

| <b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>   |                                  |  | 1. CONTRACT ID CODE  | PAGE OF PAGES   |
|---|----------------------------------|--|--|---|
| 2. AMENDMENT/MODIFICATION NO.<br>0003   | 3. EFFECTIVE DATE<br>26-Jan-2009 | 4. REQUISITION/PURCHASE REQ. NO.                               |  | 1   80  |
| 6. ISSUED BY<br>AFGHANISTAN ENGINEER DISTRICT<br>US ARMY CORPS OF ENGINEERS<br>KABUL<br>APO AE 09356  | CODE<br>W917PM                   | 7. ADMINISTERED BY (If other than item 6)<br><b>See Item 6</b> |  | 5. PROJECT NO. (If applicable)                        |
| 8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)   |                                  |  | X  | 9A. AMENDMENT OF SOLICITATION NO.<br>W917PM-09-R-0028 |
|   |                                  |  | X  | 9B. DATED (SEE ITEM 11)<br>27-Dec-2008                |
|   |                                  |  |  | 10A. MOD. OF CONTRACT/ORDER NO.                       |
|   |                                  |  |  | 10B. DATED (SEE ITEM 13)                              |
| CODE  | FACILITY CODE                    |  |  |   |
| <b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>  |                                  |  |  |   |
| <input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended.<br>Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:<br>(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified. |                                  |  |  |   |
| 12. ACCOUNTING AND APPROPRIATION DATA (If required)   |                                  |  |  |   |
| <b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.<br/>IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>   |                                  |  |  |   |
| A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  |                                  |  |  |   |
| B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).   |                                  |  |  |   |
| C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  |                                  |  |  |   |
| D. OTHER (Specify type of modification and authority)   |                                  |  |  |   |
| E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.   |                                  |  |  |   |
| 14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)   |                                  |  |  |   |
| A. The purpose of this Amendment is to:   |                                  |  |  |   |
| (1) Make changes to the solicitation specifications. See next page for summary of changes.  |                                  |  |  |   |
| (2) Provide Questions and Answers 1 dated 18 Jan 2009, Questions and Answers 2 dated 19 Jan 2009 and Questions and Answers 3 dated 25 Jan 2009. Please note that Q&A 1 and Q&A 2 have been posted in the AED website.   |                                  |  |  |   |
| B. Please be advised that the question and answer period for this solicitation is closed.   |                                  |  |  |   |
| C. The proposal due date of 5 February 2009, 5:00PM Kabul Time remains unchanged.   |                                  |  |  |   |
| Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.  |                                  |  |  |   |
| 15A. NAME AND TITLE OF SIGNER (Type or print)   |                                  |  | 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) |   |
|   |                                  |  | TEL: _____ EMAIL: _____                                    |   |
| 15B. CONTRACTOR/OFFEROR   | 15C. DATE SIGNED                 | 16B. UNITED STATES OF AMERICA                                  |  | 16C. DATE SIGNED                                      |
| _____<br>(Signature of person authorized to sign)   |                                  | BY _____<br>(Signature of Contracting Officer)                 |  | 26-Jan-2009   |

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

CHANGES TO THE SOLICITATION:

- (1) Section 00110, Proposal Preparation: Paragraph 2.1.1. Factor 1 – Experience is revised to include “Iraq, Tajikistan, and Pakistan” for construction experience in these areas.
- (2) Section 00120, Proposal Evaluation and Contract Award: Paragraph 1.1.1. Factor 1 – Experience is revised to include “Iraq, Tajikistan, and Pakistan” for construction experience in these areas.
- (3) Section 01010, Scope of Work – Design Build:
  - (i) Paragraph 4.8 Site Electrical Distribution System: The fourth paragraph is deleted in its entirety.
  - (ii) Paragraph 4.8.1 Power Generators is deleted and replaced with a new paragraph 4.8.1
  - (iii) Paragraph 4.22 CSB Organic Vehicle Maintenance Facility (9 Bay): The number of SM in the first sentence is revised from “1395SM” to “1680SM”.
  - (iv) Paragraph 4.23 Communication System Building: The third paragraph is deleted and replaced with a new third paragraph.
  - (v) Paragraph 4.31 General Non-Organic Vehicle Maintenance Facility – two (9 Bays): The number of SM in the first sentence is revised from “1395 SM” to “1680 SM”.
  - (vi) Paragraph 4.32 General Non-Organic Vehicle Maintenance Facility (9 Bays): The number of SM in the first sentence is revised from “1395 SM” to “1680 SM”.
- (4) Section 01335, Submittal Procedures is deleted in its entirety and replaced with a new Section 01335.

## SUMMARY OF CHANGES

### SECTION 00100 - BIDDING SCHEDULE/INSTRUCTIONS TO BIDDERS

The following have been modified:

SECTION 00110

## SECTION 00110

### PROPOSAL PREPARATION

#### 1. OVERVIEW

**1.1** This is a "Best Value" solicitation for the Design and Construction of ANA Corps Support Battalion located at Camp Gamberi, Afghanistan. The Government will evaluate the proposals in accordance with the criteria described in section 00120, and award a firm fixed price contract to the responsible offeror, whose proposal conforms with all the terms and conditions of the solicitation and whose proposal is determined to represent the overall best value to the Government.

#### 1.2 INQUIRIES

Perspective offerors should submit inquiries related to this solicitation by writing or calling the following (collect calls will not be accepted):

All questions will be submitted in writing by letter or e-mail to:

U.S. Army Corps of Engineers (USACE)  
Afghanistan Engineer District (AED)  
Qalaa House, Attention: **Jesusa Labial**  
Kabul, Afghanistan

E-MAIL ADDRESS: Jesusa.G.Labial@usace.army.mil

Please include the solicitation number, and project title with your questions. Written inquiries must be received by this office not later than **14 calendar days** prior to the date set for receipt of offers.

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.

As this is a competitive negotiation acquisition, there is no public bid opening and no information will be given out as to the number of offerors or the results of the competition until all awards are made.

#### 1.3 DIRECTIONS FOR SUBMITTING PROPOSALS

Offers must be in sealed envelopes/packages, marked and addressed as follows:

MARK PACKAGES:  
Solicitation No. W917PM-09-R-0028  
Offer Closing Date: **05 February 2009**  
Offer Closing Time: **5:00 PM**  
(LOCAL KABUL TIME)

ADDRESS PACKAGES TO:  
U.S. Army Corps of Engineers (USACE)  
Afghanistan Engineer District (AED)  
Qalaa House, Attention: Contract Specialist: **Ms. Jesusa Labial**  
Kabul, Afghanistan

Special Instruction Pertaining to Hand Carried Offers: Hand-carried offers must be delivered to the USACE AED offices, Qalaa House, Kabul, Afghanistan. Offers who desire to hand-deliver their offers notify the Contract Specialist **in advance** in order to be met at the entrance gate to Qalaa House Compound.

#### **1.4 PREPROPOSAL CONFERENCE / SITE VISIT**

The Pre-proposal Conference shall be held on **07 January 2009** at the USACE Afghanistan Engineer District Headquarters, Qalaa House Compound in Kabul, Afghanistan at 13:00 Local Time. Contractors interested in attending the Pre-proposal Conference must submit the following information to AED: Name of personnel, Company Name, Email, and telephone number. No more than two representatives from each company may attend. Send all information to Eric Aubrey at [Eric.A.Aubrey@usace.army.mil](mailto:Eric.A.Aubrey@usace.army.mil) , cell phone 070-01-7994, no later than Close of Business on Saturday 03 January 2009.

~~The Site Visit is tentatively planned for 08 January 2009.~~ **The site visit was cancelled.**

**IMPORTANT NOTES.** (1) Remarks and explanations addressed during the conference shall not qualify or alter the terms and conditions of the solicitation. (2) The terms and conditions of the solicitation remain unchanged unless the solicitation is formally amended in writing.

#### **1.5 TELEGRAPHIC OFFERS - - TELEGRAPHIC OFFERS ARE NOT ACCEPTABLE.**

However, offers may be withdrawn by written or telegraphic notice. Any telegram 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. A telegraphic withdrawal of an offer received in such office by telephone from the receiving telegraph office not later than the exact date and time set for receipt of proposals shall be considered. However, the telephone message shall be confirmed by the telegraph company by sending a copy of the written telegram that formed the basis for the telephone call. The written telegram shall be sealed in an envelope by a proper official and sent to the office designated in the RFP for receipt of offers. The official shall write on the envelope (1) the date and time of receipt and by whom, and (2) the number of the RFP, and shall sign the envelope. The offeror is responsible to inform the telegraph company of these requirements. No one from this office will be dispatched to the local telegraph office to pick up any telegram for any reason.

#### **1.6 FACSIMILE OFFERS**

Facsimile offers, modifications thereto, or cancellations of offers will not be accepted.

#### **1.7 PROPOSAL FORMAT**

**1.7.1** (1) Submit only the hard-copy paper documents and the electronic files specifically authorized and/or required elsewhere in this section. Do not submit excess information, to include audio-visual materials, electronic media, etc.

(2) Use only 8 ½ by 11 inch paper for hard copy submissions, unless another paper size is specifically authorized elsewhere in this section for a particular submission. Contractor may use fold-outs (e.g., 11" x 14" or 11" x 17" sheets) only for concept drawings specifically authorized in Design Technical section for a particular submission. Do not use a font size smaller than 10, an unusual font style such as script, or condensed print for any submission. All page margins must be at least 1 inch wide, but may include headers and footers.

(3) The preferred method for assembling your proposals is to use three-ring binders; however, the use of pressboard or other report covers with compression or other type fasteners is acceptable. Do not use spring clamps or exceed the recommended capacity of the fastener or binder. Do not use plastic multi-hole/spiral binding systems, heat binding systems, or other systems which do not facilitate the ready insertion of additional pages.

(4) "Confidential" projects cannot be submitted to demonstrate capability unless all of the information required for evaluation as specified in section 00120 can be provided to the Government as part of the Offeror's technical proposal. Offerors that include in their proposals information that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, must be clearly marked in accordance with the instructions at FAR 52.215-1, "Instructions to Offerors—Competitive Acquisition", paragraph (e), "Restriction on disclosure and use of data".

(5) 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.

(6) 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. Where authorized, fold-out pages (11" x 14" or 11" x 17") will count as one page. Pages furnished for organizational purposes only, such as a "Table of Contents" or divider tabs, are not included in the page limitation.

~~(7) Number of copies:—Submit one original and four (4) copies of drawings and printed matter (Bound Volumes), as well as Two (2) CDs.— DELETED~~

## **1.8 SUBCONTRACTING PLAN/ UTILIZATION LOCAL AFGHAN LABOR CONCERNS**

Provide percentage of subcontractor contract amount utilizing local Afghan labor.

## **2.0 GENERAL**

Instructions for the preparation and organization of each proposal are included herein. The proposal submittal shall include **(a) one original and four copies of Volume I and (b) one original and two copies of Volume II**. The Volume II proposal and all copies thereof shall be sealed in a single package separate from the Volume I proposal and all copies thereof, and both packages shall be clearly marked. The proposal shall be submitted as required herein and elsewhere in the RFP.

Volume I shall be typed, with numbered pages and sections tabbed. A cover sheet shall identify the offeror and the project and the second sheet shall be a table of contents. The Volume I proposal is limited to no more than 70 single-sided or 35 double-sided pages, printed on 8-1/2" x 11" sheets, not including the cover sheet, designs/sketches, table of contents and letters of recommendation / evaluations / related certificates. Do not use condensed print. Do not submit any extraneous materials with your proposal.

## **2.1 VOL I - MANAGEMENT-TECHNICAL PROPOSAL PREPARATION**

The Management/Technical proposal shall include the information as described below and shall be presented in the sequence listed.

### **2.1.1 Factor 1 – Experience**

**Factor 1 template format guidance provided at the end of section 00110.**

The Offeror should demonstrate the experience of the team, including sub-contractors, on projects similar to that described in this RFP which use the design-build process. Provide a list of no less than three and no more than ten similar design-build projects that are at least 50% complete or completed in the last **five**

years within Afghanistan, Iraq, Tajikistan, and Pakistan that best demonstrates your experience, with at least one project over \$10 million, and all other projects must be at least \$ 5 million. The list of projects shall include the following information (Template 1):

- a. Project name and location.
- b. Nature of firm's responsibility (design/build or design or construction).
- c. Project owner's name, address, **telephone**, email (to be contacted by the Government).
- d. Contractor a prime or sub-contractor for this project
- e. Project completion date (estimated if in progress, as well as current portion completed)
- f. Construction cost
- g. Brief explanation of experience that illustrates your design/build capabilities and relevant job experiences. Explain your technical approach in the referenced projects, design rationale, floor plan schematic, structural type of construction, mechanical system used, electrical system used, anti-terrorism force protection considerations, site utility design, and material shipment scheduling for long lead items where applicable to the proposed project.
- ~~h. Schematic site/land use plan showing the proposed project facility placement and orientation, vehicular circulation, and other site improvements. DELETED~~

## 2.1.2 Factor 2 - Project Management and Security Plan

Factor 2 template format guidance provided at the end of section 00110.

The Offeror shall 1) identify the major conditions, challenges and key issues on each of the following areas, 2) provide alternatives and solutions to the challenges and issues, and 3) describe the action plan and measures to ensure successful execution. The Project Management and Security Plan must address the following matters (Template 2):

2.1.2.1. An Organizational Chart: (include key personnel Names and their titles:

- a. Show the key design personnel
- b. Show the key construction personnel
- c. Show other firms involved such as partnerships and sub-contractors if applicable
- d. Show the relationship between the quality control and health & safety personnel, project level management and corporate management

2.1.2.2. An explanation of the quality control process for design.

2.1.1.3. An explanation of the quality control management throughout the construction process including;

- a. Testing
- b. Inspection
- c. Safety

2.1.2.4. An explanation of how the offeror plans to manage interactions with the Corps of Engineers and the roles that different team members will play when dealing with:

- a. Resolving problems with modifications to the contract (design and/or construction)
- b. Resolving potential design and/or construction delays
- c. Reviewing and approving submittals
- d. Attending progress meetings
- e. Facilitating contract completion and closeouts
- f. Explain process to control cost over runs while maintaining the project budget during design and construction.

