected in conformance with contract drawings or O&MA Specs, Sec 07600?			
(3) Has soldering, riveting, seaming, and sealing been accomplished IAW O&MA Specs, Sec 07600?			
(4) Are downspouts being factory fabricated with flat lock seam?			
(5) Are downspout sections telescoped together?			
(6) Are downspouts plumb and firmly secured with one (1)-inch wide straps?			
(7) Is the back of gutter higher than front?			
(8) Are sheet metal expansion joints provided IAW O&MA Specs, Sec 07600? Are they located at intervals of spacing IAW O&MA Specs, Sec 07600?			
(9) Are wire ball strainers for gutter openings provided into downspouts?			
(10) Are flashings installed at intersections of roof with vertical surfaces and at projections through roof IAW O&MA Specs, Sec 07600?			
(11) Is eave flashing one-piece in width?			
(12) Are the sheets of roof valleys lapped not less than 150 mm (6 inches) in the direction of flow?			
(13) Are edge strips provided continuously at bottom edges of fascias and act as a drip and continuous cleat?			
(14) Are gravel steps and fascias provided for roof edge as designed and specified in O&MA Specs, Sec 07600?			
(15) Are louvers fabricated and installed IAW O&MA Specs, Sec 07600?			
(16) Are splash pans installed at locations as indicated on the drawings, and installed IAW O&MA Specs, Sec 07600?			
(17) Is field painting of sheet metals approved?			
(18) Are only sheet metal surfaces requiring protection field-painted?			
11. Insulation for Roofing.			
a. Materials.			
(1) Do all materials conform to the requirements in O&MA Specs, Sec 07220?			
(2) Have insulation thickness computations been submitted and approved?			
b. Application Requirements.			

	YES	NO	REMARKS
(1) When materials are applied, is the ambient temperature above 4 degrees C (40 degrees F)?			
(2) Is the insulation mechanically attached on roof sloped greater than 1/2 inch per foot?			
(3) Are vapor barriers provided for all heated buildings where average January temperature is below 4 degrees C (40 degrees F)?			
c. Application of Vapor Retarder.			
(1) Have vapor retarder been applied IAW O&MA Specs, Sec 07220			
d. Application of Insulation.			
(1) Has insulation been installed IAW O&MA Specs, Sec 07220?			
(2) Are exposed edges of the insulation protected by cutoffs at the end of each day's work?			
e. Application of Wood Nailers.			
(1) Have wood nailers been installed IAW O&MA Specs, Sec 07220?			
(2) Are all wood nailers treated with waterborne preservative as specified in O&MA Specs, Sec 06100?			
12. Built-up Roofing.			
a. General.			
(1) Has specified type of built-up roofing been installed?			
(2) Are all materials protected from weather?			
(3) When built-up roofing is applied, is the ambient temperature 4 degrees C (40 degrees F) or above.			
b. Materials.			
Are all materials IAW O&MA Specs, Sec 07510?			
c. Application of Roofing.			
(1) Is phased-construction permitted? (The entire roofing systems shall be finished in one operation).			
(2) Has built-up roofing been installed IAW O&MA Specs, Sec 07510?			
(3) Is each course of roofing felt lapped as specified in O&MA Specs, Sec 07510?			
(4) Are felts nailed as specified in O&MA Specs, Sec 07510?			
d. Application of Flashing.			
(1) Are flashings provided and installed immediately after the top ply of roofing is applied IAW O&MA Specs, Sec 07510?			
(2) Do cants for base flashing have not less than 89 mm (3 1/2 inches) height?			
(3) Are strip flashings provided with at least two (2) layers of roofing felt and successively cemented in place?			
(4) Are all felt plies continued across valleys and terminated approximately 300 mm (12 inches) from the valley.			
(5) Has the roof surface been flood-coated with asphalt and embedded with surfacing gravel IAW O&MA Specs, Sec 07510?			
e. Installation of Roof Walkways.			
(1) Are mineral asphalt plank or concrete slab installed IAW O&MA Specs, Sec 07510?			
13. Metal Roofing and Siding.			
a. Material.			
Do all materials conform to the requirements shown in O&MA Specs, Sections 07412 and 07413?			
b. Installation.			
(1) Are improper or mislocated drill holes plugged with an oversize screw fastener?			

	YES	NO	REMARKS
(2) Is wall covering applied with the longitudinal configurations in the vertical positions?			
(3) Is roof covering applied with the longitudinal configurations in the direction of the roof slopes?			
(4) Are spacings of fasteners and sheet laps IAW O&MA Specs, Sections 07412 and 07413?			
(5) Is insulation installed IAW O&MA Specs, Sections 07412 and 07413?			
14. Joint Sealing.			
a. Material.			
(1) Do all materials conform to the requirements specified in O&MA Specs, Sec 07900?			
(2) Are the approved materials being used?			
b. Surface Preparation.			
(1) Have grooves of adequate depth been provided and are they clean?			
(2) Have concrete and masonry surfaces been treated with curing compound?			
(3) Have steel surfaces to be in contact with sealant been sandblasted, scraped or wire brushed?			
(4) Has the backstop or bond-preventative material been installed?			
(5) Are joint dimensions IAW O&MA Specs, Sec 07900?			
c. Application.			
(1) Is paper masking tape placed on the finished surface to protect adjacent finished surfaces from primer or compound?			
(2) Have sealants been applied IAW O&MA Specs, Sec 07900?			
15. Windows.			
a. General.			
(1) Are windows of the type and the size indicated?			
(2) Does each window consist of a complete unit, including sash, frame, weather stripping, and hardware?			
b. Wood window.			
(1) Are wood windows factory primed for finish painting?			
(2) Is extra hardware such as sash lifts, sash lock or latch and sash pulls scheduled or requested?			
(3) Has proper mounting, level & plumbness of sills, heads and jambs been performed IAW O&MA specs, Sec 08550?			
(4) When job-priming is permitted, are windows primed prior to completion of all other work which would raise the moisture content of the windows?			
c. Aluminum Windows.			
(1) When delivered to the job site, do the finished surfaces of aluminum window receive a protective coating or covering?			
(2) Is glass secured with screwed on continuous aluminum beads inside the sash?			
(3) Are aluminum screen frames provided and fitted closely around the entire perimeter of each ventilator or opening?			
(4) Is a continuous uninterrupted thermal break provided around the entire perimeter of the frame and all sashes?			
(5) Have all windows been installed IAW O&MA Specs, Sec 08520?			
d. Steel Windows.			
(1) Are windows fabricated of galvanized steel?			
(2) Is continuous weather stripping provided around the perimeter of each sash?			

	YES	NO	REMARKS
(3) Are provisions made for adequate drainage of water between the sliding ridges of sill and through the lowest horizontal window stops?			
(4) Have all windows been installed IAW O&MA Specs, Sec 08510?			
16. Doors.			
a. Steel Doors and Frames.			
(1) Do the doors and frames have specific level?			
(2) Are louvers installed IAW O&MA Specs, Sec 08110?			
(3) Are door frames made IAW O&MA Specs, Sec 08110 and set before masonry begins?			
(4) Is hardware reinforcement built into doors and frames?			
(5) Do fire-rated doors bear the identifying label conforming to UL, FM and WHI?			
(6) Is shop-coat required on steel?			
(7) Are doors having galvanized surfaces to be painted given a phosphate treatment?			
(8) Is weather stripping for bottom of doors, the mounted sweep type IAW O&MA Specs, Sec 08110?			
(9) Are all doors constructed IAW O&MA Specs, Sec 08110?			
(10) Are all doors installed IAW ANSI/DHI Publication and O&MA Specs, Sec 08110?			
(11) Are all fire doors installed IAW NFPA 80?			
b. Steel Overhead Doors.			
(1) Are all overhead doors fabricated and installed IAW submitted manufacturer's instructions?			
(2) Are exterior doors insulated?			
(3) Is guide and track adjustment correct for proper operation?			
(4) Are safety and limit switches operating properly for electric-powered doors?			
c. Steel Rolling Doors.			
(1) Are all rolling doors fabricated and installed IAW manufacturer's instructions?			
(2) Do pushup doors have lifting handles on both sides of doors and locking devices?			
d. Wood Doors and Frames.			
(1) Do fire doors, frames, and hardware bear the identifying label of U.L. conforming to NFPA 80?			
(2) Are the exterior softwood doors water-repellent preservative treated?			
(3) Are exterior flush doors made of solid wood block core?			
(4) Is adhesive used with natural finish doors of the non-staining type?			
(5) Is weather striping for bottom of doors of surface-mounted sweep type IAW O&MA Specs, Sec 08210?			
(6) Are doors with surfaces to receive paint finish and natural finish furnished with factory-primed surfaces?			
(7) Are materials and fabrications IAW O&MA Specs, Sec 08210?			
(8) Are door frames IAW O&MA Specs, Sec 08210?			
(9) Are doors installed IAW O&MA Specs, Sec 08210?			
17. Glass and Glazing.			
a. General.			
(1) Has glazing work been started when the outdoor temperature is above 5 degrees C (40 degrees F)?			
(2) Is Glazing work allowed during damp and or rainy weather? (Glazing work shall not be performed during damp or rainy weather.)			
b. Materials.			

	YES	NO	REMARKS
(1) Are all materials conforming to the requirements in O&MA Specs, Sec 08810?			
(2) Does wire-glass in fire-rated doors and windows comply with NFPA No. 80 requirements?			
(3) Does glazing compound conform to ASTM C 669?			
c. Installation.			
(1) Has all glass been installed IAW O&MA Specs, Sec 08810?			
(2) Is glass with one surface patterned set with smooth surface on the weather side?			
(3) Is obscured glass used in windows of toilet and shower rooms?			
18. Gypsum Board.			
a. General.			
Does gypsum wallboard work conform to ASTM C 840 and GA 216?			
b. Materials.			
Do all materials conform to the requirements specified in O&MA Specs, Sec 09250?			
c. Installation.			
(1) Is waterproof coating applied at cut edges and edges of gypsum wallboard adjoining tile bases IAW O&MA Specs, Sec 09250?			
(2) Are suspended ceilings installed IAW O&MA Specs, Sec 09250?			
(3) Are attached ceilings installed IAW O&MA Specs, Sec 09250?			
(4) Are hat-shaped steel channels or steel studs provided where steel furring is indicated for screw attachment of gypsum wall board IAW O&MA Specs, Sec 09250?			
(5) Are steel framings installed IAW O&MA Specs, Sec 09250?			
(6) Are support members provided at ceilings or wall openings IAW O&MA Specs, Sec 09250?			
(7) Are gypsum boards applied IAW ASTM C 840 and O&MA Specs, Sec 09250?			
(8) Does nailing conform to the requirements shown on ASTM C 840 and O&MA Specs, Sec 09250?			
(9) Are all wallboard joints treated with compound IAW O&MA Specs, Sec 09250?			
19. Acoustical Ceilings.			
a. General.			
(1) Do environmental conditions conform to the requirements specified in O&MA Specs, Sec 09510?			
(2) Do all materials conform to the requirements specified IN O&MA Specs, Sec 09510?			
(3) Do ceiling suspension systems and wall systems conform to the requirements specified in O&MA Specs, Sec 09510?			
(4) Are access panels properly located and identified?			
(5) Are extra support hangers provided for heavy light fixtures?			
(6) Are damaged or dirty tiles replaced?			
20. Wood Strip Flooring.			
a. Materials.			
(1) Do all materials conform to the requirements specified in O&MA Specs, Sec 09640?			
(2) Is flooring installed after other operations are completed?			
(3) Is building temperature maintained between 14 to 27 degrees C (55 to 80 degrees F) before, during and after floor installation?			
(4) Are strip floorings installed IAW O&MA Specs, Sec 09640?			
(5) Are handball court walls installed IAW O&MA Specs, Sec 09640?			

