



**US Army Corps  
of Engineers  
Afghanistan Engineer District**

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# **FACILITIES SUPPORT SERVICES**

Afghanistan Engineer District, North

**Construction Contract Solicitation**

## **3rd Story Addition Essayons House-Qalaa House**

**Proposal Requirements, Contract  
Forms, Conditions of the Contract**

June 2011

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**THIS IS A SINGLE-PHASE REQUEST FOR PROPOSAL**

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. W5J9JE-11-R-0143	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 18-Jun-2011	PAGE OF PAGES 1 OF 95
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**IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.**

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO. QH 11-28A
7. ISSUED BY AFGHANISTAN DISTRICT NORTH (AEN) US ARMY CORPS OF ENGINEERS OPERATION ENDURING FREEDOM APO AE 09356  TEL: FAX:	CODE W5J9JE	8. ADDRESS OFFER TO (If Other Than Item 7) CODE  <b>See Item 7</b>  TEL: FAX:
9. FOR INFORMATION CALL:	A. NAME JERRY S BARNHART	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)

**SOLICITATION**

**NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".**

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

3rd Story Addition Essayons House Qalaa

This solicitation is for a firm fixed price type contract to construct a third story addition to a building located at Qalaa House in Kabul, Afghanistan.

The point of contact for this effort is Mr. Dennis Wagner, dennis.d.wagner@usace.army.mil .

This project will be evaluated using the simplified acquisition procedures found in Part 13 of the Federal Acquisition Regulations. The Central Contractor's Registry (CCR) is mandatory before an award can be made. Your proposal shall be submitted via email as described in Section 00110 to scott.barnhart@usace.army.mil .

All proposals shall be valid for 90 days after the proposal due date.

The magnitude of construction of this project is between \$250,000 and \$500,000.

Written requests for information must be directed to the person listed in item 9 above or email: dennis.d.wagner@usace.army.mil . Inquiries and requests that are directed to any other person(s) may not be relayed to the proper authority and may not be answered.

11. The Contractor shall begin performance within 10 calendar days and complete it within 180 calendar days after receiving

award,  notice to proceed. This performance period is  mandatory,  negotiable. (See \_\_\_\_\_ .)

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?  
(If "YES," indicate within how many calendar days after award in Item 12B.)

YES  NO

12B. CALENDAR DAYS

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 03:00 PM (hour) local time 02 Jul 2011 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee  is,  is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

**SOLICITATION, OFFER, AND AWARD (Continued)***(Construction, Alteration, or Repair)***OFFER (Must be fully completed by offeror)**14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*15. TELEPHONE NO. *(Include area code)*16. REMITTANCE ADDRESS *(Include only if different than Item 14)***See Item 14**

CODE

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within \_\_\_\_\_ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS

SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

**19. ACKNOWLEDGMENT OF AMENDMENTS***(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

AMENDMENT NO.

DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

20B. SIGNATURE

20C. OFFER DATE

**AWARD (To be completed by Government)**

21. ITEMS ACCEPTED:

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN  
*(4 copies unless otherwise specified)***ITEM**

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

 10 U.S.C. 2304(c) 41 U.S.C. 253(c)

26. ADMINISTERED BY

CODE

27. PAYMENT WILL BE MADE BY:

CODE

**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE** 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return \_\_\_\_\_ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract. 29. AWARD *(Contractor is not required to sign this document.)*

Your offer on this solicitation, is hereby accepted as to the items listed. This award commutes the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE

30C. DATE

TEL:

EMAIL:

31B. UNITED STATES OF AMERICA  
BY

31C. AWARD DATE

**TABLE OF CONTENTS**  
**SOLICITATION PROVISIONS; CONTRACT CLAUSES;**  
**AND SITE ADAPT SPECIFICATIONS**  
For  
**3<sup>rd</sup> Story Addition Essayons House-Qalaa House**  
**Kabul Province, Afghanistan**

**DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS**

<u>Section</u>	<u>Title</u>
00010	Proposal Schedule The Design Process Design Concept Documents

**APPENDIX A -1 TECHNICAL SPECIFICATIONS**

**DIVISION 01 GENERAL REQUIREMENTS**

<u>Section</u>	<u>Title</u>
01010	Scope of Work
01015	Technical Requirements
01335	Submittal Procedures
01335a	Attachments-AED

**APPENDIX B-1 SITE PLAN**

**APPENDIX B-2 PDF DRAWINGS**

-End of Table of Contents-

SECTION 00010

**SECTION 00010**  
**PRICE PROPOSAL SCHEDULE**

**PROJECT: 3<sup>rd</sup> Story Addition Essayons House, Project No: QH 11-28A**

Provide a price for all items. The Government will evaluate the Contractor's entire proposal to determine which CLINs represent the best value to the Government.

<i>No.</i>	<i>Description</i>	<i>Qty</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Total Amount</i>
<b><u>BASE PROPOSAL ITEMS:</u></b>					
<b>0001</b>	<b>DESIGN PROGRAM</b>				
0001AA	Site Survey/A-E Design	1	LS		\$ _____
0001AB	As-Built Drawings	1	LS		\$ _____
<b>0002</b>	<b>MOBILIZATION</b>				
0002AA	Mob/Demobilization	1	LS		\$ _____
<b>0003</b>	<b>PMB FACILITIES</b>				
0003AA	ESSAYONS 3 <sup>RD</sup> FLOOR ADDITION	1	LS		\$ _____
0003AB	Sprinklers for Three Floors	1	LS		\$ _____
<b>0004</b>	<b>DBA INSURANCE</b>				
0004AA	DBA Insurance	1	LS		\$ _____
<b>SUB-TOTAL BASE PROPOSAL ITEMS:</b>					<b>\$ _____</b>

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**TOTAL PROPOSAL FOR ALL ITEMS:**

\$ \_\_\_\_\_  
(Total of all above costs)

**PROPOSAL SCHEDULE NOTES**

1. Offeror shall submit prices on all items. Each item is described in Section 01010 SCOPE OF WORK.
2. Abbreviations:  
LS = Lump Sum

**-END OF SECTION-**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Design Program FFP FOB: Destination				
					_____
					NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA	Site Survey/A-E Design FFP The contractor shall provide all site survey/A-E design in accordance with the attached scope of work. FOB: Destination	1	Lump Sum		
					_____
					NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AB	As-built Drawings FFP The contractor shall provide all as-built drawings in accordance with the attached scope of work. FOB: Destination	1	Lump Sum		
					_____
					NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Mobilization FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AA	Mobilization/Demobilization FFP The contractor shall provide all mobilization/demobilization in accordance with the attached scope of work. FOB: Destination	1	Lump Sum		
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	PMB Facilities FFP FOB: Destination				
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA	Essayons 3rd Floor Addition FFP The contractor shall provide the 3rd floor addition to the Essayons building in accordance with the attached scope of work. FOB: Destination	1	Lump Sum		

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NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB	Sprinklers for Three Floors FFP The contractor shall provide all the sprinklers for three floors in accordance with the attached scope of work. FOB: Destination	1	Lump Sum		

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NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	DBA Insurance FFP FOB: Destination				

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NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA		1	Lump Sum		

DBA Insurance  
FFP

The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherford invoice submitted by the offeror after contract award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by contract modification to reflect actual premium amounts paid.

FOB: Destination

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NET AMT

### INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	Government
0001AA	N/A	N/A	N/A	Government
0001AB	N/A	N/A	N/A	Government
0002	N/A	N/A	N/A	Government
0002AA	N/A	N/A	N/A	Government
0003	N/A	N/A	N/A	Government
0003AA	N/A	N/A	N/A	Government
0003AB	N/A	N/A	N/A	Government
0004	N/A	N/A	N/A	Government
0004AA	N/A	N/A	N/A	Government

### DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
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0001	POP 24-JUL-2011 TO 20-JAN-2012	N/A	AFGHANISTAN DISTRICT NORTH (AEN) . US ARMY CORPS OF ENGINEERS HOUSE 1, STREET 1, W WAZIR AKBUR KAHN KABUL FOB: Destination	W5J9JE
0001AA	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0001AB	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0002	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0002AA	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0003	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0003AA	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0003AB	POP 24-JUL-2011 TO 20-JAN-2012	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0004	21 dys. ADC		(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE
0004AA	21 dys. ADC	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	W5J9JE

DBA INSURANCE

**DEFENSE BASE ACT INSURANCE RATES – LIMITATION – FIXED-PRICE (APRIL 2011)**

(a) The U.S. Army Corps of Engineers (USACE) has entered into a contract with **CNA Insurance** to provide all Defense Base Act (DBA) insurance to USACE, C-3 and the 408<sup>th</sup> CSB contractors and subcontractors at a contracted fixed rate. The fixed rates for this insurance are as follows:

Service	\$3.50	per \$100 of employee remuneration
Construction	\$4.25	per \$100 of employee remuneration
Security	\$10.00	per \$100 of employee remuneration
Aviation	\$17.00	per \$100 of employee remuneration

(b) Bidders/Offerors should **compute the total compensation or total payroll**, (salary, plus overseas recruitment incentive and post differential, but *excludes* per diem, housing allowance, travel expenses, temporary quarters allowance, education allowance and other miscellaneous post allowances to include fee or profit) to be paid to employees who will be covered by DBA insurance. Compute the cost of DBA Insurance by utilizing the spaces provided below for the base period and whatever extension there may be thereafter, if applicable.

(1) Compensation of Covered Employees: \_\_\_\_\_  
(Total Payroll Not Total Contract Value) Ex: If total Payroll is \$100,000.00

(2) Applicable DBA Rate: \_\_\_\_\_  
(Use appropriate Rate) Ex: If a Service, the rate is \$3.50/\$100 or 3.5%

(3) Total DBA Cost: \_\_\_\_\_  
(Amount of DBA Premium) Ex: \$100 K multiplied by 3.5% is \$3,500.00

(c) Bidders/Offerors shall include a statement as to whether or not local nationals or third country nationals will be employed on the resultant contract.

(d) CNA Insurance is utilizing Rutherford International as their managing Broker. The primary POC is the USACE DBA Program Administrator is Nikki Hounghany, (703) 813-6571 [usace@rutherford.com](mailto:usace@rutherford.com). The alternate POC is Sara Payne, Senior Vice President, (703) 813-6503 [sara.payne@rutherford.com](mailto:sara.payne@rutherford.com).

(e) Labor Category/Job Classification Definitions:

**SERVICE:** White-collar” workers providing IT, engineering/consulting services, and restaurant services. Security consultants are included in this category if they are only providing risk assessment services and no form of armed protection.

**CONSTRUCTION:** “Blue-collar” workers providing services such as carpentry, electrical, plumbing, mechanical, concrete/asphalt, de-mining, roofing, landscaping, janitorial, trash removal, Port-a-John/septic cleaning, pest exterminating, auto repair/dismantling, drivers/couriers, and heavy equipment operation and

maintenance. Construction site supervisors/managers and life support service providers are included in this category as well as all Unskilled and Manual Labor Day Laborers. \* *Most work will fall into this category\**

**SECURITY:** Personal Security Detail (PSD) and Static or Convoy Guarding of property or personnel.

**AVIATION:** Pilot and Crew of any aircraft excluding ground personnel who provide maintenance or services and stay on the ground.

### **WORKERS COMPENSATION INSURANCE (DEFENSE BASE ACT) –CONSTRUCTION (OCT 2009)**

(a) This Special Contract Requirement supplements FAR Clause 52.228-3 Workers' Compensation Insurance (Defense Base Act).

(b) The contractor agrees to procure Defense Base Act (DBA) insurance pursuant to the terms of the contract between the U.S. Army Corps of Engineers (USACE) and **CNA Insurance** unless the contractor has a DBA self-insurance program approved by the Department of Labor. Proof of this self-insurance shall be provided to the Contracting Officer. The contractor shall submit proof of a valid DBA Insurance policy with CNA Insurance for the Prime and their Subcontractor's at every tier prior to performance of the contract. The current rate under the USACE and JCC-I/A contract is **\$4.25 per \$100 of compensation for construction.**

(c) The contractor agrees to insert a Special Contract Requirement substantially the same as this one in all subcontracts (at every tier) to which DBA is applicable.

(d) Should the rates for DBA insurance coverage increase or decrease during the performance of this contract, USACE shall modify the contract accordingly. However, the revised rates will not be applicable until the Contractor's or Subcontractor's DBA Insurance policy is due to be renewed.

(e) Premiums will be reimbursed only if coverage is purchased through the USACE mandatory requirements DBA contract administered by CNA Insurance and their Managing Broker, Rutherford International.

(f) Claims Reporting - The Contractor shall make timely Defense Base Act insurance claims on behalf of each employee who is injured or killed in the course of their employment under this contract, and shall ensure that similar language is in each Subcontractor's contract. The Contractor's Safety Officer shall, in addition to any other duties required to be performed under the contract, perform the following:

(i) Make timely Defense Base Act insurance claims on behalf of each employee who is injured or killed in the course of their employment under this contract; and

(ii) Make monthly written reports to the Contracting Officer, Administrative Contracting Officer, and the District/Center Safety and Occupational Health Manager, providing the names of each such injured or deceased employee, the circumstances surrounding each injury or death, the dates of each injury or death, the date the insurance claim was made on behalf of each employee, and the current status of each claim.

The District/Center Safety and Occupational Health Manager POC is:

Chris Yonat, [Christopher.yonat@usace.army.mil](mailto:Christopher.yonat@usace.army.mil)

(g) Failure to comply and purchase Defense Base Act (DBA) Insurance in accordance with FAR Clauses 52.228-3 Workers' Compensation Insurance (Defense Base Act), from the U.S. Army Corps of Engineers mandatory Insurance Carrier/Broker (CNA Insurance/Rutherford International) for the Prime and all of the Subcontractors at every tier, shall be considered a material breach and could cause your contract to be terminated for default/cause.

SECTION 00110

**SECTION 00110  
INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS**

**1. DEFINITIONS**

This solicitation is for a firm fixed price type contract to acquire: design, material, labor and equipment to construct the third story addition and connection to the existing building utilities as required, providing a complete and useable facility at the Qalaa House in Kabul Afghanistan in accordance with the Scope of Work.

When the word 'Offeror' is encountered throughout this Section 00110, it is intended to mean a company or Joint Venture seeking to do business with the Government that submits a proposal in response to this solicitation.

A 'proposal' is documentation prepared by the Offeror and submitted to the Government for evaluation purposes in response to this solicitation.

When the word 'Government' is encountered throughout this Section 00110, it is intended to mean the U.S. Army Corps of Engineers Afghanistan District-North (AED-N).

Proposals for this solicitation will be accepted until the date and time indicated on Standard Form 1442. Prospective Offerors should submit inquiries related to this solicitation only by e-mail to:

E-MAIL ADDRESS: [dennis.d.wagner@usace.army.mil](mailto:dennis.d.wagner@usace.army.mil)

Include the solicitation number, and project title with any questions/clarifications. Written questions must be received by this office not later than 4 calendar days prior to the date set for receipt of offers. TELEPHONE INQUIRIES WILL NOT BE ACCEPTED.

Oral explanations or instructions are not binding. Any information given to an Offeror which impacts the solicitation and/or offer will be given in the form of a written amendment to the solicitation.

**2. DIRECTIONS & GUIDANCE REGARDING NOTICE TO PROCEED (NTP)**

(a) The contract resulting from this Solicitation will require the successful Offeror to provide the Contracting Officer:

(1) Evidence of Defense Base Act (DBA) insurance coverage for its employees (mandatory for Notice to Proceed (NTP) to be issued);

(2) A performance guarantee (such as performance and payment bonds), if the solicitation and contract provide for that (mandatory for NTP to be issued);

(3) Proof of registration of its employees in the Synchronized Pre-deployment and Operational Tracker (SPOT) (mandatory before any physical work at the site shall commence); and

(4) An acceptable security plan in accordance with contract Section 01040 (mandatory before any physical work at the site shall commence).

(b) Evidence of Defense Base Act (DBA) insurance coverage for the successful Offeror's employees and the performance guarantee, if applicable, must be provided to the Contracting Officer prior to the contractor receiving Notice to Proceed (NTP). The successful Offeror shall be given up to 21 days after contract award to meet these requirements. The Contracting Officer intends to issue NTP immediately after these requirements are met.

(c) The successful Offeror is encouraged to complete all requirements (i.e., items a. 1-4) within 21 days after contract award, but may complete registration of its employees in SPOT and submit an acceptable security plan following NTP. However, no physical work at the site of the contract shall commence until all requirements are completed. The Contracting Officer will not modify the contracts' period of performance to account for the time it takes the successful Offeror to complete these requirements following NTP.

(d) Any unexcused contractor delay in completing these requirements within 21 days after contract award may be cause for the Government to pursue appropriate remedies under the contract, including its right to terminate the contractor's performance under the contract's "Defaults" Clause.

### 3. DIRECTIONS FOR SUBMITTING PROPOSALS

All proposals must be electronically sent by email and addressed to the contract specialist below:

Dennis Wagner  
[dennis.d.wagner@usace.army.mil](mailto:dennis.d.wagner@usace.army.mil)

Solicitation No.: W5J9JE-11-R-0143

Offer Closing Date: **02 July 2011**

Offer Closing Time: 3:00 p.m. (LOCAL KABUL TIME)

**PROPOSALS SUBMITTED AFTER THE DATE AND TIMES ESTABLISHED FOR SUBMISSION OF PROPOSALS WILL NOT BE EVALUATED.**

### 4. PREPROPOSAL CONFERENCE / SITE VISIT

Bidders are invited to a site visit to be conducted on 23 June 2011 at 10:00 AM.

Each bidder will be allowed to have no more than 2 representatives attend the site visit. Bidders who intend to visit the site during this scheduled time shall respond by email to [scott.barnhart@usace.army.mil](mailto:scott.barnhart@usace.army.mil) and [phil.e.benge@usace.army.mil](mailto:phil.e.benge@usace.army.mil) with the following information for each person attending the site visit:

- \* Scan of Tazkira
- \* Tazkira Number
- \* Province and District of Residence
- \* Name of company represented

Please send the Government the requested information no later than 8:00 am on 23 June 2011 for processing. Bidders should make their way to Qalaa House at their own expense well before the scheduled time and be prepared to go through security.

Visitors will pass thru security and then be escorted by the Government Representative to the meeting site.

Time: 10:00 am  
Date: 23 June 2011

Visitors shall bring:

- \* Tazkiras or Passport if not an Afghan citizen
- \* Closed toe shoes to wear on site
- \* Two persons maximum per group

Not Allowed:

- \* Cell phones with cameras or digital cameras
- \* Laptop or portable computers

Please reference details located in the attached Scope of Work section 1.1.

## 5. ELECTRONIC OFFERS

FAXED PROPOSALS, MODIFICATIONS THERETO, OR CANCELLATIONS WILL NOT BE ACCEPTED. However, proposals may be withdrawn in writing by e-mail. Any written notice to withdraw an offer sent to this office must be received in the office designated in the Request for Proposal (RFP) for receipt of offers not later than the exact date and time set for receipt of proposals.

## 6. PROPOSALS SHALL BE SUBMITTED IN THE FOLLOWING FORMAT:

Proposal Package	<u>Original</u>	<u>Copies</u>
<b>VOLUME 1 – Technical Proposal</b>	<b>1</b>	<b>0</b>
FACTOR 1 – Experience		
FACTOR 2 – Key Personnel		
FACTOR 3 – Past Performance		
Volume 1 shall also include the following:		
• Letters of Commitment from Subcontractors (if applicable)		
• Joint Venture Agreement (if applicable)		
<b>VOLUME 2 – Price Proposal and Administrative Submission</b>	<b>1</b>	<b>0</b>
FACTOR 4 – Price Proposal		

Volume 2 **shall** also include the following:

- \* Signed Standard Form 1442
- \* Pricing Schedule
- \* Representation and Certifications, Section 00600
- \* All Amendments, signed and dated
- \* Offeror's e-mail address and cell phone number
- \* Name, Address, DUNS, CAGE and TAX Identification Numbers of the Contractor submitting the proposal

The Government will not make assumptions concerning intent, capabilities, or experience. Clear identification of proposal details shall be the sole responsibility of the Offeror. The Government may reject incomplete proposals after initial evaluation without further consideration. Complete proposals shall meet the following basic requirements identified in paragraph 6.

**\*\*NOTE\*\* CCR REGISTRATION IS MANDATORY:**

- **Offeror MUST be registered in the Central Contractor Registration (CCR) database before an award can be made to them. If the offeror is not registered in the CCR, it may do so through the CCR website at <http://www.ccr.gov>.**

**\*\* NOTE\*\* PERIOD OF PERFORMANCE CERTIFICATION**

- **Offeror MUST provide written certification (either by hardcopy or by email) that the Period of Performance (POP) stated in the attached Statement of Work under the milestone chart will be met.**

## **7. PROPOSAL SUBMISSION REQUIREMENTS AND INSTRUCTIONS**

- a. **REQUIREMENT FOR SEPARATE TECHNICAL AND PRICE PROPOSALS.**  
DO NOT MIX CONTENTS OF VOLUME 1 (Technical) AND VOLUME 2 (Price) IN THE SAME FILE.
- (1) The Proposal shall be typed and submitted in clearly-written English
  - (2) Each Offeror must submit a Technical Proposal and a Price Proposal. The Technical Proposal and the Price Proposal must be submitted as separate volumes. Both the Technical and price proposal shall be paginated (contain consecutive page numbers on each page).  
  
The outside cover of each separate volume (Vol 1 – Technical; Vol 2 – Price) must be clearly marked to indicate its contents and the identity of the Offeror. Additionally, identify the “original” Technical proposal and the “original” cost/price proposal on the outside cover.
  - (3) Both the Technical Proposal and the Price Proposal must be received by the closing date and time set for receipt of proposals.
  - (4) Pricing Schedule, Vol 2, shall be completed in full
  - (5) Do not include any dollar amounts in the Technical Proposal that are taken from the Price Proposal.
  - (6) All information intended to be evaluated as part of the Technical Proposal must be submitted within the Technical Proposal. Do not cross-reference material in the Price Proposal, or vice versa. Also, do not include links to websites in your proposal.

(7) Do not attempt to modify the terms and conditions of the solicitation in either the technical or price proposal or add conditions or qualifications to your offer. Should the Offeror include terms and conditions that conflict with the terms and conditions of the Solicitation, the offer may be determined "unacceptable" and thus ineligible for award. Any questions related to specific terms and conditions contained within the Solicitation should be resolved prior to submission of the offer. Notwithstanding the above, the Offeror must clearly describe on the Proposal Cover Sheet submitted with the Price Proposal any modifications to the contractual and/or technical terms and conditions of the solicitation contained in the Offer.

(8) Failure to submit required documents or failure to properly complete documents may result in rejection of the offer without further evaluation. Therefore, Offerors are urged to follow instructions carefully and to speak with the Contracting Officer if the Offeror does not understand any part of the Solicitation.

c. GENERAL INSTRUCTIONS.

(1) Do not submit excess information; do not include audio-visual materials, electronic media, etc.

(2) References to "Confidential" projects cannot be submitted to demonstrate capability unless all of the information required for evaluation as specified herein can be provided to the Government as part of the Offeror's technical proposal. Offerors that include in their proposals information they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, must clearly mark their proposals in accordance with the instructions at FAR 52.215-1, "Instructions to Offerors—Competitive Acquisition," paragraph (e), "Restriction on disclosure and use of data."

(3) In the case of an Offeror that is part of a large, multi-segmented business concern, provide information directly pertaining to the specific segment of the business concern (i.e., the division, group, unit, etc.) that will perform work under the prospective contract.

(4) For submissions with page limitations, the pages will be counted as follows: One side of the paper is one page; information on both the back and front of one sheet of paper will be counted as two pages. Pages furnished for organizational purposes only, such as a "Table of Contents" or divider tabs, are not included in the page limitation.

**8. INSTRUCTIONS FOR SUBMISSION OF JOINT VENTURE AGREEMENTS**

a. A Joint Venture offeror must submit with its technical proposal a copy of the joint venture agreement upon which the Joint Venture organization has been formed. The joint venture agreement must indicate that the joint venture is in existence as of the date and time that proposals are due to be submitted; or, alternatively, that the joint venture will automatically take legal effect immediately upon notification to the joint venture of contract award.

b. If the original joint venture agreement is not written in English, the offeror must provide an English language copy of the joint venture instrument, accompanied by an original signed statement by an authorized officer or representative of each of the joint venture partners that the English translation is true and correct.

c. The joint venture agreement must be signed by a representative of each joint venture partner who has the requisite authority to bind the partner to the agreement, with the chief executive of each entity identified.

d. To be acceptable to the Government, the joint venture agreement must clearly state within its terms that each member of the joint venture is jointly and severally liable for all of the obligations of the joint venture itself with respect to completion of all work and services under the contract expected to result from the Solicitation.

e. The terms of the joint venture must detail, in terms of percentages, where appropriate, the relationship of the joint venture parties in terms of business ownership, capital contribution, and profit distribution or loss sharing.

f. Additionally, the joint venture agreement must specify who among the joint venture partners is authorized to

sign the Solicitation's Standard Form 1442, acknowledging the amendments to the Solicitation, if any, and binding the entire joint venture to its obligations under any contract which may result from the Solicitation.

**9. SUBCONTRACTORS**

- a. If an Offeror wishes to receive credit for the experience, key personnel or past performance of a subcontractor, including a firm that is a proposed subcontractor to the prime contractor or a joint venture partner, the Offeror must submit a letter of commitment to subcontract under the proposed project, signed both by the subcontractor and the Offeror.
- b. For purposes of this Solicitation, such a subcontractor shall be considered to be a “qualified subcontractor.”
- c. The commitment letter must be submitted even if the subcontractor is in some way affiliated with a joint venture partner (for example, the subcontractor is a subsidiary of a joint venture partner, or a subsidiary of a firm to which the joint venture partner is also a subsidiary).
- d. Include letters of commitment in Volume I, Factor 1, Experience.

**10. SPECIFIC INSTRUCTIONS FOR VOLUME 1 – TECHNICAL PROPOSAL**

- (1) Number of Sets of the Technical Proposal. Submit one (1) Technical Proposal.
- (2) Format and Contents of the Technical Proposal and List of Tabs. The original and all copies of the technical proposal will be appropriately labeled as such. Each technical proposal shall be organized using the tabs specified in the following chart.

TAB	CONTENTS OF THE TECHNICAL PROPOSAL	PAGE LIMITS
TAB 1 Factor 1	EXPERIENCE	5
TAB 2 Factor 2	KEY PERSONNEL	2 pages per resume
TAB 3 Factor 3	PAST PERFORMANCE	5

- (3) Page Limitations. The following page limitations are established for each factor described above:

- Factor #1, Experience – Limited to 5 pages (maximum of 5 forms)

Letters of Commitment from subcontractors (if applicable) will NOT count against your page limitation.

A Joint Venture agreement (if applicable) will NOT count against your page limitation.

- Factor #2, Key Personnel – Limited to 1 page for each resume
- Factor #3, Past Performance – Limited to 5 pages (maximum of 5 forms)

Letters of recommendation, commendations, evaluations and/or awards will NOT count against your page limitation.

Tables of content, proposal cover letters, and tabs between proposal information do not count toward any page limitations in the proposal.

### 11. SPECIFIC INSTRUCTIONS FOR VOLUME II – PRICE PROPOSAL

- (1) Number of Sets of the Price Proposal. Submit one (1) price proposal.
- (3) Format and Contents of the Price Proposal and List of Tabs. The Price Proposal shall be appropriately labeled and shall be organized and tabbed as indicated in the following chart.

	<b>CONTENTS OF THE PRICE PROPOSAL</b>
<b>TAB 1</b>	The Proposal Cover Sheet, to include the Offeror’s e-mail address, cell phone number, Name, Address, DUNS, CAGE and Tax Identification Number
<b>TAB 2</b>	The SF 1442 and Acknowledgement of all Amendments (signed and dated)
<b>TAB 3</b>	Section 00010, Pricing Schedule
<b>TAB 4</b>	Representations, Certifications, and Other Statements of the Offeror

- (4) Detailed Submission Instructions for the Price Proposal

**TAB 1:** The proposal cover sheet is required by FAR 52.215-1(2) (c) (i)-(v) and must be submitted by all Offerors. This provision, titled “Instructions to Offerors—Competitive Acquisition,” and the format for the proposal cover sheet are furnished at the end of this section.