2.1.2.5. Provide innovative but realistic and specific solutions to the following potential project management challenges:

- a. Identifying a qualified design firm and ensuring timely delivery of Design Plans and construction documents.

- b. Providing Site security, local community engagement, and access arrangement.
- c. Procuring the required materials and developing a transportation and security strategy that will ensure that the materials get to the construction site
- d. Organizing and using the engineering, technical, management personnel and local labor force in a manner that ensures successful completion of the project.
- e. Providing a construction and engineering methodology that will ensure success of the project.
- f. Provide a construction schedule that is efficient and effective.

2.1.2.6 Capacity: The contractor shall submit a list of ALL current ongoing contracts or projects. The list shall include the contract number, contract amount, original contract completion date, current official contract completion date, and the current progress. The contractor shall identify the key personnel assigned to each of those projects. See FACTOR 3, Personnel for the titles of the key personnel that should be identified. The contractor shall provide a narrative that explains how award of this contract will affect current contracts or projects and how the current contracts or projects will affect this contract if it is awarded to the contractor. The contractor shall provide a narrative that explains their capability and plan to implement an additional project and the resources available to them without adversely affecting current contract or projects.

The Offeror's commitments provided in the Project Management and Security Plan will be used as the basis for agreements between the government and the awardee. The government intends to enforce the agreement based on the awardee's Project Management and Security Plan and evaluate the contractor's performance accordingly.

### **2.1.3 Factor 3 – Personnel and Resources**

**Factor 3 template format guidance provided at the end of section 00110.**

#### **2.1.3.1 Personnel**

The Offeror must provide professional resume data on the following individuals who will be key personnel on the project team. Key personnel identified in this section should be senior working-level people who will be involved in design and construction on a day-to-day basis, as opposed to departmental level supervisors or executives. By identifying these personnel, the offeror makes a commitment that, barring unforeseen circumstances; they are the personnel who shall be assigned to the project.

2.1.3.2. The following key personnel shall have a minimum of **ten** years of documented professional experience.

- a. Project Manager for design and **Program Manger** for construction
- b. Project Architect with accreditation or licensing
- c. Senior Structural Engineer
- d. Senior Civil Engineer
- e. Senior Mechanical Engineer
- f. Senior Electrical Engineer
- g. Construction Superintendent
- h. Project Security Manager

2.1.3.3. The following personnel shall have a minimum of **five** years of professional experience.

- a. Quality Control Manager
- b. Construction Foreman
- c. Safety Officer

2.1.3.4. Information to be provided for key personnel should be limited to no more than **one page** per person and shall include:

- a. Name and title
- b. Project assignment(s)
- c. Name of firm with which associated
- d. Years experience with this firm and with other firms
- e. Education degree(s), year, specialization
- f. Active registration, year first registered
- g. Other experience, accreditation, and qualifications relevant to the proposed project
- h. Provide the proposed use of Afghan contractors and labor in numbers or percentages.

### **2.1.3.5 Resources**

The Offeror shall submit a list of ALL current ongoing contracts or projects. The list shall include the contract number, contract amount, original contract completion date, current official contract completion date, and the current progress. The Offeror shall identify the key personnel assigned to each of those projects. See FACTOR 3, PERSONNEL for the titles of the key personnel that should be identified. The Offeror shall provide a narrative that explains how award of this contract will affect current contracts or projects and how the current contracts or projects will affect this contract if it is awarded to the contractor. The Offeror shall provide a narrative that explains their capability and plan to implement an additional project and the resources available to them without adversely affecting current contract or projects.

### **2.1.4 Factor 4 – Past Evaluations/Performance. Factor 4 template format guidance provided at the end of section 00110.**

For the projects listed under Paragraph 1.1.2, Factor 1 - Experience, the Offeror shall provide the following information (Template 4):

- a. Project Manager's (for the customer) name, **telephone**, email.
- b. List the problems encountered and the corrective actions taken.
- c. List of change orders and circumstances associated with them.
- d. Construction time duration beyond the contract time and why.
- e. Construction cost in dollars beyond the contract amount and why.
- f. Safety record and accident report.
- g. The offeror may also provide letters of recommendation, references, performance evaluations or other evidence of successful performance of the project.

The Source Selection Evaluation Board may attempt to contact the references provided in the list of projects. They may also contact Government personnel who have worked with the offeror. References' comments may affect the scoring of proposals. It is important to verify that the points of contact listed are still available at the phone number and addresses provided and that they are individuals who have sufficient knowledge of the project and your performance to be able to offer meaningful comments.

In the event that an offeror does not have a record of past performance, a written explanation of the reasons why no record is available is requested. In the case of an offeror without a record of relevant past performance or for whom information on past performance is not available, the offeror will not be evaluated favorably or unfavorably on past performance. A neutral rating will be assigned.

## **2.2 NOTES**

### **2.2.1 JOINT VENTURE PROPOSAL REQUIREMENTS**

Any contractors submitted in the proposal as part of a joint venture must submit a **legally binding joint venture agreement**. The Government will not evaluate the capability of any contractors that are not included in the joint venture agreement. Joint ventures must include a copy of the legal joint venture signed by an authorized officer from each of the firms comprising the joint venture with the chief executive of each entity identified and a translation in English, if the original agreement is in a language other than English. Incomplete evidence of a joint venture results will not be considered.

If submitting a proposal as a Joint Venture, the experience, past performance, management plan and equipment submittal of each of the Joint Venture Partners can be submitted for the Joint Venture Entity. The experience for each Joint Venture Partner will be considered the experience of the Joint Venture entity.

The proposal may receive a higher rating if the proposal contains evidence of the Joint Venture Entity working successfully together previously on relevant projects.

### **2.2.2 Credit For Others**

If an Offeror wishes to be credited with a subcontractor or supplier, i.e. a firm that is not the prime contractor or part of the joint venture, a letter of commitment signed by the subcontractor must be submitted. The commitment letter must be submitted even if the firm is in some way related to 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). In regard to the Experience and Past Performance factors, if an Offeror submits projects demonstrating experience in one of the factors or sub-factors, and that project was completed by a subcontractor, a subsidiary, or a supplier, as opposed to the prime or one of the joint venture partners, the Offeror MUST submit a signed letter of commitment from the contractor who performed and completed the work. If a letter of commitment is not submitted, the experience will not be considered.

## **3.0 VOLUME II - PRICE PROPOSAL PREPARATION**

### **3.1 PROPOSAL SCHEDULE**

Offeror's shall provide a signed cover letter and complete the Proposal Schedule by filling out the pricing data blanks. An executable Proposal Schedule is included in Section 00010. Overhead and profit shall be applied proportionally to each category and shall not be required to be shown separately. The proposal shall include allowances in the Price Proposal and shall schedule any contingency for weather delays for severe weather in accordance with weather requirements. All prices shall be firm.

## **4.0 CLARIFICATIONS AND FINAL PROPOSAL REVISION**

### **4.1 General**

Any conflicting criteria which cannot be resolved by the terms of this RFP shall be brought to the attention of the Government by the offeror as part of the written clarification requirement of the proposal. In the absence of such request for clarification, the offeror shall perform to the most beneficial criteria as determined by the Government.

### **4.2 Written Clarification Requirement**

In the event that clarifications are required prior to submitting the proposal, contact the individuals listed on the RFP letter; such contact shall be in writing. All RFP holders shall be advised of significant clarifications affecting the scope of the project.

### **4.3 Clarifications Submitted with Proposals**

If ambiguities remain in the RFP at the time and date that proposals are due, written clarifications may be included in the proposal for consideration by the Government. Clarifications submitted with proposals shall clearly identify the understanding of the RFP documents and how this understanding is reflected in the cost proposal. Qualifications, exclusions and exceptions in the form of clarifications may be considered by the Government to be non-responsive and may be grounds for rejection of the proposal.

### **4.4 Final Proposal Revision(s)**

4.4.1 The Government intends to award a contract on the basis of the initial offers received without further discussions or negotiations. Offers should contain the offeror's best terms from a cost and management standpoint.

4.4.2 The Government may contact those firms whose proposals are within the competitive range and conduct discussions/negotiations concerning their proposal. Following resolution of the discussions/negotiations, offeror's in the competitive range shall be given the opportunity to submit their Final Proposal Revision (otherwise known as 'Best and Final offer').

- End of Section –

**TEMPLATE FORMAT GUIDANCE ONLY**

**Template 1: EXPERIENCE**

- a. Project Name & Location:
- b. Contract Number if applicable:
- c. Project type: Construction: (Y/N) Design: (Y/N) Design/Build: (Y/N)
- d. Project owner's name:  
Address:  
Telephone:  
eMail:
- e. Prime Contractor: (Y/N) Sub-Contractor: (Y/N)
- f. Project completion Date:
- g. Construction Cost:
- h. Brief explanation that illustrates your design/build capabilities and relevant experiences:
- ~~i. Schematic site plans~~ **DELETED**

**Template 2: PROJECT MANAGEMENT & SECURITY PLAN**

1. Provide an Organizational Chart: (include key personnel Names and their titles)
  - a. Show the key design personnel
  - b. Show the key construction personnel
  - c. Show other firms involved such as partnerships and sub-contractors if applicable
  - d. Show the relationship between the quality control and health & safety personnel, project level management and corporate management
2. Explain the quality control process for design:
3. Explain quality control management throughout the construction process including;
  - a. Testing
  - b. Inspection
  - c. Safety
4. Explain the interactions with the Corps of Engineers and the roles that different team members will play when dealing with;
  - a. Resolving problems with modifications to the contract (design and/or construction)
  - b. Resolving potential design and/or construction delays
  - c. Reviewing and approving submittals
  - d. Attending progress meetings
  - e. Facilitating contract completion and closeouts
  - f. Explain process to control cost over runs while maintaining the project budget during design and construction.
5. Provide innovative but realistic and specific solutions to the following potential project management challenges:

- a. Identifying a qualified design firm and ensuring timely delivery of Design Plans and construction documents.
  - b. Providing Site security, local community engagement, and access arrangement.
  - c. Procuring the required materials and developing a transportation and security strategy that will ensure that the materials get to the construction site
  - d. Organizing and using the engineering, technical, management personnel and local labor force in a manner that ensures successful completion of the project.
  - e. Providing a construction and engineering methodology that will ensure success of the project.
  - f. Provide a construction schedule that is efficient and effective.
6. Provide a list of all current ongoing contracts or projects:
- a. Contract Number
  - b. Contract Amount
  - c. Original Contract Completion Date
  - d. Current Official Completion Date
  - e. Current Progress
  - f. Key Personnel assigned to each of those projects
  - g. The Offeror shall provide a narrative that explains how award of this contract will affect current contracts or projects and how the current contracts or projects will affect this contract if it is awarded to the contractor.
  - h. The Offeror shall provide a narrative that explains their capability and plan to implement an additional project and the resources available to them without adversely affecting current contract or projects.

**Template 3: PESONNEL & EQUIPMENT RESOURCES PLAN**

SUB-FACTOR 1: KEY PERSONNEL for the following:

- a. Project Manager for design and **Program Manager** for construction
- b. Project Architect
- c. Senior Structural Engineer
- d. Senior Civil Engineer
- e. Senior Mechanical Engineer
- f. Senior Electrical Engineer
- g. Construction Superintendent or Manager
- h. Project Security Manager

The above key personnel shall have a minimum of **10** years of professional experience. The following information is required for each of the key personnel below: Information to be provided for key personnel should be limited to no more than **one page** per person.

SUB-FACTOR 1: PERSONNEL for the following:

- a. Quality Control Manager
- b. Construction Foreman
- c. Safety Officer

The above personnel shall have a minimum of **5** years of professional experience. The following information is required for each of the key personnel below: Information to be provided for key personnel should be limited to no more than **one page** per person.

- a. Name:
- b. Project Title:
- c. Project Responsibilities:
- d. Years of Experience: with this Company: with other firms:
- e. Education: Degree(s) Year: Specialization:

- f. Active Registration: First year Registered:
- g. Other relevant experiences, accreditation, & qualifications:
- h. How many or the percentage of the Afghan contractors & laborers who will be working on this project:

**Template 4: PAST EVALUATIONS/ PERFORMANCE**

**(The following projects are to be the same projects submitted under Factor 1 Experience.)**

1. Project Name & Location:
2. Customer Point of Contact: (Note: the Government may contact this customer to verify the information provided on this form)
  - Name:
  - Address:
  - Phone number:
  - Email Address:
3. Problems encountered and corrective actions taken:
4. List Change Orders and their circumstances:
5. Project scheduled Completion date Actual Completion date:  
IF the above dates are different, explain reason for the change:
6. Initial Project Budget (US Dollars)  
Final Actual Project cost (US Dollars)  
IF the above dates are different, explain reason for the change:
7. Safety record and accident reports:
8. References: Submit the following, Customer Satisfaction letters, Letters of Appreciation, Performance Evaluations, Certification of Achievements, Letters of Recommendations. (Note: A neutral rating will be assigned IF no past performance is submitted) ATTACHMENT-B4 (CONTRACTOR PERSONNEL'S EXPERIENCE & QUALIFICATION)

SECTION 00120

**SECTION 00120**

**PROPOSAL EVALUATION AND CONTRACT AWARD**

**A. BASIS FOR AWARD AND PREREQUISITE**

The Government intends to make one award for completion of the subject project. The award will be made to the offeror whose proposal represents the best overall value to the Government. Competing proposals shall be evaluated against the requirements of the solicitation in order to assess strengths, weaknesses and associated risks and deficiencies. The tradeoff process of evaluation between non-cost/price and cost/price aspects of the Offerors' proposals will be used to determine those offers that may result in award of a contract. Implicit in the Government's evaluation and selection process is its willingness to accept other than the lowest priced offers.