	YES	NO	REMARKS
(6) Has space for expansion been provided along perimeter walls and around fixed projections through the floor surface?			
(7) Is strip flooring sanded after installation IAW O&MA Specs, Sec 09640?			
(8) Is adequate protection provided to prevent damage?			
21. Lathing and Plastering.			
a. Materials.			
(1) Do all materials conform to the requirements specified in O&MA Specs, Sec 09200?			
(2) Have types and weights of lath been properly selected IAW O&MA specs, Sec 09200?			
b. Installation.			
(1) Is ceiling framing and furring applied IAW O&MA Specs, Sec 09200?			
(2) Is wall framing and furring applied IAW O&MA Specs, Sec 09200?			
(3) Is lath applied IAW O&MA Specs, Sec 09200?			
(4) Are openings in plastered areas provided IAW O&MA Specs, Sec 09200?			
(5) Are all plaster accessories provided IAW O&MA Specs, Sec 09200?			
(6) Does plaster thickness conform to the requirements specified in O&MA Specs, Sec 09200?			
(7) Has plastering been started after windows are glazed and exterior doors are installed?			
(8) Are plaster base coats applied IAW O&MA specs, Sec 09200?			
(9) Are plaster finish coats applied IAW O&MA Specs, 09200?			
(10) Do control joints in plaster follow the control joints of the building?			
22. Ceramic Tile and Quarry Tile.			
a. Materials.			
Do all materials conform to the requirements specified in O&MA specs, Sec 09310?			
b. Preparation.			
(1) Is floor tile installation started in spaces requiring wall tile after wall tile has been installed?			
(2) Is tile laid out to symmetrize the patterns and so that tiles less than one-half full width shall not occur?			
(3) Is reinforcement fabric discontinued at control and expansion joint?			
c. Installation.			
(1) Is floor tile installed IAW O&MA Specs, Sec 09310?			
(2) Is wall tile installed IAW O&MA Specs, Sec 09310?			
(3) Is quarry tile with abrasive surface used in vestibules, kitchens, walk-in refrigerators, and work spaces behind serving lanes?			
(4) Have control Joints been installed IAW O&MA Specs, Sec 09310?			
23. Resilient Flooring.			
a. Materials.			
Do all materials conform to the requirements specified in O&MA Specs, Sec 09650?			
b. Installation.			
(1) Is vinyl composition tile installed IAW O&MA Specs, Sec 09650?			
(2) Is sheet vinyl floor installed IAW O&MA Specs, Sec 09650?			
(3) Are all surfaces cleaned IAW O&MA Specs, Sec 09650?			
24. Paints and Coatings.			
a. General.			
Do environmental conditions conform to the requirements of O&MA Specs, Sec 09900?			

b. Materials.	YES	NO	REMARKS
Do all materials conform to the requirements specified in O&MA specs, Sec 09900?			
c. Surface Preparation. Are all surfaces to be painted treated IAW O&MA Specs, Sec 09900?			
d. Mixing and Thinning.			
Is mixing and thinning performed IAW O&MA Specs, Sec 09900?			
e. Application. Is paint applied IAW O&MA Specs, Sec 09900?			
25. Toilet Partitions.			
a. Materials.			
(1) Do all materials conform to the requirements shown in O&MA Specs, Sec 10160?			
(2) Do toilet enclosures conform to the dimensions specified in O&MA Specs, Sec 10153?			
(3) Are metal toilet partitions constructed IAW O&MA Specs, Sec 10153?			
b. Erection.			
(1) Are all materials erected IAW O&MA Specs, Sec 10153?			
(2) Is the mounting height for metal toilet partitions same as shown on the drawings?			
26. Toilet Accessories.			
a. General.			
(1) Do all accessory items conform to the requirements specified in O&MA specs, Sec 10800?			
(2) Are exposed fasteners tamper-proof?			
b. Installation.			
(1) Are all accessory items fastened to the supporting construction IAW the approved submittals?			
(2) Is the mounting height for accessories as shown on detail elevation in the drawings?			
27. Fire Stops.			
Have required fire stops been installed as shown on drawings?			

D. Mechanical

1. General.	YES	NO	REMARKS
a. Is the noise level within acceptable limits as recommended in TM 5-805-4?			
b. Are approved flexible connections and/or vibration eliminators provided and properly anchored?			
c. Are the explosion-proof type motors installed in hazardous locations IAW National Electrical Code?			
d. Are pipe sleeves and prepared openings provided where pipes and ducts pass through the building structure?			
e. Are fuel oil storage tanks installed correctly IAW O&MA Specs, Sec 13202 and the manufacturer's recommendations?			
f. Are oil level and leak monitoring systems for fuel tanks and underground pipes properly provided IAW O&MA Specs, Sec 13202?			
g. Has fuel oil system been tested IAW O&MA Specs, Sec 13202?			
h. Is thermal insulation applied correctly for ductworks and hot and cold water pipes IAW O&MA Specs, Sec 15080? (Check unit thermal resistance, thickness, and densities, etc., of insulation applied.)			
i. Are pumps leveled, aligned, and anchored to the foundation?			
j. Are all equipment and piping approved?			
k. Are controls provided as specified in contract documents? Are they properly hooked up and will they perform the required operation?			
l. Are all required thermometers, pressure gauges, and strainers provided IAW contract documents?			
m. Are pipe hangars and anchorage, pipe insulation, expansion loops or joints, and pipe alignment guides provided IAW contract documents?			
n. Are bird or insect screens provided where required? Is mesh size correct?			
o. Are access doors provided at all fire dampers, automatic dampers, valves, coils, filters, heaters, thermostats, or at any item that requires servicing? (Doors are to be airtight, securely fastened and accessible, and able to be fully opened.)			
p. Are framed instructions set under glass or in laminated plastic, including wiring and control diagrams showing the complete layout of the entire system posted in mechanical room?			
q. Is proper draft maintained in the oil burning equipment as recommended by the equipment manufacturers?			
r. Are combustion and ventilation air openings provided for the mechanical room IAW NFPA 31?			
s. Are locking covers provided for all room thermostats in public areas to prevent tampering IAW O&MA Specs?			
t. Have safety guards for V-belt drive, gear drives, and other places where required, been provided?			
u. Are equipment bases provided and all equipment anchored?			
v. Are manholes with gravel drains located above the water table?			
2. Piping.			
a. Are materials, types and sizes of pipes IAW the contract documents?			
b. Are pipes properly pitched for drainage?			
c. Are required valves installed in the correct sequence?			
d. Are the method and procedure of jointing pipes as specified?			
e. Are proper grade and alignment maintained and proper fittings provided to eliminate air pockets and restrictions?			
f. Are eccentric fittings provided where necessary, and properly installed?			

	YES	NO	REMARKS
g. Are unions or flanges installed in all equipment, at control valves, at pipelines, and at other points that will facilitate maintenance?			
h. Are proper valves used? Do not allow gate valves to be installed where globe valves are required.			
i. Are backflow prevention devices provided and properly installed IAW contract documents?			
j. Are all globe and check valves properly oriented with respect to flow?			
k. Are all supply and return lines cleaned before putting them into operation, and all traps and strainers cleaned after pipe cleaning and before system operation?			
3. Ductwork.			
a. Are exposed items such as grilles, registers, diffusers, etc., pleasing in appearance, the proper size and style, symmetrically located, and compatible with the facility and the architectural concept?			
b. Are damper settings correctly set for the specified air flow?			
c. Is a smoke detector provided IAW contract documents?			
d. Is the type, thickness and shape of sheet metal as shown on contract drawings and IAW SMACNA?			
e. Are correct types of joint connection used?			
f. Are adequate bracing and reinforcement provided for ducts?			
g. Is the radius of curved ducts as specified?			
h. Is slope ratio at transition of air ducts as shown on the drawings or as specified?			
i. Are all component parts of ducting system provided? This includes duct material, volume control dampers, splatter dampers, air extractors, turning vanes, duct support, etc.			
j. Are fire dampers provided where ductwork penetrates two (2) hours or greater, fire-rated partitions or walls IAW NFPA 90A or 90B?			
k. Are the methods of fastening, flashing and bracing for goosenecks and rain hoods completed as shown by the details? Are goosenecks turned-away from the prevailing wind?			
4. Plumbing.			
a. Are floor drains provided in latrines and other necessary locations such as boiler rooms?			
b. Is hot water system protected with ASME stamped pressure and temperature relief valves, and vacuum relief valves as required?			
c. Are necessary air chambers or water hammer arresters provided as shown on drawings to eliminate pipe hammering?			
d. Have clean-outs for the plumbing system been provided IAW contract documents?			
e. Is suitable air gap provided between the indirect waste and the building drainage system? The air gap shall be at least twice the effective diameter of the drain served.			
f. Do plumbing fixtures conform to contract documents?			
g. Is sufficient space provided on all sides of air compressor for air circulation and for ease of normal maintenance? In no case should the flywheel be closer than 12 inches from the wall			
h. Is horizontal drainage piping installed with a uniform alignment at uniform slopes not less than one-quarter (1/4)-inch per foot for three (3)-inch diameter and less, and not less than one-eighth (1/8)-inch per foot for diameters of four (4)-inches or more?			
i. Are the vent systems properly installed to protect trap seals IAW contract documents?			

	YES	NO	REMARKS
j. Has the control system for domestic hot water system been provided IAW contract documents?			
k. Has the plumbing system been tested/approved IAW the requirements of O&MA Specs, Sec 15400?			
l. Has the entire domestic water distribution system been thoroughly flushed and sterilized IAW the requirements of O&MA specs, Sec 15400?			
5. Warm Air Heating.			
a. Are supply air, return air, fresh air, and exhaust air quantities balanced to plus or minus 10 percent of their design cfm?			
b. Are ducts routed properly IAW contract drawings?			
c. Has the warm air heating system been tested IAW the requirements of O&MA Specs, Sec 15566?			
d. Has the control system for warm air heating system been correctly provided IAW contract documents?			
6. Hot Water Heating.			
a. Are automatic air vents provided at all high points and at the ends of mains in a system?			
b. Have valves, drains, hangers, balance valves, air vents, and dampers been provided for heating terminal units such as convectors, unit heaters and room fan coil units, etc?			
c. Are ASME stamped pressure relief valves provided for hot water boilers? Are their capacities and pressure ratings correct?			
d. Is provision made for draining the system?			
e. Are sufficient balancing valves having venturi tubes or orifices provided for balancing the system?			
f. Is converter provided with all necessary controls, fittings, and accessories IAW drawings and O&MA Specs?			
g. Is expansion tank provided correctly? Check the size, working pressure, protective paint coating, insulation, drain and air charging valves			
h. Has the hot water heating system been tested, adjusted and balanced IAW the requirements of O&MA Specs, Sec 15569?			
7. Steam heating.			
a. Have all necessary valves, hangers, trap assemblies, etc., been provided for convectors, radiators and unit heaters?			
b. Are all ends-of-mains, risers, and low points properly dripped and trapped?			
c. Is water pocket avoided to prevent water hammer?			
d. Are capacities, sizes, and pressure ratings of safety relief valves and press reducing valves matched with drawings? Are they ASME stamped?			
e. Is pressure relief valve vented to the atmosphere? Is piping from relief valves dripped to prevent accumulation of water at low points?			
f. Are lift fittings provided as shown on the contract drawings?			
g. Are valves and drip traps properly located on stationary parts of the line?			
h. Are automatic air vents provided where required to properly vent the system, and at locations where air might collect?			
i. Has the steam heating system been tested IAW the requirements of O&MA Specs, Sec 15569?			
8. Air conditioning and Refrigeration.			
a. Are the refrigerant lines sufficiently sloped to permit movement of oil through the system?			

	YES	NO	REMARKS
b. Are oil traps and double risers in refrigerant lines installed properly?			
c. Is a vapor barrier provided over insulation on chilled water pipes? d. Is a compressor foundation provided and the compressor anchored?			
e. Are hangers, valves, strainers, expansion valves, solenoids, and appurtenances necessary for the system properly selected and installed IAW O&MA specs?			
f. Are compressor, condenser, and evaporator, capacities in proper balance?			
g. Are charging valves, dehydrators, strainers, oil separators, sign glass, etc., as required, provided for compressor and piping hookups?			
h. Have the air conditioning and refrigeration systems been dehydrated, tested, adjusted and balanced IAW the requirements of O&MA Specs?			
9. Ventilating, Air Supply and Distribution Systems.			
a. An rotation, drive; motor enclosure of fans? As directed and specified?			
b. Is pulley and belt properly aligned?			
c. Are guards provided for rotating equipment and belts?			
d. Are backdraft dampers installed and properly operated for each exhaust fan?			
e. Are fire dampers correctly installed IAW SMACNA Fire Damper Guide?			
f. Is proper type of filter furnished and installed?			
g. Is accessibility for removal and replacement of filters provided?			
h. Are clean filters installed upon completion of final tests?			
i. Are bird or insect screens provided?			
j. Are diffusers, registers and grilles installed as indicated and specified?			
k. All ducts, plenums, and casings thoroughly cleaned of debris and blown free of small particles and dust before supply outlets are installed?			
l. Are all bearings lubricated?			
m. Are tension on all belts and the adjustment of fan pulleys properly made?			
n. Has automatic control system been correctly provided IAW contract drawing and O&MA Specs, Section 15950?			
o. Have the ventilating, air supply and distribution systems been tested, adjusted, and balanced IAW O&MA Specs, Section 15990?			
10. Fire Protection.			
10.1 Automatic Sprinkler System.			
a. Are all underground mains and lead-in connections flushed before connection is made to system piping IAW NFPA 13?			
b. Is all new piping including underground piping and the fire department connection hydrostatically tested IAW NFPA 13?			
c. Are sprinklers properly installed and not obstructed?			
d. Are dry pipe sprinkler systems tested with air pressure to 40 psi IAW NFPA 13?			
e. Is a permanent sign which notes the design criteria attached at the sprinkler valve IAW NFPA 13?			
10.2 Foam-Water Sprinkler Systems.			
a. Are all underground mains and lead-in connections flushed before connection is made to system piping IAW NFPA 16?			
b. Is all new piping including underground piping and the fire department connection hydrostatically tested IAW NFPA 16?			
c. Was a full system flow test conducted for the system? Following the flow test, the system piping should be thoroughly flushed with clean water.			
d. Are all operating parts and sub-systems thoroughly tested and inspected IAW NFPA 16?			