**TAB 2:** The SF 1442, Solicitation, Offer, and Award is to be completed by the Offeror and duly executed with an original signature by an official authorized to bind the offeror in accordance with FAR 4.102. Any and all amendments must be acknowledged by the Offeror in accordance with the instructions on the Standard Form 30, Amendment of Solicitation.

**TAB 3:** Section 00010 is to be completed in its entirety by the Offeror. See Sections 00010 with attached notes, for further instructions.

**TAB 4:** The Offeror must complete the “Representations, Certifications, and Other Statements of Offerors” attached to this solicitation in Section 0600. If the Offeror has previously completed these forms electronically via the Online Representation and Certification Application (ORCA) website, please print and attach your completed ORCA forms. Otherwise, please complete Section 0600. If the Offeror is a joint venture, each joint venture partner or entity must complete and attach the “Representations, Certifications, and Other Statements of Offerors” forms for its own organization, in addition to the “Reps and Certs” forms completed and submitted on behalf of the joint venture offeror.

## 12. PROPOSAL FORMAT - VOLUME 1

### TAB 1: FACTOR 1 - EXPERIENCE

The Proposal must contain no more than five (5) projects using the attached Experience Information Form at the end of Section 00110, to contain the Offeror’s and or proposed team member’s experience performing work similar to that required in this solicitation. “**Same or Similar**” as referenced below, is defined as experience on projects that are the same or similar in size, scope, complexity and dollar magnitude as the project described in the solicitation.

\*\*\***EXPERIENCE reflects whether the Offeror’s and or proposed team members have performed the following work before.**

Demonstrate the experience of the Offeror and/or the proposed team, including sub-contractors and Joint Venture partners:

- The Offeror shall complete no more than five (5), Experience Information forms, attached at the end of Section 00110, in response to this factor. All blocks must be completed and all data must be accurate, current, and complete.
- At least two (2) of the projects submitted must be the **same or similar** to the project described in the solicitation
- All projects submitted **must be at least 50% complete.**
- At least one (1) of the projects submitted must be valued at or over \$150,000 **AND** must have been completed within the last 3 years. This project must be the **same or similar** to the project described in the solicitation.

### TAB 2: FACTOR 2 - KEY PERSONNEL:

The Offeror shall provide a Resume for the following Key Personnel:

Project Manager for Design/Construction  
Senior Electrical Engineer  
Senior Civil Engineer  
On-Site Construction Superintendent  
Safety Officer  
Quality Control Manager  
Project Scheduler with Scheduling Software experience (e.g., Primavera, Microsoft Project)

All Resumes must include the following information and may NOT exceed two (2) pages per Resume:

- Name and title
- Project positions held
- Name of firm
- Years of experience with this firm (in your field of expertise/discipline) **and** years of experience with other firms (in your field of expertise/ discipline)
- Education degree(s), year, and educational institution(s) which issued these degree(s)
- Active professional registration, year first registered, if applicable
- Other experience and qualifications relevant to same/similar work required under this contract
- List of projects in which the individual has worked to include Name of project(s) and project location(s)

The following key personnel must have educational degrees in required disciplines, listed below:

- Project Manager for Design/Construction – (Architectural or Engineering Degree)
- Senior Electrical Engineer – (Electrical Engineering Degree)
- Senior Civil Engineer – (Civil Engineering Degree)

The following Key Personnel shall have a minimum of five (5) years of professional experience in their field.

- Project Manager for Design/Construction

The following Key Personnel shall have a minimum of three (3) years of professional experience in their field.

- Senior Electrical Engineer
- Senior Civil Engineer

### **TAB 3: FACTOR 3, PAST PERFORMANCE**

The Proposal must include no more than five (5) projects using the attached Past Performance form at the end of Section 00110, representing the Offeror's relevant Past Performance. Relevant Past Performance is defined as past performance on projects that is the same or similar in size, scope, complexity and dollar magnitude as the project described in the solicitation.

**\*\*\*PAST PERFORMANCE describes how well the Offeror performed previous construction projects. Be sure to provide a summary in detail to prove past performance is in fact the same or similar in size, scope, complexity and dollar magnitude as described in the solicitation.**

Demonstrate the past performance of the Offeror and, if you wish, other members of the proposed team, if any, including sub-contractors and Joint Venture partners.

- The Offeror shall complete and submit no more than five (5) Past Performance forms (one (1) form for each project) attached at the end of the Section 00110 in response to this factor. Past Performance forms submitted must describe projects 50% completed within the last 3 years.
- The offeror shall provide its Data Universal Numbering System (DUNS) in Block 2. A DUNS number must be provided if the offeror possesses a DUNS number. If not, the offeror must state that it has no DUNS number.

- The Offeror is highly encouraged to also submit letters of recommendation, commendations, and/or awards on projects, which demonstrate construction experience, if available.

### 13. PROPOSAL FORMAT - VOLUME II

#### TAB 1: FACTOR 4 - PRICE

The Offeror’s prices shall contain all costs to complete the work contained in the Bidding Schedule that is part of this solicitation. The Offeror’s prices shall contain all costs including profit, all overhead (to include office and field overhead), labor burden, insurance, adjustments to listed prices, general and administrative expenses, subcontractor mark-up, mobilization and demobilization, and all other costs including, but not limited to, compliance with environmental laws, permits, preparation of reports, correspondence and documentation required by law or these specifications, tax laws, protection and/or moving of government property and engineering services. (Engineering services include those services that are incidental to construction, and completing submittals for construction work.) The prices shall also include costs necessary to interface with Government representatives, and coordination with occupants and other contractors as necessary. For more information see the Summary of Work.

Information to be provided in Volume II:

- Proposal Cover sheet (see instructions below)
- Offeror’s e-mail address and cell phone number
- Offeror’s name, Address, DUNS, CAGE and TAX Identification Number.
- SF1442, “Solicitation, Offer and Award”
- Any Amendments to the solicitation, signed and dated
- Completed Bidding Schedule, including the offeror’s proposed component prices.
- Representation and Certifications, Section 00600

#### Proposal Cover Sheet

<p>1. Solicitation Number:</p> <p>2. The Offeror’s name, address, land line and cell phone numbers (and electronic address if available):</p> <p>3. A statement certifying that the enclosed proposal conforms to all terms, conditions, and provisions of the solicitation and a promise to furnish all items and services at the fixed price which the offeror has set opposite each item or service, or a statement specifying any exceptions contained in the offeror’s proposal to the technical standards and cost/price standards set forth in the solicitation, including any exceptions to the requirements of this solicitation inherent in the Offeror’s standard terms and conditions.</p> <p>4. Names, titles, land line and cell phone numbers (and electronic addresses if available) of persons authorized to negotiate on the Offeror’s behalf with the Government in connection with this solicitation.</p> <p>5. Name, title, and <u>signature</u> of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of the agent’s authority to bind the offeror, unless that evidence has been previously furnished to the issuing office.</p> <p>6. Offeror’s e-mail address, cell phone number, Name, Address, DUNS, CAGE and TAX Identification Number.</p>
--

***EXPERIENCE INFORMATION***  
**(To be completed by Offeror)**

**1. Contractor:**

Address:

**2. Contract /Task Order(TO) /Purchase Order (PO) Number:**

**3. Contract/TO/PO Dollar Value:**

**4. Contract/TO/PO Status:**

**Active**    **Complete**

Percent (%) complete and scheduled completion date (if active):

Completion Date (if 100% complete):

**5. Project Title:**

**Prime**    **Subcontractor**

Location (City and Province):

---

**6. Project Description:**

Features of work that the Offeror completed, including a statement of the total dollar value of this work::

**PAST PERFORMANCE**  
**(To be completed by Offeror)**

**1. Contract /Task Order(TO) /Purchase Order (PO) Number:**

**2. Contractor Data Universal Numbering System (DUNS) #:**

**3. Contract/TO/PO Dollar Value:**

**4. Project Title:**

Location (City and Province):

Percent complete:

Date completed:

Was Project Completed on time (within schedule) and within cost?

---

**5. If you answered "No" above, provide a brief synopsis on corrective actions that were taken:**

---

**6. List Current/On-going Projects, Dollar Value, Contract number, percentage (%) complete:**

---

**7. Provide points of Contact (POC)/References (minimum of 2 required) for individuals the Government may contact at companies that are present or previous customers of the Offeror:**

Name:

Name:

Phone #:

Phone #:

e-mail:

e-mail:

Project:

Project:

(End of Section)



DESIGN PROCESS

**DESIGN PROCESS**

**1. GENERAL**

**1.1 DEFINITIONS**

For this specification, the term "Government" is defined as the Contracting Officer for the US Army Corps of Engineers, Afghanistan District North.

**1.1.1**

**(DB)**

**DESIGN / BUILD**

Facilities clearly identified in Section 01010 SCOPE OF WORK shall be designed and constructed as a design build process. These facilities have unique programs and require complete design by the Contractor's Designer of Record. The successful Offeror shall be required to complete the design and construction documentation – to include drawings, specifications and design analysis - and construct the project in compliance with these completed requirements.

**1.2 CONTRACTOR RESPONSIBILITIES**

The project shall be designed and constructed by a single Contractor as described herein.

The design analysis and contractor-developed drawings and construction specifications shall be submitted for review in accordance with Section 01335 SUBMITTAL PROCEDURES.

**1.3 CONTRACTOR TEAM MEMBERS**

The Contractor may be a single firm or a team of firms that includes registered Architects and Engineers either employed by or subcontracted to the Contractor. Licensing jurisdiction of Architects and Engineers of record shall be verifiable. The Contractor shall be the Architect/Engineer-of-Record for all work not associated with the furnished drawings, whether the contractor utilizes services of licensed architects and engineers employed by its firm or subcontracts with independent architectural and/or engineering firm(s). The Contractor shall be solely liable for design errors and/or omissions and should be insured as the A-E firm against design errors and omissions.

**2. DESIGN PROCESS**

**2.1 DESIGN PHASE**

The successful contractor shall develop and submit for formal review 65% Design Submittal plus the final Cleared for Construction Submittal as described in Section 01335 SUBMITTAL PROCEDURES. The Contractor is encouraged to develop and submit multiple cost saving proposals for innovative design alternatives. The Design Phase will consist of the following parts:

**2.1.1 PRECONSTRUCTION CONFERENCE**

A pre-construction conference will be conducted to distribute drawings to the Contractor, finalize and clarify technical information, and clarify other necessary information. This conference is described in Section 01060 SPECIAL REQUIREMENTS.

**2.1.2 GENERAL DESIGN SUBMITTAL (65%)**

100% complete Construction Drawings and Design Analysis. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout

construction. Complete design analysis, plans and specifications for any contract feature(s) that the Contractor would like Partial Clearance for Construction on once the 65% Design Submittal has been approved, including list of those Construction Submittal items requiring Government Approval (GA).

**2.1.3 CLEARED FOR CONSTRUCTION (100%)**

Construction Drawings, Documents and Design Analysis complete with all 65% comments incorporated.

**2.2 BUILD PHASE**

**2.2.1 CFC LETTER**

The Build Phase will be initiated by the issuance of a Cleared for Construction (CFC) letter by the Contracting Officer.

A CFC letter will be provided separately by the Contracting Officer for each phase of the work. The Government may give the Contractor authorization for the Build Phase for portions of the work following review and approval of each design submittal.

**2.2.2 COORDINATION MEETINGS**

Weekly coordination meetings will be held at which, as a minimum, the Contractor’s Project Manager, a representative of the Designer, the site Superintendent, and the Contractor’s Quality Control Manager shall be present.

**3. PROJECT SCHEDULE**

The following is an internal design schedule and is subject to modification by the Offeror to suit their particular method of operation. The design submittal milestones are described in Section 01335 SUBMITTAL PROCEDURES. Overall time constraints are required and cannot be changed except by contract modification. The successful contractor shall be required to submit a complete schedule for design and construction that meets or exceeds the overall time goals of the Government for this project.

<b>Notice to Proceed (NTP)</b>	<b>Following Written Notification of Contract Award</b>
Design Phase Basic Services Pre-construction Conference	Within 7 days from NTP
Project Schedule	Within 14 days from NTP
65% Design Submittal	Within 25 days following NTP
65% Design Conference / Approval	10 days following NTP
100% Clear for Construction Design Submittal	45 days following NTP
100% Design Conference/Approval	52 days following NTP
Total Design and Construction Period	180 days - (performance period includes design and construction activities)

***All days are in calendar days.***

**--END OF SECTION--**

DESIGN CONCEPT DOCUMENTS

**DESIGN CONCEPT DOCUMENTS**

**4. GENERAL**

This section defines documents issued with this Request for Proposal which establish the conceptual basis for the project design. These requirements are minimum standards and may be exceeded by the Offeror. Deviations from these concepts and standards may be approved if considered by the Government to be in its best interests.

The extent of development of these requirements in no way relieves the successful Offeror from the responsibility of completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes identified in Section 01015 TECHNICAL REQUIREMENTS as well as Appendix A-2.

**4.1 ENGINEERING AND DESIGN CRITERIA**

**4.1.1 UNIFIED FACILITY GUIDE SPECIFICATIONS**

General design requirements are set forth in this Request for Proposal herein. The most current Unified Facility Guide Specifications (UFGS), Divisions 02 thru 48, shall be used for the design and construction of the project.

**4.1.2 COMMERCIAL DESIGN CRITERIA**

All design, unless otherwise specified, shall be based on nationally recognized industry standard, criteria, and practice. Necessary references must be obtained by the Contractor or the subcontracted Designer of Record if the criteria are required or desired. For commercial design criteria refer to the Construction Criteria Base (CCB) or TechInfo website located at:

<http://www.wbdg.org/ccb/>

**4.1.3 AED-N DESIGN DOCUMENTS**

Design criteria furnished by the Afghanistan Engineer District – North will be limited to that which may be required for design and is not available from commercial sources. This includes documents published by the Government such as Technical Manuals (TM), Engineer Manuals (EM), and Engineer Technical Letters (ETL).

Additionally, design criteria specific to the region and developed for this Contract are available on the AED-N website located at:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

**4.1.4 APPENDIX DOCUMENTS**

See Section 01015 TECHNICAL REQUIREMENTS and attached Appendices for further technical requirements, criteria, and parameters that are a part of this contract.

#### **4.1.5 SPECIFICATIONS**

Specifications included herein shall be utilized as design criteria and minimum standards for the corresponding construction work. The successful Offeror shall develop complete construction specifications using the criteria included in these specifications.

The Government will provide Division 1 specifications sections, as required, to the successful Offeror; these sections shall be included in the final construction specifications without change. The Contractor shall furnish these specifications on electronic media for the production of construction specifications when requested.

These specifications shall be submitted together with other required contractor prepared project construction documents in accordance with Section 01335 SUBMITTAL PROCEDURES.

#### **4.2 ORDER OF PRECEDENCE**

In case of conflict, duplication, or overlap of design criteria specified in the documents referenced in this section, the following order of precedence shall be followed:

1. Contract Award Document and referenced publications therein;
2. Written requirements and specifications;
3. Drawings.

#### **4.3 MANDATORY CRITERIA**

Portions of the design criteria documents provide mandatory criteria. Mandatory criteria consists of drawings, schematics, specifications, and other requirements which shall not be altered or modified for proposal submittal or subsequent final design except for minor adjustments for coordination or except for cost reduction proposals as specified in Section 00800 SPECIAL REQUIREMENTS, Paragraph "Design Process." Mandatory requirements are as listed below:

1. Work Plan;
2. Boundary survey plan;
3. Topographic survey plan.

#### **4.4 NON-MANDATORY CRITERIA**

Non-mandatory criteria shall be considered minimum requirements and may be enhanced, improved, or substituted to better suit design requirements or to improve evaluation consideration. All other design criteria not listed above shall be considered non-mandatory.

#### **4.5 ELECTRONIC MEDIA**

Conversion of electronic media to other formats shall be the responsibility of the Contractor.

**-- END OF SECTION --**

SECTION 01010

SECTION 01010

SCOPE OF WORK

## 5. GENERAL

The project consists of the third floor addition to an existing two story building. The Contractor must provide the third story addition according to the attached plans. It should be made of connexes of the same size as the existing two floors and finished according to the technical requirements of this document. In addition, the Contractor to provide a sprinkler system for the entire building (new floor and existing floors).

The building is located within the Qalaa House Compound in Kabul, Afghanistan.

The project is defined as the design, material, labor and equipment to construct the third story addition and connection to the existing building utilities as required, providing a complete and useable facility. The work within this contract shall be constructed per codes and technical criteria referenced in Section 01015.

### Coordination with Occupants of Existing Buildings

The Contractor shall identify all occupants of existing buildings within the construction boundary and hold a meeting with them to discuss, at a minimum, the scope of the project, access to the existing buildings during construction, impacts to utilities, site security and construction safety precautions. During this meeting, the Contractor shall solicit comments and concerns about the project.

The Contractor shall provide meeting minutes to the Contracting Officer's Representative within seven (7) days after the meeting. Meeting minutes shall include, at a minimum, name, position title and phone number of those in attendance; and a record of issues that were discussed and proposed solutions to the issues.

It is the responsibility of the contractor to have visited the site prior to submitting its proposal for the project and to have gained a good understanding of the project and its requirements, including grading and drainage details necessary to appropriately submit its proposal and construct the project.

### 1.1 PRE-BID SITE VISIT

Bidders are invited to a site visit to be conducted on 23 June 2011 at 10:00 AM.

Each bidder will be allowed to have no more than 2 representatives attend the site visit. Bidders who intend to visit the site during this scheduled time shall respond by email to [scott.barnhart@usace.army.mil](mailto:scott.barnhart@usace.army.mil) and [phil.e.benge@usace.army.mil](mailto:phil.e.benge@usace.army.mil) with the following information for each person attending the site visit:

- \* Scan of Tazkira
- \* Tazkira Number
- \* Province and District of Residence
- \* Name of company represented

Please send the Government the requested information no later than 8:00 am on 23 June 2011 for processing.

Bidders should make their way to Qalaa House at their own expense well before the scheduled time and be prepared to go through security.

Visitors will pass thru security and then be escorted by the Government Representative to the meeting site.

Time: 10:00 am

Date: 23 June 2011

Visitors shall bring:

- \* Tazkiras or Passport if not an Afghan citizen
- \* Closed toe shoes to wear on site
- \* Two persons maximum per group

Not Allowed:

- \* Cell phones with cameras or digital cameras
- \* Laptop or portable computers

## 5.2 ENGLISH LANGUAGE REQUIREMENT

All information shall be presented in English. The Contractor shall have a minimum of one English-speaking representative to communicate with the COR at all times when work is in progress.

## 5.3 SUBMITTALS

Submittals and a Submittal Register are required as specified in Section 01335 SUBMITTAL PROCEDURES of the Contract.

## 5.4 CQM TRAINING REQUIREMENT

See Section 01451 paragraph CQM TRAINING REQUIREMENT for Contractor's Quality Control Manager training requirements..

The contractor's quality control plan, as defined in USACE Guide Specification 01451 (or 01 45 04.00 10), entitled "Contractor Quality Control", must include "The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function." For the QC Manager, qualifications must include a certificate demonstrating completion of an approved CQM course.

## 5.5 ELECTRICAL WORKER QUALIFICATIONS

All electrical work shall be performed by Journeymen Electricians and supervised by one Lead Electrician. Apprentice Electricians are allowed to assist the Journeymen, but the ratio of Journeymen to Apprentices shall not exceed 1:3.

Lead Electrician

U.S. Master Electrician Certification or License OR  
"Technician Grade" as defined by U.K.'s Joint Industry Board

Journeyman Electrician

U.S. Journeyman Electrician Certification or License OR  
"Approved Electrician" as defined by U.K.'s Joint Industry Board

Apprentice Electrician

Proof of Completion of an Electrical Safety Course AND  
Proof of completion of an Electrical Code Class (NEC or BS7671) AND  
Graduate of an Approved Trade School

The Lead electrician must be on site at all times during electrical installations and be capable of installing as well as directing the installation of all electrical work in compliance with the governing Code.

## 6. LOCATION

The site is located in Qalaa House, Kabul, Afghanistan.

## 7. UNEXPLODED ORDNANCE (UXO)

### 7.1 UXO REMOVAL AND CLEARANCE

Contractor IS NOT responsible for clearance/removal of mines and unexploded ordnance (UXO) from the site prior to construction.

## 8. CONTRACTOR REQUIREMENTS

The contractor shall design and construct the facilities as a Design-Build contract and shall be in accordance with the requirements stated in this document, Section 01015 TECHNICAL REQUIREMENTS, Section 0555 DESIGN CONCEPT and drawings.

### 8.1 SITE PLANNING

The Contractor shall plan all work for the project based on the concept planning sketch that is provided as part of this RFP. Concept drawings provided are only concepts; the Contractor must verify the logistics, equipment requirements, and space requirements for adding the 3<sup>rd</sup> floor addition.

#### 8.1.1 SITE PREPARATION AND GRADING

Minor site demolition is required prior to construction of new work. Minor grading at the site is required to ensure positive slope away from the buildings. For new stairs concrete slab is required. The existing roof should be dismantled and securely stored on a site for reinstallation.

### 8.2 ELECTRICAL SYSTEM

The contractor shall construct all electrical systems for the facilities to be provided. This includes all necessary labor, equipment, and material for a fully functional system. Design of electrical systems shall be as required below.

Utilization voltage/frequency for this project shall be 400Y/230V, 50Hz., 3 phase, 5 wire (4 wire plus circuit protective conductor using 5 wire TN-S), designed and constructed in compliance with BS 7671 Requirements for Electrical Installations, Institution of Electrical Engineers (IEE), Wiring Regulations, Seventeenth Edition. Design of electrical systems shall comply with AED-N Electrical Design Requirements.

#### 8.2.1 SOURCE OF POWER

The source of power for this contract is the existing MDP7 (Square D 400A bus, 400A main). A 200A subfeed breaker in MDP7 currently feeds the Essayons House through a 200A feeder. This existing breaker and feeder shall be replaced with a new 250A breaker and 250A feeder. The Essayons House Panelboard (Afghan-built 250A bus, 250A main) currently has a space for a subfeed breaker to feed the 3<sup>rd</sup> floor. The contractor shall provide and install a new 100A breaker in the existing space, which will feed a new 100A panelboard, installed on the 3<sup>rd</sup> floor.

## 8.2.2 INTERIOR ELECTRICAL SYSTEM

Interior electrical systems shall be designed and constructed by the Contractor and include, but are not limited to: interior secondary power distribution system, lighting and power branch circuits, smoke alarm system, communications, and grounding system. All systems shall be designed for the ultimate demand loads, plus 25% spare capacity.

**Sleeping Rooms:** Provide load center panel, lighting, receptacles, 2 dual-port communication outlets, and a smoke alarm. Sleeping rooms shall have two 600mm x 600mm fluorescent lights with four 18-watt lamps.

**Toilet/Shower Rooms: Waterproof Light Fixtures:** Provide two (2) light fixtures, one ceiling-mounted for general room illumination, and one vanity light wall-mounted centered above the mirror. Exhaust fan shall be controlled by a switch next to the light switch. All conduit in the toilet/shower room shall be surface-mounted PVC. All circuits entering the toilets/latrines/ showers shall be RCBO protected which includes exhaust fans and lighting circuits.

The contractor shall remove all existing lighting fixtures on 2<sup>nd</sup> floor where existing hard ceiling is being replaced with suspended ceiling. These existing fixtures are allowed to be used on the new 3<sup>rd</sup> floor. In every location where an existing light is removed on the 2<sup>nd</sup> floor, a new fixture (suitable for the suspended ceiling) shall be installed.

Existing surface mounted conduit (and the respective branch circuitry and fire alarm circuitry within the conduit) shall be relocated to accommodate the new suspended ceiling.

The conceptual drawings provided are "for information only," and not for construction. However, these drawings are allowed to be used as the basis of design.

## 8.3 GENERAL REQUIREMENTS FOR FACILITIES

All standard construction amenities and details such as heating, lighting, plumbing and IT connections, shall be implied as a design and construction requirement. Drawings and references are provided in Section 01015 and Appendices.

In general, this project consists of designing and constructing of the 3<sup>rd</sup> story addition, sprinkler system for the entire building, additional stairs and reinstallation of a roof with additional extension.

## 8.4 3RD STORY ADDITION MINIMUM REQUIREMENTS

New 3<sup>rd</sup> story addition shall have an overall total nominal lengths and widths as shown on the drawings.

It is the Contractor responsibility to manufacture single units, deliver and assemble them. The minimum clear height in all rooms to be 2300 mm (7'-6") unless specified otherwise.

### 8.4.1 STRUCTURAL

All new and existing connex-to-connex and connex-to-foundation connections shall be designed and constructed to resist the lateral loads (wind and seismic) described in Section 01015 TECHNICAL REQUIREMENTS. The Contractor shall submit the design analysis and construction details for all these connections. Existing connections may require strengthening or replacement to meet these load requirements. Connex-to-connex connections shall be bolted; no welding will be allowed.

The corner lugs of each new 3<sup>rd</sup> story connex shall align with the 2<sup>nd</sup> story connex below. Where the bottom rail of each 3<sup>rd</sup> story connex crosses hallway, the rail shall be shimmed to the top of the existing connex below with steel plates.

The existing roof trusses shall be salvaged and reused for the new roof if they are in good condition. Damaged roof trusses shall be replaced with new light-gauge steel trusses designed and constructed per Section 01015 TECHNICAL REQUIREMENTS.

The new stair shall be a concrete-filled pan tread and steel structure designed and constructed to connect to the existing stair structure. The existing stair structural members shall be analyzed for the existing plus the new gravity (dead and live) loads and lateral (wind and seismic) loads. Where the existing structural capacities are exceeded by the new plus existing load demands, the stair structure shall be retrofitted to provide enough capacity to resist all loads described in Section 01015 TECHNICAL REQUIREMENTS.

#### 8.4.2 ARCHITECTURAL

**General:** All connexes to be factory built according to the plans of this document. They should be delivered to the construction site with only minor fitting. Finishes and field connections to existing building utilities to be accomplished after delivery.

The existing roof which needs to be first disassembled and stored on site. After the additional floor is done it needs to be assembled again. The work must include reinstallation of gutters and downspouts (they need to be replaced if damaged during disassembly process). Proper extension of downspouts is required.

Since the building is presently occupied it is of utmost importance to limit any works done on site minimizing the hardship of the occupants. It is the Contractor responsibility to provide necessary temporary protection of the building allowing uninterrupted use of it. The same goes for all the utility connections. Any interruption of their use need to be scheduled and approved in advance by KOR.

**Individual Rooms and General Areas:** They should be done in the same manner and with the same type of finishes as the existing two floors. The Contractor shall provide the furniture as part of this project. Every room to receive:

- Two single metal beds and mattresses
- Wooden desk with shelf and office chair
- Two wooden wardrobes
- Two wooden nightstands

The Contractor to provide samples of all furniture for the KOR approval. They should be of the same size and quality as the furniture supplied for the existing 1<sup>st</sup> and 2<sup>nd</sup> floor.

All rooms to have a sound insulation in the floor and between the walls. All the exterior doors to be metal, all interior doors to be solid core wood or hollow metal. All bathroom doors and all exterior windows to be PVC. Provide sample colors of all finishes for the KOR approval.

Works for existing 1<sup>st</sup> and 2<sup>nd</sup> story and new 3<sup>rd</sup> story:

Provide one janitor's closet per floor, 1600 mm x 550 mm, with double hollow door. See the Floor Plans for location.

Tear out the hard ceiling in all Bathrooms, Laundry Room and Comm Room on the 2<sup>nd</sup> Floor. Replace the ceiling with suspended type. Provide moisture resistant tiles. Do not provide ceiling replacement in the Comm Room

Provide closet around the Sprinkler Pipe – 1st floor only. The closet to have lockable single door.

Bathroom : Each Bathroom will have the following Items installed:

Western Style Toilet, floor mounted (1ea)  
Lavatory Sink (1ea)

Mirror 600 mm x 900 mm (1ea)  
Shower with 900 mm x 900 mm glass enclosure min (1ea)  
Soap and shampoo holder in the shower unit (1ea)  
Stainless shelf, 150 mm x 600 mm, one above sink and two above toilet (3 ea) Towel bar (1 ea)  
Toilet paper dispenser (1ea)  
Paper towel dispenser (1ea)  
Robe hooks (2 ea)

#### 8.4.3 MECHANICAL

**Heating Venting and Air Conditioning:** Provide wall-mounted split-pack heat pump units, exhaust fans, and louvers as shown on the drawings and per the requirements stated in Section 01015.