**B. PROPOSAL EVALUATION**

**B.1** Proposals will be evaluated by a Source Selection Evaluation Board (SSEB). The SSEB will be composed of Corps of Engineers personnel and a Customer representative. The identity of SSEB members is confidential and members will not be available for contact or discussion prior to submission of proposals.

**B.2** The Volume I (Management Technical) factors are listed in order of importance. There are no sub-factors under each factor. The four factors will be evaluated and assigned merit ratings using the adjectives of excellent (E), good (G), satisfactory (S), marginal (M), and unsatisfactory (U). Proposals that are determined to be non-responsive (lacking in mandatory information) will be determined to be *unacceptable*. The non-pricing Volumes (I, Management-Technical) taken together are significantly more important compared to the pricing factor (Volume II) in the evaluation and selection process.

**1.0 VOLUME 1 – MANAGEMENT-TECHNICAL PROPOSAL EVALUATION CRITERIA**

**1.1 CONTENT**

### **1.1.1 Factor 1 – Experience**

The Government will evaluate the work experience of the contractor's company and designer, including subcontractors, on projects similar to that described in this RFP which use the design-build process. Contractor's experience with similar projects (type of construction, dollar value, design-build method, complexity, applicable standards such as EMS 385-1-1) will receive a higher rating than those with dissimilar projects. Offerors must provide a list of no less than three and no more than ten similar design-build projects that are at least 50% complete or completed in the last **five** years within Afghanistan, Iraq, Tajikistan, and Pakistan that best demonstrates your experience, with at least one project over **\$10 million**, and all other projects must be at least **\$5 million**. The list of projects shall include the information required by Template 1. Offerors that fail to provide the required number of responsive, complete and accurate information regarding their experience may be considered non-responsive and not considered for award.

### **1.1.2 Factor 2 – Project Management and Security Plan**

The Government will initially evaluate and rate the Project Management and Security Plan for responsiveness and completeness in accordance with Template 2 in Section 00110. Offeror's proposals that fail to address all of the subjects identified in Template 2 may be considered non-responsive and not considered for award.

The Government will evaluate the Project Management and Security Plan by applying the following standards or criteria to the subjects identified in Template 2 of Section 00110:

- Did the Offeror identify and demonstrate a thorough understanding of the conditions, challenges, issues, and time constraints pertinent to performance of this contract.
- Did the Offeror provide realistic solutions or alternatives to the conditions, challenges, issues and time constraints that they identified.
- Was the Offeror's action plan feasible, viable, clear and demonstrate a commitment that would ensure successful execution of the Project Management Plan and Security Plan.

The offeror who identifies all the relevant conditions, challenges, issues or time constraints and provides the most specific and compelling solutions or alternatives that are most likely to ensure successful contract completion will receive the highest ratings.

The Offeror's commitments provided in the Project Management and Security Plan will be used as the basis for agreements between the government and the awardee. The government intends to enforce the agreement based on the awardee's Project Management and Security Plan and evaluate the contractor's performance accordingly.

### **1.1.3 Factor 3 – Personnel and Resources**

#### **1.1.3.1 Personnel**

The Government will initially evaluate the qualifications and experience of the contractor's and the designer's key personnel for this project in accordance with the requirements outlined in Template 3 in Section 00110. Contractor personnel with experience working on similar projects (type of construction, dollar value, design-build method, complexity) will receive a higher rating than those with dissimilar or non-relevant project experience.

Contractor's use of other workers will be evaluated, with greater credit being given for Afghan workers unless logistics of using foreign workers is fully detailed.

Proposals will also be evaluated by how completely the offeror addresses how they will have adequate personnel for the project described in this RFP in light of any other ongoing projects and contractual commitments it may have within Afghanistan.

Proposals with the most complete and detailed submissions will receive the highest ratings.

### **1.1.3.2 Resources**

The Government will initially evaluate the proposal for compliance with the minimum requirements of this solicitation. Offeror's proposals that fail to address all of the subjects identified in Section 00110, Paragraph 1.1.3.5 may be considered non-responsive and not considered for award. In order to receive a satisfactory rating for this factor, the Offeror must meet the following requirements:

- The Offeror submitted a list of ALL current ongoing contracts or projects.
- The list included the contract number, contract amount, original contract completion date, current official contract completion date, and the current progress.
- The Offeror identified the key personnel assigned to each of those projects delineated in FACTOR 3 – PERSONNEL for each of the current contracts or projects.
- The Offeror provided a narrative that satisfactorily explains how award of this contract will not adversely affect any current contracts or projects.
- The Offeror provided a narrative that satisfactorily explains how the current contracts or projects will not adversely affect this contract if it is awarded to the contractor.
- The Offeror provided a narrative that satisfactorily explains how they are going to assume the responsibility for this additional contract or project as well as an explanation of the resources they will use on this contract without adversely affecting current contract or projects.
- The contractor's responses will be evaluated to determine if the contractor has additional capacity to handle the project.

The Government will evaluate the adequacy of the Offeror's resources to successfully complete the project based on the completeness and realism of their narrative responses to the issues identified by this factor.

Proposals with the most complete and detailed submissions will receive the highest ratings.

#### **1.1.4 Factor 4 – Past Evaluations/Performance**

In order to be considered responsive to this factor, the Offeror must submit “Experience Information” forms for all the projects listed under Factor 1 – Experience, attached at the end of Section 00110, in response to Factor 1-Experience. All blocks must be filled in and all data should be accurate, current, and complete.

- The Government will evaluate past performance information to assess the level of performance risk associated with the Offeror’s likelihood of success in performing the requirements stated in the solicitation.
- The currency and relevance of the information (as determined by the Government), the source of the information, context of the data, and general trends in the contractor’s performance may be considered.
- Information submitted by the Offeror pertaining to recent, relevant contracts will be evaluated as well as data obtained from other sources, including automated databases and questionnaires.
- References other than those identified by the Offeror may be contacted by the Government. The Government may take into consideration the Offeror’s performance of contracts with the agency; other Federal, State, and local government activities; and commercial concerns. The result will be a performance risk rating based on each Offeror’s record of past performance.

For the purpose of the past performance evaluation, offerors shall be defined as business arrangements and relationships, such as Joint Venture participants, teaming partners, and major subcontractors. The past performance record of each firm in the business arrangement may be evaluated by the Government.

In the case of an Offeror without a record of recent, relevant past performance (and for which there is also no recent, relevant past performance information for its predecessor companies or key subcontractors), or for whom information on past performance is not available or cannot be verified, the Offeror will not be evaluated favorably or unfavorably on past performance. A neutral rating will be assigned. This does not preclude the Government from making award to a higher-priced Offeror with a favorable past performance record over a lower-priced Offeror with a neutral past performance rating.

## **1.2 FORMAT**

Proposal will be evaluated based on adherence to the requirements of Section 00110, Proposal Preparation.

## **1.3 NOTES**

### **1.3.1 Joint Ventures and Teaming Arrangements**

Any contractors submitted in the proposal as part of a joint venture must submit a legally binding joint venture agreement. The Government will not evaluate the capability of any contractors that are not included in the joint venture agreement. Joint ventures must include a copy of the legal joint venture signed by an authorized officer from each of the firms comprising the joint venture with the chief executive of each entity identified and a translation in English, if the original agreement is in a language other than English. Incomplete evidence of a joint venture results will not be considered.

If submitting a proposal as a Joint Venture, the experience, past performance, management plan and equipment submittal of each of the Joint Venture Partners can be submitted for the Joint Venture Entity. The experience for each Joint Venture Partner will be considered the experience of the Joint Venture entity.

The proposal may receive a higher rating if the proposal contains evidence of the Joint Venture Entity working successfully together previously on relevant projects.

### **1.3.2 Credit For Others**

If an Offeror wishes to be credited with a subcontractor or supplier, i.e. a firm that is not the prime contractor or part of the joint venture, a letter of commitment signed by the subcontractor must be submitted. The commitment letter must be submitted even if the firm is in some way related to 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). In regard to the Experience and Past Performance factors, if an Offeror submits projects demonstrating experience in one of the factors or sub-factors, and that project was completed by a subcontractor, a subsidiary, or a supplier, as opposed to the prime or one of the joint venture partners, the Offeror **MUST** submit a signed letter of commitment from the contractor who performed and completed the work. If a letter of commitment is not submitted, the experience will not be considered.

## **2.0 VOLUME II - PRICE PROPOSAL PREPARATION**

The Government will evaluate whether the Volume II price proposals are complete and reasonable. The price proposals will not be assigned adjective ratings but will be assigned a confidence/risk rating. The government will evaluate the proposed pricing and supporting information to determine the reasonableness and completeness of the proposed price.

### **C. METHOD OF PROPOSAL EVALUATION**

**C.1** Proposals will be reviewed to determine if they contain the required minimum procurement and technical data as required by sections 00110 and 00120. Incomplete proposals may be eliminated. All forms shall be filled in and all requested data must be provided.

**C.2** After the compliance review, the SSEB will begin evaluation and scoring the factors and sub-factors set forth herein. The Price proposal information will be evaluated (not scored) with regard to reasonable and complete pricing and associated risks.

**C.3** If necessary, a competitive range may be determined. The competitive range will consist of all proposals which are considered to have a reasonable chance of being selected for award. However, the offeror is reminded that the Government intends to award without discussions and that their best offer should be provided with the initial proposal. After the determination of the competitive range, written and/or oral discussions may be conducted with all Offerors within the competitive range. Upon completion of written and/or oral discussions, Final Proposal Revision will be requested.

**C.4** The Government may reject any or all proposals based upon irregularities in the proposal or waive minor informalities or minor irregularities in proposals.

**D. SELECTION and AWARD**

Award will be made to the offeror, that in the judgment of the Contracting Officer, provides the best combination of management and technical capability and reasonable cost. The Government reserves the right to make award to other than the lowest cost offeror, price and other factors considered under the provision of "best value" to the Government.

-- End of Section --

## SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

The following have been modified:

SECTION 01010

**SECTION 01010**

**SCOPE OF WORK – DESIGN BUILD**

**1.0 GENERAL**

The project consists of the design and construction of a new Afghanistan National Army, Corps Support Battalion and related support facilities on Camp Gamberi, Jalalabad, Afghanistan. Site is located on the eastern side of the existing installation. **Contractor is required to take partial design provided in the Appendices and CD and complete the design to meet all the requirements and applicable criteria and codes.** The project is defined as the design, material, labor, and equipment to construct buildings, parking, utilities and other infrastructure. The work within this contract shall meet and be constructed in accordance with current U.S. design and International Building Codes (IBC), Life Safety Codes (NFPA-101), Force Protection and security standards. A partial listing of references is:

IBC, International Building Codes 2006  
 NFPA 101, Life Safety Codes  
 UFC 4-010-01, DoD Minimum Anti-Terrorism Standards for Buildings.

| <b>Table 1.0 Population for Corps Support Battalion</b> |         |       |       |            |
|---|---------|-------|-------|------------|
| SENIOR  | Officer | NCO   | LOW   | TOTAL      |
| BN CDR  | O2-O5   | E7-E8 | E1-E6 |            |
| 1   | 44      | 325   | 295   | <b>665</b> |

\*Contractor shall design and construct infrastructure for Electrical distribution, Water distribution, and Sanitary Sewer Treatment systems for effective end-state population of **1640** personnel.

**1.1 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.

**1.2 SUBMITTALS**

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

**1.3 CQM TRAINING REQUIREMENT**

Before project design and construction begin, the Contractor's Quality Control Manager is required to have completed the U.S. Army Corps of Engineers CQM course, or equivalent. Courses are offered at regular intervals. For enrollment and course information, contact Reed B. Freeman at the following:

Reed B. Freeman, PhD, PE  
Quality Assurance Branch  
Afghanistan Engineer District, USACE  
Email: reed.b.freeman@usace.army.mil  
Telephone: 079-760-4396

A copy of the course completion certificate shall be included in the Design Analysis submittal.

USACE Guide Specification 01451, entitled "Contractor Quality Control", 3.5.D. requires approval of the Contractor's CQC Plan. That approval is contingent upon the successful completion of this course by the Contractor's Quality Control Manager.

## **2.0 LOCATION**

The site is located in next to Camp Gamberri, Jalalabad, Afghanistan, as shown on attached drawings.

## **3.0 UNEXPLODED ORDNANCE (UXO)**

### **3.1 UXO REMOVAL AND CLEARANCE**

The contractor is not responsible for the clearance or removal of mines and unexploded ordnance (UXO) from the site prior to the commencement of construction.

It is the responsibility of the Contractor to be aware of the risk of encountering UXO or mines and to take all actions necessary to assure a safe work area to perform the requirements of this contract. The Contractor assumes the risk of any and all personal injury, property damage or other liability arising out of or resulting from any Contractor action taken hereunder. The Contractor and its subcontractors may not handle, work with, move, transport, render safe, or disarm any UXO or mine, unless they have appropriate accreditations from MAC.

If a UXO or mine is encountered during project construction, UXO or mine disposal shall be handled in accordance with Section 01015, Technical Requirements.

## **4.0 SUMMARY OF WORK**

### **4.1 CONTRACTOR REQUIREMENTS**

The contractor shall design and construct the facilities as a design-construct contract and shall be in accordance with the requirements stated in Section 01015: Technical Requirements. Refer to attachment following this section for more specifics for required spaces. Design and construction work shall include but not be limited to that shown within attached tables and described below.

The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed.

#### **4.1.1 GENERAL REQUIREMENTS FOR FACILITIES**

All requirements set forth in the Scope of Work, but not included in the Technical Requirements, shall be considered as set forth in both, and vice versa. Provide heating, ventilation, and cooling for all facilities

unless otherwise stated in sections 1010 or 1015. All toilets shall be eastern -style. All eastern-style toilets shall face North or South.

All standard construction amenities and details such as heating, lighting, site drainage, utility connections, etc. shall be implied as a design and construction requirement. Drawings referenced are contained in the Appendices. Concrete walkways are required to connect all buildings, facilities, and features such as parking lots, power plants, etc.