10.3 Fire Pumps	YES	NO	REMARKS
a. Are circulation relief valves provided for pumps to discharge water through a three-quarter (3/4)-inch outlet when the pump is being run with no water discharge?			
b. Are screens provided at suction end of pumps located at ponds or wet pits to ensure the pump is not damaged by the passing of solid material?			
c. Are foot valves provided on suction lines to assure the pump maintains its prime?			
d. Can the pump deliver 150 percent of the rated flow at 65 percent of its rated pressure? Under no flow conditions, the pressure must reach 120 % of the rated pressure (churn pressure) for centrifugal pumps, and 140 percent of rated pressure for turbine pumps.			
10.4 Water Supply.			
a. Is fire department hose connection located and arranged so hose lines can be readily and arranged so hose lines can be readily and conveniently attached to the inlet without interference from any nearby objects including buildings, fenced, posts, or other fire department connections?			

E. Electrical

1. Temporary Wiring.	YES	NO	REMARKS
a. Is the service equipment grounded?			
b. Are adequate size fuses and circuit breakers provided?			
c. Are there any conductors laying on floors or ground?			
d. Is ground-fault circuit protection provided for all 120 V circuits?			
e. Does temporary wiring conform to NEC Art 527?			
2. Electrical Distribution System, Aerial.			
a. Poles.			
(1) Are there any poor quality poles with excessive crooks, cracks, and knots?			
(2) Is there improper spacing or location of pole steps?			
(3) Are there any unapproved types or mixing of types or mixing of types and shapes of insulators?			
(4) Do minimum pole-setting depths conform to O&MA Specs, Sec 16370?			
(5) Are guys installed where indicated?			
(6) Are metal parts of pole accessories galvanized?			
(7) Are metal crossarms and fitting IAW O&MA Specs, Sec 16370?			
(8) Are pins IAW O&MA specs, Sec 16370.			
(9) Are insulators IAW O&MA Specs, Sec 16370?			
(10) Are guys IAW O&MA Specs, Sec 16370?			
(11) Is grounding conductor on the pole protected IAW O&MA Specs, Sec 16370?			
b. Tests.			
Tests shall be conducted IAW O&MA specs, Sec 16370			
3. Electrical Distribution System, Underground			
a. Cables.			
(1) Are type of insulation, sizes and number of cables as indicated?			
(2) Are cables identified in each manhole, handhole, junction box, and at each terminal with proper means?			
(3) Does the bend radius of cables exceed 12 times the diameter of cable?			
(4) Check the depth of burial cable. Is it less than required?			
(5) Is there any improper termination kit used?			
(6) Are cables in manholes treated for fire proofing IAW O&MA Specs, Sec 16375?			
b. Duct, Manholes, and Handholes.			
(1) Check slope of duct lines. Is required slope a minimum of four (4) inches per 100 feet?			
(2) Are duct markers IAW O&MA Specs, Sec 16375?			
(3) Are duct, manholes and handholes installed as indicated?			
(4) Is the concrete for manholes and handholes Class B, 2500 psi at 28 days?			
(5) Is there any improper termination kit used?			
(6) Are cables in manholes treated for fire proofing IAW O&MA specs, Sec 16375?			
c. Transformers.			
(1) Are transformers installed as detailed on contract drawing?			
(2) Are all accessories for transformers installed IAW Spec requirements?			
(3) Is concrete pad for transformers IAW O&MA Specs, Sec 16375?			
(4) Has insulation oil level and leakage been checked?			

	YES	NO	REMARKS
(5) Do the nameplates give all information as required?			
(6) Is transformer anchored firmly on concrete pad?			
(7) Are transformer and lightning arresters properly grounded?			
(8) Did contractor submit the test reports for transformers?			
d. Exterior Lighting Fixtures.			
(1) Do installed lighting fixtures conform to the contract drawing?			
(2) Are adjustable support brackets provided?			
(3) Are beam directions adjusted?			
(4) Are switching devices provided as indicated on contract drawing?			
e. Grounding.			
(1) Are neutral conductors, cable shields, metallic cable sheaths and armor, metallic conduits, cable terminations, junction boxes, poles, surge arresters, fencing enclosing electrical equipment, and other non-current-carrying metallic parts grounded?			
(2) Is neutral grounding IAW O&MA Specs, Sec 16375?			
(3) Is equipment grounding IAW O&MA Specs, Sec 16375?			
(4) Is surge arrester grounding IAW O&MA Specs, Sec 16375			
(5) Is lighting pole grounding IAW O&MA Specs, Sec 16375?			
(6) Are Manhole and handhole groundings IAW O&MA Specs, Sec 16375?			
(7) Is metal splice box grounding IAW O&MA Specs, Sec 16375			
(8) Is transformer grounding IAW O&MA Specs, Sec 16375			
4. Electrical Work, Interior.			
a. General.			
(1) Are all outlets and equipment properly located and readily accessible?			
(2) Are all lighting fixtures, outlets and other equipment located to avoid interference with mechanical or structural features?			
(3) Are hazardous areas classified IAW Art 500 of NEC?			
(4) Are seals in hazardous areas provided where required by NEC?			
(5) Are there any couplings between seal and the boundary separating hazardous and non-hazardous areas?			
(6) Are the identification nameplates IAW O&MA Specs Sec 16050?			
b. Approval of materials and Equipment.			
(1) Did contractor select UL labeled material or submit statement IAW O&MA Specs, Sec 16415, for approval?			
(2) Did contractor submit shop drawings for approval?			
c. Grounding.			
(1) Are all exposed non-current-carrying metallic parts grounded?			
(2) Are grounding connections made IAW O&MA Specs, Sec 16415?			
(3) What is the measured grounding resistance? Is it over 25 ohms?			
d. Wiring Method.			
(1) Are separate ground conductors installed in all branch circuits?			
(2) Are threads on rigid conduits made using US Standard cutting dies providing a taper of ¾ inch per foot at job site?			
(3) Are conduits installed in ground protected from corrosion IAW O&MA Spec, Sec 16415?			
(4) Are conduits installed in concrete slab IAW O&MA Specs, Sec 16415?			
(5) Are raceways supported IAW O&MA Specs, Sec 16415?			
(6) Are conductors in multiphase systems identified IAW O&MA Specs, Sec 16415?			
(7) Are there any kinked or deformed conduits?			

	YES	NO	REMARKS
(8) Does the radius of bends exceed that allowed by code or specification?			
e. Boxes and supports.			
(1) Are boxes in raceway systems supported independently as required by NEC?			
(2) Were the boxes and enclosures selected IAW specification requirements?			
(3) Do boxes have adequate size and depth IAW O&MA Specs, Sec 16415?			
(4) Are conduits stubbed-up through concrete floors for connections to free-standing equipment installed IAW O&MA Specs, Sec 16415?			
f. Receptacles.			
(1) Are receptacles installed as indicated?			
(2) Do contractors furnish appropriate matching cord-grip plugs for receptacles other than 15 A 125 V and 15 A 250 V rating IAW O&MA spec?			
(3) Are receptacles grounding poles connected to equipment grounding conductors?			
g. Switches.			
(1) Does interrupting capacity of breakers conform to contract requirements?			
(2) Do enclosed safety switches have proper enclosures, covers, interlocks, quick-making mechanisms, proper fuse clips and neutral blocks?			
(3) Do panelboard wiring gutter widths comply with specification and code requirement?			
(4) Is mounting height of panelboard IAW O&MA Specs, Sec 16415?			
(5) Are panelboard directories provided and protected as required by specifications?			
(6) Are instruments on power switchgear assembly complete?			
h. Service Entrance.			
Are service drop and entrance conductors installed as described in O&MA Specs, Sec 16415?			
i. Motors and Controllers.			
(1) Are type and size of motors selected as indicated and/or required?			
(2) Is overload protection provided on each ungrounded conductor?			
(3) Are overload protection devices selected as required?			
(4) Are motor disconnect switches installed in sight of controller location or equipped to be locked open as required by NEC?			
(5) Is the control voltage 120 V or less?			
j. Transformers.			
Did contractor submit certificates for each transformer for approval and do the certificates include test results?			
k. Lighting Fixtures.			
(1) Are ballasts for fluorescent lamp electronic type specified?			
(2) Do type and quality of installed lighting fixtures meet the requirements of O&MA Specs, Sec 16415, lighting fixture standard detail requirements?			
(3) Are emergency light set batteries installed as specified?			
(4) Are lighting control switches installed as indicated on contract drawings?			
(5) Do exit lighting fixtures clearly show an exit?			

5. Fire Detection and Alarm System.	YES	NO	REMARKS
a. Did contractor select standard products for fire alarm equipment?			
b. Did contractor submit shop drawings for approval?			
c. Did contractor submit instruction manuals for operation and maintenance?			
d. Are devices installed as indicated on contract requirements?			
e. Do all devices conform to O&MA Specs, Sec 13851, and 13852?			
f. Is there any conduit less than 1/2 inch?			
g. Is all loop wiring for fire alarm system supervised?			
h. Are fire alarm initiating & indicating circuits Style D & Z, and signaling & notification circuits Style 4 & Y, respectively?			
i. Are radio transceiver and antenna installed as indicated?			
j. Is allocated frequency properly specified for radio transceiver and antenna?			
k. Have tests been done IAW O&MA Specs, Sec 13851, and 13852?			
6. Telephone System.			
a. Are conduit sizes and pull wires provided as indicated?			
b. Are terminal boxes and conduits grounded?			
7. HVAC Control System.			
a. Did contractor submit control wiring diagram of HVAC systems for approval?			
b. Are all devices for HVAC control selected and installed as specified?			
c. Do the operations of HVAC meet the sequence of operation indicated on contract requirements?			
d. Is control wiring color-coded or clearly identified?			

Appendix C

Sample Memorandum for Preconstruction Meeting

IMKO-PW

MEMORANDUM FOR RECORD

SUBJECT: Memorandum for Pre-Construction Meeting
Contract No. _____, Project No. _____,
Project Title. _____

1. A preconstruction meeting was held at _____ hours on _____ at _____, Korea. The minutes of the meeting, being agreed to and signed, will be on file at the jobsite from start of the work through completion.

2. The Contracting Office Representative (COR), Alternate Contracting Officer Representative (ACOR) and Technical Contracting Office Representative (TCOR) are:

COR: _____ Tel: _____,
ACOR: _____ Tel: _____,
TCOR: _____ Tel: _____.

3. All persons attending the meeting were introduced. A list of attendees is attached. The COR/ACOR explained that the purpose of the meeting was to orient the Contractor on contract administration procedures and requirements.

4. Notice to Proceed was issued on _____. The contract amount is _____. The time of performance is _____ calendar days. Contract completion date(s) is (are) _____. Liquidated damages for failure to complete the work within the time of performance are _____/day.

5. Contractor's Organization. The Project Manager, _____, is responsible for constructing the entire project both safely and timely. The Contractor shall submit a letter immediately to the COR informing that the Project Manager is his Authorized Representative and is empowered to sign letters, payment estimates, negotiate modifications, etc. and speak for the company.

6. Local Regulations Coverage.

a. The normal work shift will be from _____ through _____ hours _____ days a week.

b. Identification of workers and vehicles, procedures for passes and escort privileges were discussed.

c. Haul roads will be as shown on contract drawings. Trucks hauling soil or gravel shall be covered.

d. Fire Regulations. Emergency number is 911.

e. Traffic Control. Installation speed limit is _____ MPH (_____ kph) unless otherwise posted.

f. Operations and Storage Areas. Field office location is at/in _____. Storage areas are located at _____.

g. Utilities. Government owned and operated utilities will be made available to the Contractor as authorized by the Contracting Officer or COR. Connection and distribution means are installed by, and at the expense of, the contractor. Energy conservation must be employed in the use of these utilities. Failure to curb wasteful practices will be grounds for termination of utility service.

h. Permits for Excavations. Procedures were discussed. DPW construction permits will be submitted _____ days prior to anticipated start of excavation work.

i. Request for utilities outages shall be submitted _____ days prior to date outages are to be effected.

j. Protection of Existing Vegetation, Structures, Utilities, and Improvements. The Contractor will preserve and protect all existing vegetation; i.e., trees, shrubs and grass and facilities/utilities on and adjacent to the work site. Construction damage shall be repaired and the site must be restored to original conditions prior to final payment and release of retainage.

k. Cleaning Up. Contractor was advised to keep all of his work and storage areas free from accumulation of waste materials.

l. Salvage Materials. _____

m. Procedures for Correspondence. _____

7. Schedules for Construction Contracts. The contract requires the use of the Network Analysis System (NAS) or a construction progress bar chart for the surveillance of the contract progress. This network analysis or progress bar chart will clearly indicate the proposed method of conducting the work required under the contract. A specific discussion was held which advised the Contractor of the due dates for a preliminary and/or completed network analysis system or progress bar chart.

8. Progress Payments: Payment for completed items of work will be based upon amounts agreed to mutually by the Contractor and the Contracting Officer or COR using the approved progress chart breakdown or NAS, prior to the pay estimate ending date. Allowance will be given for properly stored materials provided that legible invoices showing proof of title are submitted by the Contractor with the pay estimate request. Retainage may be withheld per Special Clause _____. _____ percent of the monthly payment estimate will be retained by the Government until contract completion. Pay estimates will be submitted to the COR/ACOR no later than the _____ day of each month.