**Water supply and Water Heaters:** Provide complete domestic water system, waste and vent system, and water heater for the third floor addition, all as shown on the drawings and in accordance with the requirements stated in Section 01015.

#### 8.4.4 IM

**Communications:** contractor shall install non-metallic surface raceway system sized and constructed to support the communications requirement. . See section 01015 for detailed communication requirements.

#### 4.4.6 Miscellaneous

**Fire Extinguishers:** Provide Portable fire extinguishers, one for each end of the corridor. Extinguishers will be of the multi-purpose dry chemical type.

Provide complete fire suppression sprinkler system throughout the entire building, to include existing construction and new addition.

#### 9. COMPLETION OF WORK

See Section 0150 Design Process for performance schedule.

#### 10. REFERENCES

Refer to Section 01015 for required references.

END OF SECTION

SECTION 01015

SECTION 01015

TECHNICAL REQUIREMENTS

## **11. GENERAL**

### **11.1 COMPLIANCE**

New addition made from connexes shall comply with technical requirements herein.

### **11.2 ASBESTOS CONTAINING MATERIALS**

Asbestos containing material (ACM) shall not be used.

### **11.3 LIST OF CODES AND TECHNICAL CRITERIA:**

The following codes and technical criteria and those referenced therein shall be required for this project. References within each reference below shall be required and adhered to. If there is conflict in the criteria the most stringent requirement shall be applied. The publications to be taken into consideration shall be those of the most recent editions.

ACI 318 Building Code Requirements for Structural Concrete (latest edition), American Concrete Institute

American Institute of Steel Construction (AISC), Specifications for Structural Steel Buildings (latest edition)

ARI - Air Conditioning and Refrigeration Institute

ASCE 7, Minimum Design Loads for Buildings and Other Structures (latest edition)

ASME - American Society for Mechanical Engineering

ASTM - American Society for Testing and Materials

AWS D1.1, Structural Welding Code – Steel (latest edition), American Welding Society

BS 7671 Requirements for Electrical Installations, IEE, Wiring Regulations, Seventeenth Edition

EIA ANSI/TIA/EIA-607: (1994) Commercial Building Grounding/Bonding Requirement Standard

IBC - International Building Codes, 2006 edition (and its referenced codes including those inset below)

IEEE C2, National Electrical Safety Code (NESC), latest edition

IMC – International Mechanical Code, latest edition

IPC – International Plumbing Code, latest edition

Lighting Handbook, IESNA, latest edition

NFPA 70, National Electrical Code, 2008 edition

NFPA 101, Life Safety Code, 2009 edition

UFC 3-310-01, Structural Load Data

UFC 3-310-02A, Structural Design Criteria for Buildings

UFC 3-420-01, Plumbing Systems Design, latest edition

UFC 3-501-01, Electrical Engineering, 3 Feb 2010

UFC 3-520-01, Interior Electrical Systems, 3 Feb 2010

## **12. SITE DEVELOPMENT**

### **12.1 GENERAL**

The project includes furnishing all materials, equipment and labor for constructing electrical, water, communication, sanitary sewer and storm sewer service lines, as applicable, and connecting to the existing utility networks.

### **12.2 ENVIRONMENTAL PROTECTION**

#### **12.2.1 APPLICABLE REGULATIONS**

The Contractor shall comply with all Host Nation laws, rules, regulations or standards concerning environmental pollution control and abatement with regard to discharge of liquid waste into natural streams or manmade channels. The contractor shall review host nation and U.S. Government environmental regulations with the contracting officer prior to design and discharge of any liquid wastes into natural streams or manmade channels.

#### **12.2.2 NOTIFICATION**

The Contracting Officer will notify the Contractor in writing of any observed non-compliance with the foregoing provisions. The Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or damages will be awarded to the Contractor unless it was later determined that the Contractor was in compliance.

#### **12.2.3 SPILLAGES**

Measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, and construction materials from polluting the construction site and surrounding area.

#### **12.2.4 DISPOSAL**

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be taken to a dumpsite off site and subject to the approval of the Contracting Officer. Burning at the project site for the disposal of refuse and debris will not be permitted.

#### **12.2.5 DEMOLITION**

Do not begin demolition until authorization is received from the Contracting Officer. Contractor shall be responsible for locating and protecting from damage the existing utilities that are located in the construction area. All refuse and debris shall be disposed of site.

## **13. STRUCTURAL**

### **13.1 DESIGN**

Design shall be performed and design documents signed by a registered professional engineer. Calculations shall be in SI (metric) units of measurements. All components of the structures shall be

designed and constructed to support safely all loads without exceeding the allowable stress for the materials of construction in the structural members and connections.

### 13.2 STANDARDS

The Contractor shall use the following American standards to provide sound structural design if local standards are not available, relevant, or applicable. The Contractor shall follow American Concrete Institute Standards (ACI) for design and installation of all concrete structures.

#### STRUCTURAL CONCRETE

Concrete	ASTM C 39 and ACI 318; 28 MPa ( $f'_c = 4,000$ psi) minimum specified compressive strength @ 28 days
Water-cement ratio	0.45 (maximum)
Steel Reinforcement	Deformed bar ASTM A 615 (ASTM A 706 if bar is welded); 420 MPa ( $F_y = 60$ ksi) yield strength
Welded Wire Fabric	ASTM A 185
Anchor Bolts	ASTM F 1554; Grade 36 steel
Non-Shrink Grout	35 MPa (5000 psi) min compressive strength at 28 days, ASTM C827

#### STRUCTURAL STEEL

Plates, Shapes & Bars	ASTM A 36; 250 MPa ( $F_y = 36,000$ psi) minimum yield strength
Hollow Sections	ASTM A 500; Grade B
Sheets	ASTM A 653; Grade 340 (50), Class Z275 (G90) for galvanized coating
High Strength Bolts	ASTM A 325
Bent Bolts	ASTM A 307
Welding	AWS D1.1 (American Welding Society)

### 13.3 DEAD AND LIVE LOADS

Floor live loads used for design shall be 2.0 kPa. Stair live loads used for design shall be 5.0 kPa. Dead loads consist of the weight of all materials of construction incorporated in the buildings. The weight of the over head protection roof must be included in the load calculations.

### 13.4 WIND LOADS

Wind Loads shall be calculated using a "3-second gust" wind speed of 135 km/hr.

### 13.5 SNOW LOADS

Snow Loads shall be calculated using a Ground Snow Load of 1.5 kPa.

### 13.6 SEISMIC

The building and all parts thereof shall be designed for the seismic requirements as defined by the International Building Code referenced herein.

Spectral ordinates shall be  $S_s = 1.28g$  and  $S_1 = 0.51g$ .

### **13.7 STRUCTURAL CONCRETE**

#### **13.7.1 GENERAL**

Concrete structural elements shall be designed and constructed in accordance with the provisions of the American Concrete Institute, Building Code Requirements for Structural Concrete, ACI 318.

#### **13.7.2 CONCRETE PLACING AND CURING**

Where concrete is cast-against and exposed to soil, a minimum concrete cover over reinforcement of 75 mm (3 inches) shall be provided.

No concrete shall be placed when the ambient air temperature exceeds 32 degrees C (90 degrees F) unless an appropriate chemical retardant is used. In all cases when concrete is placed at 32 degrees C (90 degrees F) or hotter it shall be covered and kept continuously wet for a minimum of 48 hours. The curing requirements and recommendations in ACI 308 - Guide to Curing Concrete shall be followed for all temperature conditions. Methods for mitigating the effects of cold weather on concrete curing may include heaters, blankets, and/or cold-weather-specific concrete admixtures. The contractor shall submit to AED plans for placing and curing concrete during cold weather (per ACI 306 - Cold Weather Concreting) and hot weather (per ACI 305 - Hot Weather Concreting).

### **13.8 STRUCTURAL STEEL**

Structural steel shall be designed and constructed in accordance with the provisions of American Institute of Steel Construction (AISC), Specifications for Structural Steel Buildings. Design of cold-formed steel structural members shall be in accordance with the provisions of American Iron and Steel Institute (AISI), Specifications for Design of Cold-Formed Steel Structural Members.

### **13.9 METAL DECK**

Deck units shall conform to SDI Publication Number 29. Panels of maximum possible lengths shall be used to minimize end laps. Deck units shall be fabricated in lengths to span three or more supports with flush, telescoped or nested 50 mm (2 inch) laps at ends, and interlocking, or nested side laps. Metal deck units shall be fabricated of steel thickness required by the design and shall be galvanized.

### **13.10 FOUNDATIONS**

New stair foundations shall be reinforced concrete spread footings and shall be designed based on an allowable soil bearing pressure of 0.5 kg/sq. cm. Foundation subgrade shall be compacted to 95% dry density.

No foundation work is required on the existing connex foundations.

### **13.11 EARTHWORK AND FOUNDATION PREPARATION**

#### **13.11.1 CAPILLARY WATER BARRIER**

ASTM C 33 fine aggregate grading with a maximum of 3 percent by weight passing ASTM D 1140, 75 micrometers, No. 200 sieve, or 37.5mm and no more than 2 percent by weight passing the 4.75mm No. 4 size sieve and conforming to the soil quality requirements specified in the paragraph entitled "Satisfactory Materials."

### 13.11.2 SATISFACTORY MATERIALS

Any materials classified by ASTM D 2487 as GW, GW-GM, GW-GC, SW, SW-SM, or SW-SC and free of debris, roots, wood, scrap material, vegetation, refuse, soft unsound particles, or objectionable materials. Unless specified otherwise, the maximum particle diameter shall be one-half the lift thickness at the intended location.

### 13.11.3 UNSATISFACTORY MATERIALS

Any materials which do not comply with the requirements set forth in the Satisfactory Materials paragraph. Unsatisfactory materials also include man-made fills, trash, refuse, or backfills from previous construction. Unsatisfactory material also includes material classified as satisfactory which contains root and other organic matter, frozen material, and stones larger than 75mm. The Contracting Officer shall be notified of any unsatisfactory materials.

### 13.11.4 CLEARING AND GRUBBING

Unless indicated otherwise, remove tress, stumps, logs, shrubs, brush and vegetation, and other items that would interfere with construction operations within lines 1.5 meters outside of the building and structure line. Remove stumps entirely. Grub out matted roots and roots over 50mm in diameter to at least 460mm below existing surface.

## 14. ARCHITECTURAL REQUIREMENTS

### 14.1 CONNEX SIZING

All new connexes to be the same size as the existing first and second floor connexes. See structural requirements section for additional information.

### 14.2 CONSTRUCTION

Contractor shall furnish all labor, materials and equipment, and perform all operations necessary to fabricate fully finished units and to deliver them to the construction site with only minor fittings, finishes, and connections to site utilities to be accomplished in the field. The units should be weather tight from the factory through the delivery and installation process.

### 14.3 THERMAL PERFORMANCE OF EXTERNAL BUILDING ASSEMBLIES

Insulation is required for the floors, exterior walls and roof, required R values shown below.

Exterior walls (above grade)	RSI 2.280 (R 13)
Ceilings/roof	RSI 5.284 (R 30)
Floor (under first floor)	RSI 3.346 (R 19)
Exterior doors	RSI 0.252 (R 1.43)
Exterior windows/(glazing within doors)	RSI 0.308(R 1.75)

### 14.4 ROOFING

Roofs shall be built with at least a 15 percent slope, or as tested for adequate drainage. On sloping roofs provide and install 0.75 mm (22gauge) galvanized steel in either corrugated, standing seam or manufacturer's standard design. Roofing system shall include all edge, ridge and penetration flashings

necessary for a watertight installation. Provide roof space ventilation as needed. The existing roof should be disassembled for the erection of the third floor and assembled again. Additional roof extensions and canopies to be done with the same materials as the existing roof. See next paragraph for overhead protection requirements for roof.

#### **14.4.1 OVERHEAD PROTECTION**

The Overhead Protection Roof consists of corrugated metal roof that is 22 gauge minimum over a minimum of 25mm plywood attached to the sloped roof structure. The roof system covers a protective layer of 2 sandbags with minimum over all depth of 140mm on top of a 30mm layer of concrete/mortar that is embedded with wire mesh over a metal deck of connex roof.

#### **14.5 INTERIOR WALLS**

The Contractor may offer prefinished panels or Gypsum Wall Board (GWB) for interior wall finishes. Toilet room walls shall be tiled, painted moisture resistant GWB, or prefaced moisture resistant panels.

All wall to floor transitions and wall to ceiling transitions shall be finished with trim for a finished appearance.

Walls between sleeping rooms shall have a Sound Transmission Class (STC) minimum 45 or better. For 16 mm (5/8 ") thick gypsum board structural fastener supports shall be not further apart than 400 mm. All GWB surfaces shall be painted.

#### **14.6 FLOORING**

Floors in living quarters, and all rooms unless otherwise stated, shall be 200 mm x 200 mm ceramic tiles.

Color of tile shall be selected by the Contracting Officer from samples provided by the Contractor.

Floors in wet areas (toilet rooms) shall be 200 mm x 200 mm ceramic tile.

Tile shall be 200 mm x 200 mm ceramic tile with thin set mortar joints shall be 2-3 mm. Waterproof gray grout shall be applied the full depth of the tile. Floors shall slope, minimum 1/50, to floor drains. Slope shall be obtained with sloping mortar bed of minimum 20 mm thickness. Provide continuous waterproofing membrane beneath sloping mortar bed, turn up wall 300 mm behind wall base. Membrane shall be fully sealed at joints and shall shed water into body of floor drain. Color of tile shall be selected by the Contracting Officer from samples provided by the Contractor.

#### **14.7 CEILINGS**

The Contractor may offer prefinished panels, GWB, or painted metal liner panels for the ceilings.

For 16 mm (5/8") thick gypsum board structural fastener supports shall be not further apart than 400 mm. All GWB ceilings shall receive paint finish. Paint used for ceiling finish shall be approved by COR.

#### **14.8 DOORS AND JAMBS**

Exterior doors are to be single 900 mm x 2100 mm metal doors with factory paint finish. Door jambs shall extend from the bottom end transverse member to the top end traverse member and shall be welded to each with a continuous bead around the jamb. Each door shall have a hardware set of weather stripping, exterior sill, lever-handle latch, thumb-knob lock from inside, key lock exterior. Interior doors may be solid core wood doors, or hollow metal doors with acoustical insulation. All frames should be hollow metal frames. All bathroom doors and mechanical room door should be 900mm PVC doors in PVC frames or hollow metal frames. Provide louvers for all bathroom and mechanical room doors (400 mm wide x 300 mm height).

All exterior doors (except Mech/Elect rooms) shall be provided with manufactured metal thresholds conforming to ANSI/BHMA A156.21. Thresholds shall span continuously from jamb to jamb.

Commercial duty lock sets and hardware shall be used on all doors. Hinges shall be the 5 knuckle type or equivalent. Provide door handles and locksets that can be locked with a key on all doors. All door locks shall have a thumb latch on inside of door such that no key is necessary to exit the room or building. Provide numbering system identifying key to associated room door.

Exterior doors shall have top edge closed flush and sealed to prevent water intrusion. Doors shall be 44.5 mm thick, unless otherwise indicated. Doors shall be constructed using heavy gauge steel with minimum thickness of 1.2 mm.

#### **14.8.1 STEEL FRAMES**

Form frames to sizes and shapes indicated, with welded corners or knock-down field-assembled corners.

Continuously weld frame faces at corner joints. Mechanically interlock or continuously weld stops and rabbets. Grind welds smooth.

#### **14.8.2 STOPS AND BEADS**

Form stops and beads from 0.9 mm thick steel. Provide for glazed and other openings in standard steel frames. Secure beads to frames with oval-head, countersunk Phillips self-tapping sheet metal screws or concealed clips and fasteners. Space the fasteners approximately 300 to 400 mm on centers. Miter molded shapes at corners. Use butt or miter square or rectangular beads at corners.

#### **14.8.3 WEATHER-STRIPPING, INTEGRAL GASKET**

Provide weather-stripping that is a standard cataloged product of a manufacturer regularly engaged in the manufacture of this specialized item. Black synthetic rubber gasket with tabs for factory fitting into factory slotted frames, or extruded neoprene foam gasket made to fit into a continuous groove formed in the frame, may be provided in lieu of head and jamb seals. Weather stripping shall be looped neoprene, synthetic rubber gasket, or vinyl held in an extruded non-ferrous metal housing.

#### **14.8.4 KEYING SYSTEM & LOCK CYLINDERS**

Master key system shall be used for all locks and three copies of the master key shall be provided. Each door shall have a different key and three copies for each key shall be provided. Cylinders: Lock cylinders shall comply with BHMA A156.5. Lock cylinder shall have six pins. Cylinders shall have key removable type cores. All locksets, exit devices, and padlocks shall accept same interchangeable cores.

#### **14.8.5 FINISHES**

All surfaces of doors and frames shall be thoroughly cleaned, chemically treated and factory primed with a rust inhibiting coating as specified in SDI A250.8, or paintable A25 galv-annealed steel without primer. Where coating is removed by welding, apply touchup of factory primer. Provide door finish colors as selected by the Contracting Officer from the color selection samples.

#### **14.8.6 WATER-RESISTANT SEALER**

Provide a water-resistant sealer compatible with the specified finish as approved and as recommended by the door manufacturer.

## **14.9 WINDOWS**

Minimum window opening size shall be 900mm (3') high X 760mm (2' – 6") wide with bottom of window sill at 1,100mm (42") above finish floor. Minimum clear opening of .53 square meters as a result of normal operation of the window. It means unobstructed by window frame and sash area has to be equal or bigger than .53 square meter.

### **14.9.1 ALUMINUM EXTRUSIONS**

Provide alloy and temper recommended by the window manufacturer for the strength, corrosion resistance, and application of required finish, meeting the DIN 1725 raw material requirements, but not less than 215 N/mm<sup>2</sup> ultimate tensile strength and not less than 1.5 mm thick at any location for main frame and sash members. Wire Fabric Insect Screen shall be permanently fixed to the exterior of operable windows.

Factory finish or apply baked enamel in compliance with paint manufacturer's specifications for cleaning, conversion coating, and painting. Color shall be white.

Note: At the contractor's option extruded PVC windows may be provided in lieu of aluminum windows. Color shall be white.

### **14.9.2 GLAZING**

Insulated glazing units shall be installed in each window with the inner pane a minimum 6mm laminated safety glass. All glazing shall be double laminated and insulating. Laminated glazing shall be constructed of two panes of minimum 3 mm annealed glass laminated to a minimum 0.75 mm polyvinyl-butryal (PVB) interlayer to achieve nominal thickness of 6 mm minimum. Two panes of laminated glazing shall be installed in each window with hermetically sealed 13 mm airspace between them. After installation of windows, the contractor shall install a minimum 3 mil tinted film (Scotch Shield Ultra Safety and Security Window Film or approved equal) to the inside face of the glazing in accordance with manufacturer's instructions.

### **14.9.3 SEALANT**

Sealant shall be elastomeric, chemically compatible with setting blocks, preformed sealing tape and sealants used in manufacturing insulation glass.

### **14.9.4 GLAZING GASKETS**

Glazing gaskets shall be extruded with continuous integral locking projection designed to engage into metal glass holding members to provide a watertight seal during dynamic loading, building movements and thermal movements. Glazing gaskets for a single glazed opening shall be continuous one-piece units with factory-fabricated injection-molded corners free of flashing and burrs. Glazing gaskets shall be in lengths or units recommended by manufacturer to ensure against pull-back at corners.

### **14.9.5 HARDWARE**

Provide the manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion-resistant material compatible with aluminum and of sufficient strength to perform the function for which it is intended. Provide at a minimum one locking device on the interior of each window metal window sill.

## **14.10 LOUVERS**

Louvers shall be inverted "Y", "V" or "Z" type. Weld or tenon louver blades to continuous channel frame and weld assembly to door to form watertight assembly. Form louvers of hot-dip galvanized steel of

same gage as door facings. Louvers shall have steel-framed insect screens secured to room side and readily removable. Provide aluminum wire cloth, 7 by 7 per 10 mm or 7 by 6 per 10 mm mesh, for insect screens for all exterior louvers.

#### **14.11 METAL**

Any metal listed by ASTM, DIN, BS or EN standards. Manual for a particular item may be used, unless otherwise specified or indicated. Materials shall conform to the requirements specified below and to the thicknesses and configurations established in ASTM, DIN, BS or EN standards. Different items need not be of the same metal, except that if copper is selected for any exposed item, all exposed items shall be copper.

#### **14.12 FINISHES**

All exterior metal surfaces, including container exterior shall be painted. Interior shall be painted gypsum board walls. Provide color boards with all materials, paints and finishes for COR approval prior to ordering materials. Color boards shall remain on site in view or with the project engineer until completion of the facility.

##### **14.12.1 PAINT**

Paint shall be enamel, oil based factory applied. A primer shall be placed prior to any coats of paint. A minimum of two (2) coats of paint shall be used for each surface. Contractor may use pre-painted metal panels, from the metal panel manufacturer with at least a 10 year warranty.

Paint for Latrines shall be expressly formulated for "wet" areas.

Exposed exterior steel shall include items such as trim, frames, door, pipe rails and other exposed steel surfaces. Paint with one coat oil-based primer, with 2 coats of oil-based alkyd gloss enamel, color to be selected by the Contracting Officer from the color board provided by the Contractor.

#### **14.13 FURNISHINGS**

##### **14.13.1 SLEEPING ROOM FURNISHINGS**

Wood furnishings shall be finished to match the wall paneling or from standard selections of manufacturer. See attached drawings for further information. Coordinate specific furniture sizes with room layouts and contracting officer.

**WARDROBE**, 2 each, real wood wardrobe, made in Afghanistan with warranty period, 2.0 m high & 0.9 m wide with lockable door on one side.

**METAL BEDS**, 2 each – 1.0 m x 2.0 m made in Afghanistan.

**NEW PILLOW TOP MATTRESS**, 1 each per bad, made in Dubai with 5 years warranty 1.0 m x 2.0 m.

**NEW LINEN**, 2 sets, (twin size blanket, twin size sheets, and pillow) sheets need to have a minimum of a 500 thread count.

**DESKS WITH BOOKSHELF**, 1 each room, made in Afghanistan with warranty period. Desk shall be 1.2 m wide, 0.6 m depth, 0.75 m high) with bookshelf 1.2 m wide, 0.3 m depth, 1.0 m high, with one shelf 0.6 m from bottom. Bookshelf shall be placed on top of desk.

**NIGHT STAND**, 1 each per bed, made in Afghanistan with warranty period. Night stand shall be 0.5 m wide, 0.6 m depth, 0.6 m high) with 2 drawers. Night stand shall match desk and book case.

**ADJUSTABLE DESK LAMPS**, 1 each per desk. Electrical connections shall be 230 volt.

**MINIATURE REFRIGERATORS**, 1 each, white single door, 3.3 cubic ft, Refrigerator/Freezer, with a footprint of no larger than night stand. Refrigerator shall be provided with a minimum 1 year warranty, electrical connection shall be 230 volt.

**ERGONOMIC OFFICE CHAIR**, 1 each per desk, with ,adjustable arm and back, nylon mesh back,5 spoke legs with roller wheels, black in color. Office chair shall be provided with a minimum 1 year warranty.

#### **14.14 TOILET FIXTURES AND ACCESSORIES**

**SHOWER UNIT:** Shower unit shall be enclosed with commercial made glass partition and doors. Glass shall be tempered and laminated. Provide soap and shampoo holder in the shower unit.

**BATHROOM STORAGE SHELVING:** Two shelves shall be mounted above each toilet. Shelves shall be 30 cm wide and run the width of the toilet stall. Shelves shall be mounted at 1m and 1.5m above finished floor.

**WESTERN WATER CLOSET:** Provide flush tank type toilet, vitreous china, floor mounted, with elongated bowl.

**LAVATORIES:** Provide standard trap-type enameled cast iron counter mounted sink (counter shall be laminated top and sides) or a wall/floor mounted pedestal sink.

**LAVATORY FAUCETS:** Faucets shall be high quality, heavy duty (Mohr, Standard, etc) with brass fittings. Faucets shall be properly sized for the lavatory that is chosen.

**MIRRORS:** 0.6m x 0.9m, 6mm plate glass, shall be mounted above each lavatories. Mount bottom of mirrors 1.1m above finished floor.

**TOILET PAPER HOLDERS:** Toilet paper holders, stainless steel, shall be installed approximately 600 mm above finish floor.

**PAPER TOWEL DISPENSERS:** Paper towel dispensers, 0.683 mm Type 304 stainless steel, surface mounted. Tumbler key lock locking mechanism shall be furnished and shall be installed approximately 1,200mm (48") above finish floor.

**LIGHT DUTY METAL SHELF:** Provide a 600 mm long, light duty stainless steel shelf and brackets over each lavatory.

**TOWEL BARS:** Provide one (1) towel bar adjacent to the sink at 1,400mm (4' – 8") above finish floor.

**COAT HOOK:** A coat hooks shall be installed on the inside face of door, centered at 1,600mm above finish floor.

## **15. MECHANICAL**

### **15.1 GENERAL**

The work covered by this Section consists of the design, supply, fabrication, and installation of new building systems for Heating, Ventilation and Air-Conditioning (HVAC). It also includes the delivery to the site, erection, setting to work, adjusting, testing, balancing and handing over in perfect operating and running condition all of the HVAC equipment, including all necessary associated mechanical work.

Concept design for the facility types requested in this proposal are provided in Appendix B. These designs shall be used to create a complete and usable facility meeting the minimum requirements stated in these documents.

### **15.2 SPECIALIST SUB-CONTRACTORS QUALIFICATIONS**

The HVAC works shall be executed by an air-conditioning specialist sub-contractor experienced in the design and construction HVAC equipment to include conventional compression systems, heat pump units, space heaters and knowledge in fabricating specialized units consisting of supplemental electric resistance heaters in satisfying the specified indoor design conditions. HVAC equipment will normally consist of split-pack heat pump units without supplemental electric heating elements, and air ventilation systems.

### **15.3 WALL PENETRATIONS**

Building wall penetrations shall be carefully made so as not to deteriorate the structural integrity of the wall system. The Contractor shall consult with the building manufacturer, if possible, to determine the best way to penetrate the walls. If the building manufacturer is not available, the Contracting Officer shall be consulted. In either case, the recommendations of the manufacturer and/or Contracting Officer shall be strictly adhered to.

### **15.4 UNITARY (DUCTLESS SPLIT) SPLIT-PACK HEAT PUMP UNITS**

Ductless split units shall be unitary in design, factory manufactured ready for installation and shall provide cooling during summer and heating during winter. Heat pump units shall be suitable for low ambient operation. Evaporator fan coil unit shall consist of a DX coil, blower, and washable filter all mounted in a housing finished for exposed installation. Cooling coil condensate piping shall route to and discharge to the outside. The condensing unit will contain compressor, condenser coil, and all internal controls/fittings complete to include a weatherized housing. Outdoor condensing unit shall be wall-mounted on steel supports. Copper refrigerant suction and liquid piping shall be sized, insulated and installed in accordance to unit manufacture recommendations. Unit factory provided temperature control shall include wall mounted adjustable thermostat, blower on-off-auto switch and heating-cooling change over control. Provide a 2-year manufacturer's warranty for each of the units. Equipment shall be installed in strict accordance with manufacturer's explicit instructions.

### **15.5 EXHAUST SYSTEMS**

All fans used for building exhaust shall be selected for minimum noise level generation. All fans used for wall exhaust shall be centrifugal forward curved, backward inclined, or airfoil fans with non-overloading characteristics or propeller type fan of high efficiency and quiet running design. The fans shall be of the heavy-duty type with durable construction and proved performance in a desert environment. Each wall exhaust fan shall be provided with electric motor dampers which close automatically when the fan is not running. Each fan shall be complete with vibration isolator, external lubricators, and all accessories as necessary.

Provide fans with toggle on/off switch not pull cord.