Design and Construct circulation pathways and exit stairs in accordance with building code references herein. Fire sprinkler system is not required. The facility shall comply with all other safety requirements as required within references. Smoke detectors and fire alarm systems shall be installed in accordance with requirements herein.

Provide signage for each facility on the exterior of the buildings in Dari and Pashto. Contractor shall coordinate signage with COR.

The design and construction work shall include but not be limited to the following sub-paragraphs.

In general, this project consists of design and construction of the following:

#### 4.1.1.1 Base Bid

- Design Cost, Site Survey, and Master Plan
- As-Built Drawings
- Mobilization, Demobilization, and General Site Work
- 4.2 Wadi Diversion and Mitigation
- 4.4- 4.6 Potable Water Supply System
- 4.7 Sanitary Sewer and Treatment System
- 4.8 Site Electrical Distribution System
- 4.12 Primary Entry Control Point
- 4.12 Guard Towers (partial Design Available)
- 4.13 Perimeter Walls and Fencing (partial Design Available)
- 4.14 Road Network and Sidewalk
- 4.15 Trash Collection Points
- 4.16 Officer Barracks with Toilet/Shower/Ablution (partial Design Available)
- 4.16 Enlisted Barracks (partial Design Available)
- 4.17 Dining Facility (DFAC) and Dry Storage Yard (partial Design Available)
- 4.18 Battalion Headquarters Building/ Admin (partial Design Available)
- 4.19 Toilet/Shower/Ablution/Laundry Facility (partial Design Available)
- 4.20 Vehicle Refueling Point
- 4.21 Motor Pool Gravel Parking
- 4.22 CSB Organic Wheeled Vehicle Maintenance Facility (9 Bay) (partial Design Available)
- 4.23 Communication Building (partial Design Available)
- 4.25 POL Storage Building (partial Design Available)
- 4.26 General Warehouse Storage (partial Design Available)
- 4.27 Arms Storage Building (partial Design Available)
- 4.28 Vehicle Wash Rack
- 4.31 General Non-Organic Wheeled Vehicle Maintenance Facility two (9 Bay) (partial Design Available) (refer to 4.22 drawings)
- 4.32 General Non-Organic Wheeled Vehicle Maintenance Facility (9 Bay) (partial Design Available) (refer to 4.22 drawings)
- 4.24 GSE Communication and Armament Maintenance Facility
- 4.34 Temporary Facilities
- 4.35 Bunkers

#### 4.1.1.2 Option Items

- 4.29 MWR GYM and outside volleyball courts
- 4.33 Irrigation System for entire Camp Gamberi Installation

See Appendix A for facilities drawings.

\* Facilities with listed with (partial Design Available) additional drawings will be available on CD at the Corps of Engineer Afghanistan District Headquarters, Qalaa House Compound in Kabul. Contractors should contact the Contract Specialist in advance for CD request and pick up CD at COE HQs. CADD files will be provided to the successful offeror after award.

#### 4.1.2 SECURITY MEASURES

The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed. This may include but not limited to: Security guards, temporary fencing, material during delivery, and control access to the construction site.

#### 4.2 SITE PLANNING

Preliminary site investigation indicates there may be a need for major drainage structures due to existing wadi(s) at the site. Contractor shall divert or mitigate the impact of erosion and flooding due to existing wadi(s) in the Master Plan. Contractor shall clearly outline and show their design proposal for diversion or mitigation. The location of the facilities on the site plan may have to be adjusted in coordination with any diversion or mitigation of Wadi proposal.

It is highly recommended that the Contractor visit the site before preparing and submitting their bid proposal.

The Contractor shall prepare a site boundary survey and site plan based on information contained in the Request for Proposal. The Concept Site layout provided in the Appendix is only a "Concept" and may not capture the total scope. The Contractor must incorporate all the requirements in the 1010 and 1015 and provide provisions for future expansion. The development of the master plan will include participation in design charrettes conducted at the Afghanistan Engineer District Headquarters Office in Kabul, Resident Office, or Area Engineer Office as determined by government Contracting Officer's representative (COR) or Project Manager (PM). Contractor shall verify all space requirements and code compliance in accordance with sections 1010 and 1015 of this contract.

The Project construction site is about 380 meter by 1000 meter at approximately 380,000 SM. Nearly half of the project construction site is already part of the existing Camp Gamberi Installation. Contractor is responsible to verify actual site condition before bidding.

The contractor shall arrange the facilities involved in vehicle maintenance on post so as to support a logical progression of work. First, vehicles freshly arrived from the field shall be washed prior to maintenance. The wash rack should be located at a higher elevation than other maintenance facilities to allow proper filtration and gravity drainage of wastewater, and shall be located as far from fuel dispensing or storage sites as possible to avoid any mixing of wastewater and fuel.

Second, vehicles shall be able arrive at maintenance bays in a reasonably clean condition - meaning place the wash rack a relatively short distance from maintenance bays.

Third, after maintenance is performed, vehicles shall be driven to the vehicle refueling point over such a route so as not to interfere with vehicles proceeding to either the wash rack or maintenance facilities. The vehicle refueling point shall be at a lower elevation than the drinking well, and contractor shall ensure the refueling point is a minimum distance of 30.5 meters from the drinking well. Similar safety distances between fuel lines and all water lines shall be maintained.

Fourth, once refueled, vehicles shall be driven to appropriate parking areas, again without crossing traffic undergoing other stages of maintenance.

Refer to UFC 3-230-07a, Table 5-2 for minimum distances from pollution sources to water wells. Building sewer = 50 feet, Septic Tank = 50 feet, disposal field = 100 feet. Seepage pit = 100 feet. Dry Well = 50 feet, and Cesspool = 150 feet.

Contractor shall Master plan for **1640 personnel** to include future expansion space for additional 625 personnel (ESB) Engineer Support Battalion, 350 personnel (FSD), as well as the 665 personnel for CSB. Future ESB shall include Barracks, Battalion Admin Office Facility, and Vehicle Maintenance Facility. The Future FSD shall include Barracks, Admin Office, and Warehouses.

#### 4.3 DEMOLITION AND GRADING

Minor site demolition is required prior to construction of new work. Grading at the site is required and shall conform to requirements within references herein.

Native crushed stone 100 mm thick shall be placed around all buildings, from the building wall or building landscaping out to a distance of 2m and all areas of anticipated foot or vehicle traffic in order to reduce erosion and to provide dust control. Concrete walkways minimum 100mm thick and 1.2m wide shall be installed between buildings and parking areas.

#### 4.4 WATER SYSTEM

Contractor shall conduct preliminary water exploration to site and develop potable water supply wells for sufficient quantity and quality. The Contractor shall determine placement and well design for water supply points and shall preserve and protect the well(s) for future use. Placement of any well (test or production) will include collection and preservation of intact samples (split spoon or core samples) every five (5) meters. Intact samples and drill cuttings will provide for evaluation of a continuous well log and well construction design. Contractor shall draft a lithologic well log using an accepted standard classification system such as ASTM D2487-00, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

The Contractor shall perform pump test calculations and water quality analysis prior to beginning work on water distribution system. Water quality analysis should meet or exceed World Health Organization (WHO) Guidelines for drinking-water quality for water quality standards. If a well or borehole is identified for abandonment, the Contractor shall follow proper abandonment procedures and provide documentation.

Produce a geotechnical report detailing field subsurface investigation procedures, field test results and laboratory test results for water quality, water supply well design and construction and foundation placement.

Design and construct a Potable Water System (PWS), to include a well and submersible pump as a source of water, protected in an enclosed well house, a water chlorination and filtration system, a water storage tank or tanks, booster pumps, and pressure tank housed in a pump house to deliver water, and an underground pipe distribution network system. The Average Daily Demand (ADD) shall be calculated

for an effective population of 1,640, using a per capita consumption rate of 50 gallons (190 liters) per person per day. This demand shall be multiplied by a capacity factor of 1.5 to account for future growth and peak demand, per UFC 3-230-07a, paragraph 1-3, and UFC 3-230-03a, paragraph 3-1.

The booster pumps shall be constructed to deliver a minimum 345-414 kPa (50-60 psi) at a flow rate equal to twice the ADD. Water tank or tanks shall provide storage capacity for a minimum of one day's ADD. The distribution system shall be designed to provide a minimum 276 kPa (40 psi) at ground level at all points in the delivery system. Minimum pressures of 207 kPa (30 psi), under peak domestic flow conditions, can be tolerated in isolated areas as long as all peak flow requirements in the entire system can be satisfied. Maximum water pressures in distribution mains and service lines shall not exceed 517 kPa (75 psi) at ground elevation. Maximum velocity of flow in the system shall be 8 fps. Refer to IPC Commentary Section 604, and UFC 2-230-10a, Chapter 8 for designing for maximum flow. Water demand required for fire fighting and for irrigation and landscaping needs shall not be included in design demand calculations.

It is acknowledged that water may not be available at the site despite contractor good faith efforts to find it. The Contractor shall drill a minimum of two wells at the site to a minimum depth of 120 meters. If this is done without result, the Contractor will be considered to have fulfilled the terms of the contract and will be entitled to the full price of the contract CLIN for well drilling. However, the Contractor must still furnish all other parts of the water distribution system as described in the specifications.

The well house, tank, and pump house shall be surrounded by a chain link fence with lockable gate, topped by outriggers and barbed or concertina wire.

Any wells not used in the system must be de-commissioned in accordance with ASTM D 5299. The contractor must submit a written plan for de-commissioning wells.

#### **4.4.1 PUMP HOUSE**

Construct a permanent insulated pump house with a concrete slab floor at the new well site. Contractor shall furnish two booster pumps, each capable of delivering twice the average daily demand. Contractor shall furnish a hydro-pneumatic tank to work in conjunction with the booster pumps. Installation shall be per manufacturer's requirements. The Contractor shall provide manufacturer's catalog information and shop drawings to the Contracting Officer for approval. The floor of the pump house shall slope away from the pumps at a 1% slope and shall have drains with screens at each corner. Elevation of floor of pump house shall be a minimum 150mm above grade. The pump house design should allow easy access to pumps for maintenance. The pump house walls and roof shall be insulated and a heating unit installed to protect valves and piping from freezing. Further protection shall be provided by insulating piping within the pump well house, as well as intake discharge piping underneath and outside the walls. The pump house shall be furnished with a heavy duty metal entry frame and insulated, lockable door.

#### **4.5 WELL HOUSE**

Construct a permanent insulated water well house with a concrete slab floor at a new well site. Contractor shall furnish a chlorination and filtration shelter per chlorine and filtration manufacturer's requirements. The Contractor shall provide manufacturer's catalog information and shop drawings to the Contracting Officer for approval. The floor of the well house shall slope away from the casing at approximately 3mm per 300mm and drain to the outside through pipes at each corner. Pipes shall be fitted with screens. Elevation of floor of the well house shall be a minimum 150mm above grade. The well casing will extend a minimum 50cm above the floor of the well house. The well house design should be such that the well pump, motor, and drop pipe can be accessed through a lockable, insulated roof hatch by mobile crane. The well house shall be insulated and a heating unit installed to protect valves and piping from freezing. Further freeze protection shall be provided by insulating piping within the well

house, as well as discharge piping beyond the check valve. The well house shall be furnished with a entry frame and door that shall be lockable, insulated, and made of heavy-duty metal. Well house shall be surrounded with a security fence with lockable gate and outriggers equipped with barbed and concertina wire. Provide a chlorination system.

#### 4.6 WATER TANK

Contractor shall provide a circular steel or concrete ground storage reservoir tank (GST) located on a slab set a minimum of 150mm above grade. Volume of the GST shall be a minimum storage volume of a full day's ADD. The storage facility shall be located above drainage areas and locations subject to flooding as approved by the Contracting Officer. Overflow and air vents shall be screened so that birds, rodents, and debris cannot enter the reservoir. Water tank shall be lockable.

Total volume of the tank shall be a minimum storage volume of a full day's water demand. The contractor shall verify storage volume requirements based on final design population.

#### 4.7 SANITARY SEWER & TREATMENT SYSTEM

**Contractor shall investigate the existing Sanitary Sewer and Treatment System at the installation to determine existing capacity.**

If the existing Sanitary Sewer and Treatment system will support the additional sanitary load of **1,640** personnel (as defined above and 1015 Technical Requirements), then the Contractor shall design and provide all necessary materials and labor to construct an extension of the sanitary sewer distribution system for the sanitary load, to include the future master planned facilities, and connect to the existing system. This may include installing a new force main directly to the WWTP, any collection or lift stations as applicable, and new distribution lines.

If the existing Sanitary Sewer and Treatment system will not support an additional personnel, (as defined above and 1015 Technical Requirements), then the Contractor shall design and construct a separate sanitary sewer distribution system served by a package waste water treatment plant. Installation package waste water treatment plant shall be modular, constructed steel units assembled onsite from pre-fabricated components. The system shall provide treatment for the sewage load based on 80% of Average Daily Demand. The system shall combine aeration, settling, and solids treatment in a single multi-compartment tank.

The Contractor shall conduct a topographic survey to determine existing site characteristics. The Contractor shall conduct a utility survey to determine the locations of any nearby water lines, wells, sanitary sewers, storm sewers and electrical lines.

Geotechnical investigation of the proposed sewage treatment site is required, and the contractor shall design the sewage treatment system to be compatible with site and soil conditions.

The sanitary sewer collection system shall consist of gravity sewer pipe network and accessories such as manholes, cleanouts, and building service connections. The Contractor shall design a sanitary system layout following requirements of Section 01015 this contract. Pipe, fittings, and connections shall conform to the respective specifications and other requirements as listed in Contract Section 01015 and all of its referenced codes.

The gravity sewer collection system shall connect to the base Waste Water Treatment Plant. The Contractor shall design a package system all tank geometry, hydraulic loading, inlet and outlet configurations, number of compartments and related site preparation and earthwork. Design will be per specifications provided in Section 01015.