9. Changes. Upon a request for proposal considering a change to the contract, the Contractor shall review the proposed change, obtain costs as necessary, and furnish a proposal to the Contracting Officer or COR not later than _____ days after receipt or as requested in the request for proposal. The proposal shall include a complete cost breakdown indicating labor, materials, and other data for evaluation by the Government. This will be reviewed and a meeting will be held for any negotiations which are necessary to arrive at a fair and equitable adjustment in cost and time for the changed or additional work. Never proceed with any proposed change work without written authority or direct instructions from the Contracting Officer; otherwise you risk not being reimbursed. The authority to change the contract provisions rests with the Contracting Officer. If the Contractor construes any direction from other persons as constituting a change, they should submit a serial letter immediately stating the circumstances and their understanding of the direction as constituting a change.

10. Differing Site Conditions. The Contractor shall promptly notify the COR/ACOR office in writing if he finds physical conditions at the site which were unknown or materially different from what was indicated in the contract. This written notice will be provided before such conditions are disturbed so as to allow the Government to investigate the conditions. No adjustment will be made to the contract unless the notice described above is given. Above ground physical features that were readily visible during the pre-bid site orientation and/or Contractor's site investigation are not to be considered as differing site conditions.

11. Default. The Contractor shall notify the COR/ACOR in writing within seven (7) days from the beginning of any delay that arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples include: acts of the Government, fires, floods, strikes, or unusually severe weather. Prior to issuance of a modification you will be notified in writing of the Government's evaluation of the time entitlement due based on our analysis of the records.

12. Warranty of Construction. The Warranty of Construction Clause, requires the Contractor, subcontractors, manufacturers, and suppliers to warrant for a period of one year after final acceptance that all work under the contract conforms to the contract specifications and contains no defect in workmanship, materials, or design. It was pointed out although the initial warranty period is one (1) year, this clause requires any item of work requiring corrective work measures be further warranted for an additional year from the completion of the remedial work. The extended warranty period also applies to Contractor's damage to other property caused by the Contractor's work.

13. Gratuities. The Contractor's attention was drawn to the contract clause and he was informed that his right to proceed could be terminated if he offered or gave gratuity to a Government employee.

14. Other Contracts. (If applicable)

15. Airfield Safety. (If applicable)

16. Performance Evaluation of Contractors. During the life of the contract, the Contractor is evaluated on a monthly basis by the COR/ACOR and the evaluation is presented to the Contracting Officer of USACCK.

17. Other Topics. (If applicable)

_____	_____
NAME OF CONTRACTOR	NAME OF FOR COR OFFICE
_____	_____
NAME/TITLE	NAME/TITLE
_____	_____
SIGNATURE AND DATE	SIGNATURE AND DATE

Appendix D

Sample Memorandum for Mutual Understanding Meeting

IMKO-PW

MEMORANDUM FOR RECORD

SUBJECT: Memorandum for Mutual Understanding Meeting
Contract No. _____, Project No. _____,
Project Title. _____

1. A mutual understanding meeting was held at _____ hours on _____ at _____, Korea. The minutes of the meeting, being agreed to and signed, will be on file at the job site from start of the work through completion. A list of attendees is attached. The items listed below were discussed.

2. Safety. The Contractor is advised that all work performed under this contract will be done in accordance with pertinent provisions of EM 385-1-1 Safety and Health Requirements Manual, dated September 1996. The basis of this action is contained in the Contract Clause _____ of the contract. The Contractor should submit the safety plan (accident prevention plan) IAW EM 385-1-1, para 01.A.04 to COR/ACOR within twenty (20) days from the contract award. The assigned construction inspector and COR/ACOR will review the contractor's safety plan and ensure it is in compliance with EM 385-1-1. The plan is/is not adequate for the type of work to be performed. The plan when approved, will be the Contractor's safety program for this project. Contractor is responsible for making copies of his safety program available to all his supervisors and quality control personnel, to all subcontractors and their supervisors performing work, and for posting the safety program on the project site bulletin board for information and guidance to all concerned. The Contractor will be responsible for inspecting the work under his surveillance for compliance with EM 385-1-1 and the Contractor's approved safety program, and shall immediately bring to the attention of the Contractor's supervisory personnel any unsafe working condition and/or instances of noncompliance noted. The Quality Control Inspector's safety activities will be documented in his daily reports. Some items requiring particular attention were discussed and are noted below.

a. Monthly supervisor's safety meeting shall be held and a written outline of this meeting furnished to the COR/ACOR.

b. Weekly toolbox safety meetings shall be held with all employees in attendance. A written outline of items discussed, and a list of personnel present shall be furnished to the COR/ACOR.

c. In case of an accident, the Inspector of COR/ACOR must be notified immediately and an ENG Form 3394 completed within 48 hours.

d. First Aid records must be kept on-site and updated.

e. Emergency telephone numbers (i.e., doctor, hospital, ambulance and fire department) must be posted in conspicuous places (near telephones, on walls, etc.).

f. Hard hats shall be worn throughout the duration of the job.

g. Detailed weekly inspections of all temporary electrical (GFCI, Lighting and hand tools) components must be conducted weekly and results recorded on daily reports.

h. Temporary electrical services must be installed in accordance with contract specifications, National Electrical Code and Safety Manual EM 385-1-1.

i. Fire extinguishers must be present for welding/cutting operations and in storage trailers. Extinguishers must be inspected monthly and results recorded.

j. An alarm system shall be established and each and every employee indoctrinated as to actions to be taken.

k. Materials must be stored properly.

l. Protective clothing, including proper shirt and shoes, shall be worn.

m. First Aid Kits shall be kept at the job site.

n. Daily housekeeping (clean-up) of work areas shall be conducted.

o. Hand-held electrical tools shall be used only on circuits protected by ground-fault interrupters (to include outlets on generators/welding machines).

p. Welding machine/generator frames must be grounded when in use.

g. Fuel storage tanks must have berms, grounding, fire extinguisher, vent and “NO SMOKING” signs.

r. Fuel cans must be of “safety type” as approved by NFPA 31.

s. Oxygen/acetylene bottles shall be placed “upright” in rack or tied-off. When not in use, bottles shall be capped and stored separately.

t. Steep slopes or shored excavations must have ladders and barricades as appropriate. Material must be stored at least two (2) feet from trench.

u. Compaction machine operators must wear foot protectors.

v. Scaffolding.

(1) Over six (6) feet high shall have standard top and intermediate railings and toeboards.

(2) Must be properly leveled and supported (no concrete blocks under ladder legs).

(3) Must provide ladders for safe access to platforms.

(4) Must use planking of proper thickness and proper spacing.

w. Ladders shall be secured at both ends and extend three (3) feet above the landing.

x. Back-up alarms on trucks, construction equipment, etc., must be installed. Rollover protection and seat belts, as required by EM 385-1-1, must also be installed.

3. Contractor Quality Control (CQC). The Contractor is responsible for an effective quality control system. The system shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, and construction which fully comply with the contract requirements.

a. Quality Control Plan. The CQC plan which the Contractor intends to implement must be submitted within ten (10) days from the contract award. If the Contractor fails to submit an acceptable CQC plan, or interim CQC plan, within the timeframe stated, the COR may refuse to allow construction to start. Contractor must notify COR in writing of any proposed changes to his approved/accepted CQC plan. The plan will contain:

(1) A description of the CQC plan and staff organization.

(2) The names, qualifications, duties, and authorities of each person with a QC function.

(3) A letter describing the QC Manager's or Project Manager's responsibilities and the delegated authorities of either.

(4) Procedures for scheduling, managing, and assuring accuracy, completeness, and compliance of submittals.

(5) CQC testing procedures for each test.

(6) Daily reporting procedures.

(7) A preliminary list of preparatory and initial inspections, with tentatively scheduled dates.

(8) A description of deficiency-tracking and management system.

b. Organization. The Contractor's staff shall consist of at least the individual whose sole function is management of the CQC system. This individual, under the supervision of the project manager, must be fully qualified.

c. Submittals. The Contractor is responsible for adequacy and accuracy of submittals and compliance with contract documents. Contractor shall review and certify all submittals for compliance. The Contractor is responsible for submitting material submittals (ENG Form 4025) to the Technical Contracting Officer Representative (TCOR), Chief of Engineering Division.

d. Three-steps Inspection Process. CQC is the means by which the Contractor assures that construction complies with the requirements of the contract plans and specifications. Controls shall be adequate to cover all construction operations, including both onsite and offsite fabrication, and will be keyed to the proposed construction sequence. Controls shall include at least three (3) phases for all definitive features of work:

(1) Preparatory Meeting. This meeting shall occur prior to beginning any work on any definable feature of work. It shall include a review of contract requirements; a check to assure all materials and/or equipment have been tested, submitted and approved; a check to assure provisions have been made to provide required quality control testing, including a complete listing of the frequency of such inspections and tests; an examination of the work area to ascertain all preliminary work has been completed; a physical examination of materials, equipment and sample work to assure they conform to approved shop drawings or submittal data, and that all materials and/or equipment are on hand; a review of the activity hazard analysis; a review of common recurring deficiencies; and a review of the procedures, tolerances, or other pertinent requirements in the specifications. The COR/ACOR shall be notified at least 24 hours in advance of beginning any new phase of work decided at the preparatory meeting. The results of the preparatory meeting shall be made a matter of record in the CQC documentation (Daily CQC Report). Subsequent to the preparatory meeting and prior to commencement of work, the Contractor shall instruct each applicable worker as to the acceptable level of workmanship required in order to meet contract specifications.

(2) Initial Inspection. This inspection starts as soon as a representative portion of the particular feature of work has been accomplished. The inspection shall include examination of the quality of workmanship, a review of control testing, and a review of the system being employed to test for compliance with contract requirements. The work shall be inspected for defective or damaged materials, omissions, and dimensional requirements. The COR/ACOR shall be notified at least 24 hours in advance of the time of the initial inspection if the inspection is to be held on Tuesday through Friday, and at least 72 hours in advance if the inspection is to be held on Saturday through Monday or on Korean or U.S. Holidays. The inspection results shall be made a matter of record in the CQC documentation (Daily CQC Report). The initial inspection shall be repeated for each new crew to work on site, or if acceptable standards of workmanship are not being met.

(3) Follow-up Inspection. Daily inspections, including control testing, shall be performed until completion of the particular feature of work to assure continuing compliance with contract requirements. Such inspections shall be made a matter of record in the CQC documentation (Daily CQC Report). Final follow-up inspections shall be conducted and deficiencies shall be corrected prior to starting new features of work.

e. Testing. The Contractor was provided a list of required laboratory equipment. The testing certification checklist procedures were discussed. A laboratory certification inspection shall be conducted prior to the start of any work requiring testing.

f. Closure Inspections. Prior to closing ceiling spaces, pipe chases, and other areas that will conceal electrical and mechanical work, Contractor will arrange with the Construction Inspector or COR/ACOR for a closure inspection.

g. Deficiency Tracking. The Contractor shall maintain a Master Deficiency Tracking Log to track and manage correction of deficiencies found by CQC Manager, Project Manager, Construction Inspector or COR/ACOR.

h. Final Inspection. At the completion of all work, or any increment thereof, established by respective completion times stated in paragraph “Commencement, Prosecution, and Completion of Work” or stated elsewhere in the specifications the Project Manager shall conduct a completion inspection of the work and develop a punch list of items which do not conform to the approved plans and specifications. Such a list of deficiencies shall be included in the CQC

documentation with the estIMCOMted dates when the deficiencies will be corrected, and presented to the COR/ACOR within one (1) day after compilation. The Project Manager or his staff shall then make a second completion inspection to ascertain that all deficiencies have been corrected, and notify the COR/ACOR of the final inspection and results.

i. Documentation.

(1) The Contractor shall maintain current records of quality control operations, activities, and tests performed, including the work of suppliers and subcontractors. These records shall be on an acceptable form and indicate: a description of trades working on the project; the number of personnel working; the weather conditions encountered; any delays encountered; and acknowledgment of deficiencies noted along with the corrective actions taken on current and previous deficiencies. In addition, these records shall include factual evidence that the required activities or tests have been performed, including but not limited to the following:

(a) Type, number, and location of each control activity, inspection and test to include the limits of the inspection or test (i.e., what work was tested).

(b) Results of control activities or tests.

(c) Nature of defects, causes for rejection, etc.

(d) Proposed remedial action.

(e) Corrective actions taken.

(f) Safety inspections including type of inspection, location, and results.

(g) Instructions received from Government personnel.

(2) These records shall cover both conforming and defective or deficient features and shall include a statement that supplies and materials incorporated in the work comply with the contract. Legible copies of these records shall be furnished to the COR daily. Progress payment will not be made for construction which has not been properly controlled, inspected, tested, and certified and documented by the Contractor's quality control organization as meeting the contract requirements.