## **15.6 ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT**

- a. All electrical work shall comply with the National Electrical Code on 60Hz installations, and British Standard 7671 on 50Hz installations.
- b. All thermostats shall be wall-mounted as indicated (See Appendix). Wall-mounted thermostats shall be mounted 1.5 meters (5 feet) above the finished floor and be easily accessible. Operation of the control system shall be at the manufacturer's standard voltage for the unit.
- c. The following are the minimum requirements for motors regarding enclosure, insulation and protection:
  - i. Compressor Hermetic: Provide inherent (internal) overload protection.
  - ii. Condenser: Provide internal thermal overload protection.
  - iii. Evaporator (Open Class "A") fan motor type provides internal thermal overload protection.

## **15.7 PLUMBING**

### **15.7.1 GENERAL**

- A. The Contractor shall design and build domestic cold and hot water systems, waste, drain and vent systems, waste-oil collection and storage and fuel-oil storage and distribution systems required in the facilities identified in Section 01010 Scope of Work and as described herein.

Concept designs for the facility types requested in this proposal are provided in Appendix B. These designs shall be used to create a complete and usable facility meeting the minimum requirements stated in these documents.

The work covered in this scope also includes the delivery to site, erection, setting to work, adjusting, testing and balancing and handing over in full operating condition all of the plumbing equipment and associated plumbing works.

- B. SUB-CONTRACTOR QUALIFICATIONS: The plumbing systems shall be executed by a plumbing specialist subcontractor experienced in the design and construction of these types of systems.
- C. STANDARD PRODUCTS: All materials and equipment shall be standard product of a manufacturer regularly engaged in the manufacture of the product and shall duplicate items that have been in satisfactory use for at least two (2) years prior to bid opening.

### **5.7.2 CODES, STANDARDS AND REGULATIONS**

The design and installation of equipment, materials and work covered under the plumbing services shall conform to the following standards, codes and regulations where applicable except where otherwise indicated under particular clause(s). Standards other than those mentioned herein may be accepted provided that the standards chosen are internationally recognized and meet the minimum requirements of the specified standards.. The publications listed below shall be most recent editions.

IPC – International Plumbing Code

ASHRAE – American Society of Heating, Refrigeration and Air-Conditioning Engineers

ASTM – American Society for Testing and Materials

### 5.7.3 PLUMBING SYSTEMS REQUIREMENTS

#### 15.7.2 WATER

Domestic cold and hot water shall be provided to serve the water usage and plumbing fixtures. Water service to each facility shall enter the building in a mechanical space. The building service line shall be provided with a shut off valve installed inside the mechanical room. All water piping shall be routed parallel to the building lines and installed exposed and tight to the walls and ceiling. Insulation shall be provided where required to control sweating of pipes or to provide protection from freezing.

#### 15.7.3 PIPING MATERIALS

Domestic cold water shall be distributed by means of standard weight (schedule 40) galvanized steel pipe, Polyvinyl Vinyl Chloride (PVC) or Polyethylene (PE) (ASTM D 2737) plastic piping. Domestic hot water shall be distributed by means of standard weight (schedule 40) galvanized steel pipe, or Chlorinated Polyvinyl Vinyl Chloride (CPVC) piping. Waste and vent piping can be made of either galvanized steel pipe (schedule 40), or Polyvinyl Vinyl Chloride (PVC) conforming to ASTM D 2665. Corrosion protection shall be provided if galvanized piping comes in contact with earth or masonry floors, walls or ceilings.

#### 15.7.4 PLUMBING WATER FIXTURES

The following typical plumbing fixtures shall be provided:

- a. Western style toilets with flush tank assembly shall be provided. Western style toilets shall be white vitreous china, siphon jet, elongated bowl, floor mounted with floor outlet. Top of toilet seat height shall be 356 to 381 mm. Toilet shall be of the American style. German style with the shelf is not permitted.
- b. Lavatories. All sinks shall be the vitreous china wall-mounted type. Provide maintenance access to waste piping and P-traps from under the sink.
- c. Sink Faucets. Faucets shall be chrome plated brass or bronze alloy with hot and cold water valves for manual mixing. Faucet handles shall be chrome plated brass or bronze alloy and non-lever type. **No goose neck faucet fixtures shall be used.**
- d. Shower. Showerhead and faucet handles shall be chrome plated brass or bronze alloy. Provide hot and cold water valves for manual mixing. In addition to a shower head, provide each shower stall with a threaded faucet approximately 1.2 m AFF with hot and cold-water controls, mixing valve and a diverter type valve so water can be directed to either the shower or to the lower faucet. Shower shall be provided with low flow shower head. The shower head shall be heavy duty type and securely fastened to the wall.
- e. Floor or Shower Drain: Cast iron construction with galvanized body, integral seepage pan, and adjustable perforated or slotted chromium plated bronze, nickel-bronze, or nickel brass strainer consisting of a grate and threaded collar. Toilet room floor drains are similar except are provided with built-in, solid, hinged grate.
- f. Provide P-Traps per International Plumbing Code IPC for all fixture drains and shower drains. P-traps shall have minimum of 50 mm water seal.

#### 15.7.5 HOT WATER

Hot water shall be provided for the facility to supply 49°C (120°F) hot water to fixtures and outlets requiring hot water. Hot water piping shall be routed parallel to the building lines and concealed within finished rooms. All hot water piping shall be insulated.

### **15.7.6 HOT WATER HEATERS**

The hot water shall be generated by electric water heaters. The unit(s) shall be floor-mounted. The unit(s) shall be of the commercially available tank type having electric heating elements.

Each water heater shall be equipped with a vacuum relief valve and temperature and pressure (T&P) relief valve that discharge into a nearby floor drain; discharge piping shall terminate 50 mm (2 inches) above the floor drain. P&T shall be installed in the top 150mm of the tank. Tank shall have a minimum 25mm drain installed under the bottom heating element and piped to a safe location outside.

### **15.8 WASTE, DRAIN AND VENT SYSTEM**

Floor drains shall be provided in each room that contains a water source. Floor drains shall be provided in the mechanical equipment and toilet rooms as required. Floor drains shall be provided next to the electric water heaters. All waste and vent piping shall be provided in accordance with the latest edition of IPC. Drain outlet shall use p-trap system to trap sewer gases. P-trap drain should be a one-piece system without removable parts.

Provide circuit venting. The sanitary drain line shall be designed such that the vent can extend up from the sanitary drain and be installed tight to the interior or exterior wall.

### **15.9 SUBMITTALS**

The Contractor shall submit the following for the equipment to be provided under this section of the specification: manufacturer's data including performance characteristics at design conditions; manufacturer's certificate stating that each unit will perform to the conditions stated, catalog cuts showing dimensions, performance data, electrical requirements, compliance with standards as stated in paragraph CODES, STANDARDS AND REGULATIONS; complete shop drawings indicating location and installation details.

### **15.10 TEST AND COMMISSIONING**

After completion of the work, the Contractor shall test and commission all utility systems including AC units, fans, plumbing piping, plumbing fixtures, water supply, sewage holding systems, and hot water supply in accordance with the contract requirement and applicable codes and standards before the turnover of the entire facility. The Contractor shall demonstrate that all systems operate to fully satisfy the function for which the systems have been designed. The Contractor shall test, adjust, balance and regulate the systems and its controls as necessary until the required conditions are met. Test shall be scheduled in coordination with the COR. Include tests for all interlocks, safety cutouts and other protective device to ensure correct functioning. All such tests shall be carried out in the presence of the COR. Full written records of the values obtained shall be prepared along with the final settings and submitted to the Contracting Officer in writing.

#### **15.10.1 HVAC TESTING**

The following tests and readings shall be made by the Contractor in the presence of the Contracting Officer and all results shall be recorded and submitted in a tabulated form.

- a. Operational test shall be conducted once during the winter and once during the summer.
- b. Ambient DB and WB temperatures
- c. Room Inside Conditions:
- d. Inside room DB & WB temperatures
- e. Air flow supply, return and/or exhaust
- f. Air Handling Equipment: Air quantities shall be obtained by anemometer readings and all necessary adjustments shall be made to obtain the specified quantities of air indicated at each inlet and outlet.

- g. Following readings shall be made:
- h. Supply, return and outside air CMH (CFM) supplied by each air conditioning system.
- i. Total CMH (CFM) exhausted by each exhaust fan
- j. Motor speed, fan speed and input ampere reading for each fan.
- k. Supply, return and outside air temperature for each air-conditioning system.
- l. Electric Motors: For each motor:
- m. Speed in RPM
- n. Amperes for each phase
- o. Power input in KW

#### **15.11 OPERATIONS AND MAINTENANCE (O&M) FOR MECHANICAL**

- a. Contractor is required to provide a 12 month supply of parts for operation and maintenance of equipment according to the manufacturer's recommendations. In addition to this, the contractors shall provide an inventory of all items, location/address stored and secured, and commissioning plans.
- b. The O&M manuals must be provided in the English language and prior to any training activities..
- c. All control panels shall have tri-lingual name plates in Dari, Pashto and English.
- d. The contractor shall provide an outline of the training lesson plan (to be approved by the Government) prior to conducting training. CD recordings of training on video shall also be provided, after training is conducted.

### **16. FIRE PROTECTION**

#### **16.1 PORTABLE FIRE EXTINGUISHERS**

- A. Portable fire extinguishers (multi-purpose, type A, B and C, dry chemical type) shall be provided inside all rooms in accordance with NFPA 10.
- B. FIRE SUPPRESSION SYSTEM: Provide fire suppression sprinkler system in accordance with NFPA 13R and the concept drawings. Hydraulic design has been completed by the owner.

### **17. ELECTRICAL**

#### **17.1 ELECTRICAL PRODUCTS/MATERIAL**

Unless noted otherwise, all electrical material used shall be tested and marked by a Nationally Recognized Testing Laboratory (NRTL) such as Underwriters Laboratories (UL). In the event that NRTL-tested materials are not available, the contractor may then select applicable IEC manufactured, type-tested material but the contractor must prove equivalence and must provide the government with a full copy of the relevant specification(s)/standard(s). If IEC manufactured, type-tested material is chosen, the product shall be provided with a "Declaration of Conformity". The "Declaration of Conformity" contains information to allow tracing of the product, including product identification, manufacturer's name, address, signature and standards by which the product is tested. IEC manufactured, CE marked material shall also be independently certified by a "Notified Body." A "Notified Body" must serve as an independent test lab and perform type-tests that comply with the applicable IEC standard. These tests shall be recorded in "Technical Documentation" by the laboratory and submitted to the government for review.

Material and equipment installed under this contract shall be for the appropriate application and installed in accordance with manufacturers recommendations.

Equipment enclosure types shall be in compliance with the National Electrical Manufacturer's Association (NEMA) or the International Electro-Technical Committee (IEC) standards.

All material and equipment shall be a standard product of a manufacturer regularly engaged in the manufacture of the product and shall essentially duplicate items that have been in satisfactory use for at least two (2) years prior to bid opening.

## **17.2 SPECIFIC SYSTEM STANDARDS**

### **17.2.1 PANELBOARDS**

Panelboards shall meet one of the following requirements:

- UL67 listed
- Tested and Marked by another NRTL
- BS/EN 60439 or IEC 60439-manufactured, AND type-tested assembly (TTA)

All panelboards shall be circuit breaker 'bolt-on' type panels.

Enclosures for exterior and interior applications shall be NEMA Type 3 (IEC Classification IP54) and NEMA Type 1 (IEC Classification IP10) respectively.

Circuit breakers shall be connected to copper bus bars within the panelboards. Daisy chain (breaker-to-breaker) connection(s) made with conductor or interconnecting busbar are not acceptable. A 3-pole circuit breaker shall be a single unit and not made up of 3 single pole circuit breakers connected with a wire or bridge to make a 3-pole breaker.

All panelboards shall be surface mounted.

All panelboards shall be provided with a nameplate including the following information:

- Manufacturer's Name or trade mark
- Type designation or identification number, or other means of identification making it possible to obtain relevant information from the manufacturer
- Mark of the NRTL (such as UL), IEC 60439-1, or BS/EN 60439-1
- Rated current, operational voltage, and impulse withstand voltage
- Short-circuit withstand strength
- Degree of Protection

All panelboards and load centers shall be provided with a panel schedule. All circuit breakers shall be labeled with an identification number corresponding to the panel schedule. Panel Schedule shall be typed written in English, Dari and Pashto. The panel schedule shall identify the conductor color code present in the panel.

#### **17.2.1.1 CIRCUIT BREAKERS**

Circuit breakers shall meet one of the following requirements:

- UL 489 listed
- Tested and marked by another NRTL
- BS/EN 60947 or IEC 60947-manufactured
- BS/EN 60898 or IEC 60898-manufactured

Circuit breakers shall not be rated less than 15-amperes. Provide a 20-amperes breaker for split packs. All Breakers feeding wet areas and general purpose receptacles shall be Residual Current Breakers w/ Overload (RCBO).

### **17.2.2 INTERIOR DISTRIBUTION SYSTEM**

Contractor shall design and provide circuits for all mechanical equipment and any other equipment that requires power and make the final connections. Provide a lockable disconnect for every split pack.

### **17.2.2.1 CONDUCTORS**

All cable and wire conductors shall be copper. Conductors shall be single core; multiconductor cables shall not be used. All wiring, unless noted otherwise, shall be conductor-in-conduit. Conductor jacket or insulation shall be color coded to satisfy IEC requirements. For a three-phase system, phase A shall be brown, phase B shall be black, phase C shall be grey, the neutral shall be blue and the ground shall be green/yellow. Conductor color coding shall be identified on the plans. If a new feeder is added to an existing panelboard, colored electrical tape shall be used on the new conductors to match the existing color code. The grounded (neutral) conductor shall be permanently identified by a tag, label, or marking at the interface with an "N" on both the old and new grounded (neutral) conductor. The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of higher degree C rated conductors on circuits with protective device terminals rated at a lower degree C is allowed but must be derated to the rating of the device terminals.

Aluminum conductors shall not be specified or used.

All branch circuit wiring shall be copper and installed in metal conduit. Lighting and receptacle circuits shall be minimum #2.5 mm<sup>2</sup>, and conductors for the split pack and the service to each sleeping room shall be a minimum of minimum 4 mm<sup>2</sup>.

### **17.2.2.2 CONDUIT/ SURFACE-MOUNTED NONMETALLIC RACEWAYS**

Power distribution shall utilize metal conduit (EMT). The raceway system shall be complete, to include but not limited to, necessary junction and pull boxes for all surface mounted conduit systems. Surface-mounted Nonmetallic Raceways shall not be allowed for power distribution. Smallest conduit size shall be no less than 20mm (0.75 inch) in diameter. All empty conduits shall be furnished with pull wire or cord or rope (depending on the size of conduit and length of run). Exterior conductors below grade shall be installed in concrete encased PVC conduit at a depth of 1220 millimeters.

Conduit shall be surface mounted in all areas.

### **17.2.2.3 RECEPTACLES**

Duplex receptacles shall be placed two per individual sleeping room, two per double sleeping room and 1 per workstation in offices. Receptacles shall not be provided in latrines, bathrooms, restrooms, ablution areas, or shower rooms. Total number of duplex receptacles shall be limited to four (4) per 15-ampere circuit breaker.

Receptacles (outlets) shall be duplex type 13A, 230V, 50Hz, British Standard (BS) 1363, for use with fused plugs. .

### **17.2.3 LIGHTING**

Indoor lighting for all areas shall consist of fluorescent surface mounted light fixtures. In each unit provide a minimum of two fixtures that produces at least 5000 lumens. Moisture resistant/waterproof (IPx4 rated or better) fluorescent light fixtures shall be provided in high humidity and wet areas such as latrines, showers and outside. All light fixtures shall be factory finished, complete and operational, to include but not be limited to, lens, globe, lamp, ballast etc. Industrial type fluorescent light fixtures shall not be used. Every room shall be provided with a minimum of one light switch. Overhead fixtures shall be ceiling mounted. Each unit shall have a junction box on the exterior outside wall and a conduit to the interior lighting circuit for a future 150 watt exterior fixture.

Above mirror lights shall be provided in toilet rooms. Above-mirror lights shall be IPx4 rated if within Zone 2 as identified in BS7671. Mirror lights shall powered by the same switch as the ceiling light.

### **17.2.3.1 LIGHT FIXTURES**

Lighting fixtures shall be a standard manufacturer's product. Fluorescent surface mounted light fixtures shall be power factor corrected and equipped with standard electronic ballast(s). All light fixtures shall properly operate using standard lamps available locally. Fixtures shall be fully factory wired and designed for appropriate application i.e. appropriate for that location where installed.

### **17.2.4 SURGE PROTECTIVE DEVICES (SPD'S)**

Transient Voltage Surge Suppression shall be provided utilizing surge arresters to protect sensitive and critical equipment in sleeping rooms and office rooms. As a minimum TVSS protection shall be provided at each panel serving electronic loads and shall be shown on the panel schedule. It is recommended that Metal Oxide Varistor (MOV) technology be used for such applications.

### **17.2.5 GROUNDING AND BONDING**

Grounding and bonding shall comply with the requirements of BS7671 for 50Hz systems. All raceways shall include an insulated equipment grounding conductor (protective earth conductor).

### **17.2.6 FIRE DETECTION & ALARM SYSTEM**

All areas (except restrooms) shall have shall have smoke (or heat) alarms that are line-voltage powered with battery backup. Each sleeping room shall have one stand-alone, single-station smoke alarm. The hallway smoke alarms, mechanical room heat alarm, and laundry room heat alarm shall be interconnected, but need not be interconnected with the sleeping room alarms.

## **18. COMMUNICATIONS**

### **18.1 CABLING REQUIREMENTS**

**CONTRACTOR REQUIREMENT** - The cable is CAT6, wall boxes, face plates and keystone inserts will be provided by the government. The contractor shall pull the cable, and provide and install the panduit. The government will provide and install: equipment racks, faceplates, and CAT6 keystone inserts. Every outlet shall receive two CAT6 cables. 4 meters of cable shall be left at the communication/server room and 450mm shall be left for every outlet location. The government will terminate, test, and label the cables.

**Routing of CAT6 cable** - Cable shall originate at a communications or server room, 4 meters of cable shall be left there. All network outlets should terminate to one spot behind the racks (There should not be multiple termination points in the server/comms room). There shall be two cables in every outlet box, leave 450mm of extra cable there. The cable shall be placed in a surface mount raceway (Panduit).

**Cable Separation** - The network cable will maintain a minimum 150" separation from power. Where power and network cable must cross, it shall cross perpendicularly.

**Distance of CAT6 cable** - The maximum cable length for CAT6 is 100 meters (321'). If a building calls for an outlet to placed beyond this distance then plan on an additional communications/server room.

#### **Location of outlets**

**Location of outlets** - The Contractor shall provide two telephone/data boxes per bedroom, one box on each of the long interior walls mounted in the surface nonmetallic raceway system. The outlets should be located 450mm above the floor and mounted in the middle of the two longest walls in the room.

**Printer Outlet** - Install one network outlet for a printer if the billets are not attached to the office. The typical location for a printer in the billets is in the hall common to everyone.

### **Power Requirements**

**Network Outlets** - Install one duplex outlet for every network outlet.

**-END OF SECTION-**

SECTION 01335

## **SECTION 01335 SUBMITTAL PROCEDURES**

### **19. GENERAL**

#### **19.1 REFERENCE**

The publication listed below forms a part of this specification to the extent referenced. The publication is referenced to in the text by basic designation only.

#### **NATIONAL INSTITUTE OF BUILDING SCIENCES (NIBS)**

Unified Master Reference List (UMRL)

National Institute of Building Sciences  
1090 Vermont Avenue, NW, Suite 700  
Washington, DC 20005-4905  
Email: [nibs@nibs.org](mailto:nibs@nibs.org)  
FAX: (202) 289-1092  
Tele: (202) 289-7800

## **19.2 SUBMITTAL DESCRIPTIONS (SD)**

Submittals requirements are specified in the technical sections. Submittals are identified by Submittal Description (SD) numbers and titles as follows:

### **19.2.1 SD-01 PRECONSTRUCTION SUBMITTALS**

Submittals which are required prior to start of construction (work) or the start of the next major phase of the construction on a multi-phase contract; includes schedules, tabular list of data; or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

Certificates of Insurance

Surety bonds

List of proposed subcontractors

List of proposed products

Construction Progress Schedule

Network Analysis Schedule (NAS)

Submittal register

Schedule of prices

Health and Safety Plan

Work Plan

Quality Control (QC) Plan

Environmental Protection Plan

### **19.2.2 SD-02 SHOP DRAWINGS**

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work;

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project;

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

### **19.2.3 SD-03 PRODUCT DATA**

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

### **19.2.4 SD-04 SAMPLES**

Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

#### **19.2.5 SD-05 DESIGN DATA**

Design calculations, mix designs, analyses or other data pertaining to a part of work.

Design submittals, design substantiation submittals and extensions of design submittals.

#### **19.2.6 SD-06 TEST REPORTS**

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily logs and checklists.

Final acceptance test and operational test procedure.

#### **19.2.7 SD-07 CERTIFICATES**

Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or Subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

#### **19.2.8 SD-08 MANUFACTURER'S INSTRUCTIONS**

Preprinted material describing installation of a product, system or material, including special notices and (MSDS)concerning impedances, hazards and safety precautions.

#### **19.2.9 SD-09 MANUFACTURER'S FIELD REPORTS**

Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and must state the test results; and indicate whether the material, product, or system has passed or failed the test.

Factory test reports.

### **19.2.10 SD-10 OPERATION AND MAINTENANCE DATA**

Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.

This data is intended to be incorporated in an operations and maintenance manual or control system.

### **19.2.11 SD-11 CLOSEOUT SUBMITTALS**

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

Interim "DD Form 1354" with cost breakout for all assets 30 days prior to facility turnover.

## **19.3 SUBMITTAL CLASSIFICATION**

Submittals are classified as follows.

### **19.3.1 DESIGN SUBMITTALS**

- a. Contractor furnished design submittals are the various design documents which primarily consist of field investigations, calculations, design analysis, drawings and specifications.
- b. For each design submittal, the Contractor shall submit all non-administrative modifications issued for the Contract as part of the Design Submittal package to enable Afghanistan Engineer District (AED) to validate that these modifications have been incorporated into this design submittal.
- c. The Contractor shall clearly label and date all design submittals to reflect the current design stage and date of submission to the Government to avoid confusion between current and previous submittals. For work shown but incomplete and still under design, the Contractor should clearly indicate on the ENG Form 4025 what is being submitted for review and approval.
- d. The Contractor shall not begin construction work until the Government has issued Clearance for Construction (CFC). Clearance for Construction shall not be construed as meaning "Government approval." Unless otherwise indicated, the risk for the design is the sole responsibility of the Contractor.
- e. It is crucial that each submittal is complete and includes all components identified below as well as any other pertinent information not listed for which the Contractor requires approval to enable construction to begin as soon as possible.
- f. The sole responsibility of ensuring that the design submittals comply with contract documents remains with the Contractor, in accordance with this section of the Contract. The Government retains the right to comment on the design at any stage, and the lack of Government comments at a given review cannot be used as a basis for the Contractor to fail to address the Government's comments on subsequent reviews, regardless of design stage.
- g. Approval of incomplete designs will not relieve the Contractor of the responsibility for any error which may exist, and which may require rework or other appropriate adjustment to the contract terms, as determined at the sole discretion of the Government. It is the sole responsibility of the Contractor to ensure that submittals comply with the contract documents.

- h. Government review, issuance of Clearance for Construction, or approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.
- i. Government review, issuance of Clearance for Construction, or approval of post-design construction submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory.
- j. As a minimum, design submittals shall be submitted at the following intervals:
  - General Design - 65%
  - Cleared for Construction - 100%

#### **19.3.1.1 GENERAL DESIGN (65%):**

The review of this submittal is primarily to insure that the contract documents and design analysis are nearing completion and that the Contract requirements and design criteria are being correctly understood and adhered to.

As a minimum the submittal shall contain:

100% complete Construction Drawings and Design Analysis. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction. Complete design analysis, plans and specifications for any contract feature(s) that the Contractor would like Partial Clearance for Construction on once the 65% Design Submittal has been approved, including list of those Construction Submittal items requiring Government Approval (GA).

#### **19.3.1.2 CLEARED FOR CONSTRUCTION (100%)**

The review of this submittal is to insure that the design is in accordance with all Contract requirements and any directions provided the Contractor by the Government during the design process. The only effort remaining between the General Design submittal and the Cleared for Construction submittal is the incorporation of all Government review comments.

The submittal shall contain:

1. Design Analysis, only if changes have occurred since 65% Final Design submittal. The Design Analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the General Design submittal;
2. Construction Specifications, complete;
3. Construction Drawings, complete;
4. Once the design documents have been cleared for construction by the Contracting Officer, the Contractor shall clearly identify each document by annotating it as "Cleared for Construction."

#### **19.3.2 PARTIAL DESIGN SUBMITTALS**

- a. In the interest of expediting construction, the Contracting Officer may approve partial design submittals, procurement of materials and equipment, as well as issue the Notice to Proceed (NTP) for construction of those elements of the design which have been cleared for construction. Such partial notices to proceed shall be solely at the discretion of the Contracting Officer.
- b. The Contractor must obtain the approval of the Designer of Record (DOR) and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed design reviewed and cleared for construction by the Government, before proceeding with the revision.
- c. The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings, equipment selections or operations decisions that were made, based on the

reviewed and cleared for construction design. Any revision to the design, which deviates from the contract requirements (i.e., the Request for Proposal and the accepted proposal), will require a modification, pursuant to the Changes Clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

- d. Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.
- e. The Contractor shall track all approved revisions to the reviewed and cleared for construction design and shall incorporate them into the as-built design documentation, in accordance with Section 01780A CLOSEOUT SUBMITTALS. The Designer of Record shall document its professional concurrence on the as-built documents for any revisions by affixing its stamp and seal on the drawings and specifications.

### **19.3.3 USE OF DRCHECKS<sub>SM</sub> FOR DESIGN SUBMITTAL COMMENT AND RESPONSE**

#### **19.3.3.1 DRCHECKS<sub>SM</sub> WEB LINK**

All AED Design Submittal review comments will be documented using the standard design review tool for the U.S. Army Corps of Engineers, a web-based application called "DrChecks<sub>SM</sub>". The web link to DrChecks<sub>SM</sub> is:

<https://www.projnet.org/projnet/binKornHome/index.cfm>

#### **19.3.3.2 DRCHECKS<sub>SM</sub> VENDOR IDENTIFICATION AND TUTORIAL**

Upon notification of award, the contractor shall immediately coordinate with the Chief, Engineering Branch, AED to acquire vendor identification and access to a brief tutorial on the use of DrChecks<sub>SM</sub>. The Contractor is responsible for providing their own DrChecks<sub>SM</sub> Administrator within their own design staff personnel to access and accomplish actions within DrChecks<sub>SM</sub>.

#### **19.3.3.3 NOTIFICATION OF DRCHECKS<sub>SM</sub> FILE ACCESS**

AED will complete a review at every design submittal stage for conformance with the technical requirements of the Contract and document all comments in DrChecks<sub>SM</sub>. At completion of the review, a notification will be issued to the Contractor by the Contracting Officer's representative that the particular DrChecks<sub>SM</sub> file will be opened to the Contractor. Until this time, the Contractor is not able to view any AED comments for that particular design submittal.