#### 4.8 SITE ELECTRICAL DISTRIBUTION SYSTEM

Preliminary utility investigation found that the existing electrical distribution system would support the additional load for this project including future master planned 1640 person load. Current Power Plant is designed to support nine (9) 1 megawatt generators. Currently 6 of the 9 generator pads will have a 1 megawatt generator installed on them. Four generators will be utilized to power the existing facility and two will be spare. Three (3) available spaces will be left for future generators.

The Contractor shall perform its own investigate and determine if the existing installation electrical distribution system will support the electrical load of this project, including all future master planned additions, for an additional total future personnel.

If the existing electrical distribution system will support the additional load of this project, contractor shall design and construct connection to the existing system and **provide the additional generator(s) in the existing power plant facility and fuel storage tank(s) to support additional loads.**

~~If the existing electrical distribution system will not supply the addition of this project including the future planned 1640 person load, then the contractor shall design and construct the entire electrical distribution system to include but not limited to: generator power plant, electrical distribution, fuel storage tanks, and connection to all facilities. DELETED~~

The contractor shall design an electrical power system to supply and distribute power to all facilities included in the contract (including master planned future facilities) to include generation and fuel storage, and underground. All electrical design and installation shall meet NEC (NFPA 70) requirements. Conductors and circuits shall be sized for the specific loads. The site Primary power distribution shall be 20000/115550 V, 50 Hz manhole duct bank system. The secondary voltage shall be 380/220 VAC, 50 Hz. Secondary power distribution shall be pad mounted transformer substations (PTS). Each PTS shall be a standard manufactured substation with a secondary distribution switchboard. Each substation switchboard shall have a secondary distribution circuit breaker for each facility, to include all future Master Planned facilities. The Contractor shall provide secondary distribution manhole or hand hole duct bank distribution system to each facility to be constructed, to include all future Master Planned facilities, from the PTS switchboard. The Contractor shall provide a 100mm conduit stubbed out from the closest manhole or hand hole **(within the roadway right of way at the limits)** for each future facility. **The Contractor will not be responsible for the construction of service lines from Contractor installed distribution lines to future facilities.** Each 100mm conduit shall have a pull string, be capped off, and have a duct bank marker above the conduit. All electrical design and installation shall meet NEC (NFPA 70) requirements. Electrical receptacles shall be provided as indicated in section in 01015, Technical Requirements. Conductors and circuits shall be sized for the specific loads. All wiring shall be run and pulled through conduits.

**4.8.1 POWER PLANT GENERATORS:** ~~Generator size is not to exceed 1MW (1,000kW); in the event more than one generator is required to handle the entire load, the generators shall be provided with a synchronizer switch, so that when total power demanded from one generator reaches 90% of the generators maximum, an additional generator shall automatically start and supplement the running generators, sharing the load between the generators equally. Contractor shall provide generators based on the N+2 concept. Where 'N' would be the required number of generator(s) and '2' being a 'stand-by' unit. Generation shall supply 125% of the maximum calculated demand load plus the stand-by generator in reserve. Contractor shall utilize the existing spare generators prior to adding any additional generators. There shall be a total of two spare generators at the power plant at the end of this contract. DELETED~~

~~Generator size is not to exceed 1MW (1,000kW); each new generator shall be provided with a synchronizer-switch, so that the new generators can synchronize with existing generators. All generators shall share the facility load equally. As facility load drops generators shall be turned off until only those~~

generators needed to supply the load are running. Contractor shall provide generators based on the N+2 concept. Where 'N' would be the required number of generator(s) and '2' being a 'stand-by' unit. Generation shall supply 125% of the maximum calculated demand load plus the stand-by generator in reserve. Contractor shall utilize the existing spare generators prior to adding any additional generators. There shall be a total of two spare generators at the power plant at the end of this contract.

#### 4.9 GENERATOR BUILDING

**Generator Fuel Storage.** The work shall include the fabrication and installation of the entire fuel storage and distribution system. Tanks shall be skid mounted. Tanks of this type that have a capacity above 2640 L will be provided with either a dike or a spill containment system. The dike or spill containment system should have enough capacity for the entire contents of the tank, plus 10 percent. Provide a molded neoprene isolation pad to isolate an above-ground tank from the concrete pad underneath. Steel tank supports specifically are prone to encounter premature rusting due to constant exposure to moisture and their incompatibility with concrete. Tank shall be designed and manufactured for horizontal installation. Tank shall be mounted on the tank manufacturer's standard support skid. Skid shall span the entire length of the tank and shall separate the tank from the reinforced concrete slab by a minimum of 200 mm. Indicate on the drawings the number and size of each tank man way required. Tanks of 3,780 to 45,430 L to capacity will be provided with 760 mm diameter man ways. Tanks larger than 45,430 L will be provided with 915 mm diameter man ways. Tanks 3,780 L and larger will be provided with a minimum of 1 tank man way to allow for internal tank access. Piping will not penetrate through access man ways. Tank shall be provided with a combination cleanout and gauge connection. Vent pipe sizing shall be not less than 32 mm nominal inside diameter. Vent shall be the rupture disc type calibrated to burst at 13.8 kPa pressure, and operate at 80 percent of burst setting. Tank shall be provided with an overfill alarm system. Tank shall be provided with 2 stick gauges graduated in m and mm. Stick gauge shall be of wood and treated after graduating to prevent swelling or damage from the fuel being stored. Each storage tank shall be provided with an automatic analog reading gauge which is directly mounted to a tank's man way cover. Provide an in-line centrifugal pump as part of the day tank package for fuel transfer from the bulk storage tanks to the day tank. Day tanks shall provide sufficient fuel for four hours of generator operation without refill. Provide cathode protection for metal components. Storage tanks shall be handled with extreme care to prevent damage during placement and shall be installed in accordance with the manufacturer's installation instructions. Piping shall be inspected, tested, and approved before buying, covering, or concealing. Piping shall be installed straight and true to bear evenly on supports. Piping shall be free of traps, shall not be embedded in concrete pavement, and shall drain toward the corresponding storage tank. Any pipe, fittings, or appurtenances found defective after installation shall be replaced. Below ground nonmetallic pipe shall be installed in accordance with pipe manufacturer's instructions. Belowground piping shall be laid with a minimum pitch of 25 mm per 6 m.

**External Fuel Fill Point:** for each specific site, the contractor shall coordinate with the Resident Engineer and provide a fuel unloading point outside of the perimeter wall to facilitate transfer of fuel from the commercial fuel tanker to the bulk fuel storage at the Power Plant. This transfer shall include interconnecting piping and valves between the fuel point and the two bulk fuel storage tanks.

#### 4.10 LIGHTING

General lighting shall be provided as indicated and shall meet recommendations from IESNA for each building type and function within each building. Design and installation shall meet NEC 70 requirements.

Exterior lighting shall be high intensity discharge luminaries on 10 meter high minimum spun aluminum or galvanized steel poles. If to be installed on an existing installation, type of luminaries shall match existing predominant type within installation.

Searchlights shall be provided as indicated and shall be equivalent to the following:  
- prison grade

- nickel reflectors (bullet resistant)
- 65 million candlepower (1000 watts)
- manual operation from below with one hand
- xenon lamp
- weatherproof design

#### 4.11 GEOTECHNICAL

Existing geotechnical information is not available at the project site. Any site-specific geotechnical data required to develop foundations, materials, earthwork, and other geotechnical related design and construction activities for this project shall be the Contractor's responsibility. The Contractor shall develop all pertinent geotechnical design and construction parameters by appropriate field and laboratory investigations and analyses. The Contractor shall produce a detailed geotechnical report containing field exploration and testing results, laboratory testing results (particle sizes and distribution, liquid and plastic limit test, and moisture and density test, etc). Information in the report shall include, but not limited to: existing geotechnical (e.g. surface and subsurface) conditions, location of subsurface exploration logs on site plan, exploration point, allowable soil bearing capacity and foundations recommendations, bearing capacity, pavement design criteria (e.g. CBR values, K values), ground-water levels, and construction materials (e.g. concrete cement, asphalt, and aggregates). Two copies of the detailed geotechnical report shall be submitted to the Contracting Officer.

Foundations, including sub grade, shall be designed and constructed based on recommendations from geotechnical investigation required herein.

#### 4.12 FORCE PROTECTION

Facilities shall be sited with FP design in mind. As much as possible and practicable FP designs shall be accomplished by appropriate stand-off distances and setbacks away from potential threats. Force Protection design shall be in accordance with section 1015, Technical Requirements. Force Protection Design shall include the following components:

- A complete Perimeter Security Wall with vehicular and pedestrian Access Gates
- Primary Entry Control Points (ECP)
  - Guard Houses
  - Guard Shacks
  - Active Vehicle Barrier
  - Passive Vehicle Barrier
  - Checkpoints
  - Rejection Lanes
  - Sliding Gates
  - Cable Lift Gates
  - Rolling Beam Barrier

- Guard Towers, **(8) total**, coordinate location with COR
- Compound Illumination System
- Security Communication System
- Loudspeakers and Alarm System

#### 4.13 PERIMETER WALL, FENCING, AND BARRICADES

Perimeter Wall and Fencing shall consist of the types shown or described herein and provided in drawings in the Appendix A. Barricades shall consist of either Hesco Bastion Container barriers or concrete type. Refer Drawings for required types and locations. Barricades are not intended to resist a certain horizontal load and are not required to be permanently anchored to ground. The estimated

perimeter wall distance is **1.8 kilometers**. This is only an estimate; the Contractor is responsible to verify all actual distances and dimensions.

**4.14 ROAD NETWORK, SIDEWALK, AND PARKING**

The Contractor shall design and construct the entire road and parking network. The roads shall be designed to carry traffic of up to a **60** ton three-five axle vehicle at a minimum at least but not limited to: from main entry control point to all the vehicle maintenance facilities, wash rack, fuel point, and motor pool parking areas. A storm drainage system shall also be included. The road layout shall provide access to entry control points, parking lots, vehicle maintenance facilities, fuel points, generator yard, sewage septic treatment plant, and the trash collection point. Contractor shall connect new road system to the existing installation road system. Contractor shall connect new road system to main road system outside of the compound approximately **300 meters long** service road from Main Entry Control Point to existing service road. Provide compacted gravel parking areas for vehicles as listed in 4.21 Motor Pool.

Provide a **convoy assembly area accommodating 2 sets of vehicles parallel parked** at near approach to the main Entry Control Point. The Assembly area shall be paved at least 100 meters in length and at least 14 meters in width including road network.

Road design shall be designed per Section 01015, Technical Requirements. Roadways and sidewalks are required as shown on attached drawings and shall be designed and constructed based upon recommendations from geotechnical analysis as required herein.

The Contractor shall design and provide landscaping for the compound. Design and provide a network of concrete sidewalks to connect the buildings. Sidewalks shall be wide enough to be used as fire-lane or service roads. Provide outdoor benches, lighting, and gathering areas.

**4.15 TRASH POINTS**

The Contractor shall design and construct, in locations convenient for easy removal, **six (6)** trash collection points. It shall be located inside the compound walls. The trash points shall be a 1.8 m x 1.8 m concrete pad with a 1.8 meter tall chain link fence around the perimeter. One side shall have a 1.2 m wide gate entrance. Trash Points shall have a metal roof covering.

**4.16 BARRACKS**

| Table 4.16 Net Sleeping Area per Soldier with Breakdown by Rank (NSM) |              |             |          |
|---|--------------|-------------|----------|
| SENIOR  | Officers     | NCO         | LOW      |
| Private Room  | Private Room | Two to Room | Open Bay |
| <b>17</b>   | <b>12</b>    | <b>14</b>   | <b>5</b> |

Design and construct the barracks building(s) in accordance with the drawings contained in Appendix A. **provide nine (9) BOQ Type “B”, and provide four (4) Enlisted Open Bay Barracks.** Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet, shower, and ablution rooms. Provide split pack air conditioning for the BOQ Type “B” buildings.

The Contractor shall incorporate the following special features into the barracks:

- (a) Enlisted Type "A", Provide Ceiling fans shall be designed for summer ventilation electrical base heaters for winter.
- (b) Clotheslines shall be installed behind each barracks, approximately 5m in length with 4 lines across spaced 410mm apart and of sufficient strength to prevent sagging when all of the lines are loaded
- (c) Concrete stoops with boot scrapper shall be provided at all exterior doors.
- (d) Barracks shall have a dedicated storage area sized to 0.5 SM per person assigned to the barracks.
- (e) At least one power outlets every 4 m. In the BOQ Type "B", provide at least one per wall in bedrooms.
- (f) Toilet/shower rooms shall be finished with ceramic tile from floor and ceiling, slope floor to drain.

*Master Plan shall provide for future facilities at about the same ratio for ESB and FSD. Refer to 4.2 SITE PLANNING for population count of future expansion.*

#### **4.17 DFAC, Dining Facility and Storage Yard**

Design and construct the **2204 SM** DFAC in accordance with the drawings contained in Appendix A. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet, rooms. Include all the features listed in 4.17.1. This facility will provide for 500 seats with the capacity to provide up to 1000 seats.

This facility shall provide cafeteria-style feeding of short order and regular style meals. Spaces include dining areas and kitchen facilities outfitted with built-in liquid propane-burning stoves installed in accordance with manufacturer's instructions. Include all the features listed in 4.17.1.

4.17.1 The Contractor shall incorporate the following special features into the DFAC:

- (a) The kitchen shall be physically separated from the rest of the dining facility with a 2-hour fire rated wall with 90 minute rated doors. At openings for serving line and dirty dish return provide 90 minute fire rated shutters.
- (b) The backsplash and front and side surfaces of stove enclosures shall be terrazzo with heat resistant grout. The top of the stove enclosure shall be finished concrete. Edges will be covered by a [metal "L" angle] [rubber-like material "L" angle] to prevent damaging edges during pot movement. [Option – the backsplash can be of sheet metal if the designer feels adhesives & grouting for terrazzo tiles will not withstand normal usage]
- (c) The height of the stove from the floor to the burners shall be 50cm
- (d) The floor in front of the row of burner enclosures shall be slightly sloped towards the floor drain to direct water overflowing from pots or spigots near the pots away from the work area in front of the stove enclosures.
- (e) New propane stoves shall be installed with consideration to ease of cooking operation and daily cleanup. New stoves shall be set into a formed concrete openings such that they can easily be removed for replacement, maintenance and cleaning. Stove dimensions are 72 cm long x 72 cm wide x 50 cm high. Height includes the grill. Desired stove to stove clearance is 72 cm.