4. Additional Items Discussed, Agreements, etc.:

_____ _____

SIGNATURE AND DATE OF CQC MANAGER SIGNATURE AND DATE OF INSPECTOR

_____ _____

SIGNATURE AND DATE OF PROJECT MANAGER SIGNATURE AND DATE OF COR/ACOR

Appendix E
Minimum Frequency Test Plan

CIVIL Work

O&MA Spec Section	Test Type	Frequency
02210: Grading	Compaction - ASTM D 1557	2/month or fraction thereof and when Material changes.
	Density - In-place ASTM D 1556 or KS F2311 2) ASTM D 2922, D2167	1/10,000 square feet of each lift. 1/2,500 square feet of each lift.
	Moisture - In-Place, ASTM D 3017	1/2,500 square feet of each lift.
	Sieve-Size Analysis ASTM C 136, ASTM D 422 ASTM D 1140, and ASTM D 4318	2/month or fraction thereof and when material changes.
02221: Excavation, Filling and Backfilling for Buildings	Compaction - Subgrades, Fills, and Backfills ASTM D 1557	2/month or fraction thereof and when Material changes.
	Density - In-Place A. Buildings (fills and Backfills) 1) ASTM D 1556	1/10,000 square feet of 6-inch lift
	2) ASTM D 2922	1/400 for long narrow fill 1/900 square feet of 6-inch lift for hand compaction, and 1/2,500 square feet for machine. 1/400 LF for long narrow fill and backfill.
	B. Subgrades (Pavement) 1) ASTM D 1556 2) ASTM D 2167 or D 2922	1/10,000 square feet of 6-inch lift 1/3,000 square feet of 6-inch lift
	C. Trenches (Narrow Fills) 1) ASTM D 2922 Check by ASTM D 1556	1/400 linear feet of 6-inch lift
	Moisture contents	2/day and per type/source of material being placed during stable weather condition for stockpile, excavation or borrow area. Follow ASTM D 2216 for unstable weather.
	Optimum Moisture for Material ASTM D 3017	Each type or source of material. 1/500 cubic yard of fill and backfill.
	Compaction : moisture - density relation and sieve analysis ASTM 3017	2/month or fraction thereof for each material and 1/lift of sand density test weather

	Compaction test for CQC ASTM D 2216 A. Buildings B. Pavement Subgrades C. Utility lines A. Sieve-Size analysis - ASTM C 136, ASTM D 422, ASTM D 1140, and ASTM D 4318	For unstable weather condition 2 moisture-density relation/ each month and one sand density for each lift Every 1/900 SF or fraction there of every 3,000 square feet. Every 3,000 square feet. Every 400 linear feet. 1/100 linear feet of 6-inch lift. 2/month or fraction thereof and when material changes.
02222: Excavation, Trenching, and Density - In-place Backfilling for Utilities Systems	Compaction - ASTM D 1557 Density – In-place Utilities Trenches 1) ASTM D 1556 2) ASTM D 2922 Moisture in place ASTM 3017 Sieve-Size analysis ASTM C 136, ASTM D 422, ASTM D 1140, and ASTM D 4318	1/800 cubic yards or fraction thereof and when material changes. 1/400 linear feet of 6-inch lift. 1/100 linear feet of 6-inch lift. 1/100 linear feet of 6-inch lift. 2/month or fraction thereof and when material changes.
02225: Earthwork for Roadways Railroads, and Airfields	Compaction - ASTM D 1557 Density - In-Place 1) ASTM D 1556 Check Test when ASTM D 2922 is used. 2) ASTM D 2922 or ASTM D 1556 Moisture - In-Place ASTM D 3017 Optimum moisture and Laboratory maximum density	2/month or fraction thereof and when material changes. Roads/Airfields - 1/10,000 square feet of each lift for other than hand compaction and 1/5,000 square feet for hand compaction. Railroads, Track of embankment or Backfill of railroad - 1/1,500 linear feet of each lift. Roads/airfields - 1/2,000 square feet for other than hand compaction and1/1,000 square feet for hand compaction. Railroads - 1/300 linear feet of Each lift. Stockpile area, excavation or borrow area – Min. 2/day per type of material or source in stable weather condition. For unstable condition, as dictated by local conditions and approved by the contracting officer. One representative test for 500 cubic yards of fill and backfill or when any Change in material.

	Sieve-Size Analysis - ASTM C 136, ASTM D 422, ASTM D 1140, and ASTM D 4318	1/500 cubic yards or fraction thereof and when material changes.
02232: Subbase Course and 02233: Graded, Crushed, Aggregate Base course	Compaction - ASTM D Sieve-Size Analysis – In Place ASTM C 136, and ASTM D 422. Atterberg Limits - ASTM D 4318 Density and Moisture – IN-PLACE, ASTM D 1556, D 2167 or D 2922 Laboratory moisture Density relationship - ASTM D 1556 Check Test – ASTM D 1556 Smoothness – field measure center. Thickness - field Measure Wear test – ASTM C131	1/week or fraction thereof and when material changes. 1/500 Metric ton. 1/1000 ton 1/100 square yard of each layer/lift. 1/4000 square feet 1/500 square yard. 1/50 feet, perpendicular to the road center 1/500 square yard of composite layer. 1/1000 SY, A min 3 tests per aggregate source.
02366: Precast concrete piling		As shown.
02511: Concrete sidewalks and curbs and gutters	Strength - ASTM C 172 and C31 Air content – ASTM C 173 C 231 Slump test – ASTM C 143	Minimum 1/day, 1/250 cubic yard 2/class of concrete during each shift. 1/250 Cubic yards.
02515: Concrete pavement for roads and airfields:	Air contents – ASTM C 231 Strength – ASTM C 78 Slump – ASTM C 143 concrete.	2/500 cubic yard one set of 4 each shift test (2 for 7 day, 2 for 28 day) 2/selected batches of each class of concrete
02551: Bituminous Paving (JMF) for Roads, Streets, and Open Storage Areas	Field Density - Mat and Joints, ASTM D 71 Asphalt Content - ASTM D 2172 Gradation - ASTM C 136 and ASTM C 117 Grade - Measure - Levels	12 hours production = 4 sublots 1/sublot and 1/joint of each from pavement. 1/sublot from truck. 1/25 feet each way.

	Smoothness - Measure - 12-foot Straightedge	
	Temperature - Measure	1/truckload.
	Laboratory Density - ASTM D 1559	1/lot (4 specimens each) from plant mix.
02660: Water Distribution System	Hydrostatic Pressure - Visual/Measure(5 days after installation of the concrete Thrust blocking)	For all section, until satisfactory - No cracks or defective pipe, joints, fitting, and hydrants
	Leakage - After pressure test and for 2 hours at 200 psi	For all section, until satisfactory when leakage (L) in gallons/hour is less than 0.0001351ND P1/2 N = number of joints D = diameter of pipe (inches0 P = average test pressure
	Disinfection - AWWA C 651 After Pressure/Leaking Tests for 48 hours.	Until satisfactory bacteriological results obtained.
02720: Storm-Drainage System	Compaction - ASTM D 1557	1/800 cubic yards or fraction Thereof and when material changes.
	Density - In-Place 1) Mil-Std-621 (Method 106) or ASTM D 2167	1/600 linear feet of 6-inch lift
	3) ASTM D 2922	1/100 linear feet of 6-inch lift.
	Moisture - In-Place, ASTM D 3017	1/100 linear feet of 6-inch lift.
	Sieve-size Analysis - ASTM C 136, ASTM D 422 and ASTM 1140	1/800 cubic yards or fraction thereof and when material changes.
	Low pressure air test – ASTM C 828 ASTM C924 ASTM F 1417 ASTM C 828	 For all vitrified clay pipe For all concrete pipe For all plastic pipe For all other pipe
02730: Sanitary Sewers	Compaction - ASTM D 1557	1/800 cubic yards or fraction Thereof and when material changes.
	Density - In-Place 1) ASTM D 1556 2) ASTM D 2922	 1/400 linear feet of 6-inch lift. 1/100 linear feet or 6-inch lift.

	Moisture - In-Place ASTM C 3017	1/100 linear feet of 6-inch lift.
	Sieve-Size Analysis – ASTM C 136, ASTM D 422, and D ASTM D 1140	1/800 cubic yards or fraction thereof and when material changes.
	Leakage – by low pressure Sir test – ASTM C 828 ASTM C 924 UBPPA Uni B-6 ASTM C824/C 924	For Entire section of vitrified clay pipe For concrete pipe For PVC pipe For other pipe
	Deflection – See spec.	For entire length of pipe
	Infiltration/Exfiltration – ASTM C 828 and ASTM C 924	Until satisfactory when leakage does not exceed 0.2 gallons/inch diameter/100 feet/hour.
	Infiltration when Water Table is 2 feet above Pipe top	
	Exfiltration After 4 hours of Absorption with line Filled with Water and Tested Under a 2 feet Head for 2 hours	
	Deflection – (flexible Pipe) Measure	At time of installation – less than 7.5% of diameter. Or 5% for RTRP One year after installation - less than 5% of diameter.

ARCHITECTURAL

O&MA Spec Section	Test Type	Frequency
03300: Cast-In-Place Structural Concrete	a) Slump ASTM C 143 or KS F 2402 b) Strength (Flexural & Compressive) ASTM C 39, C 78 or KS F 2405, F 2408	As delivered to the point of placement in to the forms, slump shall be tested. Compressive strength specimens (152 by 305 mm cylinders) shall be fabricated by the Contractor and laboratory cured.
04200: Masonry	a) Strength Tests of Grout ASTM C 1019 b) Compressive Strength of Layer Mortar ASTM C 780 c) Efflorescence Tests ASTM C 67	Minimum of three specimens of grout per day shall be sampled and tested. At least three specimens of mortar shall be taken each day. A layer of mortar 13 to 16 mm thick shall be spread on the masonry units and allowed to stand for one minute. Brick which will be exposed to weathering shall be tested for efflorescence.
05090: Welding Structural	Quality of Welds AWS D1.1	Visual inspection and radiographic, ultrasonic, magnetic particle, and dye penetrate methods
06100: Rough Carpentry	Moisture Content	At the time lumber and other materials are delivered and when installed in the work their moisture content shall be checked.
06200: Finish Carpentry	Moisture Content	At the time lumber and other materials are delivered and when installed in the work their moisture content shall be checked.
07132: Bituminous Waterproofing	Flood Test	Prior to concealment, waterproofed floors over occupied spaces shall be tested.
07511: Built-Up Asphalt Roofing	Roof Cut-Out Test ASTM D 3617	After application of specified roofing felts and prior to applying surfacing, when there is reason to believe that deficiencies exist in the roofing membrane.
08330: Overhead Rolling Doors	Drop Test NFPA 80	The fire doors shall be drop tested to show proper operation and full automatic closures and shall be reset IAW the manufacturer's instructions
09310: Ceramic Tile	Electrical Resistance Test, NFPA 99	Upon completion of tile work
09510: Acoustical Ceilings	Ceiling Attenuation Class and Test ASTM E 1414	After all acoustical panels are installed.
09620: Resilient	Moisture test	Prior to installation of resilient athletic flooring
09650: Resilient Flooring	Moisture test	Prior to installation of resilient flooring.
09655: Resilient Athletic flooring	Moisture test	Prior to installation of resilient flooring.
09675: Conductive Vinyl flooring	Moisture test	Prior to installation of resilient flooring.

09680: Carpet	Moisture Content and Excessive Alkalinity Test in CRI 104	Prior to installation of carpet.
10270: Raised Floor System	Load Tests in CISCA Electrical Resistance Test in NFPA 99	When install raised floor system Upon completion of raised flooring system.

MECHANICAL

O&MA Spec Section	Test Type	Frequency
13202: Fuel Storage Systems	Aboveground Storage Tank Tightness Tests Manufacturer's Tanks Tests Pneumatic Tests for Product, Vent, and Exterior Containment Piping Hydrostatic Tests for Product Piping System Performance Tests High Liquid Level Alarm Test	Prior to making piping connections After the tank tightness test Prior to receive field applied covering at the joints or be covered by backfill. Upon completion of pneumatic testing and after backfilling. After proper adjustment of all components of the system. After system performance tests
13851: Fire 13852: Detection and Alarm System	Preliminary Test Megger Test Acceptance Test	One time, upon completion of installation. One time, after the installation is Completed.
13930: Wet Pipe Sprinkler System, Fire Protection	Hydrostatic Test IAW NFPA 24 Hydrostatic Test IAW NFPA 13 Backflow Prevention Assembly Forward Flow Test IAW NFPA 13 Alarm Devices Test Main Drain Flow Test Final Acceptance Tests	After installation of new underground piping. After installation of new aboveground piping. After installation of new aboveground piping. Upon completion of system installation. After flushing underground piping. After approval of preliminary test report
13935: Dry Pipe Sprinkler System Fire Protection	Hydrostatic Test IAW NFPA 24 Hydrostatic Test IAW NFPA 13 Air Pressure Test IAW NFPA 13 Backflow Prevention Assembly Forward Flow Test IAW NFPA13	After installation of underground piping. After installation of aboveground piping. After installation of aboveground piping. After installation of aboveground piping.

	Alarm Devices Test Trip Tests of Dry Pipe Valves Main Drain Flow Test Final Acceptance Tests	Upon completion of system installation. Upon completion of system installation. After flushing underground piping. After approval of preliminary test report
13945: Preaction and Deluge Sprinkler Systems, Fire Protection	Hydrostatic Test IAW NFPA 24 Hydrostatic Test IAW NFPA 13 Air Pressure Test IAW NFPA 13 Detection & Control System Tests Automatic Water Control Valve Test Final Acceptance Tests Including Control System Test IAW NFPA 72, Trip Test of Automatic Water Control Valves, & Tests of Supervisory Air System	After installation of underground piping. After installation of aboveground piping. After installation of aboveground piping. Upon completion of system installation. Upon completion of system installation. After approval of preliminary test report
14601: Crane, Bridge, Top Running, 30-Ton Maximum Capacity	<u>No-Load Tests</u> - Hoist Operating & Limit Switch Test - Trolley Travel Test - Bridge Travel Test - Hoist Loss of Power No-Load Test <u>Load Tests</u> - Hoist Static Load Test - Hoist Dynamic Load Test - Hoist Load Brake Test - Hoist Loss of Power Test - Trolley Dynamic Load Test - Bridge Dynamic Load Test - Trolley and Bridge Loss of Power Test	Upon completion of the crane system installation. Upon completion of the no-load tests.
15181: Chilled, Condenser, or Dual Service Water Piping	Hydrostatic Tests Backflow Prevention Assemblies Tests IAW Section 15400	After installation of water piping systems. After installation of water piping systems.
15182: Refrigerant Piping	Pneumatic Tests Evacuation Test	After installation of all components of the refrigerant system. After satisfactory completion of the pneumatic tests.