### **19.3.4 CONSTRUCTION SUBMITTALS**

#### **19.3.4.1 GOVERNMENT APPROVED CONSTRUCTION SUBMITTALS (GA)**

Government Approved (GA) construction submittals are required for the following features of work:

- a. Plans to include but not limited to:
  1. Security;
  2. Contractor Quality Control (CQC);
  3. Accident Prevention;
  4. Resident Management System (RMS);
  5. Area Use;
- b. Schedules to include but not limited to:
  1. Project Schedule;
  2. Network Analysis;

- c. Certificates of compliance, reports and records/statements;
- d. Civil Testing Results: Data will include information on the locations and depths of all viable water supply sources at the site(s) involved and a water quantity and water quality analysis for each source from the Ministry of Public Health or other certified testing firm.
- e. Mechanical Equipment Submittals: Manufacturer's standard catalog data, installation, Operation and Maintenance (O&M) manuals and construction details for: water wells; water tanks; control valves; pipe insulation; water pumps; air handling units; condensers; and variable air volume (VAV) boxes;
- f. Mechanical Testing Results: Testing Results: For water tanks, water pumps (including instrumentation), water piping, sprinkler systems, and oxygen systems, submit six (6) copies of each test containing the following information in bound letter-size booklets:
  - 1. The date the tests were performed;
  - 2. A list of equipment used with calibration certifications;
  - 3. A copy of measurements taken;
  - 4. The parameters to be verified;
  - 5. The condition specified for the parameter;
  - 6. The inspection results, signed, dated, and certified by the installer. The certification shall state that required procedures were accomplished, that the procedures were conducted in compliance the plans and specifications;
  - 7. A description of adjustments performed;
- g. Mechanical Reports: Individual reports shall be provided for storage tank tests, piping tests, system performance tests, high level alarm test, and the system leak tests. Drawings shall be folded blue lines, with the title block visible.
- h. Electrical product data and shop drawings: generators (and its auxiliaries); load bank; transformers; substations; panels/switchboards/motor control centers; lightning protection; receptacles; and circuit breakers;
- i. Electrical lightning protection; submit design and test data.
- j. Architectural Features: Provide product data, catalogue cuts, shop drawings and schedules for the following features of work: specialty doors and frames (fire rated, sound rated, bullet resistant, security, overhead rolling); door hardware; windows; metal roofing (including fasteners, flashing, and accessories); building insulation; fire-rated and water-resistant gypsum board; and other specialty products (bullet resistant glazing/panels);
- k. Architectural color board for interior and exterior finishes;
- l. Architectural shop drawings for casework and cabinetry.

#### **19.3.4.2 FOR INFORMATION ONLY CONSTRUCTION SUBMITTALS (FIO)**

- a. Any submittal not requiring Government Approval will be for information only. These construction submittals shall be checked, stamped, signed and dated by the Contractor's Quality Control Engineer, certifying that such submittal complies with the contract requirements.
- b. FIO submittals are not normally returned to the Contractor. While approval of the Contracting Officer is not required for FIO submittals, all Contractor submittals are subject to review by the Government at any time during the course of the contract. Any Contractor FIO submittal found to contain errors or omissions shall be resubmitted as one requiring Government Approval. No adjustment for time or money will be allowed for corrections required as a result of noncompliance with plans or specifications. The Contracting Officer reserves the right to require removal and replacement of installed work if nonconforming material is found for which FIO submittals were provided.

### **19.3.4.3 VARIANCE CONSTRUCTION SUBMITTALS**

- a. Any proposed substitution to approved design documents shall be submitted as a variance for Government Approval in accordance with the criteria herein.
- b. After design submittals have been reviewed and cleared for construction by the Contracting Officer, no resubmittal for the purpose of substituting materials, equipment, systems, and patented processes will be considered unless accompanied by the following:
  1. Reason or justification for proposed variation, substitution, or revision;
  2. Technical evaluation tabulating any difference between the item(s) originally specified and what is proposed;
  3. Cost comparison to include an acquisition and life cycle cost comparison;
  4. For proprietary materials, products, systems, and patented processes, a certification signed by an official authorized to certify in behalf of the manufacturing company that the proposed substitution meets or exceeds what was originally specified;
  5. For all other actions, a certification signed by a licensed professional engineer or architect certifying that the proposed variation or revision meets or exceeds what was originally specified;
  6. Explanation of advantage to the Government if variance is approved (i.e. Operation and Maintenance considerations, longer product life span, faster installation, etc.);
  7. Ramifications and impact, if not approved.
- c. If the Government review detects any items not in compliance with contract requirements or items requiring further clarification, the Contractor will be so advised. Lack of notification by the Contracting Officer of any non-complying item does not relieve the Contractor of any contractual obligation.
- d. No work for which a variance is required shall commence before Government Approval; to do so will be at the Contractor's own risk and will not alleviate any lost time or monetary impact associated with a disapproval of the variance and removal of work that does not conform to the Contract.

### **19.3.4.4 ADDITIONAL SHOP DRAWINGS AND SUBMITTALS**

The Government may request the Contractor to provide additional shop drawing and submittal type data as necessary subsequent to completion of the design.

### **19.3.4.5 INCOMPLETE DESIGN**

The Design-Build Contractor shall not use construction submittals as a means to supplant and/or supplement an incomplete design effort.

## **19.4 SUBMITTAL CERTIFICATION**

The CQC organization shall be responsible for certifying that all submittals and deliverables have been reviewed in detail for completeness, are correct, and are in strict conformance with the contract drawings, specifications, and reference documents.

### **19.4.1 EFFECTIVE QUALITY CONTROL SYSTEM**

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with Contract Clause 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION - ALTERNATE I, and SECTION 01451 CONTRACTOR QUALITY CONTROL.

#### **19.4.1.1 ORGANIZATIONAL RESPONSIBILITY**

The quality control system shall cover all design, construction, subcontractor, manufacturer, vendor, and supplier operations at any tier, both onsite and offsite.

#### **19.4.1.2 CQC SYSTEM MANAGER REVIEW AND APPROVAL**

Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager. If found to be in strict conformance with the contract requirement, each item shall be stamped, signed, and dated by the CQC System Manager. Copies of the CQC organizations review comments indicating action taken shall be included within each submittal.

#### **19.4.1.3 DETERMINATION OF COMPLIANCE**

Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer. The contractor shall submit all required documentation with submittals. The U.S. Army Corps of Engineer (USACE) will not accept partial submittals.

#### **19.4.2 RESPONSIBILITY FOR ERRORS OR OMISSIONS**

It is the sole responsibility of the Contractor to ensure that submittals comply with the contract documents. Government review, clearance for construction, or approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.

#### **19.4.3 GOVERNMENT REVIEW**

Government review, clearance for construction, or approval of Design and construction submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as it is the sole responsibility of the Contractor to certify that each Submittal has been reviewed in detail and is in strict conformance with all the contract documents and design criteria referenced therein.

#### **19.4.4 SUBSTITUTIONS**

After design submittals have been reviewed and cleared for construction by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless justified in compliance with this Section.

#### **19.4.5 ADDITIONAL SUBMITTALS**

In conjunction with Contract Clause 52.236-5 MATERIAL AND WORKMANSHIP, the Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work.

#### **19.4.6 UNTIMELY AND UNACCEPTABLE SUBMITTALS**

If the Contractor fails to submit submittals in a timely fashion, or repetitively submits submittals that are incomplete or not in strict conformance with the contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

#### **19.4.7 STAMPS**

Stamps shall be used by the Contractor on all design and post-design construction submittals to certify that the submittal meets contract requirements and shall be include the following:

Contractor (Firm Name):

Contract Number:

Contract Name:

I certify that this submittal accurate, is in strict conformance with all contract requirements, has been thoroughly coordinated and cross checked against all other applicable disciplines to prevent the omission of vital information, that all conflicts have been resolved, and that repetition has been avoided and, it is complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer.

Name of CQC System Manager:

Signature of CQC System Manager:

Date:

## **19.5 ENGLISH LANGUAGE**

All specifications, drawings, design analysis, design calculations, shop drawings, catalog data, materials lists, and equipment schedules submitted shall be in the English language.

## **19.6 UNITS OF MEASUREMENT**

Design documents shall be prepared in accordance with the guidance offered in SECTION 01415 METRIC MEASUREMENTS.

The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960.

### **19.6.1 DRAWINGS**

#### **19.6.1.1 SITE LAYOUT**

All site layout data shall be dimensioned in meters or coordinates, as appropriate. All details and pipe sizes shall be dimensioned in millimeters.

EXAMPLE: Masonry openings shall be a U.S. module to suit a standard U.S. door. The dimensions of the opening shall be given in SI units. Metric dimensions for site plans shall be in meters and fraction thereof. Dimensions for all other drawings shall be in millimeters using hard metric designations (example: 12 meters = 12 000). Hard metric is defined as utilizing standard metric products and the use of measurements in increments of fifty (50) and one hundred (100) millimeters.

#### **19.6.1.2 GEO-REFERENCE**

All site plans shall be geo-referenced using the WGS 1984 coordinate system, specifically the following: WGS 1984 UTM one 42 N. If the designer is not able to use the stated coordinate system the coordinate system used shall be correlated to the stated coordinate system. A table shall be provided within the site drawing set cross referencing the WGS84 system to that utilized. This is required to allow AED to incorporate the plans into GIS for storage, map production, and possible geospatial analysis of the different work sites.

### **19.6.2 DESIGN CALCULATIONS**

Calculations shall be in SI units to meet the requirements of the design. Quantities on the contract drawings stated in SI units shall also be stated in SI units in the design analysis to match the drawings.

### **19.6.3 SPECIFICATIONS**

All equipment and products shall be specified according to U.S. standards and described by appropriate units as required herein.

## **19.7 WITHHOLDING OF PAYMENT FOR SUBMITTALS**

### **19.7.1 DESIGN SUBMITTALS**

Payment for design work will not be made in whole or in part until the Government has reviewed and cleared the design for construction.

### **19.7.2 CONSTRUCTION SUBMITTALS**

Payment for materials incorporated in the work will not be made if required approvals have not been obtained. In event under separate clause of the contract, the Contractor is allowed partial or total invoice payment for materials shipped from the Continental United States (CONUS), and/or stored at the site, the Contractor shall with his request for such payment, submit copies of approvals (ENG Form 4025) certifying that the materials that are being shipped and/or stored have been approved and are in full compliance with the contract technical specifications.

## **20. PRODUCTS**

The following are contract deliverables which finalize the design requirements outlined within the contract documents. They shall clearly document that the Prime Contractor is responsible to the Government and shall not serve as an internal document between the Prime Contractor and its Subcontractors, Vendors, Suppliers, etc.

### **20.1 PROJECT NARRATIVE**

The Project Narrative shall be a bound set and shall contain the up-to-date version of the contract Request for Proposal (RFP) Sections 01010 SCOPE OF WORK and 01015 TECHNICAL REQUIREMENTS (and any additional RFP sections that are appropriate). Any subsequent changes to the RFP shall be clearly marked and highlighted with explanation for the changes. The Project Narrative shall also contain the general description of the project and a discussion of the design approach and design features for the project.

### **20.2 DESIGN ANALYSIS**

#### **20.2.1 SUBMITTAL REQUIREMENTS**

The design analysis is a written explanation of the project design which is revised as the design progresses. The design analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the final drawings and specifications. The design analysis contains the requirements for the project design, including criteria furnished by the Government, letters, codes, references, conference minutes, and pertinent research. Design calculations, computerized and manual, are included in the design analysis. Narrative descriptions of design solutions are also included. Written material may be illustrated by diagrams and sketches to convey design concepts. Catalog cuts and manufacturer's data for all equipment items, shall be submitted. Specific requirements for the design analysis, listed by submittal phase, are explained in Part One of this Section.

#### **20.2.2 FORMAT**

Format of design analysis shall match the standard UFGS Organizational Guidance as outlined in UFC 1-300-02.

## **20.3 DESIGN CALCULATIONS**

### **20.3.1 TECHNICAL REQUIREMENTS**

All design calculations shall be presented such that they are easily understood, correlate with requirements included in Section 01010 SCOPE OF WORK, Section 01015 TECHNICAL REQUIREMENTS, and applicable Appendices, and all final conclusions are clearly documented and summarized.

The design calculations included in each submittal must include complete information (Soil Report, percolation test results, concrete design strengths, steel material properties, electrical loads, heat gain/loss assumptions, etc.) necessary to support all design calculations in order to easily and efficiently verify the accuracy of the information and the resulting project components shown in plans and specifications.

### **20.3.2 SUBMITTAL REQUIREMENTS**

- a. When design calculations are voluminous, they shall be bound separately from the narrative part of the design analysis. Design calculations will include a title page, table of contents, and be indexed (tabbed) to separate distinct parts of the various analysis and design actions being accomplished to support plan drawings submitted. Calculations shall be presented in a clear, consistent and legible format in order to quickly understand the analysis and design accomplished. Presentation shall be such that a person unfamiliar with the project features and associated analysis and design can quickly understand the overall design process and procedures, review the information in conjunction with the given set of plans and specifications, and verify the suitability of all information submitted.
- b. All design calculations shall explain the source of loading conditions with assumptions and conclusions explained. The analysis and design methods shall also be explained, including assumptions, theories and formulae. Include applicable diagrams that are clearly explained and correlated with related computations, whether computer or hand generated. The design calculations shall include a complete and comprehensive list of the criteria (and date or version of the criteria) to which the design/analysis will be compared (codes, USACE Engineering Regulations, Engineering Manuals, AED Design Requirements Documents, etc.). Within the separable elements of design calculations, the engineer shall cite the specific code or reference paragraph or section as appropriate to indicate conformance to requirements.
- c. At the beginning of each project component design section, present a summary of all load conditions and combinations required per applicable code or Corps of Engineers manual or regulation. Then clearly identify the particular load case governing the design and clearly show how the particular analysis, construction materials to be used, and the specific design meet the governing load combination.

### **20.3.3 COMPUTER ANALYSIS**

- a. Provide a clear summary of all computer outputs. Within the outputs, highlight information used in the analysis that was accomplished elsewhere in the calculations.
- b. If a computerized analysis or design program is used (either commercial software packages or unique, designer-written computer analysis/design tools), the computations shall provide clear reference to the software program and version being used and an explanation of the validity of the particular program to the given application (where has the program been used before, what input and output does the program provide, is the program a recognized Corps of Engineers or industry standard). If the program is proprietary to the Contractor (not recognized by the Corps of Engineers or industry), the Contractor shall provide a sample hand calculation to verify the results of one set of data generated by the computer program.
- c. State exactly the computation performed by the computer. Include applicable diagrams, adequately identified. Provide all necessary explanations of the computer printout format, symbols, and

abbreviations. Use adequate and consistent notation. Provide sufficient information to permit manual checks of the results.

- d. Each set of computer printouts shall be preceded by an index and by a description of the computation performed. If several sets of computations are submitted, they shall be accompanied by a general table of contents in addition to the individual indices.
- e. When the computer output is large, it shall be divided into volumes at logical division points. All final computer results used in design shall be separated from the total pages of computer output that might be included in the design calculations for ease of review.

#### **20.3.4 QUALITY CONTROL**

Calculation sheets shall carry the names or initials of the engineer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.

#### **20.4 SPECIFICATIONS**

Specifications shall be prepared in accordance with the UFGS (Uniform Facilities Guide Specifications) format, outlined in UFC 1-300-02. The Contractor-prepared specifications shall include as a minimum, all applicable specification sections referenced by the UFGS. Where the UFGS does not reference a specification section for specific work to be performed by this contract, the Design-Build Contractor shall be responsible for creating the required specification in the UFGS format.

##### **20.4.1 USE OF UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS)**

UFGS (Unified Facilities Guide Specifications) are required for this project. Current UFGS information may be obtained at the following location:

[http://www.wbdg.org/ccb/browse\\_org.php?o=70](http://www.wbdg.org/ccb/browse_org.php?o=70)

##### **20.4.2 SPECSINTACT SOFTWARE**

Specifications for UFGS are in SpecsIntact format. SpecsIntact is government sponsored software used to edit specifications for government contracts. The software is available at the following link:

<http://specsintact.ksc.nasa.gov/index.asp>

##### **20.4.3 QUALITY CONTROL AND TESTING**

Specifications shall include required quality control and further indicate all testing to be conducted by the Contractor, its subcontractors, vendors and/or suppliers.

##### **20.4.4 AMBIGUITIES AND INDEFINITE SPECIFICATIONS**

Ambiguities, indefinite specification requirements (e.g., highest quality, workmanlike manner, as necessary, where appropriate, as directed etc) and language open to interpretation is unacceptable.

##### **20.4.5 U.S. INDUSTRY STANDARDS**

- a. The Specifications shall be based on internationally accepted U.S. Industry Standards. Customarily accepted publications may be found in the UNIFIED MASTER REFERENCE LIST (UMRL) which may be located at the following URL:

<http://www.hnd.usace.army.mil/techinfo/UFGS/UFGSref.htm>

- b. To access the UMRL select the "Unified Facilities Guide Specifications" tab and scroll down to Unified Master Reference List (UMRL) (PDF version). Examples of U.S. standards are:
  1. National Fire Protection Association (NFPA);

2. International Building Code (IBC);
  3. American Concrete Institute (ACI);
  4. American Water Works Association (AWWA).
- c. This document lists publications referenced in the Unified Facilities Guide Specifications (UFGS) of the Corps of Engineers (USACE), the Naval Facilities Engineering Command (NAVFAC), the Air Force Civil Engineer Support Agency (AFCEA), and the guide specifications of the National Aeronautics and Space Administration (NASA). This document is maintained by the National Institute of Building Sciences (NIBS) based on information provided by the agencies involved and the standards producing organizations. The listing is current with information available to NIBS on the date of this publication.
- d. Standards referenced in specifications and drawings prepared by the Contractor shall be by specific issue; the revision letter, date or other specific identification shall be included.

## **20.5 DRAWINGS**

### **20.5.1 COMPUTER ASSISTED DESIGN AND DRAFTING (CADD)**

- a. Computer Assisted Design and Drafting (CADD) is required for all AED contracts. Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare new drawings.
- b. The CADD deliverables shall meet the requirements of the A/E/C CADD Standards (v4.0 or newer). The A/E/C CADD Standards may be downloaded at the CADD/BIM Technology Center at the following link:

<https://cadbim.usace.army.mil/default.aspx?p=s&t=13&i=4>

A/E/C CADD Standards are also available on the AED-N website, under the "Government Provided CADD Files" link:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

### **20.5.2 SUBMITTAL FORMAT**

- a. The Contractor shall furnish all softcopy design submittals and as-builts using software applications in either DWG format (Auto Desk, AutoCad Release 2009 or newer) or DGN format (Bentley Systems, MicroStation, version 8.0 or newer). Use of unregistered or student-copy of software applications to prepare design drawings is not permitted.
- b. In addition, the Contractor is required to submit the softcopy design submittals in PDF (Adobe Acrobat) format, with the drawings to be oriented in "landscape" and bookmarks provided for each discipline designation and drawing file.
- c. CD media submitted containing the softcopy design submittals shall be organized per the instructions below and the diagram in Section 1335a ATTACHMENTS AED. Include the following:
  - CD Title;
  - Project Name and Location;
  - Project Number;
  - Submittal Number;
  - Date;
  - Contractor Name, Address, Telephone Number and Email;
- d. Format the folders, content and structure in the following manner:

MAIN FOLDER NAME	SUBFOLDERS, FILES AND FILE FORMAT	DESCRIPTION
Administrative <sup>1</sup>	Multiple PDF files	Files shall include the contract, task order, approved modifications, approved BCDs, approved variations and non-administrative modifications (do not provide time extensions, COR appointments, and Requests for Information/responses, etc).
Design Analysis	One pdf file with identical contents as the printed document of the submittal.	All data, discussion, calculations and information presented in the printed Design analysis.
Specifications	One folder specifications in word format. One folder with specifications in pdf format.	All specification sections including table of contents edited as appropriate for the submittal stage of the project <sup>2</sup> .
Geotechnical Report	One file in pdf format	All data, graphs, charts and tables generated during the geotechnical investigation.
PDF Drawings	One Binder of pdf files.	PDF Drawings: Files will be saved in a Binder and organized in the same order as indicated on the sheet index. Drawings shall be oriented in landscape format. Bookmarks will be included in the file for each discipline designation and each drawing file.
CADD Drawings	DGN or DWG files organized in the following folders. Each folder shall contain only drawings pertaining to that discipline: General Cover Sheet Index of Drawings Vicinity Maps Civil Architectural Structural Mechanical Plumbing Electrical Telecommunications	CADD Drawings: All referenced files are to be attached without drive or directories and placed in the same folder it is referencing. Do not save or use paths. Do not use live nesting when attaching reference files.

## Notes:

1. The administrative folder shall provide documents submitted by the contractor and received from the COR related to the contract. These documents shall include Requests for Information related to design issues, Variance Requests, and

Modifications to the Contract. In addition, the folder shall contain a copy of the signed contract, relevant task orders and change orders.

2. Do not include standard drawings or specifications provided to the contractor as part of the RFP or as part of the contract.

### **20.5.3 FINAL DRAWING SUBMITTAL**

All drawings and details of the working drawings shall be labeled and cross-referenced, thoroughly checked and coordinated with other engineering disciplines. At the final design submittal (95%) the Contractor shall have incorporated all design review comments generated by previous design review(s), have completed all of the constructability and coordination comments, and have the drawings in a Ready-to-Build condition. The drawings shall be complete at this time and contain all the details necessary to ensure a clear understanding of the work throughout construction. Prior to the final design submittal, the Contractor shall follow the procedures as described in Section 3 of the AED Design Requirements for CADD Design Guide.

### **20.5.4 DRAWING BORDER SHEET SIZE**

All drawings shall be prepared in size ANSI D border sheets (610mm x 813mm).

Hardcopy design submissions may be printed on half size drawing sheets (ANSI B, 279.5mm x 431.5mm) for purposes of saving paper and ease of review.

All final contract drawing sets (as-builts) shall be submitted on ANSI D border sheets.

### **20.5.5 SEQUENCE OF DESIGN DRAWINGS**

The sequence of drawings in the submittal set shall follow the outline provided in the A/E/C CADD standards as shown below:

1. General
2. Hazardous Materials
3. Survey/Mapping
4. Geotechnical
5. Civil
6. Landscape
7. Structural
8. Architectural
9. Interiors
10. Equipment
11. Fire Protection
12. Plumbing
13. Process
14. Mechanical
15. Electrical
16. Telecommunications
17. Resource
18. Other Disciplines
19. Sub-Contractor / Shop Drawings

## 20. Operations

### 20.5.6 DRAWING FOLDER STRUCTURE

CADD files shall be organized in folder names that correlate with the A/E/C CADD Standards sequence as indicated above. For multi-building projects, a folder for each building type shall be created and the applicable discipline folders included therein.

### 20.5.7 DRAWING SHEET ASSEMBLY

CADD files will be organized in what is described as “Option 1a” in the A/E/C CADD Standards (page 9, Drawing Sheet Assembly Manual). This is typically referred to as “Model Space and Paper Space” in Autodesk / AutoCAD applications and “Design Model and Sheet Model” in Bentley MicroStation applications. All files will be drawn consistently in the same manner using this option throughout the entire project.

#### 20.5.7.1 MODEL FILES

- a. Model files represent the building’s physical layout and components such as floor plans, elevations and details. Model files shall be drawn to full size (1:1) in metric units in the default model view. Floor Plan Model files represent one floor; do not use one model drawing file to draw several floor plan drawings with several border files. Similarly, one paper space layout shall be included per each plotted sheet.
- b. Model files being referenced into another shall have insertion coordinates of: x, y, z = 0, 0, 0 in model space.
- c. The exception for model files with insertion coordinates other than 0, 0, 0 shall be the civil site plans which shall use Georeferencing and real-world coordinates.
- d. Dimensioning shall be in millimeters unless noted otherwise, drawn associatively, and not be “forced.”

Example: A 150 mm wall drawn at a scale of 1:1 that shall have a dimensioned number of 150 mm; the dimension shall not be manually adjusted to another measurement.

#### 20.5.7.2 BORDER SHEET FILES

- a. Border sheet files are referenced into drawing file paper space for plotting and viewing purposes. Every border sheet file has a drawing area, title block information and sheet trim border.
- b. The Contractor shall use the AED-N “Title Block” border file. The project border file with data that is sheet independent is referenced into each drawing. When a drawing file is created, sheet dependent data located in the title block (such as the sheet identification and title) is added to the specific drawing file and located in paper space where the Title Block is referenced and viewed.
- c. AED-N Title Block drawings may be downloaded at the following website under the “Government Provided CADD Files” link:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

### 20.5.8 LAYER / LEVEL NAMES

Layer or level files names shall follow the guidelines of the A/E/C CADD Standards v4.0. For AutoCAD, [discipline].dwt (drawing template files) shall be used to import the proper layers that will be inclusive of the correct line type, color, and line thickness of the respective layer. Templates to be used are found on the CAD/BIM Technology Center at the following link:

<https://cadbim.usace.army.mil/default.aspx?p=s&t=13&i=4>

The templates are also located at AED-N’s website under the “Government Provided CADD files” link:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

### 20.5.9 DRAWING FILE NAMING CONVENTION

The sheet identifier will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in the A/E/C CADD Standards v4.0.

### 20.5.10 SHEET IDENTIFICATION BLOCK

The sheet identifier will follow the format of the border sheet file. This will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in the A/E/C CADD Standards Manual.

### 20.5.11 DRAWING SCALES

The scales indicated on the following list shall be the guide in determining the scale for all drawings. Bar scales on drawings are preferred as printed copies may lose their plotted scale through generational copying. The Contractor may, at its option, make exceptions to the scales indicated, if approved in writing by the Contracting Officer.

TYPICAL DRAWING SCALES	
DRAWING TYPE	METRIC
SITE PLAN	1:200
	1:400
	1:500
	1:600
	1:700
	1:1000
	1:2000
	1:5000
	1:6000
	1:10000
1:20000	
FLOOR PLAN	1:50
	1:100
ROOF PLAN	1:200
EXTERIOR ELEVATIONS	1:100
	1:200
INTERIOR ELEVATIONS	1:50
	1:100
CROSS SECTIONS	1:50
	1:100
	1:200

WALL SECTIONS	1:20
STAIR DETAILS	1:10
DETAILS	1:5

### 20.5.12 TEXT, SYMBOLS, LINE STYLES, & PATTERNS

All text shall be UPPERCASE. For text height, width, line weight ratios use the following as a minimum guideline (with all values given shown as measured from full-size plot of the sheet file):

1. General text: 3mm x 3mm; LW = 2
2. Subtitles: 4.75mm x 4.75mm; LW = 2
3. Titles: 6.35mm x 6.35mm; LW = 3

Approved symbols, line styles, and patterns shall be in accordance with A/E/C CADD Standards v4.0 or newer (reference Appendix D). The approved symbols, line styles, and patterns associated with AutoCAD software maybe downloaded at the following link:

<https://tsc.wes.army.mil/products/standards/aec/aecstdsym.asp>

### 20.5.13 PLOTTER PREPARED ORIGINAL DRAWINGS AND PDF FILES

- a. Design files shall be developed in anticipation of plotting on a monochrome, vector plotter. Line density shall be equivalent to that produced by black India ink; half tone plots are only acceptable where the half-tone color setting of RGB (red, green, blue) settings equal a value of 153. Refer to the A/E/C CADD Standards as necessary. Drawings plotted in color are not acceptable. Manual changes to plotted originals are not acceptable.
- b. A separate Adobe PDF file shall be made of each drawing file in landscape orientation. Each PDF drawing file shall then be compiled into one "binder" PDF file for each set of drawings following the order of the Sheet Index. Provide bookmarks for each discipline designation and each drawing file.

### 20.5.14 REVISIONS

Drawing revisions shall be prepared only on the original CADD files. A revision history (located in the Title Block) is required on all sheets. Only AED-N Revision Block is allowed and is available at AED-N's website for download under the "Government Provided CAD Files" link:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

### 20.5.15 LEGENDS

For each submittal, legends of symbols and lists of abbreviations shall be placed on the drawings. They shall include all of the symbols and abbreviations used in the drawing set, but shall exclude any symbols and abbreviations not used. Since many symbols are limited to certain design disciplines, there is a definite advantage to the use of separate legends on the initial sheet of each design discipline or in the Standard Details package for each discipline. If legends have not been shown by discipline, a legend shall be placed on the first drawing.

### 20.5.16 LOCATION / COLUMN GRID

To facilitate the location of project elements and the coordination of the various disciplines' drawings, all plans shall indicate a column line or planning grid, and all floor plans except structural plans shall show room numbers.

### **20.5.17 COMPOSITE AND KEY PLANS**

If the plan of a large building or structure must be placed on two or more sheets in order to maintain proper scale, the overall plan (key plan) shall be placed on one sheet at a smaller scale to accommodate entire building / site. Key plans shall be used not only to relate large scale plans to total floor plans but also to relate individual buildings to large complexes of buildings. This key plan with match lines shall be referenced on all segmented drawings and shall be placed in a convenient location to indicate the relative location of the represented plan area by crosshatching.

### **20.5.18 SPECIFICATIONS PLACED ON THE DRAWINGS**

Details of standard products or items which are adequately covered by specifications shall not be included on the drawings.