- (f) Each propane stove shall be provided with three burners. The propane stoves shall be of commercial quality and be capable of producing the highest BTU heat output with all three burners on. The center burner is low heat, center and middle burner is medium heat and all three burners is high heat. A shut off valve for each burner shall be provided at the face of the propane appliance.
- (g) Propane storage tanks shall be provided and installed in accordance with NFPA 58. The propane storage tanks shall contain **15 days** supply and shall be installed on a concrete pad, and placed within a covered, secure enclosure to protect tanks from the elements. Provide an access gate for removal and replacement of propane tanks. The access gate shall be able to be secured and locked. Propane tanks shall be secured such that none move or topple over.
- (h) The Contractor shall coordinate with the DFAC staff and Contracting Officer in determining amount of propane fuel required daily for the DFAC. The propane fuel requirement shall be calculated based on consumption of fuel every cooking cycle, cooking frequency, and required "surge" capacity. The Contractor shall provide an agreed to amount of fuel tanks filled with propane fuel at time of project completion.
- (i) Piping from propane tanks to their respective propane stoves shall be of wrought iron, ASTM B36.10M or steel (black or galvanized), ASTM A53. The steel piping shall terminate in front of the propane stoves with a shut off valve and quick disconnect nipple. A stainless steel flexible hose (Gastite or equal) shall connect the propane stove to the steel piping per NFPA 58 section 5.8.6. Each end of the flexible hose shall be provided with quick disconnect dielectric fittings.
- (j) Propane supply piping shall be installed in concrete trenches. Piping may also be surface mounted provided it is not susceptible to damage, or causes any safety hazards.
- (k) Piping passing through the exterior wall shall be provided with pipe sleeves.
- (l) Ventilation hoods
- Hoods shall be designed to capture and confine cooking odors, vapors, and residues.
  - Hood exhaust rate shall be 400 cubic feet per minute per linear foot (CFM/ft) (620 L/s per m) of open hood.
  - Hoods shall be constructed of 20 gauge stainless steel.
  - Hoods shall be provided with a side panel at each end to close in the area between the stove and the hood. Side panels shall be the width of the hood and shall extend to the rear wall at 45 degrees. Approximate dimensions are 37 inches by 37 inches by 45 degrees (925mm by 925mm by 45 degrees). If a non-combustible wall abuts a stove, then a side panel shall not be required on that side of the hood.
  - Joints, seams and penetrations shall be externally welded or brazed to form a watertight seal with a smooth surface that is readily cleanable.
  - All surfaces shall be designed to be easily and thoroughly cleanable.
  - Hoods shall be securely supported with non-combustible materials.
  - Hoods shall extend a minimum of 9 inches (225mm) beyond the front edge of the stove and shall be installed a maximum of 4 feet (1200mm) above the surface of the stove.
  - Hoods shall be sealed to the rear wall.
  - The center hood of each bank of fans shall have one electrical switch on the front face to operate the exhaust and make-up air fans.
  - Grease filters will not be required. Hoods shall be constructed so that grease filters can be installed at a later date.
- (m) Ductwork
- Ductwork shall be protected against corrosion.

- Ducts shall be constructed of 18 gauge stainless steel.
- Supply and exhaust systems for each hood shall be independent of other duct systems.
- Joints and seams shall be continuously welded or brazed.
- Bracing and supports shall be constructed of non-combustible material securely fastened to the structure. Bolts, screws, rivets, and other fasteners shall not penetrate the duct walls.
- Airflow in the ductwork shall be not less than 500 feet per minute (150m/min).
- Ducts shall be placed a minimum of 18 inches (450mm) from combustible material or 3 inches (75mm) from gypsum wallboard attached to non-combustible structures.
- Ductwork terminating through the roof shall extend a minimum of 18 inches (450mm) above the roof.
- Where roof terminations are not possible, ducts may be terminated through an exterior wall. All ductwork terminating through an exterior wall shall be located a minimum of 3 feet (900mm) from exterior openings. Ductwork shall be pitched to drain back to hood.
- All ductwork terminations shall be a minimum of 10 feet (3000mm) horizontally from other buildings and property lines.

(n) Exhaust Fans

- Exhaust fans shall be located outside the airstream.
- Fan discharge shall not impinge on the roof, other equipment or appliances, or parts of the building.
- Discharge outlet of exhaust fans shall be a minimum of 40 inches (1000mm) above the roof.
- Up-blast fans shall be hinged and supplied with a flexible weatherproof electrical cable to permit inspection and cleaning.
- Connection between ductwork and exhaust fan shall be flanged, gasketed, and bolted.
- Each exhaust fan shall be electrically interlocked with its corresponding make-up air fan to prevent system operation without both fans in service.

(o) Make-up Air Fans

- Make-up air inlet locations shall take into consideration the prevailing wind direction and shall be placed upstream of exhaust outlets.
- Wherever possible, make-up air inlets shall be located a minimum of 10 ft (3m) from exhaust outlets.
- Where make-up air inlets are located within 10 ft (3m) of an exhaust outlet, the make-up air inlet shall be located a minimum of 3 ft (0.92m) below the exhaust outlet.
- Each make-up air fan shall supply a maximum of 110 CFM/ft (170 L/s per m) of perforated diffuser.
- Each make-up air fan shall be electrically interlocked with its corresponding exhaust fan to prevent system operation without both fans in service.

(p) Testing

- A performance test shall be conducted upon completion and before final acceptance of the system installation.
- The test shall verify the rate of exhaust and make-up air flow.
- The test shall be witnessed by the COR.]

(q) ...

(r) Floor trench drains shall be incorporated into the dining area with the floor sloped to drain.

(s) Trench type floor drains shall be installed in the kitchen cooking and dishwashing areas.

- (t) Hand wash stations in the entry vestibule shall be provided. Trough type sinks shall be used.
  - (u) Install several large wash basins with a low rim height designed for washing very large pots.
  - (v) Run water lines to and install wall mounted spigots next to each cooking station in order to permit pots to be filled during cooking without having to move them..
  - (w) The Contractor shall provide and install **walk-in refrigerators and wall-in freezers** as shown in drawings.
  - (x) Fire protection is to be provided by fire extinguishers throughout the facility at easily accessible locations.
  - (y) Install wall mounted forced air electric heaters to provide heat throughout the dining area.
  - (z) The Contractor shall design and construct a chain-link fenced storage yard for food and install facilities for the storage of both dry goods and refrigerated items.
- (aa) Provide Latrines for facility workers
  - (bb) Provide Janitor room with Mop sink
  - (cc) Provide Office space for minimum two personnel
  - (dd) Provide dining areas for officers and enlisted
  - (ee) Provide Dish washing area
  - (ff) Provide Food preparation area
  - (gg) Provide Serving area
  - (hh) Provide fenced in Dry storage yard area adjacent to DFAC
  - (ii) Grease Separator shall be a hydro-mechanical model as defined in Standard PDI G101, revised 2007.
  - (jj) Provide ducted package heat pump system for heating and cooling, and ceiling fans for air circulation.

#### **4.18 BATTALION HQ ADMINISTRATION BUILDING**

The Contractor shall design and construct **one (1)** Battalion HQ Administration facilities at **500SM** for the CSB in accordance with the drawings contained in Appendix A.

- (a) No office space is required for the Low ordinary ranking personnel.
- (b) Provide 100 meter x 100 meter Parade ground located near the Battalion HQ Administration Building. No grass or extra landscaping needed. Elevate and grade the grounds to ensure the site drainage does not erode the field.

*The Master Plan shall provide space for two additional future HQ Administration Building (ESB and FSD).*

#### **4.19 TOILET/SHOWER/ABLUTION/LAUNDRY FACILITY**

Design and construct a **466SM** toilet, shower, ablution, and laundry building in accordance with the drawings contained in Appendix A. Windows shall be extruded aluminum or extruded PVC. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet, shower, laundry, and ablution rooms. HVAC system requirements: **refer to 1015**.

The Contractor shall design and construct a toilet, shower, ablution, and laundry building. Plumbing fixtures shall be provided in accordance with the International Plumbing Code. Latrines for LN residents shall be eastern-style units and installed to face North and South. The Contractor shall incorporate the following special features into the building:

- (a) All eastern style toilets shall be provided with a wall-mounted hose bib on the right side of the occupant as he faces the stall door.
- (b) All sinks shall be trough type constructed of block and concrete with ceramic tile exterior and lining capable of withstanding abuse.
- (c) Shower stalls shall be large enough to allow room to dress and undress between an outer and inner shower curtain. no less than 2 m x 1.5 m and shall have a solid door on the outside.
- (d) Showers shall contain a single mixing valve for hot and cold water mixing and a wall mounted shower head.
- (e) Ablution area shall be trough type, constructed by depressing slab 200mm out to 600mm from wall mounted faucets. Finish for trough shall be sealed concrete.
- (f) The laundry room shall have **concrete trough sinks** capable of withstanding abuse. Size of basins shall be approximately 600mm wide x 600mm long x 350mm deep. Provide clothes line for drying outside the building.
- (g) Electric hot water heaters shall be installed to provide hot water to the showers and sinks.
- (h) Electric cabinet heaters or electric unit heaters suitable for wet areas shall be utilized to provide heat in the facility.
- (i) The building shall be constructed with exhaust fans to ventilate steam to the outside environment and, where required, insulated piping to prevent freezing of water pipes in winter.
- (j) All exposed water supply plumbing galvanized metal. PVC may be used where water supply piping is concealed.
- (k) Accessories shall include but not limited to; toilet paper holders, soap dishes, curtains and curtain rods, robe hooks, mirrors, paper towel dispenser, metal shelf, and grab bars.

*Master Plan shall provide for one additional future facility for ESB and FSD.*

#### **4.20 VEHICLE RE-FUELING POINT**

The Contractor shall design and construct a low profile vehicle re-fueling point, as specified in Section 01015, capable of storing **20,000 liters (5283 gallons) of diesel** and **10,000 liters (2641 gallons) of MOGAS**. The Contractor shall provide a full supply of fuel to the tanks at the time of turnover to the

Government. Vehicle Re-Fueling Point shall have a metal roof covering. Provide explosion proof lighting and control.

#### 4.21 MOTOR POOL GRAVEL PARKING

The Contractor shall design and construct unit vehicle parking area to accommodate:

- Provide GOV parking adjacent to or near CSB Organic Large Vehicle Maintenance for 30.
- Provide GOV parking adjacent to or near CSB Organic Vehicle Maintenance for 30.
- Provide GOV parking adjacent to or near General Vehicle Maintenance for 150.
- Provide GOV parking at CSB Motor Pool for 382 Trucks and 248 Trailers.
- Provide GOV parking at ESB Motor Pool for 266 Trucks and 72 Trailers
- Provide POV parking adjacent to or near Battalion HQs Admin for 10.
- Provide POV parking adjacent to or near Barracks for 40.

GOV parking spaces shall be 4 x 8 meters, and POV parking spaces shall be 3 x 6 meters.

**Security fencing shall be provided around the Vehicle Maintenance Facilities and GOV parking areas.**

#### 4.22 CSB ORGANIC VEHICLE MAINTENANCE FACILITY (9 Bay)

Design and construct the **4395 1680 SM** vehicle maintenance facility in accordance with the drawings contained in Appendices. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet, shower, and ablution rooms. Provide forced air electric space heaters for heating, and ceiling fans for air circulation.

The Contractor shall design and construct Vehicle Maintenance Facility incorporating **18** vehicle maintenance bays to support 630 CSB and 360 ESB logistic Support vehicles with maximum size of 42' long x 12' wide (7.7m long x 3.7m wide). The Vehicle Maintenance Facility shall have a concrete foundation and concrete floor to support a minimum loading of a 3-axle, **30,000** kg vehicle without failing. Concrete will be floated for a smooth finish. Floor will be slightly sloped toward the front to the garage to facilitate drainage. There will be a concrete ramp from the outside into the garage area. The roof structure shall be a hip or gable minimum 2:12 slope roof consisting of steel columns, steel beams, metal hat channels and corrugated roof panels. The clear distance between the finished floor and the bottom of the roof structure shall be no less than 8m (26' – 3"). **Garage doors shall be minimum 5m high by 5m wide**, manual metal overhead coiling style, drums to interior side and designed to resist wind loads and installed with wind locks. *Overhead Bridge Cranes are not required and shall be removed from the provided design.*

Contractor shall provide concrete handstand apron outside all garage doors at minimum **10 meters width**. Concrete handstand apron shall support a minimum loading of a 3-axle, 30,000 kg vehicle without failing. There shall be at least **18 meters clear distance** around the vehicle maintenance facility before any parking or between any other facilities.

Provide 1.5cm dia x 1.0m high concrete filled steel bollards to protect jams of roll-up doors. The service pit will be constructed into the floor with interior dimensions of 1.5m wide, 6.0m long and 1.5m deep. The pit will be centered on an imaginary line that runs from the center of the garage door opening to the rear-most corner, opposite of the doors. The pit will have a lip around its entire perimeter, such to prevent small items from falling in. Removable covers will be designed to cover the pit when not in use. Steel grating will be rated for HS 20 loading or covers designed for a minimum **point load of 5000 kg** without deforming. Removable covers will weight no more than 30-kg. a piece and have a handle designed into it to facilitate removal. The handle will lay flat when not in use.

Mechanical: Provide an overhead vehicle tailpipe exhaust removal system. Coordinate the location of the system such that it does not interfere with vehicle access and that the exhaust hose will connect to the vehicle exhaust tail pipe. Provide a low pressure (less than 862 KPa) compressed air system to include air compressor, piping, hose reel, and hose. Locate air compressor outside and to the rear of the building. Coordinate location of hose reel and hose such that it will not conflict with vehicle access and such that hose will easily access the maintenance bay. Provide emergency eye-wash stations every other two bays on both sides, alternate sides.