	System Charging and Startup Test	After satisfactory completion of the Evacuation tests.
15190: Gas Piping Systems	Pressure Tests IAW NFPA 54	Before appliance are connected, after installation of the gas piping system.
	Pressure Tests for Liquefied Petroleum Gas	Before and after appliances are connected.
15400: Plumbing, General Purpose	Drainage & Vent Systems Test	Upon completion of the rough piping installation
	Building Sewers Test	Upon completion of the rough piping installation
	Water Supply Systems Tests	Upon completion of a section or the entire water supply system.
	Backflow Prevention Assemblies Tests	Upon completion of the entire water supply system.
	Shower Pans Tests	After installation of shower pans and finished floor.
	Compressed Air Piping Test	After installation of compressed air piping.
	Operational Test	Upon completion of the entire plumbing system.

NOTE: All tests for plumbing systems shall be IAW ICC International Plumbing Code.

15566: Warm Air Heating Systems	Ductwork Leak Test IAW SMACNA Leakage Test Manual	Upon completion and prior to acceptance of the air distribution system installation.
	Testing, Adjusting, and Balancing IAW Section15990	Upon completion of air supply and distribution, including control.
	Performance Tests	Upon completion of testing, adjusting and balancing.
15569: Water and Steam Heating; Oil; up to 10,000 MBH	Backflow Prevention Assemblies Test IAW Section 15400	Upon completion of the entire water supply system.
	Hydrostatic Test for entire heating system	Before any covering is installed on pipe or heating equipment.
	Testing, Adjusting, and Balancing IAW Section 15990	Upon completion of hydrostatic test and before acceptance of the heating system installation.

	Operating Test Fuel Oil System Test IAW Section 13202 Gas System Test IAW Section 15190 & NFPA 54	Upon completion of hydrostatic test and before acceptance of the heating system installation.
15620: Liquid Chillers	Chiller Performance Test Chiller Sound Test System Performance Tests Coordinate with Section 15990	At the factory. At the factory. Before each refrigeration system is accepted.
15700: Unitary Heating and Cooling Equipment	Refrigerant Piping System Test IAW Section 15182 System Performance Tests Coordinate with Section 15990	After installation of all components of the refrigerant system. After the forgoing tests have been completed and before each refrigeration system is accepted.
15895: Air Supply, Distribution, Ventilation, and Exhaust System	Piping Hydrostatic Test Ductwork Leak Test IAW Leakage Test Manual Fire & Smoke Damper Acceptance Test Testing, Adjusting, and Balancing IAW Section 15990 Performance Tests	After installing and cleaning water piping systems Upon completion and prior to acceptance of the air distribution system installation. Upon completion and prior to acceptance of the air distribution system installation. Upon completion of air supply and distribution, including controls. After TAB has been completed.
15959: Heating, Ventilating and Air Conditioning(HVAC) Control Systems	Performance Verification Test	Upon completion of the HVAC control system.
15990: Testing, Adjusting, and Balancing of HVAC Systems	Testing, Adjusting, and Balancing IAW AABC MN-1 or NEBB TABES	Upon completion of HVAC system installation.

ELECTRICAL

O&MA Spec Section	Test Type	Frequency
16370: Electrical Distribution System, Aerial	Operating Test Ground-resistance Measurements for Ground rod using Fall-of-potential Method Sag and Tension Test	One time, after the installation is completed (pre-final inspection) One time, after the installation is completed and shall be made in normally dry weather, not less than48 hours after rainfall. Each time during conductor Stringing.
16375: Electrical Distribution System, Underground	Operating Test Ground-Resistance Measurements for Ground rod and grounding system Medium-Voltage Cable test High Potential Test	One time, after the installation is completed. One time for each ground rod after the installation is completed and prior to energizing the system. One time at every section after installation and before operating test is conducted.
16415: Electrical Work, Interior	Operating Test Ground Rod Resistance Test	One time, after the interior wiring system installation is completed. One time, after the installation is completed.
16711: Telephone System	Acceptance Test	One time, after the installation is completed.
16721: Fire Detection and Alarm System	Preliminary Test Megger Test Acceptance Test 1) Test of each function of the control panel 2) Test of each circuit in both Trouble and N0ormal Mode 3) Test of alarm initiating and signaling 4) Test of each control and device 5) Test of each alarm indicating & notification device 6) Test of Battery Charger and Batteries 7) Complete Operational Test under Emergency Power Supply	On time, upon completion of installation. One time, after the installation is completed.

Appendix F

Preparatory Meeting Checklist

Date: _____

Contract No: _____ Project No: _____

Project Title & Location:

_____

Definitive Features of work:

_____

____ Personnel Attended:

	Name	Position	Unit & Tel No.
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

____ Transmittal Involved:

	Number	Major Item	Spec Section	Govn't Action
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

____ Have all items been approved? Yes _____ No. ____

If No, Specify the current status and actions required.

Item	Current Status	Actions Required
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

____ Are all materials on hand/site? Yes _____ No _____

If No, Specify the current status and actions required.

Item	Current Status	Actions Required
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

____ Are equipment and all tools to be used on site? Yes _____ No _____

If No, Specify the reason and actions required.

Item	Current Status	Actions Required
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

____ Tests required in accordance with contract requirements.

	Type of Test	Requirements
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

____ Changes/deviations from contract requirements.

_____

_____

_____

_____

____ Schedule of initial inspection. Date _____

	Name	Position	Unit & Tel No.
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

____ Comments/Remarks:

_____

_____

_____

_____

_____

Prepared by:

_____

Typed Name, Title, Signature and Date

APPENDIX G
Forms for Construction Contract Quality Management

CONTENTS

MATERIAL INSPECTION AND RECEIVING REPORT

Form Approved
OMB No. 0704-0248

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ADDRESS.
SEND THIS FORM IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE DFARS, APPENDIX F-401.

1. PROCUREMENT INSTRUMENT IDENTIFICATION (CONTRACT) NO.	ORDER NO.	6. INVOICE NO./DATE	7. PAGE	OF	8. ACCEPTANCE POINT

2. SHIPMENT NO.	3. DATE SHIPPED	4. B/L TCN	5. DISCOUNT TERMS

9. PRIME CONTRACTOR CODE		10. ADMINISTERED BY CODE	

11. SHIPPED FROM *(If other than 9)* CODE		FOB:	12. PAYMENT WILL BE MADE BY CODE	

13. SHIPPED TO CODE		14. MARKED FOR CODE	

15. ITEM NO.	16. STOCK/PART NO. DESCRIPTION *(Indicate number of shipping containers - type of container - container number.)*	17. QUANTITY SHIP/REC'D*	18. UNIT	19. UNIT PRICE	20. AMOUNT

21. CONTRACT QUALITY ASSURANCE

a. ORIGIN

☐ CQA ☐ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.

DATE | SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME:

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

b. DESTINATION

☐ CQA ☐ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.

DATE | SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME:

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

22. RECEIVER'S USE

Quantities shown in column 17 were received in apparent good condition except as noted.

DATE RECEIVED | SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE

TYPED NAME:

TITLE:

MAILING ADDRESS:

COMMERCIAL TELEPHONE NUMBER:

** If quantity received by the Government is the same as quantity shipped, indicate by (X) mark; if different, enter actual quantity received below quantity shipped and encircle.*

23. CONTRACTOR USE ONLY

DD FORM 250, AUG 2000 PREVIOUS EDITION IS OBSOLETE. Reset

1. NAME *(Type or print)*	2. PAY GRADE	3. DATE
4. OFFICIAL ADDRESS		
5. SIGNATURE		
6. TYPE OF DOCUMENT OR PURPOSE FOR WHICH AUTHORIZED		
THE ABOVE IS THE SIGNATURE OF THE AUTHORIZED INDIVIDUAL		
7. NAME OF COMMANDING OFFICER *(Type or print)*		8. PAY GRADE
9. SIGNATURE OF COMMANDING OFFICER		

DD Form 577, MAY 88 (EG) *Previous edition may be used until exhausted.* **SIGNATURE CARD**

Designed using Perform Pro, WHS/DIOR, Oct 97

Reset

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY

Form Approved
OMB No. 0704-0188

PAGE OF PAGES

1. **FROM** *(Installation/Activity/Service and Zip code)*	2. OPERATING UNIT	3. DISTRICT CODE	4. OPERATING AGENCY	5. DATE		6. JOB NUMBER	7. SERIAL NUMBER	8. CONTRACT NUMBER
9. **TO** *(Installation/Activity/Service and Zip code)*	10. OPERATING UNIT	11. DISTRICT CODE	12. OPERATING AGENCY	13. ACCOUNTING NUMBER	14. ACCOUNTABLE OFFICE NUMBER	15. TYPE OF TRANSACTION A. ☐ NEW CONSTR. ☐ EXISTING FAC. ☐ CAPITAL IMP. ☐ OTHER *(Specify)* B. ☐ BENF/O ☐ PHYSICAL COM. ☐ FINAN. COM. ☐ OTHER *(Specify)*		16. PROJECT NUMBER

ITEM NO. 17	CATEGORY CODE 18	FACILITY *(Category description)* 19	NO. OF UNITS 20	TYPE 21	UNIT OF MEAS. 22	TOTAL QUANTITY 23	COST 24	DRAWING NUMBERS 25	REMARKS 26

27. STATEMENT OF COMPLETION: The facilities listed hereon are in accordance with maps, drawings, and specifications and change orders approved by the authorized representative of the using agency except for the deficiencies listed on the reverse side.

TRANSFERRED BY *(Signature)*	DATE
TITLE *(Area Engr./Base Engr./DPWO)*	

28. ACCEPTED BY *(Signature)*	DATE
TITLE *(Post Engr./Base Civ. Engr./Navy Rep.)*	29. PROPERTY VOUCHER NUMBER

DD Form 1354, FEB 90 (EG) *Previous editions are obsolete.* Designed using Perform Pro, WHS/DIOR, Aug 94

30.	CONSTRUCTION DEFICIENCIES

31. REMARKS

INSTRUCTIONS

This form has been designed and issued for use in connection with the transfer of military real property between the military departments and to or from other government agencies. It supersedes ENG Forms 290 and 290B *(formerly used by the Army and Air Force)* and NAVDOCKS Form 2317 *(formerly used by the Navy)*.

Existing instructions issued by the military departments relative to the preparation of the three superseded forms are applicable to this form to the extent that the various items and columns on the superseded forms have been retained. Additional instructions, as appropriate, will be promulgated by the military departments in connection with any new items appearing hereon.

With the issuance of this DD form, it is not intended that the departments shall revise and reprint manuals and directives simply to show the number of this DD form. Such action can be accomplished through the normal course of revision for other reasons.