### **20.5.19 BINDING**

All volumes of drawing prints shall be firmly bound and shall have covers of heavier bond than the drawing sheets. If posts are used to fasten sheets together, the drilled holes on the bond edges of the sheets shall be on 8-1/2-inch centers.

### **20.5.20 GOVERNMENT PROVIDED FILES**

All CADD related files provided by the Government to the Contractor (AutoCAD and MicroStation versions, AED-N Title Block, AED-N Cover / Index sheet files, AutoCAD template files, etc.) may be downloaded through the following AED-N website under the "under the "Government Provided CAD Files" link:

<http://www.aed.usace.army.mil/engineeringtop2010.asp>

If the Contractor is unable to access this site, a CD will be provided upon request to the Project Manager.

## **21. EXECUTION**

### **21.1 DESIGN COORDINATION MEETINGS**

Shortly after Notice to Proceed (NTP) the Government or Contractor may suggest meeting(s) to review the design submittal process or discuss various aspects of the Contract to enable prompt and efficient initiation of contract actions.

Meeting(s) will be held to assure attention is focused on key project requirements (necessary Contractor design and Government review that is required to provide Clearance for Construction), to discuss features and items of work that need to be submitted early due to long lead time items, or discuss other concepts/ideas that will help accelerate the contract work.

Other design coordination meetings may be requested throughout the contract period if Government review of various contractor design submittals indicate poor design and plan or specification quality in order to clearly explain the changes and improvements required of the contractor, assure understanding of Government comments, code references and required investigations and calculations, to move forward with acceptable design and satisfactory plans and specifications.

### **21.2 GOVERNMENT DESIGN CHANGES**

Government design changes which do not increase construction costs shall be made at no charge to the Government. The Contracting Officer may request design submittals in addition to those listed when deemed necessary to adequately describe the work covered in the contract documents. Submittals shall be made in the respective number of copies and to the respective addresses set forth in the paragraph entitled SUBMITTAL PROCEDURE. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

### **21.3 CONSTRUCTION SUBMITTAL REGISTER (ENG FORM 4288-R)**

Attached to this section is ENG Form 4288-R, the development of which the Contractor is responsible for this contract. All design and construction submittals shall be shown on this register. The submittal register shall be the prevailing document for tracking all submittals and will be used to control all submittals throughout the life of the contract. The Contractor shall maintain and update the register on a monthly basis for the Contracting Officer's approval.

### **21.4 TRANSMITTAL FORM (ENG FORM 4025-R)**

The sample transmittal form (ENG Form 4025-R) attached to this section shall be used for submitting both design and construction submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

### **21.5 PROGRESS SCHEDULE**

The Contractor shall prepare and submit a design progress schedule to the Contracting Officer. The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The progress schedule shall show, as a percentage of the total design price, the various items included in the contract and the order in which the Contractor proposes to carry on the work, with dates on which he will start the features of the work and the contemplated dates for completing same. Significant milestones such as review submittals shall be annotated. The Contractor shall assign sufficient technical, supervisory and administrative personnel to insure the prosecution of the work in accordance with the progress schedule. The Contractor shall correct the progress schedule at the end of each month and submit as required to the Contracting Officer. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

### **21.6 SCHEDULING**

#### **21.6.1 SUBMITTAL SCHEDULE**

The Contractor shall submit, as part of his Project Schedule, design submittal milestone dates. The Contractor shall post all actual dates of submittal actions (including Clearance for Construction) as they occur.

#### **21.6.2 DESIGN SUBMITTALS**

A minimum of fourteen (14) full calendar days (exclusive of mailing time) shall be allowed for Government review of design submittals and comment in DrChecks<sub>SM</sub>.

If the Contractor fails to provide design submittals in a timely fashion, or repetitively submits documents for review that are not in strict conformance with the Contract, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

#### **21.6.3 CONSTRUCTION SUBMITTALS**

Contractor furnished Government Approved Construction Submittals (GA) for items described in this Section, and all others as required by the COR, shall be submitted to the Area or Resident Office, per directions given at the Pre-Construction Meeting described in Section 00160 SPECIAL REQUIREMENTS. A minimum of fourteen (14) full calendar days (exclusive of mailing time) shall be allowed for AED review and comment.

If the Contractor fails to provide construction submittals in a timely fashion, or repetitively submits documents for review that are not in strict conformance with the Contract, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

#### **21.6.4 POST DESIGN CONSTRUCTION SUBMITTALS**

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. A minimum of fourteen (14) full calendar days (exclusive of mailing time) shall be allowed for review and approval.

If the Contractor fails to submit post design construction submittals in a timely fashion, or repetitively submits submittals that are not in strict conformance with the Contract documents, no part of the time lost due to actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

### **21.7 SUBMITTAL PROCEDURE**

#### **21.7.1 DESIGN SUBMITTALS**

##### **21.7.1.1 AFGHANISTAN ENGINEER DISTRICT (AED)**

One (1) half-sized, hard copy and two (2) soft copies on CD-ROM (electronic version) of all design submittals (calculations, reports of field tests, design analysis, plans, specifications, etc) shall be transmitted to the Government at the following address, by means of ENG Form 4025-R:

(1) DHL, FEDEX, UPS or any other courier service:

AFGHANISTAN ENGINEER DISTRICT NORTH (AEN)

U.S. Army Corps of Engineers  
Afghanistan Engineer District  
House # 1, St. #1 West  
West Wazir Akbar High School  
Behind Amani High School  
Kabul, Afghanistan  
Attention: Chief, Engineering Branch

The Contractor shall scan the soft copy (electronic version) of each design submittal using most up-to-date version of recognized Industry-standard anti-virus software (Symantec, Norton, etc.) to insure that no viruses are contained in it prior to acceptance by AED. Label the CD to indicate that it has been scanned for viruses and the anti-virus software and version are clearly indicated.

##### **21.7.1.2 RESIDENT / AREA ENGINEER OFFICE**

Complete design submittals shall be provided to the Area and/or Resident Engineer Office such that these are received **at the same time** as the Contractor provides them to the address noted in Paragraph 3.6.1.1. At the Pre-Construction meeting, the Contractor will be furnished the Area and/or Resident Office addresses to which these submittals shall be provided and the specific number of hard copies (full and half sizes) and soft copies (CD-ROM) required by the Area and/or Resident Office as per Paragraph 3.6.1.1, soft copies are to be properly labeled and checked for viruses by the Contractor prior to delivery.

##### **21.7.1.3 EDITABLE CAD FORMAT AS-BUILTS**

As prescribed in Contract Clause 227.7107-1(b) DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF GOVERNMENT, all work developed in the performance of this Contract shall become sole property of the Government and is eligible for use on another Contract. As such, as-built documents furnished to the Government must be in an editable format. Refer to Section 01780A CLOSEOUT

SUBMITTALS for all requirements associated with submission of editable CADD format as-builts required as part of this Contract.

### **21.7.2 POST DESIGN CONSTRUCTION SUBMITTALS**

One (1) copy of all post design construction submittals shall be transmitted to:

(1) DHL, FEDEX, UPS or any other courier service:

AFGHANISTAN ENGINEER DISTRICT NORTH (AEN)

U.S. Army Corps of Engineers

Afghanistan Engineer District

House # 1, St. #1 West

West Wazir Akbar High School

Behind Amani High School

Kabul, Afghanistan

Attention: Chief, Engineering Branch

### **21.7.3 SUBMITTAL NUMBERING SYSTEM**

Instructions on the numbering system to be used for construction submittals follows.

#### **21.7.3.1 SHOP DRAWINGS**

Shop drawings and materials are listed on the Submittal Register (ENG Form 4288-R) as follows:

- a. List is prepared according to contract specifications and drawings, addressing all items involved in the project.
- b. This list is divided into sections as indicated in the specifications. For example:

Section 01015	TECHNICAL REQUIREMENTS
Section 01335	DESIGN SUBMITTALS
Section 02831	CHAIN-LINK FENCE
Section 02710	SUB-DRAINAGE SYSTEM
Section 03300	CONCRETE FOR BUILDING CONSTRUCTION
Section 04200	MASONRY

#### **21.7.3.2 NUMBERING PROCEDURES FOR TRANSMITTAL ON ENG FORM 4025-R**

- a. Each specification section will have various requirements for submittals (design information, product data, test reports, procedures, etc.) to the Government for Approval (GA) or For Information Only (FIO). Items from different Sections cannot be submitted on the same ENG Form 4025-R. When furnishing one or more items from the same section at a given time, a single ENG Form 4025-R can be used to identify and submit these items.
- b. Block "b" of Form 4025-R entitled "Description of Item Submitted" should provide an accurate and unique description of each item being proposed by the Contractor. Block "a" entitled "Item No." will be automatically populated in QCS for each ENG Form 4025-R. QCS will track and automatically generate the item number for all following ENG Forms 4025-R for the same section number.
- c. To illustrate, a transmittal required by Section 01335 SUBMITTAL PROCEDURES might have the following Items:

ITEM NO. 1	Topographic Information
ITEM NO. 2	Geotechnical Report
ITEM NO. 3	Foundation Design

- ITEM NO. 4            35% Plans
- ITEM NO. 5            Outline of Construction Specifications to be used

If this was the first submittal furnished by the Contractor for Section 01335, then a Transmittal Number of 01335-1 would be generated using QCS. As new transmittals are generated in QCS, the last digit of the transmittal is increased incrementally, as follows:

Transmittal No. 01335-2

Transmittal No. 01335-3

Transmittal No. 01335-4

Etc.

The first transmittal submitted from each Specification Section will be "-1"; in other words, there will never be a "Transmittal No. 01335-0".

- d. The above illustration is true for all other specification sections included in the Request for Proposal or in the Construction Specifications compiled by the Contractor in the prosecution of work under the RFP.

### **21.7.3.3            RESUBMITTALS**

- a. Should the Contractor be required to resubmit any transmittal due to review codes issued by the Government as described herein, QCS will be used to generate the same transmittal number followed by the number "-1" for the first resubmittal, "-2" for the second resubmittal, "-3" for the third resubmittal, etc.
- b. As an example, assume the design submittal is provided to the Government as Transmittal 01335-9. Due to omissions or errors in that submittal which resulted in a resubmittal code being issued, the subsequent Design Resubmittal #1 would be "Transmittal 01335-9.1". Should a resubmittal again be necessary, it would be Design Resubmittal #2 and would be submitted as "Transmittal 01335-9.2".
- c. The purpose of this system is to avoid deviations from the submittal register and to track submittals in both RMS and DrChecks<sub>SM</sub>. It should be noted that a new transmittal number following the above system CANNOT be generated in QCS unless the prior transmittal has been given a Code. If the Contractor is having difficulty generating the correct transmittal number, contact the COR to resolve the matter.

### **21.7.4                            TITLE BLOCKS AND COVER SHEETS**

The Contractor shall use the above nomenclature and date of submission to the Government for: plan cover sheets; title blocks for all drawings; all specification cover sheets; all specification pages; all design analysis cover sheets and associated pages; and similar labeling for all other documents included in the submittal.

See Section 1335A ATTACHMENTS-AED (Figures 1-4) for title block required annotations drawing guidance.

### **21.7.5    VARIATIONS**

If design or construction submittals show a variance from the contract parameters and/or requirements, the Contractor shall justify such substitutions in writing, at the time of submission. Additionally, the Contractor shall also annotate block "h" entitled "variation" of ENG FORM 4025-R.

### **21.7.6    NON-COMPLIANCE**

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose

of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

## **21.8 REVIEW OF CONTRACTOR PREPARED DESIGN DOCUMENTS**

### **21.8.1 GENERAL**

The work under Contract will be subject to continuous review by representatives of the Contracting Officer. Additionally, joint design review conferences with representation by all organizations having a direct interest in the items under review may be held. The Contractor shall furnish copies of all drawings and related documents to be reviewed at the review conference on or before the date indicated by the Government. Additional conferences pertaining to specific problems may be requested by the Contractor or may be directed by the Contracting Officer as necessary to progress the work. The Contractor shall prepare minutes of all conferences and shall furnish two copies to the Contracting Officer within seven (7) days after the conference.

### **21.8.2 CONTRACTOR'S QUALITY CONTROL ORGANIZATION REVIEW**

The Contractor shall thoroughly review each submittal prior to submission to the Contracting Officer to assure it is complete and correct. This review shall be for the purposes of eliminating errors, interferences, and inconsistencies, and of incorporating design criteria, review comments, specifications, and any additional information required.

The Contractor will give evidence of such review of all items in each submittal ENG Form 4025-R, by annotating Column "g" (titled "For Contractor Use Code") of this form with the letter "A." This designation signifies that the Contractor has reviewed the submittal and is certifying it is "Approved as Submitted".

Design documents submitted to the Contracting Officer without evidence of the above requirements or the Contractor's certified approval will be returned for resubmission. No part of the time lost due to such resubmissions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

### **21.8.3 INDEPENDENT DESIGN REVIEW**

- a. The Contractor shall have someone other than the designer or design team, perform an Independent Technical Review of all specifications, drawings, design analysis, calculations, and other required data prior to submission to the Government. This review shall insure the professional quality, technical accuracy, and the coordination of all design analysis, drawings and specifications, and other services furnished under this Contract have been accomplished.
- b. Work must be organized in a manner that will assure thorough coordination between various details on drawings, between the various sections of the specifications, and between the drawings and specifications. The Contractor shall thoroughly cross-check and coordinate all work until he is professionally satisfied that no conflicts exist, vital information has not been omitted, and that indefinite language open to interpretation has been resolved.
- c. Upon completion of this review, the Contractor shall certify that each design submittal is complete, accurate, is in strict conformance with all contract requirements, that repetition has been avoided, that all conflicts have been resolved, and that the documents have thoroughly coordinated and cross checked against all the applicable disciplines to prevent the omission of vital information.

### **21.8.4 GOVERNMENT REVIEW**

1. Within fourteen (14) days after Notice to Proceed, the Contractor shall submit for approval, a complete design schedule with all submittals and review times indicated in calendar dates. The Contractor shall update this schedule monthly. After receipt, the Government will be allowed fourteen

(14) full days to review and comment on all Design Submittals, except as noted below. This time period starts on the next full day after delivery of the Design Submittal to the Government.

2. If a design submittal is deficient per criteria described above, (errors on ENG Form 4025-R, incorrect drawing title block information, missing or incomplete features required in the Submittal, etc.), it will be returned immediately without further review for correction and resubmission. The review time will begin when the corrected submittal is received. The Contractor may be liable for liquidated damages owed to the Government for returned design submittals due to deficiencies.
3. If a design submittal is over one (1) day late in accordance with the latest design schedule, the Government review period may be extended 7 days. Submittal date revisions must be made in writing at least five (5) days prior to the submittal.
4. The Contractor shall not begin construction work until the Government has reviewed the Contractor's design submittal and cleared it for construction. Clearance for Construction does not mean Government approval; Government review shall not be construed as a complete check but will evaluate the general design approach and adherence to contract parameters. The Government Review is often limited in time and scope and therefore the Contractor shall not consider any review performed by the Government as an allowance for incomplete work.
5. Upon completion of the review, the Contractor will be notified by the Contracting Officer Representative that the DrChecks<sub>SM</sub> file is open for viewing and response to AED comments. The Contracting Officer will indicate whether the design submittal, or portions thereof, has or has not been cleared for construction using the following action codes:
  - A – Cleared for Construction
  - B – Cleared for Construction, except as noted in attached comments
  - C – Cleared for Construction, except as noted in attached comments, Re-submission required
  - E – NOT Cleared for Construction, see attached comments, Re-submission required
  - FX – Receipt acknowledged, does not comply as noted with contract requirements.

e. These codes shall NOT be used by the Contractor.

#### **21.8.5 INCORPORATION OF GOVERNMENT REVIEW COMMENTS**

1. The Contractor shall review each comment, furnish a complete response in DrChecks<sub>SM</sub> as to how the comment will be addressed in the design analysis, plans and specifications, or other design submittal stipulations required in this Contract. The Contractor will then incorporate each comment into the design submittal along with other work required at the next design submittal stage.
2. The Contractor shall furnish disposition of all comments in DrChecks<sub>SM</sub>, with the next scheduled submittal. The disposition shall identify action taken with citation of location within the relevant design document. Generalized statements of intention such as "will comply" or "will revise the specification" are not acceptable. During the design review process, comments will be made on the design submittals that will change the drawings and specifications. The Government will make no additional payments to the Contractor for the incorporation of comments. Review comments are considered part of the contract administration process.
3. If the Contractor disagrees technically with any comment(s) and does not intend to comply with the comment, he must clearly outline, with ample justification, the reasons for noncompliance within five (5) days after close of review period in order that the comment can be resolved.
4. The Contractor is cautioned that if he believes the action required by any comment exceeds the requirements of this contract, he should flag the comment in DrChecks<sub>SM</sub> as a scope change, and notify the COR in writing immediately.

### 21.8.6 DESIGN DISCREPANCIES

The Contractor shall be responsible for the correction of incomplete design data, omissions, and design deficiencies which become apparent during construction. The Contractor shall provide the Contracting Officer with a proposed recommendation for correcting a design error, within three (3) calendar days after notification by the Contracting Officer. The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. Should extensions of design, fabrication plans and/or specific manufacturer's details be required as a result of a Government issued Change Order, the Government will make an equitable adjustment in accordance with Contract Clause 52.243-4 entitled CHANGES.

### 21.8.7 CONFERENCES

**21.9 As necessary, conferences will be conducted between the Contractor and the Government to resolve review comments. REVIEW conferences may be held at the completion of EACH AED review and subsequent Contractor response for each design submittal. The review conference will be held at the Corps District Office in Kabul, Afghanistan. The Contractor shall bring the personnel that developed the Design submittal to the review conference. ATTACHMENTS**

The following attachments found in Section 1335A ATTACHMENTS-AED form an integral part of this specification:

ENG FORM 4025-R, Mar 95 - Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificate of Compliance (2 pages)

ENG FORM 4288-R, Mar 95 - Submittal Register

Figure 1 – AED Title Block

Figure 2 - AED Management Block

Figure 3 - AED Issue Block & Required Notations

Figure 4 - Border Sheet Size

**-- END OF SECTION --**

### ADDITIONAL ATTACHMENTS

**Refer to the following additional attachments at the end of this solicitation document:**

- 1) **01335a Adapt Attachments AED**
- 2) **Appen B-1 Site Plan**
- 3) **Appen B-2 Drawings**

CLAUSES INCORPORATED BY REFERENCE

52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUL 2010
52.209-5	Certification Regarding Responsibility Matters	APR 2010
52.211-13	Time Extensions	SEP 2000
52.215-1	Instructions to Offerors--Competitive Acquisition	JAN 2004
52.222-50	Combating Trafficking in Persons	FEB 2009
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.225-20	Prohibition on Conducting Restricted Business Operations in Sudan--Certification	AUG 2009
52.225-25	Prohibition on Engaging in Sanctioned Activities Relating to Iran--Certification.	SEP 2010
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-27	Prompt Payment for Construction Contracts	OCT 2008
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-5	Material and Workmanship	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-13	Accident Prevention	NOV 1991
52.236-26	Preconstruction Conference	FEB 1995
52.236-28	Preparation of Proposals--Construction	OCT 1997
52.242-14	Suspension of Work	APR 1984
52.243-5	Changes and Changed Conditions	APR 1984
52.244-6	Subcontracts for Commercial Items	DEC 2010
52.246-21	Warranty of Construction	MAR 1994
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	MAY 2004
52.249-10	Default (Fixed-Price Construction)	APR 1984
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	JAN 2009
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	JAN 2009
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.222-7002	Compliance With Local Labor Laws (Overseas)	JUN 1997
252.225-7024	Requirement for Products or Services from IRAQ or Afghanistan	APR 2010
252.225-7031	Secondary Arab Boycott Of Israel	JUN 2005
252.225-7040	Contractor Personnel Authorized to Accompany U.S. Armed Forces Deployed Outside the United States	JUL 2009
252.225-7041	Correspondence in English	JUN 1997
252.229-7000	Invoices Exclusive of Taxes or Duties	JUN 1997
252.232-7008	Assignment of Claims (Overseas)	JUN 1997
252.232-7010	Levies on Contract Payments	DEC 2006
252.233-7001	Choice of Law (Overseas)	JUN 1997
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991

## CLAUSES INCORPORATED BY FULL TEXT

## 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 180 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than .20 January 2011\* The time stated for completion shall include final cleanup of the premises.

(End of clause)

## 52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from [scott.barnhart@usace.army.mil](mailto:scott.barnhart@usace.army.mil) .

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

## 52.243-4 CHANGES (JUN 2007)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished property or services; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

#### 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<https://www.acquisition.gov/far/>

<http://www.acq.osd.mil/dpap/dars/dfarspgi/current/>

(End of provision)

#### 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<https://www.acquisition.gov/far/>

<http://www.acq.osd.mil/dpap/dars/dfarspgi/current/>

(End of clause)

252.225-7043 ANTITERRORISM/FORCE PROTECTION POLICY FOR DEFENSE CONTRACTORS  
OUTSIDE THE UNITED STATES (MAR 2006)

(a) Definition. United States, as used in this clause, means, the 50 States, the District of Columbia, and outlying areas.

(b) Except as provided in paragraph (c) of this clause, the Contractor and its subcontractors, if performing or traveling outside the United States under this contract, shall--

(1) Affiliate with the Overseas Security Advisory Council, if the Contractor or subcontractor is a U.S. entity;

(2) Ensure that Contractor and subcontractor personnel who are U.S. nationals and are in-country on a non-transitory basis, register with the U.S. Embassy, and that Contractor and subcontractor personnel who are third country nationals comply with any security related requirements of the Embassy of their nationality;

(3) Provide, to Contractor and subcontractor personnel, antiterrorism/force protection awareness information commensurate with that which the Department of Defense (DoD) provides to its military and civilian personnel and their families, to the extent such information can be made available prior to travel outside the United States; and

(4) Obtain and comply with the most current antiterrorism/force protection guidance for Contractor and subcontractor personnel.

(c) The requirements of this clause do not apply to any subcontractor that is--

(1) A foreign government;

(2) A representative of a foreign government; or

(3) A foreign corporation wholly owned by a foreign government.

(d) Information and guidance pertaining to DoD antiterrorism/force protection can be obtained from [http://www.acq.osd.mil/dpap/dars/dfars/html/current/225\\_74.htm](http://www.acq.osd.mil/dpap/dars/dfars/html/current/225_74.htm)

(End of clause)

252.225-7997 ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES RELATING TO ALLEGED  
CRIMES BY OR AGAINST CONTRACTOR PERSONNEL IN IRAQ AND AFGHANISTAN (DEVIATION  
2010-O0014)(AUGUST 2010)

(a) The Contractor shall report to the appropriate investigative authorities, identified in paragraph (c) below, any alleged offenses under—

(1) The Uniform Code of Military Justice (chapter 47 of title 10, United States code) (applicable to contractors serving with or accompanying an armed force in the field during a declared war or a contingency operation); or

(2) The Military Extraterritorial Jurisdiction Act (chapter 212 of title 18, United States Code).

(b) The Contractor shall provide to all contractor personnel who will perform work on a contract in Iraq or Afghanistan, before beginning such work, information on the following:

(1) How and where to report an alleged crime described in paragraph (a) of this clause.

(2) Where to seek victim and witness protection and assistance available to contractor personnel in connection with an alleged offense described in paragraph (a) of this clause.

(c) The appropriate investigative authorities to which suspected crimes shall be reported include the following officials--

(i) US Army Criminal Investigative Division at <http://www.cid.army.mil/reportacrime.html>;

(ii) Air Force Office of Special Investigations at <http://www.osi.andrews.af.mil/library/factsheets/factsheet.asp?id=14522>;

(iii) Navy Criminal Investigative Service at <http://www.ncis.navy.mil/Pages/publicdefault.aspx>;  
or

(iv) To the command of any supported military element or the command of any base.

(d) Personnel seeking whistleblower protection from reprisals for reporting criminal acts shall seek guidance through the DoD Inspector General hotline at (800) 424-9098 or [www.dodig.mil/HOTLINE/index.html](http://www.dodig.mil/HOTLINE/index.html). Personnel seeking other forms of victim or witness protections should contact the nearest military law enforcement office.

(End of clause)

### C3 CLAUSES

**952.222-0001 – PROHIBITION AGAINST HUMAN TRAFFICKING, INHUMANE LIVING CONDITIONS, AND WITHHOLDING OF EMPLOYEE PASSPORTS (JUL 2010)**

(a) All contractors (“contractors” refers to both prime contractors and all subcontractors at all tiers) are reminded of the prohibition contained in Title 18, United States Code, Section 1592, against knowingly destroying, concealing, removing, confiscating, or possessing any actual or purported passport or other immigration document, or any other actual or purported government identification document, of another person, to prevent or restrict or to attempt to prevent or restrict, without lawful authority, the person’s liberty to move or travel, in order to maintain the labor or services of that person.

(b) Contractors are also required to comply with the following provisions:

(1) Contractors shall only hold employee passports and other identification documents discussed above for the shortest period of time reasonable for administrative processing purposes.

(2) Contractors shall provide all employees with a signed copy of their employment contract, in English as well as the employee’s native language that defines the terms of their employment/compensation.

(3) Contractors shall not utilize unlicensed recruiting firms, or firms that charge illegal recruiting fees.

(4) Contractors shall be required to provide adequate living conditions (sanitation, health, safety, living space) for their employees. Fifty square feet is the minimum acceptable square footage of personal living space per employee. Upon contractor’s written request, contracting officers may grant a waiver in writing in cases where the existing square footage is within 20% of the minimum, and the overall conditions are determined by the contracting officer to be acceptable. A copy of the waiver approval shall be maintained at the respective life support area.

(5) Contractors shall incorporate checks of life support areas to ensure compliance with the requirements of this Trafficking in Persons Prohibition into their Quality Control program, which will be reviewed within the Government’s Quality Assurance process.

(6) Contractors shall comply with International and Host Nation laws regarding transit/exit/entry procedures, and the requirements for visas and work permits.

(c) Contractors have an affirmative duty to advise the Contracting Officer if they learn of their employees violating the human trafficking and inhumane living conditions provisions contained herein. Contractors are advised that contracting officers and/or their representatives will conduct random checks to ensure contractors and subcontractors at all tiers are adhering to the law on human trafficking, humane living conditions and withholding of passports.

(d) The contractor agrees to incorporate the substance of this clause, including this paragraph, in all subcontracts under his contract.

**952.223-0001 – REPORTING KIDNAPPINGS, SERIOUS INJURIES AND DEATHS (JUL 2010)**

Contractors shall notify the Contracting Officer, as soon as practicable, whenever employee kidnappings, serious injuries or deaths occur.

Report the following information:

Contract Number

Contract Description & Location

Company Name

Reporting party:

Name

Phone number

e-mail address

Victim:

Name

Gender (Male/Female)

Age

Nationality

Country of permanent residence

Incident:

Description

Location  
 Date and time  
 Other Pertinent Information

**952.225-0003 – FITNESS FOR DUTY AND MEDICAL/DENTAL CARE LIMITATIONS  
 (NOV 2010)**

(a) The contractor shall perform the requirements of this contract notwithstanding the fitness for duty of deployed employees, the provisions for care offered under this section, and redeployment of individuals determined to be unfit. Contractor personnel who deploy for multiple tours, for more than 12 months total must be re-evaluated for fitness to deploy. An examination will remain valid for 15 months from the date of the physical. The contractor bears the responsibility for ensuring all employees are aware of the conditions and medical treatment available at the performance location. The contractor shall include this information and requirement in all subcontracts with performance in the theater of operations.