Electrical: Provide switched lighting that will illuminate the entire area. Lights will be capable of operating in the year-round temperature ranges expected to occur in this area. Electrical receptacles will be installed, equally spaced, with three receptacles on the all walls. Provide receptacles on the garage door walls for drop lights and other electrical power tools. Receptacles may be grouped together but will have dedicated circuits and will be configured to draw no more than 16 amperes. One dedicated circuit will be installed for the use of a 10.5 kg/sq cm (150 psi) electric air compressor. Provide charging outlets in Battery Room every 500 mm along back wall.

**Revise the battery room(s) configuration to meet the standard battery room require provided in the Appendix A.**

Provide Tool rooms, Toilets, janitor rooms, office spaces, battery storage room with emergency eye wash station, tire room, and equipment storage.

Only provide floor trench drains in the Toilet rooms. Do not provide any floor drains in the vehicle maintenance bays.

#### **4.23 COMMUNICATION SYSTEM BUILDING**

Design and construct the **375 SM** Communication system building in accordance with the drawings contained in Appendix A. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet rooms. Provide ductless split pack heat pumps for heating and cooling, and ceiling fans for air circulation.

Design and construct a communication system building. The facility will serve as the installation's center for telecommunications, switching, and automation networking (including internet service) and shall have year-round climate control in all rooms for the sensitive electronic equipment. A communication building shall have an uninterruptible power supply (UPS) room with ventilation to outdoors. Power to the building shall meet the ultimate demand load plus 20% spare capacity, but shall not be less than a 250 amp service. A grounding grid tested to 5 ohms or less shall be distributed throughout the UPS and equipment rooms.

~~Provide a 3m x 5m roof covered concrete pad outside the UPS room with a backup generator with an adjacent 2m x 3m concrete pad with a spill dike for a 500 gallon or larger fuel tank. Backup generator shall be sized to meet the ultimate demand load of the communications building, plus 20% spare capacity. A 15 cm diameter or larger conduit shall connect the generator pad to the UPS room and shall use long sweep elbows totaling no more than 180 degrees for any bends. Backup generator for Communications building shall be provided. When sizing the generator, ensure it is de-rated for altitude and temperature in accordance with the manufacturer's recommendations for the site conditions.]~~

**DELETED**

Provide a 3m x 5m roof covered concrete pad outside the UPS room with a backup generator with an adjacent 2m x 3m concrete pad with a spill dike for a 500 gallon or larger fuel tank. Backup generator shall be sized to meet the ultimate demand load of the communications building, plus 20% spare capacity. A 15 cm diameter or larger conduit shall connect the generator pad to the UPS room and shall use long sweep elbows totaling no more than 180 degrees for any bends. Backup generator for Communications building shall be provided. When sizing the generator, ensure it is de-rated for altitude

and temperature in accordance with the manufacturer's recommendations for the site conditions. Provide an Automatic Transfer Switch (ATS) with the emergency generator to transfer from utility power to generator power. At loss of power the generator shall start and the ATS shall automatically transfer load to the generator.

Design a Communications Building and installation wiring system. The facility will serve as the installation's center for telecommunications, switching, and automation networking (including internet service) and shall have year-round climate control for the sensitive electronic equipment. Split pack air conditioning, in addition to ceiling fans, shall be provided for the communications room. The A/C shall be sized to accommodate eight (8) personnel with eight (8) computers and twelve (12) radios. The communications room shall have raceways/duct banks going to each facility requiring communications. Communication duct will be run to future building locations on the site plan and duct will have a pull sting. All voice telephone wiring, data and emergency wiring, including any planned or future fiber optical runs, will originate and/or terminate in this communications room. All buildings shall have a communication closet (2 m<sup>2</sup> or larger) to house all telephone and computer network equipment and all distribution boxes shall be routed to the communications room. All admin buildings will include a minimum of 50-pair 24 AWG copper UTP cable each run from the building's communication room directly back to the barracks, DFAC, administration, Provide a UPS room only (14 m<sup>2</sup>) without equipment. Install four (4) 50mm conduit passing from the communications room to the roof of the building. The roof penetration shall have a weatherproof box on top and shall be flashed or patched as necessary to prevent water leakage. The four (4) 50mm or larger communication conduits shall be typical with the following installation criteria: Manhole or hand-hole systems shall have no more than 150 meters between access points. Per NEC Code, there shall not be more than 3 bends per run of conduits. The radius bends shall be between 609mm to 914mm radius bends.

#### **4.24 GSE COMMUNICATION AND ARMAMENT MAINTENANCE FACILITY**

Design and construct approximately **4475 SM GSE Communications and Armament Maintenance Facility** in accordance with the schematic drawings contained in Appendix A. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal except PVC shall be used for interior doors at toilet, shower, and ablution rooms. The facility shall be completely enclosed by a 1.83 meter high chain-link fence topped with barbed wire outriggers that extend .46 meter above the height of the fence with a lockable, gated opening a minimum of 3.66 meters in width. The fence shall be a minimum of 10 meters from the facility. Provide an access road from the gate to the nearest road. Provide and install air conditioning in all offices for the facility and heat and ventilation for the remainder of the facility. Provide emergency eye-wash stations every other bay. Only provide floor trench drains in the Toilet rooms. Do not provide any floor drains in the vehicle maintenance bays.

4.24.1 Design and construct the approximately **740 SM Communications Maintenance Facility** within the GSE Facility. The interior of the facility shall be divided into distinct areas including, but not limited to, Office and Conference Space, COMSEC repair and Storage, VHF Repair, HF Repair, Automation/Power Management Repair, Storage areas, and restroom facilities. All rooms entrance shall have single doors, unless otherwise noted. Provide wood work benches in all repair rooms. Outlets at work benches must have emergency shut off switches installed. Provide split pack air conditioning units for heating and cooling, and ceiling fans for air circulation.

##### **Communications Maintenance Area**

The Communication functions shall consist of the following areas;

1. VHF Office: 74 SM
2. HF Office: 74 SM
3. ComSec Repair and Storage: 142 SM
4. COMSEC Storage: 46 SM
5. Janitor Closet 2.5 SM
6. Toilets 22 SM

7. CMDR Office: 18 SM
8. Admin Office: 28 SM
9. Conference Room: 28 SM

4.24.2 Design and construct the approximately **1200 SM Armament Maintenance Facility** within the GSE Facility. The interior of the facility shall be divided into distinct areas including, but not limited to, Office space, Tank Turret Repair/Reactive Weapons Space, Artillery Repair Space, Weapons Storage, Weapons Cleaning and Bluing Spaces, Small Arms Repair, and restroom facilities. All offices shall have a single door. All Storage shop, maintenance, and mechanical spaces shall have double doors (except for Weapons Storage which shall have a single door). Provide and install two (2) exterior roll-up doors with a minimum size of 6.1 meters high and 4.57 meters wide in the Tank Turret Repair/Reactive Weapons Space. Provide and install one (1) exterior roll-up door with a minimum size of 6.1 meters high and 4.57 meters wide in the Artillery space. Construct Loading Dock with a minimum width of 10 meters and a depth of 3 meters adjacent to the Supply/ Receiving area. Provide concrete handstand in front of the roll-up doors at least 8 meters width and the entire distance of the Armament Maintenance facility.

#### **Armament Maintenance Area**

The Armament Maintenance functions shall consist of the following areas;

1. Weapons Storage: 100 SM
2. Weapons Cleaning: 100 SM
3. NCOIC Office: 18 SM
4. Janitor Closet: 2 SM
5. Toilet: 25 SM
6. Turret Artillery Room with Loading Doct: 400 SM minimum
7. Small Arms Repair Room with Receiving: 400 SM minimum

4.24.3 Design and construct the approximately **1665 SM Services Division Facility** within the GSE Facility. The interior of the facility shall be divided into distinct areas including, but not limited to, office and Conference Spaces, Welding/Machine Shop, Metal/Body Shop, Paint Shop, Direct Exchange, and restroom facilities. Provide and install four (4) exterior roll-up doors with a minimum size of 4.57 meters high and 3.66 meters wide in the Welding/Machine Shop (Welding/Machine Shop shall include the Metal/Body Shop with two (2) exterior roll-up doors. Provide two (2) exterior roll-up doors with minimum size of 4.5 meters by 3.66 meters wide in the Direct Exchange area. Provide fur (4) exterior roll-up doors in the Paint Shop. Minimum size of roll-up doors shall be 3 meter high and 2.4 meters wide. Provide one (1) 6.1 meter by 18.3 meter paint booth in the Paint Shop workspace. Provide for Class 1 Div. 1 explosion-proof lighting and receptacles, proper vapor containment and adequate ventilation.

#### **Services Division Area**

The **Services** functions shall consist of the following areas;

1. Paint Shop:400 SM minimum
2. Storage: 120 SM
3. Direct Exchange: 150 SM
4. Office 28 SM
5. Machine Storage: 100 SM
6. Office 25 SM
7. OIC Office 14 SM
8. NCOIC Office 21 SM
9. Office 28 SM
10. Toilet 25 SM
11. Break room: 40 SM
12. Welding/Machine Shop 800 SM minimum

4.24.4 Design and construct the approximately **870 SM Precision Measurement Equipment Laboratory (PMEL/TMDE)** within the GSE Facility. The interior of the facility shall be divided into distinct areas including, but not limited to, offices, Calibration and Repair Space, Technical Library, Cleaning room, shipping/Receiving, and restroom facility. Provide one (1) exterior roll-up door with a minimum size of 2.5 meters high and 3 meters wide. And canopied or covered vehicle access into the Shipping/Receiving space. Provide air lock entrance to the Calibration room.

The **PMEL/TMDE** functions shall consist of the following areas;

1. Shield Room: 20 SM
2. Equipment Storage: 20 SM
3. Mechanical Room: As required
4. Utility Room: As Required
5. Calibration room: 320 SM
6. Shipping & Receiving Area: 150 SM
7. Air Locks: As required
8. TMDE Chief Office: 15 SM
9. Asst TMDE Office 9 SM
10. TMDE Supervisor / Driver : 18 SM
11. TMDE Supervisor/NCO: 15 SM
12. PC Chief: 10 SM
13. Technical Library: 20 SQ
14. Janitor Room: 8 SM
15. Toilet Room: 20 SM
16. Cleaning Room: 14 SM
17. Conference/ Break room 25 SM

#### **4.25 POL STORAGE BUILDING.**

Design and construct a **25SM** POL storage building in accordance with the drawings contained in Appendix A. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Provide forced air electric space heaters for heating and ceiling fans for air circulation.

#### **4.26 GENERAL WAREHOUSE STORAGE**

Design and construct **800SM** general warehouse building(s) in accordance with the drawings contained in Appendix A. Windows shall be extruded aluminum. Exterior doors shall be insulated hollow metal. Interior doors shall be hollow metal. Provide forced air electric space heaters for heating and ceiling fans for air circulation.

#### **4.27 ARMS STORAGE BUILDING**

Design and construct the **350 SM** arms storage building in accordance with the drawings contained in Appendix A. Exterior doors shall be heavy duty steel security grade. Provide wooden racks for storing long-arm weapons vertically. Racks shall not be furnished with locking bars. The facility shall be of solid reinforced concrete (200mm thick concrete roof slab and solid CMU wall) with no windows, high security door, and explosion-proof lighting. The Contractor shall provide power outlets in walls no more than 4 m apart. Concrete stoops shall be provided at all exterior doors. Wall mounted electric forced air AC units shall be used to maintain a minimum temperature of 18 degree Celsius during winter and maximum 30 degree Celsius during summer. The floor is smooth concrete finished with gray colored floor paint, walls, and ceilings flat paint finish.

#### **4.28 VEHICLE WASH RACK**

Design and construct **1292 SM** Vehicle Wash Rack in accordance with the drawings contained in Appendices, and UFC 4-214-03, Central Vehicle Wash Facilities.

Design and construct new pull thru concrete wash facility capable of servicing **10 vehicles** at one time. Each wash bay shall have an independent water hose connection that is of a freeze proof design connected to the nearest potable water source. The water source piping shall be sized to adequately support 10 bays in simultaneous operation. The Contractor shall design for adequate water pressure and flow rate as measured at the nozzle (75 psi and 25 gpm, per UFC 4-214-03, paragraph 4-8 (c)) to properly support wash facility operation. A pressure booster pump may be required and this shall be included in the contractor's proposal along with the proper pump enclosure to protect the pump from the elements. The facility shall be sized and capable of accommodating and to support a minimum loading of a 3-axle, **30,000** kg vehicle without failing. Each wash facility will be separated by a CMU partition. Each wash bay shall be **minimum 7.6 meters wide** and 7.6 meters high to allow adequate personnel access during washing operations. The wash facility shall not be inclined but rather be built on an elevated pad above the surrounding grade to prevent flooding by surface water runoff.

Each bay will have a separate drain that connects to a common drain pipe that is sized adequately to carry the waste water without blockage. A gravity fed oil/water separator shall be installed in a way that would allow periodic draining and maintenance. Each floor drain shall have a cover or grate that will prevent drain blockage cause by debris getting into the drain pipes. Drain pipes shall be extended away from the facility an adequate distance to prevent water saturation of the soil around the facility. Drain pipes will terminate into natural watercourses or ditches/drains formed during the construction of the wash facility. All drains shall have an adequate number of clean outs placed to facilitate maintenance. Contractor shall design and construct recirculation system for wastewater re-usage. Refer to the UFC 4-214-03 Central Vehicle Wash facilities for recirculation system to include but not limited to: Wash Facility, Sediment Basin, Equalization Basin, Dosing Tank, Intermittent Sand Filter, Water Quality Testing Value, Water Supply Basin attached to Makeup Water supply. Provide smooth concrete floor for the entire facility with broom finish.