DD Form 1354 Reverse, FEB 90

CONTRACTOR'S PERFORMANCE RATING (USFK Reg 715-2)	DATE

(IF NECESSARY, ATTACH EXTRA SHEETS IDENTIFYING EACH ITEM BY NUMBER)

TO: *(INCLUDE ZIP CODE)*	FROM: *(INCLUDE ZIP CODE)*
USACCK, ATTN: EAKC-T Unit #15289 APO AP 96205-0062	
1. CONTRACT NO.	**2. TYPE OF SERVICES**

3. NAME AND ADDRESS OF CONTRACT	PHONE NO.	4. ACO NAME	5. ACO SIGNATURE
		6. CONTRACTOR'S NAME	7. CONTRACTOR'S SIGNATURE
E-MAIL:			

8. RATING PERIOD	FROM	TO	9. PERCENTAGE OF WORK COMPLETED	
			SCHEDULE: ____ %	ACTUAL: ____ %

10. RATING *(CHECK APPLICABLE BOX)*
☐ MONTHLY ☐ FINAL

11. OVERALL RATING *(CHECK APPLICABLE BOX)*
☐ EXCEPTIONAL ☐ VERY GOOD ☐ SATISFACTORY ☐ MARGINAL
☐ UNSATISFACTORY *(EXPLAIN IN BLOCK 18 ON REVERSE)*

12. COR INFORMATION

a. ORGANIZATION *(NAME AND ADDRESS, INCLUDE E-MAIL)*	b. PHONE NO. *(INCLUDE AREA CODE)*
c. NAME AND TITLE	d. SIGNATURE / e. DATE

EVALUATION RATING OF PERFORMANCE ELEMENTS

E = EXCEPTIONAL V = VERY GOOD S = SATISFACTORY M = MARGINAL U = UNSATISFACTORY N = NOT APPLICABLE

13. QUALITY CONTROL	E	V	S	M	U	N
a. QUALITY OF WORKMANSHIP						
b. ADEQUACY OF THE CQC PLAN						
c. IMPLEMENTATION OF THE CQC PLAN						
d. QUALITY OF QC DOCUMENTATION						
e. STORAGE OF MATERIALS						
f. ADEQUACY OF MATERIALS						
g. ADEQUACY OF SUBMITTALS						
h. ADEQUACY OF QC TESTING						
i. ADEQUACY OF AS-BUILTS						
j. USE OF SPECIFIED MATERIALS						
k. IDENTIFICATION/CORRECTION OF DEFICIENT WORK IN A TIMELY MANNER						
14. TIMELY PERFORMANCE						
a. ADEQUACY OF INITIAL PROGRESS SCHEDULE						
b. ADHERENCE TO APPROVED SCHEDULE						
c. RESOLUTION OF DELAYS						
d. SUBMISSION OF REQUIRED DOCUMENTATION						
e. COMPLETION OF MATERIAL SUBMITTALS						
f. SUBMISSION OF UPDATED AND REVISED PROGRESS SCHEDULE						
g. WARRANTY RESPONSE						

15. EFFECTIVENESS OF MANAGMENET	E	V	S	M	U	N
a. COOPERATION/RESPONSIVENESS						
b. MANAGEMENT OF RESOURCES/ PERSONNEL						
c. COORDINATION AND CONTROL OF SUBCONTRACTOR(S)						
d. ADEQUACY OF SITE CLEAN-UP						
e. EFFECTIVENESS OF JOB-SITE. SUPERVISION						
f. COMPLIANCE WITH LAWS AND REGULATIONS						
g. PROFESSIONAL CONDUCT						
h. REVIEW/RESOLUTION OF SUBCONTRACTOR'S ISSUES						
i. IMPLEMENTATION OF SUBCONTRACTING PLAN						
16. COMPLIANCE WITH SAFETY STANDARDS						
a. ADEQUACY OF SAFETY PLAN						
b. IMPLEMENTATION OF SAFETY PLAN						
c. CORRECTION OF NOTED DEFICIENCIES						
17. OTHER STANDARDS *(IDENTIFY)*						
a.						
b.						
c.						

USFK FORM 173-R-E, 1 DEC 01 EDITIONS OF 1 NOV 86 IS OBSOLETE. PAGE 1 OF 3 PAGES

18. REMARKS *(Explanation of a marginal or unsatisfactory overall rating is required and any corrective action taken by the contractor, if applicable. Other comments are optional. Provide facts concerning specific events or actions to justify the evaluation rating. This data must be in sufficient detail to assist contracting officers in determining the contractor's performance. Continue on separate sheet(s), if needed.)*

19. AGENCY USE *(Letter of Concern, etc.)*

REVERSE OF USFK FORM 173-R-E, 1 DEC 01 **PAGE 2 OF 3 PAGES**

USE OF USFK FORM 173-R-E CONTRACTOR'S PERFORMANCE RATING

1. The COR of any contract awarded by US Army Contracting Command Korea (USACCK) is required to submit a USFK Form 173-R-E (Contractor's Performance Rating) at the conclusion of each calendar month, regardless of whether performance had occurred during that period, during the life of the contract.

2. The USFK Form 173-R-E becomes a contractual document and must be submitted and signed by the COR. One(1) copy should be maintained in Section V of the COR Contract File Folder.

INSTRUCTIONS FOR COMPLETING USFK FORM 173-R-E

DATE - Date prepared.

TO - Completed

FROM - Unit Number and address

1. **Contract Number** being reported on.

2. **TYPE OF SERVICE** (Construction, Service, Supply).

3. **NAME AND ADDRESS OF CONTRACTOR** - Provide full address to include a phone number and E-Mail address if applicable.

4. **ACO NAME** - Administrative Contracting Officers Name.

5. **ACO SIGNATURE** - Signed by ACO.

6. **CONTRACTOR'S NAME** - Print Project Manager's or Contractor's Quality Control Manager's full name.

7. **CONTRACTOR'S SIGNATURE** - Signature of Contractor's personnel identified in Block 7.

8. **RATING PERIOD** - FROM: Beginning date of report period. TO: Ending date of report period.

9. **PERCENTAGE OF WORK COMPLETED** - For Construction contracts, provide scheduled completion percentage from Contractor's submitted work progress schedule. Actual percentage as determined by the Inspector or COR. For other contracts N/A.

10. **RATING** - Monthly or Final report.

11. **OVERALL RATING** - Check applicable box. Reference definitions provided below.

12. **COR INFORMATION** - Provide organizational address to include E-Mail, duty telephone number, Name and Title, Signature and Date signed.

13. **QUALITY CONTROL** - Check applicable blocks.

14. **TIMELY PERFORMANCE** - Check applicable blocks.

15. **EFFECTIVENESS OF MANAGEMENT** - Check applicable blocks.

16. **COMPLIANCE WITH SAFETY STANDARDS** - Check applicable blocks.

17. **OTHER STANDARDS** - Identify other areas for rating as determined by COR.

18. **REMARKS:** All Marginal and Unsatisfactory ratings assigned to an element/sub-element must be supported by narrative rationale. Narratives are required for these ratings, and must clearly convey to the contractor, as well as to a Government official who is not familiar with the contract, why the rating was assigned. This is especially important for any rating above or below "satisfactory." Narratives should be supported by quantifiable or verifiable documentation. While larger or more complex efforts warrant greater detail, the guideline for any narrative is "clear and concise." NOTE: USFK Forms 173-R-E containing unsatisfactory ratings should also have DA Forms 5479 (or service equivalent) attached.

19. **AGENCY USE** - For ACO use.

RATING SYSTEM: Use the following rating system to assess contractor performance for all USFK Form 173-R-E elements:

(1) **EXCEPTIONAL** - Performance meets contractual requirements and exceeds many to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.

(2) **VERY GOOD** - Performance meets contractual requirements and exceeds some to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.

(3) **SATISFACTORY** - Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.

(4) **MARGINAL** - Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.

(5) **UNSATISFACTORY** - Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE:	TRANSMITTAL NO.

SECTION I – REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. (Cover only one section with each transmittal)	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T APPROVAL

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* b.	MFG OR CONTR. CAT, CURVE DRAWING OR BROCHURE NO. *(See instruction, no. 8)* c.	NO. OF COPIES d.	CONTRACT CEFERENCE DOCUMENT		FOR CONTRACTOR USE CODE g.	VARIATION (See instruction No. 6) h.	FOR CE USE CODE i.
				SPEC. PARA.NO. e.	DRAWING SHEET NO f.			

REMARKS

I certify that the above submitted items have been reviewed In detail and are correct and in strict conformance with the Contract drawings and specifications except as other wise stated.

NAME AND SIGNATURE OF CONTRACTOR

SECTION II – APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections of the specifications.

6. A check shall be placed in the "Variation" column when a submittal in not in accordance with the plans and specifications—also, a written statement to that effect shall be included in the space provided for "Remarks".

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.

9. U.S. Army corps of Engineers approving authority will assign action codes as indicated below in space provided in section I, column I to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A -- Approved as submitted

B -- Approved, except as noted on drawings.

C -- Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D -- Will be returned by separate correspondence.

E -- Disapproved (See attached)

F -- Receipt acknowledged

FX -- Receipt acknowledged, does not comply As noted with contract requirements

G -- Other (Specify)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

*U.S.G.P.O.1989 718-222/10290

DPW CONSTRUCTION PERMIT

DATE: _____

Clearance is requested to proceed with the work of _____
On Contract No. _____ involving excavation or disturbance of facilities as indicated.

The requested clearance ☐ has ☐ has not been staked.

Facility/Work Involved: ☐ Excavation ☐ Pavements ☐ Drainage Ditches ☐ Railroad Tracks ☐ Other

Overhead Lines: ☐ Utility ☐ Communication Surface Lines: ☐ Utility ☐ Communication

Method of Excavation: ☐ Hand ☐ Power Shovel ☐ Ditcher ☐ Other (Specify) _____

Scope of Work Depth, Width, Length, Location and Sketch as applicable, Road Closure Discontinuance of Service, Other Disturbance.

_____
_____
_____
_____
_____
_____
_____

Date Clearance Required: _____ Termination Date of Clearance: _____

Requesting Organization: _____ Tel No. _____

Requesting Official _____
Typed Name, Signature and Date

Clearance Review Routing:

Organization		Concurrence			Reviewed By			
		Yes	No	*	Name	Tel	Date	Initial
DPW	Utility Division							
	Buildings & Ground Division							
	Master Planning Division							
	Fire Department							
Signal Brigade								
Provost Marshall Office								

* See Comments/Recommendations on Reverse Side

Requested Clearance: ☐ Approved ☐ Disapproved ☐ * Comments/Recommendations

Signed by DPW _____
Typed Name, Signature and Date

IMCOM-K-PW Form 69, 19 June 2009

Comments and Recommendations, etc.

Remarks: _____

MONTHLY CONSTRUCTION PROGRESS REPORT

Month of _____

Contract No: _____ DO # _____ Contracting Officer: _____

Project No., Title & Location: _____

Contractor: _____

NTP: _____ CCD: _____ Contract Amount: _____

Mod # _____ Amount of Mod: _____ Time Extension: _____

Revised CCD: _____ Revised Contract Amount: _____

Construction Progress: _____ Schedule: _____ % Actual: _____ %

Remarks: _____

_____

_____

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_____

_____

Prepare/Submitted by COR: _____
Typed Name, Signature and Date

Reviewed by Contracting Office: _____
Typed Name, Signature and Date

CF:
Chief, Engineering Division

IMCOM-K-PW Form 80, 19 June 2009

CONSOLIDATED MONTHLY CONSTRUCTION PROGRESS REPORT

Contract Administered by Others

Month of ________________ DPW: _____________________

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Prepared/Submitted by COR: ____________________________ Reviewed by TCOR: ___________________________

Typed Name, Signature and Date Typed Name, Signature and Date

IMCOM-K PW Form 73, 19 June 2009

CONSOLIDATED MONTHLY CONSTRUCTION PROGRESS REPORT

Contract Administered by Others

Month of ________________ DPW: ______________________

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ___________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ___________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ___________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ___________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

Prepared/Submitted by COR: ____________________________ Reviewed by TCOR: __________________________
Typed Name, Signature and Date Typed Name, Signature and Date

IMCOM-K PW Form 73, 19 June 2009

Requirements Type – Contract Administered by USA CCK

Month of ________________ DPW: _____________________

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: _______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: _______________)

Remarks: ____

____

Prepared/Submitted by COR: _____________________________ Reviewed by TCOR: ___________________________

Typed Name, Signature and Date Typed Name, Signature and Date

IMCOM-K PW Form 73, 19 June 2009

CONSOLIDATED MONTHLY CONSTRUCTION PROGRESS REPORT

Requirements Type – Contract Administered by Others

Month of ________________ DPW: ______________________

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: ______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: ______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: ______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: ______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: ______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: ______________)

Remarks: ____

____

Contract No: ____________________________ Mod # ______________ Amount of Mod: _______________________ Time Extension: ________________

Project Title & Location: ____ Contractor: ____________________________________

Contracting Officer: _______________________ NTP: _______________________ CCD: ______________________ (Revised: ______________)

Progress: Scheduled: _____________% Actual: _______________ % Contract Amount: _______________________ (Revised: ______________)

Remarks: ____

____

Prepared/Submitted by COR: ____________________________ Reviewed by TCOR: __________________________

Typed Name, Signature and Date / Typed Name, Signature and Date

IMCOM-K PW Form 73, 19 June 2009

SUBMITTAL REGISTER

Page _____ of _____

Contract Number _____ Contractor _____ Date _____

Project Title & Location _____ Specification Section _____

Submittal Identification	Specification Paragraph number	Description of Submittal	Government Approval	For Information Only	Type of Submittal							Source of Material		Contractor Scheduled Dates			TCOR		Remarks
					Shop Drawing	Sample	Warranty	MFR's Data	Certificate	Test Report	Other as Noted	Local	Off-Shore	Submit	Approval Needed by	Material Needed by	Action Code	Date	

IMCOM-K PW Form 74, 19 June 2009

Reviewed by COR _____ Reviewed by TCOR _____

Typed Name, Signature and Date

Typed Name, Signature and Date

NOTICE OF NON-COMPLIANCE

Suspense Date for Correction _____

Contract No._____ Project No. _____

Project Title & Location _____

Master Deficiency Tracking Log No. _____

Reference (Drawing No, Spec Paragraph No, Shop Drawing, Certification, etc.)_____

_____

_____

_____

_____

_____

_____

_____

Description of Deficiencies (Deficiency In Workmanship, Materials or Accident Prevention Program) _____

_____

_____

_____

_____

_____

_____

_____

_____

This notice is handed to you for the record. Corrective action is to be taken immediately and clearly described in your daily report. If you are in disagreement with this notice, contact the COR immediately.