(b) The contractor shall not deploy an individual with any of the following conditions unless approved by the appropriate CENTCOM Service Component (i.e. ARCENT, AFCENT, etc.) Surgeon: Conditions which prevent the wear of personal protective equipment, including protective mask, ballistic helmet, body armor, and chemical/biological protective garments; conditions which prohibit required theater immunizations or medications; conditions or current medical treatment or medications that contraindicate or preclude the use of chemical and biological protective's and antidotes; diabetes mellitus, Type I or II, on pharmacological therapy; symptomatic coronary artery disease, or with myocardial infarction within one year prior to deployment, or within six months of coronary artery bypass graft, coronary artery angioplasty, or stenting; morbid obesity (BMI  $\geq$  40%); dysrhythmias or arrhythmias, either symptomatic or requiring medical or electrophysiological control; uncontrolled hypertension, current heart failure, or automatic implantable defibrillator; therapeutic anticoagulation; malignancy, newly diagnosed or under current treatment, or recently diagnosed/treated and requiring frequent subspecialist surveillance, examination, and/or laboratory testing; dental or oral conditions requiring or likely to require urgent dental care within six months' time, active orthodontic care, conditions requiring prosthodontic care, conditions with immediate restorative dentistry needs, conditions with a current requirement for oral-maxillofacial surgery; new onset (< 1 year) seizure disorder, or seizure within one year prior to deployment; history of heat stroke; Meniere's Disease or other vertiginous/motion sickness disorder, unless well controlled on medications available in theater; recurrent syncope, ataxias, new diagnosis (< 1 year) of mood disorder, thought disorder, anxiety, somatoform, or dissociative disorder, or personality disorder with mood or thought manifestations; unrepaired hernia; tracheostomy or aphonia; renalithiasis, current; active tuberculosis; pregnancy; unclosed surgical defect, such as external fixeter placement; requirement for medical devices using AC power; HIV antibody positivity; psychotic and bipolar disorders. (Reference: Mod 10 to USCENTCOM Individual Protection and Individual/Unit Deployment Policy, Tab A: Amplification of the Minimal Standards of Fitness for Deployment to the CENTCOM AOR).

(c) In accordance with military directives (DoDI 3020.41, DoDI 6000.11, CFC FRAGO 09-1038, DoD PGI 225.74), resuscitative care, stabilization, hospitalization at Level III (emergency) military treatment facilities and assistance with patient movement in emergencies where loss of life, limb or eyesight could occur will be provided. Hospitalization will be limited to emergency stabilization and short-term medical treatment with an emphasis on return to duty or placement in the patient movement system. Subject to availability at the time of need, a medical treatment facility may provide reimbursable treatment for emergency medical or dental care such as broken bones, lacerations, broken teeth or lost fillings.

(d) Routine and primary medical care is not authorized. Pharmaceutical services are not authorized for routine or known, routine prescription drug needs of the individual. Routine dental care, examinations and cleanings are not authorized.

(e) Notwithstanding any other provision of the contract, the contractor shall be liable for any and all medically-related services or transportation rendered. To view reimbursement rates that will be charged for services at all DoD deployed medical facilities please go to the following website: <http://comptroller.defense.gov/rates/fy2010.html> (change fiscal year as applicable).

**952.225-0004 – COMPLIANCE WITH LAWS AND REGULATIONS  
(JUL 2010)**

(a) The Contractor shall comply with, and shall ensure that its employees and its subcontractors and their employees, at all tiers, are aware of and obey all U.S. and Host Nation laws, Federal or DoD regulations, and Central Command orders and directives applicable to personnel in Iraq and Afghanistan, including but not limited to USCENTCOM, Multi-National Force and Multi-National Corps operations and fragmentary orders, instructions, policies and directives.

(b) Contractor employees shall particularly note all laws, regulations, policies, and orders restricting authority to carry firearms, rules for the use of force, and prohibiting sexual or aggravated assault. Contractor employees are subject to General Orders Number 1, as modified from time to time, including without limitation, their prohibition on privately owned firearms, alcohol, drugs, war souvenirs, pornography and photographing detainees, human casualties or military security measures.

(c) Contractor employees may be ordered removed from secure military installations or the theater of operations by order of the senior military commander of the battle space for acts that disrupt good order and discipline or violate applicable laws, regulations, orders, instructions, policies, or directives. Contractors shall immediately comply with any such order to remove its contractor employee.

(d) Contractor employees performing in the USCENTCOM Area of Responsibility (AOR) may be subject to the jurisdiction of overlapping criminal codes, including, but not limited to, the Military Extraterritorial Jurisdiction Act (18 U.S.C. Sec. 3261, et al) (MEJA), the Uniform Code of Military Justice (10 U.S.C. Sec. 801, et al)(UCMJ), and the laws of the Host Nation. Non-US citizens may also be subject to the laws of their home country while performing in the USCENTCOM AOR. Contractor employee status in these overlapping criminal jurisdictions may be modified from time to time by the United States, the Host Nation, or by applicable status of forces agreements.

(e) Under MEJA, a person who engages in felony misconduct outside the United States while employed by or accompanying the Armed Forces is subject to arrest, removal and prosecution in United States federal courts. Under the UCMJ, a person serving with or accompanying the Armed Forces in the field during a declared war or contingency operation may be disciplined for a criminal offense, including by referral of charges to a General Court Martial. Contractor employees may be ordered into confinement or placed under conditions that restrict movement within the AOR or administratively attached to a military command pending resolution of a criminal investigation.

(f) Contractors shall immediately notify military law enforcement and the Contracting Officer if they suspect an employee has committed an offense. Contractors shall take any and all reasonable and necessary measures to secure the presence of an employee suspected of a serious felony offense. Contractors shall not knowingly facilitate the departure of an employee suspected of a serious felony offense or violating the Rules for the Use of Force to depart Iraq or Afghanistan without approval from the senior U.S. commander in the country.

**952.225-0005 – MONTHLY CONTRACTOR CENSUS REPORTING  
(JUL 2010)**

Contractor shall provide monthly employee census information to the Contracting Officer, by province, for this contract. Information shall be submitted either electronically or by hard-copy. Information shall be current as of the 25th day of each month and received by the Contracting Officer no later than the first day of the following month. The following information shall be provided for each province in which work was performed:

- (1) The total number (prime and subcontractors at all tiers) employees.
- (2) The total number (prime and subcontractors at all tiers) of U.S. citizens.
- (3) The total number (prime and subcontractors at all tiers) of local nationals (LN).
- (4) The total number (prime and subcontractors at all tiers) of third-country nationals (TCN).
- (5) Name of province in which the work was performed.
- (6) The names of all company employees who enter and update employee data in the Synchronized Pre-deployment & Operational Tracker (SPOT) IAW DFARS 252.225-7040 or DFARS DOD class deviation 2007-O0010.

**952.225-0006 – CONTRACT DELIVERY REQUIREMENTS  
(JUL 2010)**

(a) **REQUIRED DELIVERY DATE:**

(b) **CONTRACTOR DELIVERY LOCATION:**

(c) **POINT-OF-CONTACT RESPONSIBLE FOR INSPECTION & ACCEPTANCE:**

Name:

Phone No.: email:

(d) **FINAL DELIVERY DESTINATION:**

(e) **POINT-OF-CONTACT AT FINAL DESTINATION:**

Name:

Phone No.: email:

(f) **REQUIRING ACTIVITY:**

**952.225-0007 – MANDATORY SHIPPING INSTRUCTIONS  
(JUL 2010)**

(a) United States Forces Iraq, Deputy Commanding General Advisory and Training (USF-I DCG A&T), is required to track supplies and materiel shipped into Iraq. Prompt notification of shipment movements and compliance with information requirements will assist in providing advance notice to the point of entry for all inbound shipments.

(b) The “Customs Levy Exemption Form” will be reviewed by a Government of Iraq Representative. If the shipment qualifies for a levy exemption, the “Customs Levy Exemption Form” will be stamped and emailed back to the contractor. The stamped form must accompany every shipment for which a levy exemption is desired.

(c) Upon contract award, the contractor/consignor shall provide the necessary logistical information required by USF-I DCG A&T /J4.

STEP 1:

-- Upon contract award go to the following JCCS website:

-- <https://www.rebuilding-iraq.net/>

STEP 2:

-- Select the “Logistics” and then the “Customs” radio buttons.

-- Select and complete the “Customs Levy Waiver Form”.

STEP 3:

-- Email the (1) completed “Customs Levy Exemption Form”, (2) a copy of the front page of the signed contract; and (3) the pages from the contract that describe the required supplies, equipment or end product to USF-I DCG A&T /J4 (Logistics) at [Usf-i.j4.mmdmove@iraq.centcom.mil](mailto:Usf-i.j4.mmdmove@iraq.centcom.mil) and Customs Officials at [CMDbattlebox@iraq.centcom.mil](mailto:CMDbattlebox@iraq.centcom.mil), DSN: 318-485-2594/6224 Commercial: 713-970-6140 (Rings in Iraq) within 7 days of shipping.

-- The “Customs Levy Exemption Form” will be reviewed by a Government of Iraq representative. If the shipment qualifies for a levy exemption, the “Customs Levy Exemption Form” will be stamped and emailed back to the contractor. The stamped form, airway bill/bill of lading, and manifests/packing documents must accompany every shipment for which a levy exemption is desired. All of these documents must list USF-I as the consignee/end user and the releasing agent as “GLOBAL FREIGHT SYSTEM.”

-- Complete a Form DD-250 form, Material Inspection and Receiving Report, and provide it and the invoice for the shipment with the cargo.

-- Commercial Air Shipments require (1) airway bills and (2) the “Customs Levy Exemption” form to be emailed to the USF-I J4 org box at

[Usf-i.j4.mmdmove@iraq.centcom.mil](mailto:Usf-i.j4.mmdmove@iraq.centcom.mil). Ensure that all shipping labels have **USF-I** and **ATTN: GLOBAL FREIGHT SYSTEM**.

(d) It is the contractor’s responsibility to provide all the requested information in sufficient time to allow coordination of required delivery. Failure to comply with these instructions may result in delaying the arrival of supplies and materiel at their final destinations.

(e) Once material is shipped, the Contractor shall notify USF-I J4, within two business days, at email address: [Usf-i.j4.mmdmove@iraq.centcom.mil](mailto:Usf-i.j4.mmdmove@iraq.centcom.mil).

**952.225-0008 – SHIPPING INSTRUCTIONS FOR WEAPONS  
(JUL 2010)**

(a) All weapons shall be shipped with a complete serial number manifest that is included with the shipping documents (inventory, bill of lading, etc.).

(b) All individual boxes or crates shall be numbered and correspond to a list annotated on the serial number manifest.

(c) Each individual box or crate shall have a packing list both inside and outside the box. That packing list shall contain a list of the contents and the serial numbers for the weapons in that box or crate.

(d) The contract number shall be listed on all serial number manifests and packing lists.

All serial numbers shall be unique and non-recurring in any previous or future shipments. Shipments received with recurring serial numbers will not be accepted by the U.S. Government, and the contractor will be required to return the shipment at his own expense and replace with new weapons having non-recurring serial numbers.

**952.225-0009 – MEDICAL SCREENING AND VACCINATION REQUIREMENTS FOR THIRD  
COUNTRY NATIONALS OR LOCALLY HIRED EMPLOYEES OPERATING IN THE CENTCOM  
AREA OF RESPONSIBILITY (AOR)  
(NOV 2010)**

(a) Contractors and subcontractors at any tier shall ensure and provide satisfactory evidence that all locally hired employees, including Local National (LN), Third Country National (TCN), and U.S. employees, working on bases have been screened for and do not currently have active tuberculosis (TB).

(1) Contractors may initially utilize a testing method of either a chest x-ray or TB skin test (TST), depending on the originating country of a contracted employee.

(i) Chest x-rays (CXR's), symptom survey, and Body Mass Index (BMI) shall be taken, and TSTs administered within 12 months prior to the start of deployment/employment. Contractors are required to bring in a physical copy of the pre-employment CXR film as it is the only way to verify interval changes should an active case of TB occur.

(A) Third Country Nationals (TCNs) and Local Nationals (LNs) cannot be screened with the TST. They need the pre-employment screening with a quality CXR, BMI and symptom survey.

(B) Small-Risk Nationals (SRNs), those with less than 25 TB cases per 100,000 persons annually (mostly expats from Europe and US), can be screened via the TST.

(ii) Annual re-screening for TCNs, and LNs will be performed with a CXR conducted by the Contractor's medical provider or local economy provider who will look for interval changes from prior CXR's and review any changes in the symptom survey.

(iii) SRN's do not require annual TB re-screening. However, for a TB contact investigation, a TST or Interferon Gamma Release Assay (IGRA) is required.

(iv) For a contact investigation, all personnel with a positive TST or IGRA will be evaluated for potential active TB with a symptom screen, exposure history, BMI, and CXR. All cases of suspected or confirmed active TB must be reported to the theater Preventive Medicine (PM) physician and/or TB Consultant as soon as possible. TB reporting is required within 24 hours to the PM POC. Contact tracing, and medical coding have specific requirements. All Small-Risk National (SRN) contract personnel are required to be MEDEVAC'd out of theater, at the contractor's expense, for treatment of active TB, after consultation with the Theater PM or TB Consultant. For SRN personnel, the contractor is responsible for management and compliance with all prescribed public health actions.

(v) Screening may be performed either by a licensed medical provider from the local economy or by the contractors' licensed medical staffs. Contractors shall maintain medical screening documentation and make it available to the Contracting Officer upon request.

(2) TB screening and documentation is a requirement prior to receiving badges to work in the CENTCOM Area of Operations. A copy of the TB screening documentation shall be provided to the responsible Base Operations Center prior to issuance of base access badges.

(b) Contractor employees, including subcontractors at any tier, who work in food service positions and/or water and ice production facilities, shall have current Typhoid and Hepatitis "A" (full series) immunizations in accordance with the Centers for Disease Control and Prevention guidelines (e.g. typhoid vaccination booster is required every 2 years), in addition to the required TB tests. The contractor medical provider must complete a pre-placement examination to include a stool sample test for ova and parasites, and annual medical screening form or equivalent for food service, ice and water production workers.

(c) Proof of individual employee vaccinations shall be provided to the Contracting Officer and COR showing that their employees and their subcontractor employees at any tier have received the above vaccinations. The contractor shall maintain their employees' vaccination records for examination by the Contracting Officer. The contractor shall ensure that their subcontractors at any tier maintain their respective employees' vaccination records for examination by the Contracting Officer.

(d) The contractor is responsible for management and compliance with all prescribed public health actions regarding TB in the contracted personnel. The contractor also bears the responsibility of ensuring that adequate health management for TB (screening/diagnosis/treatment/isolation) is available at the contractor's chosen health care provider for their contracted and subcontracted personnel.

NOTE: Contractors are reminded of the requirement to comply with their contract and all regulatory guidance (DoD Instructions/Regulations, Federal Acquisition Regulation/Defense Federal Acquisition Regulation Supplement, and FRAGO's) as applicable regarding Medical Screening and Vaccination Requirements.

**952.225-0011 – GOVERNMENT FURNISHED CONTRACTOR SUPPORT  
(JUL 2010)**

The following is a summary of the type of support the Government will provide the contractor, on an "as-available" basis. In the event of any discrepancy between this summary and the description of services in the Statement of Work, this clause will take precedence.

U.S. Citizens Accompanying the Force

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> APO/FPO/MPO/Postal Services          | <input type="checkbox"/> DFACs                | <input type="checkbox"/> Mil Issue Equip               |
| <input type="checkbox"/> Authorized Weapon                    | <input type="checkbox"/> Excess Baggage       | <input type="checkbox"/> MILAIR                        |
| <input type="checkbox"/> Billeting                            | <input type="checkbox"/> Fuel Authorized      | <input type="checkbox"/> MWR                           |
| <input type="checkbox"/> CAAF                                 | <input type="checkbox"/> Govt Furnished Meals | <input checked="" type="checkbox"/> Resuscitative Care |
| <input type="checkbox"/> Controlled Access Card (CAC)/ID Card | <input type="checkbox"/> Military Banking     | <input type="checkbox"/> Transportation                |
| <input type="checkbox"/> Commissary                           | <input type="checkbox"/> Military Clothing    | <input type="checkbox"/> All                           |
| <input type="checkbox"/> Dependents Authorized                | <input type="checkbox"/> Military Exchange    | <input type="checkbox"/> None                          |

Third-Country National (TCN) Employees

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> APO/FPO/MPO/Postal Services          | <input type="checkbox"/> DFACs                | <input type="checkbox"/> Mil Issue Equip               |
| <input type="checkbox"/> Authorized Weapon                    | <input type="checkbox"/> Excess Baggage       | <input type="checkbox"/> MILAIR                        |
| <input type="checkbox"/> Billeting                            | <input type="checkbox"/> Fuel Authorized      | <input type="checkbox"/> MWR                           |
| <input type="checkbox"/> CAAF                                 | <input type="checkbox"/> Govt Furnished Meals | <input checked="" type="checkbox"/> Resuscitative Care |
| <input type="checkbox"/> Controlled Access Card (CAC)/ID Card | <input type="checkbox"/> Military Banking     | <input type="checkbox"/> Transportation                |
| <input type="checkbox"/> Commissary                           | <input type="checkbox"/> Military Clothing    | <input type="checkbox"/> All                           |
| <input type="checkbox"/> Dependents Authorized                | <input type="checkbox"/> Military Exchange    | <input type="checkbox"/> None                          |

Local National (LN) Employees

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> APO/FPO/MPO/Postal Services          | <input type="checkbox"/> DFACs                | <input type="checkbox"/> Mil Issue Equip               |
| <input type="checkbox"/> Authorized Weapon                    | <input type="checkbox"/> Excess Baggage       | <input type="checkbox"/> MILAIR                        |
| <input type="checkbox"/> Billeting                            | <input type="checkbox"/> Fuel Authorized      | <input type="checkbox"/> MWR                           |
| <input type="checkbox"/> CAAF                                 | <input type="checkbox"/> Govt Furnished Meals | <input checked="" type="checkbox"/> Resuscitative Care |
| <input type="checkbox"/> Controlled Access Card (CAC)/ID Card | <input type="checkbox"/> Military Banking     | <input type="checkbox"/> Transportation                |
| <input type="checkbox"/> Commissary                           | <input type="checkbox"/> Military Clothing    | <input type="checkbox"/> All                           |
| <input type="checkbox"/> Dependents Authorized                | <input type="checkbox"/> Military Exchange    | <input type="checkbox"/> None                          |

**952.225-0013 – CONTRACTOR HEALTH AND SAFETY  
(NOV 2010)**

(a) Contractors shall comply with all National Electrical Code (NEC 2008), Specifications as outlined, and MIL Standards and Regulations. All infrastructure to include, but not limited to, living quarters, showers, and restrooms shall be installed and maintained in compliance with these standards and must be properly supported and staffed to ensure perpetual Code compliance, prevent hazards and to quickly correct any hazards to maximize safety of those who use or work at the infrastructure. The government has the authority to enter and inspect contractor employee living quarters at any time to ensure the prime contractor is complying with safety compliance standards outlined in the 2008 National Electric Code (NEC).

(b) The contractor shall correct all deficiencies within a reasonable amount of time of contractor becoming aware of the deficiency either by notice from the government or a third party, or discovery by the contractor. Further guidance on mandatory compliance with NFPA 70: NEC 2008 can be found on the following link <http://www.nfpa.org>.

**952.225-0016 – CONTRACTOR DEMOBILIZATION  
(NOV 2010)**

(a) Full demobilization of contractors and subcontractor(s) in the Iraq/Afghanistan Combined/Joint Operations Area (CJOA) is critical to Responsible Drawdown. The prime contractor is required to submit a demobilization plan to the Contracting Officer a minimum of 30 days prior to the end of the contract performance period or when requested by the Contracting Officer. The demobilization plan shall address, as a minimum, the following procedures detailed below. The procedures outline specific guidance to ensure a timely and responsible exit from theater. Prime contractors are responsible and accountable to ensure their subcontractor(s) at all tiers comply with responsible and timely exit from theater immediately following contract performance completion or termination.

(1) Exit from Iraq: The prime contractor shall follow the exit guidance issued by the United States (U.S.) Embassy Baghdad and shall ensure subcontractor(s) at all tiers also follow the exit procedures. The prime contractor is responsible to remain cognizant of Iraqi laws regarding exit from Iraq. Currently, all foreigners traveling out of Iraqi airports via commercial air transportation must have exit visas. Department of Defense, U.S. Forces-Iraq, Letters of Authorization (LOAs), and/or Embassy Badges are no longer the accepted means of exiting Iraq. All U.S. citizens and foreign national contractors must obtain an Iraqi exit sticker before departing the country. The exit sticker may be obtained from selected police stations or Ministry of Interior (MOI) offices. It is the prime contractor's responsibility to ensure that the most recent exit procedures are followed and to ensure that subcontractor(s) at all tiers are in compliance with exit procedures. Assistance for this procedure may be obtained by e-mailing [baghdadregmt@state.gov](mailto:baghdadregmt@state.gov) or phone 240-553-0581, ext 2782 or ext 2092.

(2) Letter of Authorization (LOA): The prime contractor is responsible for demobilizing its workforce, including subcontractor employees at all tiers, and all contractor owned and subcontractor owned equipment out of theater as part of the prime contractor's exit strategy. This exit strategy must include reasonable timeframes starting with the end of the contract performance period and not exceeding 30 days. The Contracting Officer has the authority to extend selected LOAs up to, but not exceeding 30 calendar days after the contract completion date to allow the prime contractor to complete demobilization of its workforce and contractor owned equipment, as well as subcontractor(s) workforce and owned equipment, out of the Iraq/Afghanistan CJOA. The prime contractor shall notify the Contracting Officer a minimum of 30 days prior to the end of the contract period to request up to a 30-day extension of selected LOAs beyond the contract completion date to complete demobilization. The request shall include at a minimum:

- (i) the name of each individual requiring a new LOA;
- (ii) the number of days for the LOA (no more than 30 calendar days); and
- (iii) justification for the request (e.g., what function the individual(s) will be performing during the demobilization period).

The Contracting Officer may request additional information for an LOA extension. Any LOA extension granted beyond the contract completion date shall not exceed 30 days and the contractor is not entitled to additional compensation for this period. If approved by the contracting officer, this is a no cost extension of an employee's LOA due to demobilization and in no way is an extension of the contract performance period.

(3) Badging: The prime contractor is responsible to ensure all employee badges, including subcontractor employees at all tiers, are returned to the local Access Control Badging Office for de-activation and destruction. The prime contractor shall submit a Badge Termination Report to ensure each record is flagged and the badge is revoked. If a prime and/or subcontractor employee's badge is not returned, the prime contractor shall submit a Lost, Stolen or Unrecovered Badge Report to the appropriate Access Control Badging Office. Contractor employees in possession of a Common Access Card (CAC) shall be responsible for turning in the CAC upon re-deployment through a CONUS Replacement Center in the U.S. Failure to return employee badges in a timely manner may result in delay of final payment.

(4) Contractor Controlled Facility Space: If the prime contractor has entered into a Memorandum of Understanding with the Installation Mayor or Garrison for site space, buildings, facilities, and/or Containerized Housing Units (CHU) to house prime and/or subcontractor employees (at all tiers), the prime contractor is responsible to notify the Installation Mayor or Garrison Commander of intent to vacate at least 90 calendar days prior to the end of the contract performance period. All United States Government (USG) provided property in the prime contractor's possession must be returned to the USG in satisfactory condition. The prime contractor is responsible and liable for any and all damages to USG property caused by prime and/or subcontractor employees, and shall be further liable for all cleanup, clearing, and/or environmental remediation expenses incurred by the USG in returning prime contractor and/or subcontractor facilities including surrounding site to a satisfactory condition, including expenses incurred in physically moving property, trash, and refuse from such premises, removing/ remediating hazardous wastes on the premises, and repairing structures, buildings, and facilities used by the prime contractor and/or subcontractor. The prime contractor shall provide notification to the Installation Mayor or Garrison Commander to perform an inspection of all facilities as soon as practicable, but no more than 30 days, after the end of the contract period. If damages are discovered, the prime contractor shall make the necessary repairs. The prime contractor shall notify the Installation Mayor or Garrison Commander for re-inspection of the facilities upon completion of the repairs. If the Installation Mayor or Garrison Commander inspects the property, site space, buildings, facilities, and/or CHUs and finds they have not been properly cleaned, cleared, and/or environmentally remediated, or if the prime contractor fails to repair any damages within 30 calendar days after the end of the contract performance period, the final contract payment shall be reduced by the amount of the specified damages/repairs or the expenses incurred by the USG to properly clean, clear, and/or environmentally remediate the premises.

(5) Government Furnished Equipment/Materials: The prime contractor is responsible to return all USG furnished equipment, as defined in Federal Acquisition Regulation (FAR) Part 45, clauses 52.245-1, 52.245-2, and 52.245-5, if included in the contract. Prime contractors who are not in compliance with the FAR, Defense Federal Acquisition Regulation Supplement, Department of Defense Directives and Instructions, United States Forces-Iraq (USF-I) FRAGOs, United States Forces-Afghanistan (USFOR-A) FRAGOs, policies, or procedures will be responsible and liable for damages to the government property. The prime contractor may apply for a "relief of responsibility" from the Contracting Officer anytime during the contract performance period. A joint inventory shall be conducted of the equipment by the prime contractor, USG representative, and the Contracting Officer or their representative, within 10 calendar days after the end of the contract performance period. The prime contractor shall report lost, damaged or destroyed property immediately to the Contracting Officer, but no later than the joint inventory at the end of the contract period. If the prime contractor fails to report lost, damaged or destroyed equipment or materials during the contract performance period, the prime contractor shall be responsible for the replacement and/or repair of the equipment or materials. The replaced equipment shall be new, of the same quality, and shall perform at the same functional level as the missing piece of equipment. If the prime contractor fails to repair and/or replace damaged or missing equipment, the final payment shall be reduced by the appropriate amount of the specified damages or cost to replace missing equipment with new.

(6) Synchronized Predeployment Operational Tracker (SPOT): The prime contractor is responsible to close out the deployment of personnel, including subcontractor employees at all tiers, at the end of the contract completion period and to release the personnel from the prime contractor's company in the SPOT database. The release of employee information must be accomplished no more than 30 calendar days after the end of the contract completion date.

(7) Accountability of Prime and Subcontractor Personnel: Whether specifically written into the contract or not, it is the expectation of the USG that for any persons brought into the Iraq/Afghanistan CJOA for the sole purposes of performing work on USG contracts, contract employers will return employees to their point of origin/home country once the contract is completed or their employment is terminated for any reason. If the prime contractor fails to re-deploy an employee, or subcontractor employee at any tier, the USG shall notify the applicable U.S. Embassy to take appropriate action. Failure by the prime contractor to re-deploy its personnel, including subcontractor

personnel at any tier, at the end of the contract completion date, could result in the contractor being placed on the Excluded Parties List System (EPLS) and not be allowed to propose on future U.S. contracts anywhere in the world. (b) CENTCOM Contracting Command (C3) and external agencies will utilize all available contracting remedies to guarantee compliance with demobilization requirements. Such actions include, but are not limited to withholding payment, issuing a cure notice, issuing a negative Contractor Performance Assessment Reporting System (CPARS) evaluation, reduction of award fee, debarment, reimbursement of U.S. Government expenses, and/or any other legal remedy available to a contracting officer. The USG reserves the right to **withhold payment** from the prime contractor not in compliance with the above procedures included herein. Additionally, the Contracting Officer shall document all unresolved contractor compliance issues in CPARS, which shall have an adverse past performance affect on future contracts with the USG, anywhere in the world.

**952.236-0001 – ELECTRICAL AND STRUCTURAL BUILDING STANDARDS FOR CONSTRUCTION PROJECTS****(JUL 2010)**

(a) The standards set forth herein are the minimum requirements for the contract. These standards must be followed unless a more stringent standard is specifically included. In such case the most stringent standard shall be required for contract acceptance.

(b) The contractor, in coordination with the Contracting Officer, Base Camp Mayor, Base/Unit Engineers, and requiring activity shall evaluate, upgrade, build, and/or refurbish buildings to a safe and livable condition. This work may include refurbishment, construction, alterations, and upgrades. All work shall be in accordance with accepted standards of quality.

(c) As dictated by the Unified Facilities Criteria (UFC) the contract shall meet:

(1) “the minimum requirements of United States’ National Fire Protection Association (NFPA) 70,

(2) 2008 National Electrical Code (NEC),

(3) American National Standards Institute (ANSI) C2, and

(4) United States’ National Electrical Safety Code (NESC).

(d) These standards must be met when it is reasonable to do so with available materials. When conditions dictate deviation, then provisions within the International Electrical Code (IEC) or British Standard (BS 7671) shall be followed. Any deviations from the above necessary to reflect market conditions, shall receive prior written approval from a qualified engineer and the Contracting Officer.

(e) The following internet links provide access to some of these standards:

UFC: [http://65.204.17.188/report/doc\\_ufc.html](http://65.204.17.188/report/doc_ufc.html)

NFPA 70: <http://www.nfpa.org>

NESC: <http://www.standards.ieee.org/nesc>

Section 00800 - Special Contract Requirements



## INSTRUCTIONS

1. Section I will be initiated by the Contractor in 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-R 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 is 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.   | E --  | Disapproved (See attached).   |
| B -- | Approved, except as noted on drawings.   | F --  | Receipt acknowledged.   |
| C -- | Approved, except as noted on drawings.<br>Refer to attached sheet resubmission required. | FX -- | Receipt acknowledged, does not comply<br>as noted with contract requirements. |
| D -- | Will be returned by separate correspondence.   | 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)*



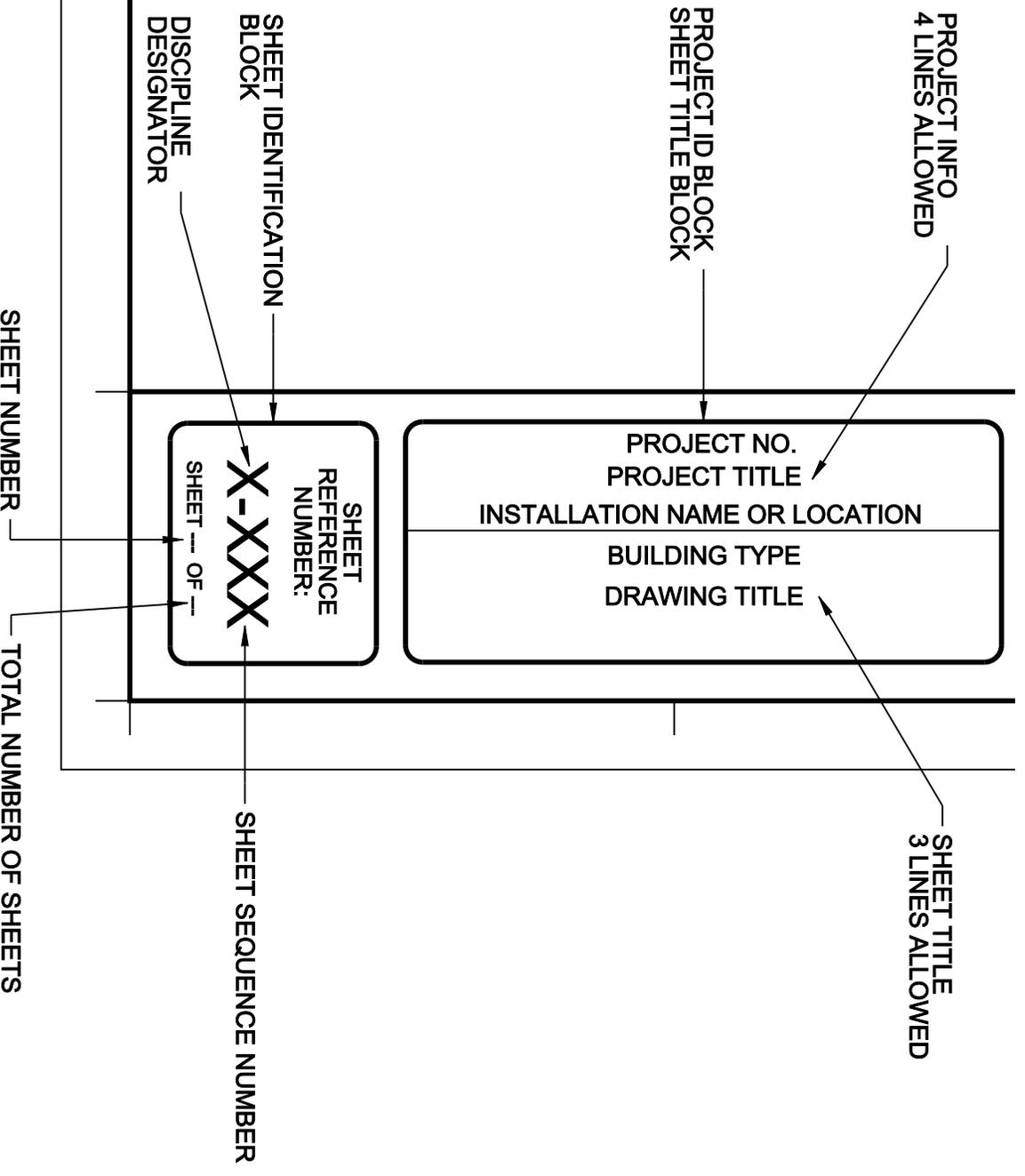


FIGURE 1 - AED TITLE BLOCK

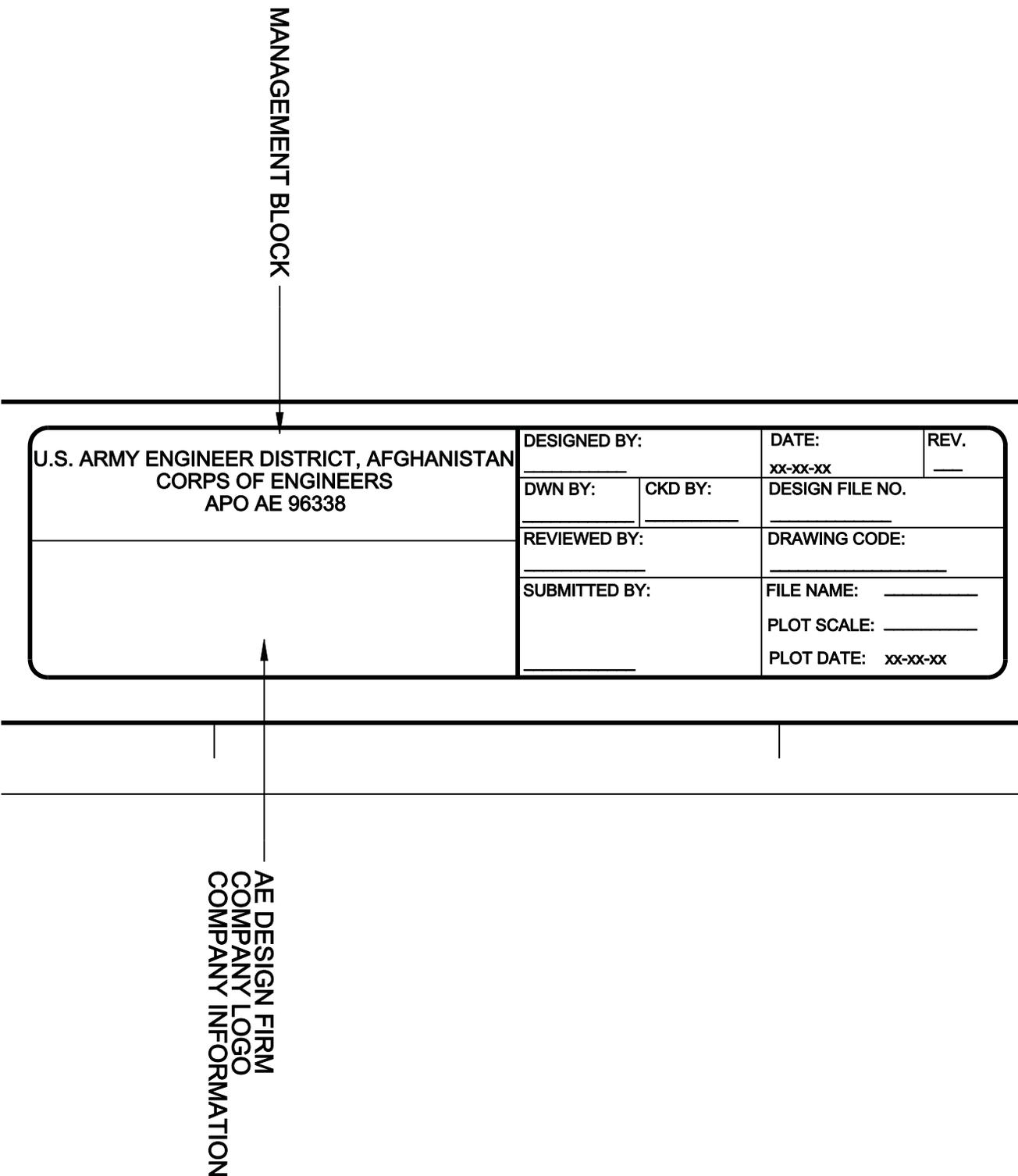


FIGURE 2 - AED MANAGEMENT BLOCK

DESIGNER IDENTIFICATION  
 BLOCK (DO NOT ALTER)

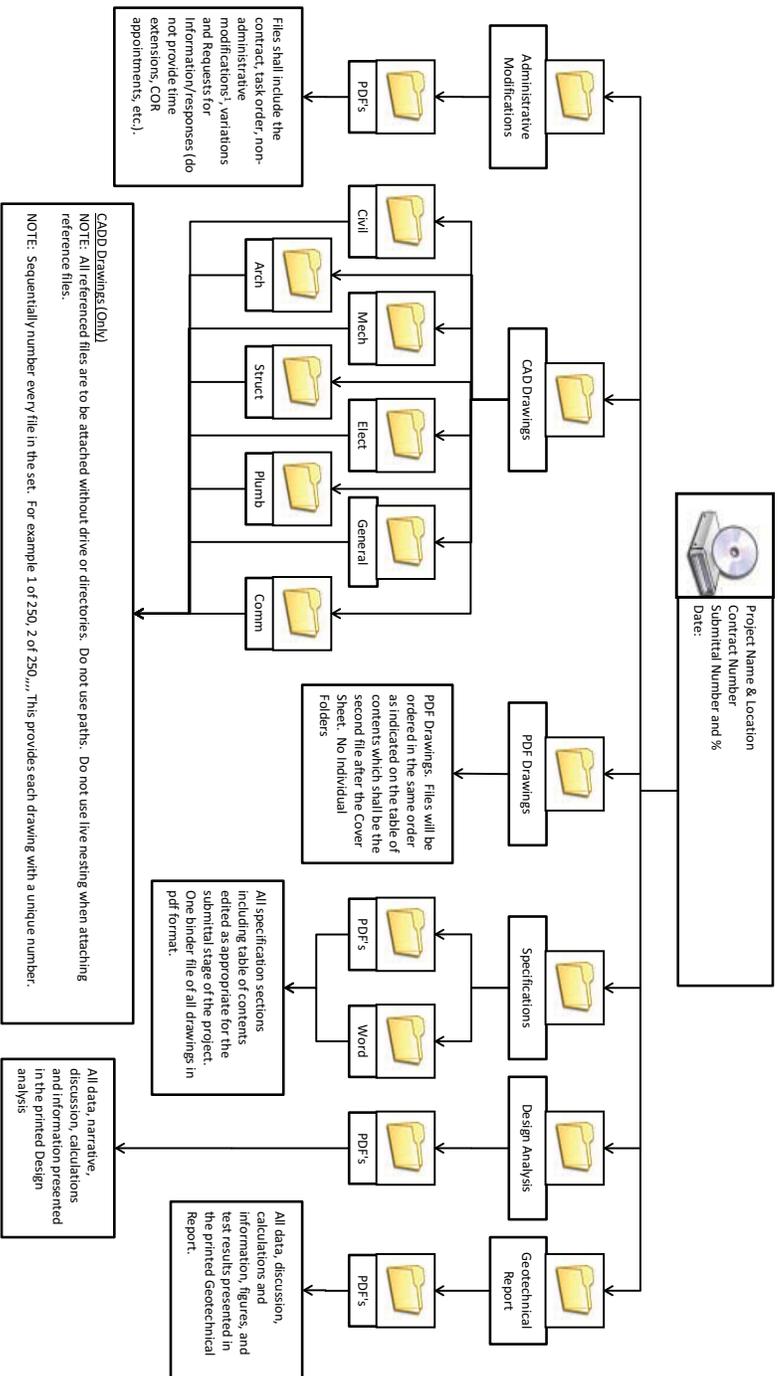


ISSUE BLOCK

	AS-BUILT SUBMITTAL	DATE					
	100% DESIGN SUBMITTAL	DATE					
	99% DESIGN RESUBMITTAL	DATE					
	99% DESIGN SUBMITTAL	DATE		4	REVISED AS-BUILT		
	65% DESIGN RESUBMITTAL	DATE		3	MOD P0003		
	65% DESIGN SUBMITTAL	DATE		2	MOD P0002		
	35% DESIGN SUBMITTAL	DATE		1	AMENDMENT P0001		
SYMBOL	DESCRIPTION	DATE	APPR.	SYMBOL	DESCRIPTION	DATE	APPR.

FIGURE 3 - AED ISSUE BLOCK  
 & REQUIRED NOTATIONS





# APPENDIX B-1

## SITE PLAN



# APPENDIX B-2

## DRAWINGS

# APPENDIX B-2

## DRAWINGS

### NEW CONCEPT DRAWINGS

SF-401	STAIR PLAN & ELEVATIONS
A-101	1 <sup>ST</sup> FLOOR PLAN
A-102	2 <sup>ND</sup> FLOOR PLAN
A-103	3 <sup>RD</sup> FLOOR PLAN
A-201	FRONT ELEVATION VIEW
A-202	LEFT ELEVATION VIEW
M-FP-101	1 <sup>ST</sup> FLOOR, FIRE SPRINKLER PLAN
M-FP-102	2 <sup>ND</sup> FLOOR, FIRE SPRINKLER PLAN
M-FP-103	3 <sup>RD</sup> FLOOR, FIRE SPRINKLER PLAN
M-101	3 <sup>RD</sup> FLOOR HVAC PLAN
P-101	3 <sup>RD</sup> FLOOR PLUMBING PLAN
P-501	3 <sup>RD</sup> FLOOR PLUMBING ISOMETRICS
E-101	3 <sup>RD</sup> FLOOR, LIGHTING & FIRE ALARM PLAN
E-201	3 <sup>RD</sup> FLOOR, POWER & COMMS PLAN
E-501	VARIOUS ELECTRICAL SCHEMATICS
E-502	EXAMPLE ELECTRICAL INSTALLATION PHOTOS
E-601	PANEL SCHEDULES
ES-01	ELECTRICAL SITE PLAN













### CONSTRUCTION NOTES:

PROVIDE FIRE SUPPRESSION SPRINKLER SYSTEM. INSTALL IN ACCORDANCE WITH NFPA 13R. SYSTEM SHALL BE INSTALLED IN EXISTING CONSTRUCTION OF 1ST AND 2ND FLOORS AND IN THE NEW CONSTRUCTION OF THE 3RD FLOOR.

ABOVE GROUND PIPING SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE WITH THREADED CONNECTIONS, EXCEPT CONNECTION TO UNDERGROUND PIPE SHALL BE A FLANGED CONNECTION.

DESIGN DEMAND: 171 LPM (45 GPM) AT 3.1 BAR (45PSIG) FOR THE CORRIDOR, 61 LPM (17GPM) AT 3.1 BAR (45PSIG) FOR A SLEEPING ROOM. SYSTEM DESIGNED FOR 3 FLOORS. ▽

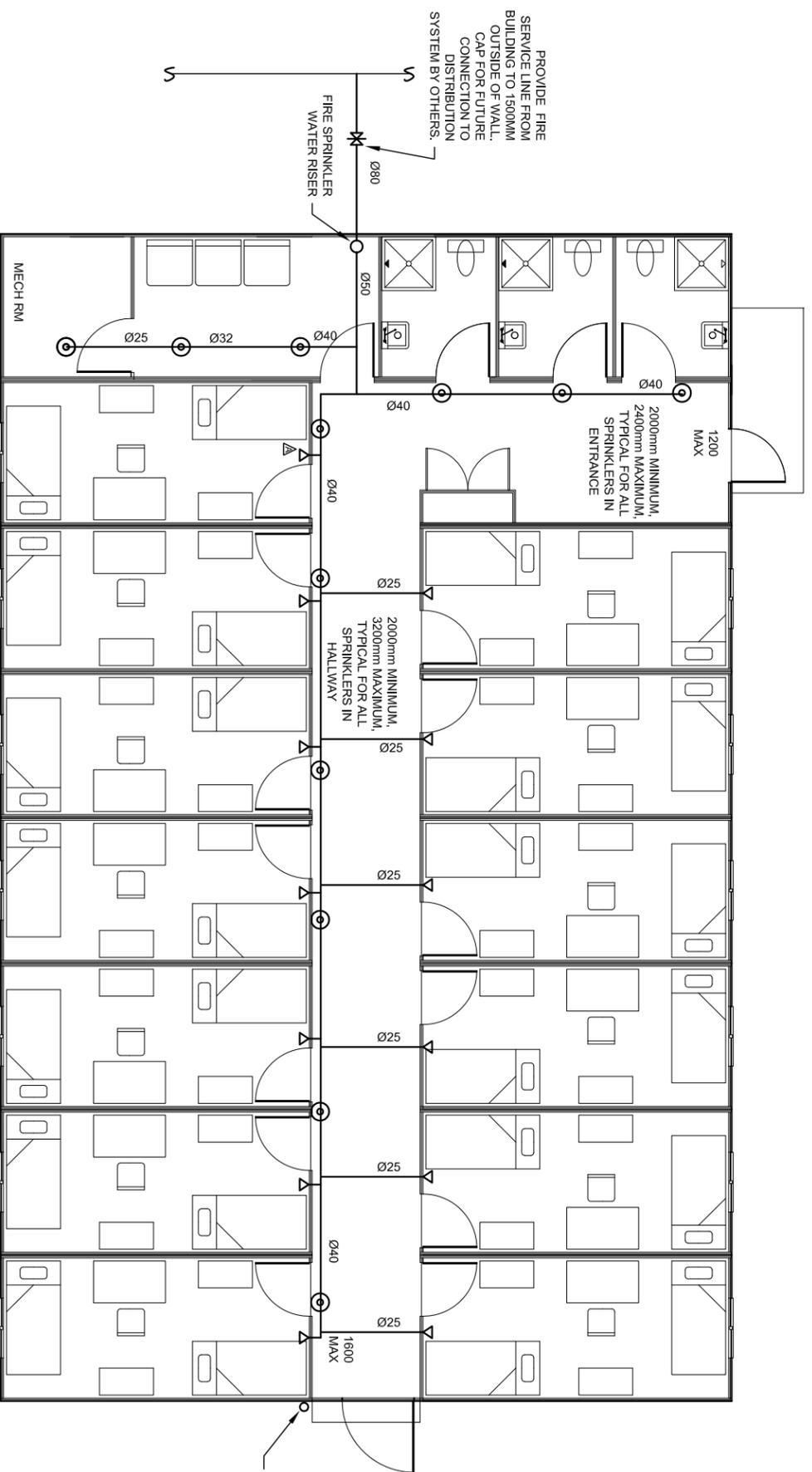
### LEGEND

RESIDENTIAL CONCEALED HORIZONTAL SIDEWALL SPRINKLER, LISTED FOR 4.9m x 4.9m ROOM AT 60.6 LPM AND 1.1 BAR, K=57.7(K=4.0 U.S.), SUCH AS VIKING VK480. ▽  
39 INSTALLED PLUS 3 SPARES (ALL THREE FLOORS)

QUICK RESPONSE UPRIGHT SPRINKLER, K=57(K=4.2 U.S.), SUCH AS VIKING MICROFAST. ▽  
24 INSTALLED PLUS 3 SPARES (ALL THREE FLOORS)

LISTED DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY WITH LOCKING (OPEN) SERVICE VALVES, MAXIMUM PRESSURE DROP OF .55BAR (8 PSI) AT 285LPM (75 GPM). LEAD FREE CONSTRUCTION, SUCH AS WATTS SERIES LF007. ▽

○ BALL VALVE



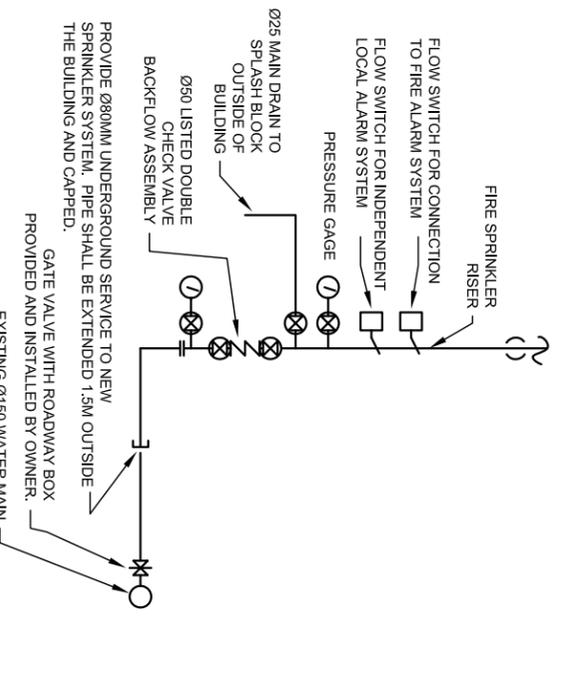
## 1ST FLOOR FIRE SPRINKLER PLAN

SCALE 1:100



### SECTION: CORRIDOR

NOT TO SCALE



### FIRE SPRINKLER WATER RISER

NOT TO SCALE



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.
	REVISED SPRINKLER COUNT						

DESIGNED BY: J.ELLIOTT		DATE: 2011/04/27	
DWN BY: J.ELLIOTT	CRD BY: E.STONE	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.:	
PLOT SCALES	PLOT DATE: 1:50	FILE NUMBER:	
SIZE: 11x17	FILE NAME:		

QALAA COMPOUND ESSAYONS UPGRADE 3rd STORY ADDITION KABUL, AFGHANISTAN
<b>1ST FLOOR FIRE SPRINKLER PLAN</b>

SHEET <b>M-FP-101</b> SHEET 05
--------------------------------------

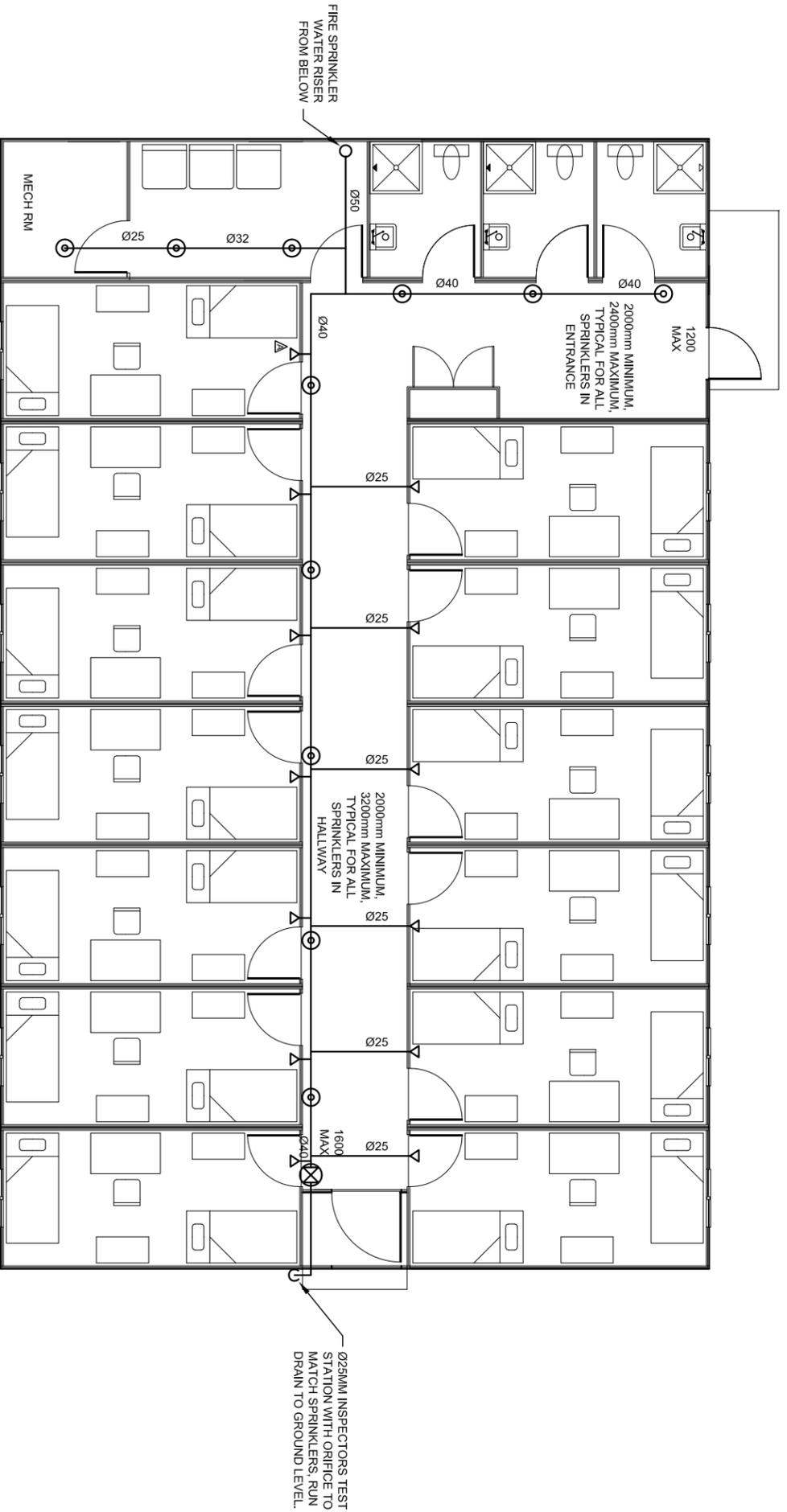
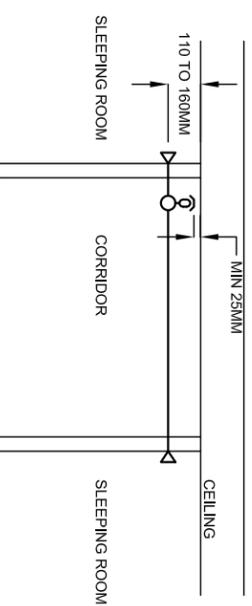


**CONSTRUCTION NOTES:**

PROVIDE FIRE SUPPRESSION SPRINKLER SYSTEM. INSTALL IN ACCORDANCE WITH NFPA 13R. SYSTEM SHALL BE INSTALLED IN EXISTING CONSTRUCTION OF 1ST AND 2ND FLOORS AND IN THE NEW CONSTRUCTION OF THE 3RD FLOOR. ABOVE GROUND PIPING SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE WITH THREADED CONNECTIONS, EXCEPT CONNECTION TO UNDERGROUND PIPE SHALL BE A FLANGED CONNECTION.

**LEGEND**

- RESIDENTIAL CONCEALED HORIZONTAL SIDEWALL SPRINKLER. LISTED FOR 4.9m x 4.9m ROOM AT 80.6 LPM AND 1.1 BAR, K=57.7(K=4.0 U.S.), SUCH AS VIKING VK480.
- QUICK RESPONSE UPRIGHT SPRINKLER, K=57(K=4.2 U.S.), SUCH AS VIKING MICROFAST.
- LISTED DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY WITH LOCKING (OPEN) SERVICE VALVES. MAXIMUM PRESSURE DROP OF .55BAR (8 PSI) AT 285LPM (75 GPM). LEAD FREE CONSTRUCTION, SUCH AS WATTS SERIES LF007.
- BALL VALVE



**3RD FLOOR FIRE SPRINKLER PLAN**

SCALE 1:100



SCALE: 1 : 100  
UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.
	REVISED SPRINKLER COUNT						

DESIGNED BY: J.ELLIOTT		DATE: 2011/04/27	
DWN BY: J.ELLIOTT	CRD BY: E.STONE	SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.:	
PLOT SCALES PLOT DATE: 1:50		FILE NUMBER:	
SIZE: 11x17	FILE NAME:		

U.S. ARMY CORPS OF ENGINEERS  
AFGHANISTAN DISTRICT  
APO AE 96338

ENGINEERING AND CONSTRUCTION DIVISION

QALAA COMPOUND  
ESSAYONS UPGRADE  
3rd STORY ADDITION  
KABUL, AFGHANISTAN

**3RD FLOOR  
FIRE SPRINKLER PLAN**

SHEET  
**FP103**  
OF

