Issued by COR _____ Received by Contractor _____
Typed Name, Signature and Date Typed Name, Signature and Date

Corrected by Contractor _____ Verified by COR _____
Typed Name, Signature and Date Typed Name, Signature and Date

IMCOM-K PW Form 75, 19 June 2009

CONTRACTOR'S QUALITY CONTROL REPORT

Contract No. _____ Project No. _____ Date _____

Project Title & Location _____

Contractor _____ Weather _____

Work Performed (Indicate Location, Quantity and Description of Work Performed.) _____

_____

_____

Type and Results of Inspection and Test (Indicate P, I and F include Satisfactory Work Completed.) _____

_____

_____

_____

Verbal Instructions Received and Deficiencies Corrected (Indicate or Check with Master Deficiency Tracking Log) _____

_____

_____

_____

Safety (Include Any Infractions of Approved Safety Plan, Safety Manual or Instructions from Government Personnel. Specify Corrective Action Taken.) _____

_____

_____

Daily Manpower and Equipment (See Page 2 of 2 for Details) _____

_____

Remarks _____

_____

_____

CONTRACTOR'S CERTIFICATION. I certify that the above report is complete and correct and that all material and equipment used, work performed, and tests conducted during this reporting period were in strict compliance with the contract plans and specifications expect as noted above.

Prepared by CQC/Project Manager _____
Typed Name, Signature and Date

IMCOM-K PW Form 76, 19 June 2009

DAILY MANPOWER AND EQUIPMENT

Contract No. _____ Project No. _____ Date _____

Project Title & Location _____

Contractor _____ Weather _____

MANPOWER	MD	HRS	TOTAL	EQUIPMENT	ED	HRS	TOTAL
Project Manager				Sedan			
Chief QC Manager				Pick-up Truck			
Supervisor				Dump Truck			
Secretary				Trailer			
Safety Engr				Tractor			
Civil Engr				Front Loader			
Arch Engr				Excavator			
Elect Engr				Crane			
Mech Engr				Pile-Hammer			
Lab. Tech				Motor Grader			
Accountant				Transit Truck			
Admin				AP Cattle			
Mat. Controller				AP Distributor			
Driver				Conc-Pump			
Equip. Operator				Conc. Finisher			
Foreman				Conc. Spreader			
Guard				Agg. Spreader			
Welder				Sheep Foot Roller			
Carpenter				Vibratory Roller			
Mechanic				Macadem Roller			
Plumber				Tandem Roller			
Electrician				Tired Roller			
Rebar Worker				Asphalt Finisher			
Sheet Metal Work				Air Compressor			
Plasterer				Jack Hammer			
Mason				Generator			
Printer				Conc. Vibrator			
Stl Structurer				Water Pump			
Rigger							
Tile Worker							
Concrete Worker							
Asphalt Worker							
Insulation Worker							
Roofing Worker							
Common Labor							
TOTAL TODAY				TOTAL TODAY			
TOTAL UP TO DATE				TOTAL UP TO DATE			

IMCOM-K PW Form 76, 19 June 2009

(Reverse Side)

DAILY INSPECTION REPORT

Date: _____

Contract No. _____ Project No. _____

Project Title & Location _____

Contractor _____

Weather_____ Temp: High: _____ F Humidity: High: _____ %

Soil: ☐ Dry ☐ Damp ☐ Wet Log: _____ F Low: _____ %

_____

Type and Amount of Work, Controversial Matters, Progress Info, Test and Results.

Activities:_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Instructions Given to the Contractor/Remarks, etc.

Remarks: _____

_____

_____

Equipments	Model #	Capacity	Arrival	Depart	In-Use	Idle

Prepared by Inspection _____ Reviewed by COR _____

Typed Name, Signature and Date

Typed Name, Signature and Date

Deficiencies, Violations and Corrective Action Taken, etc.

Deficiencies and Violations:

Deficiencies are not corrected on the spot.

Deficiencies Tracked on "Master Deficiency Tracking Log".	Log No

Comments Received from Contractor and Other Matters Pertaining to Contract, etc.

Remarks:

WEEKLY CONSTRUCTION PROGRESS REPORT

(REQUIREMENT TYPE CONTRACT)

Report No _____ Period _____

Contract No _____ D.O. # _____ Mod No _____

Project No. _____ Contractor _____

Project Title & Location _____

Work Schedule % _____ Work Act % _____ CCD _____

LINE ITEM NO.	DESCRIPTION	UNIT	TOTAL QTY * SEE REMARKS	Weekly % PERIOD		GRAND TOTAL %	
				QTY	%	QTY	%
REMARKS							

Progress or Completion Certificate: I hereby certify that the above report has satisfactorily completed the Indicated percentage of the contract in accordance with the contract specifications.

Prepared/Submitted by Contractor _____
Typed Name & Title, Signature and Date

Reviewed by COR _____
Typed Name, Signature and Date

IMCOM-K PW Form 72, 19 June 2009

MASTER DEFICIENCY TRACKING LOG

Contract No. _____ Project No. _____ Contractor _____

Project Title & Location _____

LOG No.	DATE	DESCRIPTION OF DEFICIENCY	CORRECTION DATE		VERIFIED BY
			REQ'D	ACT	

IMCOM-K PW Form 77, 19 June 2009

LOG No.	DATE	DESCRIPTION OF DEFICIENCY	CORRECTION DATE		VERIFIED BY
			REQ'D	ACT	

IMCOM-K PW Form 77, 19 June 2009

CONSTRUCTION CONFLICT REPORT

Conflict No _____ Date _____

Contract No _____ Project No _____

Project Title & Location _____

Conflicts Found: ☐ Design ☐ Specification ☐ Material ☐ Site Condition ☐ Other

Conflicts related to Life Safety? ☐ No ☐ Yes, Specify Codes _____

Description of Conflicts

Reason/Proposed Changes (Explain in detail and attach MFR for request for change, U/A letter, etc)

Proposed Change affects to Cost & Time Extension?

No: ☐ Changes to be reflected on "As-Built" Drawing

☐ Sketch of Change is attached

Yes: (Action to be taken by TCOR)

☐ Technical Sufficiency Review

☐ Revision of Drawing/Specifications

☐ Government Estimate

☐ Other Actions Required

Estimated Cost of Change _____ (Increase/Decrease)

Estimated Time Growth _____ Days Time Extension _____ Days Separate Performance Time

Prepared/Submitted by: _____
Typed Name & Title, Signature and Date

Recommendation/Comment by COR: _____

☐ Returned without Action (See Comments above)

☐ Forwarded to TCOR for Review on _____ (See reverse side for routing)
Date

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Conflict No:_____ Contract No:_____ Project No: _____

Project Title & Location: _____

1. TCOR/Technical Review & Construction Service Section:

☐ Out of the Scope of Work – Return to COR

☐ Proposed Changes are Within the Scope of Work.
☐ Proposed Down Scope Change is Technically Sufficient/Acceptable.
☐ A Portion of the Proposed Changes is Within the Scope of work.

Section: ☐ Civil ☐ Arch ☐ Mechanical ☐ Electrical ☐ Others

Conflicts: ☐ Design ☐ Specification ☐ Material ☐ Site Condition ☐ Others

FAR reference: ☐ *FAR Clause 52.243-4 Changes (August 1987) - Design Deficiency*
☐ *FAR Clause 52.236-2 (APR 1984) - Differing Site Conditions*
☐ *Others*_____

Originally Designed by:
☐ DPW ☐ FED ☐ AMKOR ☐ TJD/JI ☐ MMI ☐ Others,_____

Remarks/Comments: _____

_____

_____

_____

_____

_____

_____

_____

Reviewed by TCOR/Technical Review & Construction Service Section: _____
Typed Name, Signature and Date

☐ Forwarded to Design Agency If Within Scope of Work Date Sent:_____

☐ DPW ☐ FED ☐ AMKOR ☐ TJD/JI ☐ MMI ☐ Others,_____

☐ Mod Package including IGCE & 4 sets of Plans, Specs w/cover memo Forwarded to CCK for Further Action: Date Sent:_____

☐ Return to COR w/o Action due to Out of Scope of Work: Date Sent:_____

2. Contracting Officer, USACCK: _____
Typed Name, Signature and Date

PROJECT CLOSEOUT CHECKLIST

Contract No _____ Project No _____

Project Title & Location _____

Contractor _____

Date of Final Acceptance Inspection _____

	Suspense	Actual	Initial
☐ Review of DD Form 1149 to Ensure all GFM Has Been Account For	_____	_____	_____
☐ Review of the Received As-Built Drawings for Accuracy	_____	_____	_____
☐ Receipt of the Approved Shop Drawings	_____	_____	_____
☐ Receipt of Keys and Listing (Qty/Room #'s)	_____	_____	_____
☐ List of Equipment and Warranty Documents Covered by a Warranty Under Terms and Conditions of the Contract	_____	_____	_____
☐ Parts Lists and Manufacturer's Catalog Cuts for the Equipment	_____	_____	_____
☐ Six (6) Copies of the Test Results for Mechanical & Electrical Systems	_____	_____	_____
☐ Operations & Maintenance Training is Conducted	_____	_____	_____
☐ Six (6) Copies of Operations & Maintenance Manuals are Obtained	_____	_____	_____
☐ DD Form 1354 Completed			
☐ All Deficiencies are Listed on the Reverse Side of the Form	_____	_____	_____
☐ Prepared a Memo to DPW's and Other Concerned Offices to Clarify All Deficiencies on the Form as Either Deficiencies or Outside the Scope of the Contract	_____	_____	_____
☐ The Memo Included a Plan of Schedule of Action for Correction of Each Deficiency	_____	_____	_____
☐ Director has Reviewed and Initialed for Concurrence in Column 26, "Remarks", of the Form	_____	_____	_____

Prepared by COR_____
Typed Name, Signature and Date

Reviewed by DPW's _____
Typed Name, Signature and Date

Remarks _____

_____

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RECORD OF WARRANTY INSPECTIONS AND TRACKING LOG

Warranty Period _____

Facility No/Name _____ Contract No. _____ Date of final Inspection _____

Project No. _____ Title & Location _____

Contractor's Name & Address _____

Contractors POC Name & Tel No _____

User's POC Name and Tel No _____

Brief Description of Scope of Work _____

_____

Warranty Inspections Performed on 4TH MONTH _____ (Scheduled Date) ☐ No Deficiencies ☐ Deficiencies

Date of Notification to FED/Contractor _____

Initial & Date Inspected _____

9TH MONTH _____ (Scheduled Date) ☐ No Deficiencies ☐ Deficiencies

Date of Notification to FED/Contractor _____

Initial & Date Inspected _____

No.	Date of Call	Agency, Name & Ph. No.	Description Of Warranty Call/Problem		Time/Date to Contractor & POC Name	Contraction	Corr Date & Verified		
			Caller's Description	Verification By Insp/COR			Contr	Insp	DPW's

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No.	Date of Call	Agency, Name & Ph. No.	Description Of Warranty Call/Problem		Time/Date to Contractor & POC Name	Contraction	Corr Date & Verified		
			Caller's Description	Verification By Insp/COR			Contr	Insp	DPW's

NOTICE TO BUILDING OCCUPANTS

THIS IS BLDG. NO. _____.
RENOVATION/CONSTRUCTION WAS COMPLETED UNDER CONTRACT NO. _____ ON _____. A ONE YEAR WARRANTY COVERS ALL DETECTS AND BREAKDOWNS DUE TO CONTRACTOR WORKMANSHIP. TO REPORT DEFICIENCIES, CALL THE DPW'S AT _____ DURING NORMAL DUTY HOURS. INDICATE BLDG. NO., CONTRACT NO., EXACT DESCRIPTION OF THE PROBLEMS, YOUR NAME AND PHONE NO.

NOTE: THE CONTRACTOR IS NOT RESPONSIBLE FOR DAMAGES CAUSED BY THE OCCUPANTS IN ABUSING THE FACILITIES AND/OR DAMAGING INSTALLED EQUIPMENT.

IMCOM-K PW POSTER 420-1, 19 June 2009

TRANSMITTAL OF SHOP DRAWINGS AND MATERIAL SUBMITTALS FOR APPROVAL					
CONTRACT NO:			PROJECT NO:		
PROJECT TITLE AND LOCATION:					
CONTRACTOR:			TEL	MIL:	
				COM:	
1	TO:	FROM:		DATE:	
	TRANSMITTAL NO:			NO OF COPY	
	REMARKS:				
	TYPED NAME AND TITLE:			SIGNATURE:	
2	TO:	FROM:		DATE:	
	TRANSMITTAL NO:			NO OF COPY	
	REMARKS:				
	TYPED NAME AND TITLE:			SIGNATURE:	
3	TO:	FROM:		DATE:	
	TRANSMITTAL NO:			NO OF COPY	
	REMARKS:				
	TYPED NAME AND TITLE:			SIGNATURE:	
4	TO:	FROM:		DATE:	
	TRANSMITTAL NO:			NO OF COPY	
	REMARKS:				
	TYPED NAME AND TITLE:			SIGNATURE:	

IMCOM-K PW Form 133, 19 June 2009

REVIEW COMMENTS OF SHOP DRAWINGS AND MATERIAL SUBMITTALS FOR APPROVAL

CONTRACT NO:	**PROJECT NO:**	
PROJECT TITLE AND LOCATION:		
TRANSMITTAL NO:	**SECTION:**	
REVIEWER/SECTION:	**DATE:**	SHEET 1 OF 1

ITEM NO	ACTION CODE	COMMENT NO	NO	COMMENTS

IMCOM-K PW Form 134, 19 June 2009