All concrete shall be reinforced with rebar and shall be 5-7% air entrainment. Concrete surface finishes shall provide traction for pedestrians and vehicles. A concrete apron a minimum of **10 meters in width** extending the full length of the building shall be constructed on the entrance and exit of the wash facility. The wash facility apron on the entrance and exit shall be pitched to drain water away from the entrance and exit of the facility.

All exposed piping shall be pitched to drain any standing water to prevent freezing, be capable to self draining or be of the freeze proof yard hydrant design. The potable supply line to the wash rack shall have a shut off valve that is clearly marked and protected from damage, flooding by surface runoff water and freezing.

Site grading will be necessary to connect the proposed wash facility location to the nearest existing street or roadway. Design and construct 10 meter wide aggregate by-pass road to the nearest street or roadway.

Provide bay length trenches and secondary trenches across door openings. Provide adequate wash bay ventilation to avoid condensation damage to building materials. Adjacent to the facility provide a Vacuum/Trash Island with three (3) permanent, outdoor, wet/dry vacuums, two (2) trash receptacles, and concrete stanchions to prevent vehicular damage to the equipment on the island. The exterior of the building shall include an adjacent parking area designed to accommodate two (2) trucks with low-boy trailers, two (2) large wheeled vehicles, and six (6) standard wheeled vehicles. There shall be adequate spacing around the Vacuum/Trash Island to simultaneously provide parking for one (1) large wheeled vehicle, and three (3) standard wheeled vehicles. An access road shall connect from the nearest road to the exterior roll-up doors at each Washing Station and the Vacuum/Trash Island.

Provide ditches and culverts along the wash facility location and entrance road as required to provide proper drainage of wash water.

#### **4.29 MWR GYM (OPTION ITEM)**

Design and Construct a total **300 SM** multi-use athletic facility/ Gymnasium and meet the following requirements:

Provide 4 entries (including a double access door all with emergency push bars and kick plates (one entry in each corner of the facility).

Provide smooth concrete floor finish for the entire gym facility. Provide Rubber matting for Free Weight Area. Provide multiple purpose storage room. The interior of the building shall column free. Provide split unit heat pumps for heating, and cooling, and exhaust fans for air ventilation.

(2) Outside Volleyball Courts: Provide sand volleyball courts. Provide and install permanent pole sleeves, with removable tennis, and volleyball court poles and nets.

#### **4.31 GENERAL NON-ORGANIC VEHICLE MAINTENANCE FACILITY- two (9 bays)**

Design and construct two (2) **1395 1680 SM** vehicle maintenance facility in accordance with the drawings contained in Appendices. The Contractor shall design and construct the Vehicle Maintenance Facility building incorporating **9** vehicle maintenance bays. Refer to 4.22 for other requirements and drawings.

#### **4.32 GENERAL NON-ORGANIC VEHICLE MAINTENANCE FACILITY (9 Bays)**

Design and construct a **1395 1680 SM** vehicle maintenance facility in accordance with the drawings contained in Appendices. The Contractor shall design and construct the Vehicle Maintenance Facility building incorporating **9** vehicle maintenance bays. Refer to 4.22 for other requirements and drawings.

#### **4.33 IRRIGATION SYSTEM (Option Item)**

Design and construct the necessary pump house, piping, and storage tank to utilize the exhausted waste water from the existing waste water treatment plant as a non-potable water system for irrigation. Provide a distribution point next to each existing and new Battalion Complex at Camp Gamberi. Provide color code exterior faucet and label in Pashto and Dari "NON-POTABLE WATER, FOR IRRIGATION ONLY".

#### **4.34 TEMPORARY FACILITIES**

Temporary construction: At the start of all work, the contractor shall provide temporary facilities (housing, latrine, showers, DFAC Kitchen) with temporary utilities for 665 soldiers until the barracks, Toilet/Shower/Ablution/Laundry, and DFAC are complete and ready to turn over to the customer. Temporary facilities must provide protection from the weather and be enclosed. No temporary sit down dining area are required. Once the permanent facilities are turned over, the contractor shall remove the temporary facilities and temporary utilities from the site.

#### **4.35 BUNKERS**

The contractor shall construct eight (8) 5ft x 5ft x 20 ft (1.52 m x 1.52 m x 6.09 m) x 6 inches (15 cm) thick in accordance to the Culvert Bunker drawings in the Appendix A. The actual size of the culvert will be dictated by local availability. The bunker shall be constructed from steel-reinforced culvert sections with overlapping sandbags and covered with heavy duty plastic covers.

## 5.0 COMPLETION OF WORK

All work required under this contract shall be completed within [300] calendar days including government review time from Notice to Proceed.

All work under this contract shall be completed and buildings ready for beneficial occupancy in accordance with the following schedule:

- Design Cost, Site Survey, and Master Plan
- As-Built Drawings
- Mobilization, Demobilization, and General Site Work

### 4.34 Temporary Facilities (PRIORITY #1) (Must be completed by August 01, 2009)

Work Items to be completed no later than 180 calendar days after award: (Priority)

- 4.4- 4.6 Potable Water Supply System
- 4.7 Sanitary Sewer and Treatment System
- 4.8 Site Electrical Distribution System
- 4.12 Primary Entry Control Point
- 4.12 Secondary Entry Control Point
- 4.12 Guard Towers
- 4.13 Perimeter Walls and Fencing
- 4.14 Road Network and Sidewalk
- 4.15 Trash Collection Points
- 4.16 Officer Barracks
- 4.16 Enlisted Barracks
- 4.17 Dining Facility (DFAC) and Dry Storage Yard
- 4.18 Battalion Headquarters Building/ Admin
- 4.19 Toilet/Shower/Ablution/Laundry Facility

Work Items to be completed no later than 240 calendar days after exercise/award of items:

- 4.20 Vehicle Refueling Point
- 4.21 Motor Pool Gravel Parking
- 4.22 CSB Organic Wheeled Vehicle Maintenance Facility (9 bay)
- 4.25 POL Storage Building
- 4.26 General Warehouse Storage
- 4.29 Vehicle Wash Rack

Work Items to be completed no later than 300 calendar days after exercise/award of items:

- 4.23 Communications Building
- 4.31 Non-Organic Wheeled Vehicle Maintenance Facility (two- 9 bay)
- 4.32 Non-Organic Wheeled Vehicle Maintenance Facility (9 bay)
- 4.24 GSE Communication and Armament Maintenance Facility
- 4.27 Arms Storage Building
- 4.30 MWR GYM with outside volleyball courts
- 4.33 Irrigation System for entire Camp Gamberi Installation
- 4.35 Bunkers

## **6.0 SPARE PARTS**

Refer to other sections herein for requirements.

## **7.0 REFERENCES**

Refer to Section 01015 for required references.

-- End of Section --

SECTION 01335

SECTION 01335

SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

PART 1 GENERAL

1.1 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.

CONSTRUCTION SPECIFICATIONS INSTITUTE

Manual of Practice  
Construction Specifications Institute  
[http://www.csinet.org/s\\_csi/index.asp](http://www.csinet.org/s_csi/index.asp)  
601 Madison Street  
Alexandria, Virginia  
22314-1791

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

AFGHANISTAN ENGINEER DISTRICT

AFGHANISTAN ENGINEER DISTRICT  
<http://www.aed.usace.army.mil>  
U.S. Army Corps of Engineers  
Attention: Qalaa House  
APO AE 09356

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows.

### 1.2.1 DESIGN SUBMITTALS

Contractor furnished design submittals are the various design documents which primarily consist of field investigations, calculations, design analysis, drawings and specifications.

In addition, for every Design Submittal, the Contractor shall submit all non-administrative modifications issued for the Contract as part of the Design Submittal package to enable AED to validate that these modifications have been incorporated into this design submittal.

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. The Design-Build Contractor shall not begin construction work until the Government has reviewed the Design-Build Contractor's concept, intermediate and final designs and has cleared them for construction. 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 Design-Build Contractor.

As a minimum, design submittals shall be submitted at the following intervals:

Concept design - 35%

General design - 65%

Final design review - 99%

Cleared For Construction review - 100%

#### 1.2.1.1 CONCEPT DESIGN (65%)

The review of this submittal is primarily to ensure that the Contractor has taken an inventory of the existing conditions at each proposed site, has established the most desirable functional relationships between the various project elements, has provided the technical solution as to how the functional and technical requirements will be met, and to show Contractor compliance (or justify noncompliance) with the design parameters and/or requirements. As a minimum, the following documents shall be submitted:

It is crucial that the submittal is complete and includes all components noted below and any other pertinent information not listed which the Contractor requires to enable construction to begin as soon as possible. As a minimum, for each Contract project location the submittal shall contain:

- a. Complete design analysis, plans and specifications for any contract feature(s) that the Contractor would like Partial Clearance for Construction on once the 35% Design Submittal has been approved, including project components with long ordering, fabrication and delivery times. Other preliminary drawings, specifications and design analysis of work features that are intended for submittal/approval at the 65% Design Submittal, or later, stage shall be included such that a thorough and complete understanding of this work can be accomplished as part of the 35% review. Specifications for contract features proceeding after approval of this Design Submittal shall include those Construction Submittal items requiring Government Approval (GA).

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.

- b. Outline of all Construction Specification Sections to be used and those Specification items requiring Government Approval (GA).
- c. Well design at each project site location to include a determination of water demand, water availability evaluation, and water quality analysis. Water demand evaluation shall be determined based on the requirements of the 01010 SOW and 01015 Technical Requirements. Water availability evaluation shall include data concerning study of existing water wells in the vicinity, study of hydrological data, and study of geological data. Well hydraulics data shall also be included from the test well or if available from vicinity wells. Water quality analysis shall include physical, chemical, and bacteriological analyses of water from either a test well or an existing well within the same aquifer of the proposed well.

Drawing for the well design shall include, at a minimum, material and dimensions of well pipe and casing, type and dimensions of screen, type and range of sizes of gravel surrounding screen and at bottom of well shaft, type of grouting for well seal, well pad, location and connection detail for hand pump if required by the 1010. Also required would be a detail of the wellhead with all associated valves, flowmeters, and chlorination system.

- d. Results of the site topographic survey (in accordance with Paragraph 3.9.6.3 through 3.9.6.5 of this Section) which shall include highlighting of significant features (wadis, adjacent properties and structures, roads, etc.) to provide a detailed, overall understanding of the project site and surrounding area; demolition plan for existing site features; complete grading and drainage plan with existing grades, proposed grades, and building finished floor elevations based on Contract technical requirements;
- e. Any necessary adaptations of the Concept Plan and detailed design drawings furnished with this Contract that might be required due to actual site constraints, to include: water supply/storage location and distribution layout plan; wastewater collection or treatment location and tie-in to all required buildings; electrical

generation and distribution plan; connection of existing roads with ECP location(s); and any other changes required due to adjacent property or existing topography. This would also include proposed changes to any furnished detailed drawings if site conditions or other requirements mandate revisions.

- f. Geotechnical Report, indicating appropriate information for various site characteristics, soil parameters as determined by certified lab tests, allowable soil bearing capacities, correlation with foundation design parameters, and any changes in foundation design of structures furnished in the Contract; estimated settlement for building foundation loads; and all other project feature changes due to the Geotechnical Report conclusions.
- g. Septic Tank drawings and details (if required by Section 01010 of the SOW), showing tank depth and sizing based on expected sanitary load, and all connecting piping, with dimensions.
- h. Percolation test locations and results, and complete leachfield design (if required by Section 01010 of the SOW), which indicate the site will accommodate such a system for the given project requirements, and alternatives proposed if, and only if, the site characteristics will not support such a system.
- i. Preliminary drawing and details of any grease interceptors and oil-water separators required. Grease interceptors should either be gravity or hydro-mechanical types. Drawings would show sizing, depth, and all connecting piping. Design analysis shall include calculations for sizing both the interceptor/separator and connecting piping.
- j. Preliminary cross sections of roads and sidewalks, showing all essential dimensions, materials, layers, and proposed fore and back slopes of adjacent drainage features.
- k. All preliminary sketches of site storm drainage structures, including calculations in the design analysis for sizing and sloping of pipe runs and ditches. Provide cross sections of drainage structures such as ditches and culverts.
- l. Remaining features of work shown on 35% design complete Plans;

#### 1.2.1.2 GENERAL DESIGN REVIEW (65%):

The review of this submittal is primarily to insure that the contract documents and design analysis are proceeding in a timely manner and that the Contract requirements and design criteria are being correctly understood and adhered to. The submittal shall consist of the following:

- a. 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).

- b. For all other work, provide a Draft Construction Specifications complete - all anticipated sections, edited to include only applicable requirements.
- c. Construction Drawings complete for all work to be completed until the 99% Final Design Review Submittal is provided, with all past Design Review comments incorporated. 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.

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.

#### 1.2.1.3 FINAL DESIGN REVIEW (99%):

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. The submittal shall consist of the following:

- a. Design Analysis complete with all prior comments incorporated.
- b. Draft Construction Specifications complete - all anticipated sections, edited to include only applicable requirements.
- c. Construction Drawings complete with all 65% comments incorporated. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall be finalized at this time including the incorporation of any design review comments generated by all past design reviews. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction.

#### 1.2.1.4 "CLEARED FOR CONSTRUCTION" SUBMITTAL (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 during the design process. The only effort remaining between the Final Design Review Submittal and the "Cleared For Construction" Design Review Submittal is the incorporation of all Government review comments. The Contractor shall submit the following documents for this review:

- a. Design Analysis, only if changes have occurred since 99% 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 Final Drawings and Specifications.

- b. Construction Specifications, complete.
- c. Construction Drawings, complete.

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."

## 1.2.2 PARTIAL DESIGN SUBMITTALS

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. 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. 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 RFP 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. 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. 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, Paragraphs 1.1 and 1.2, which lists all requirements associated with submission of editable CADD format As-Built's required as part of this contract. The Designer of Record shall document its professional concurrence on the As-Built's for any revisions by affixing its stamp and seal on the drawings and specifications.

## 1.2.3 USE OF DrChecks<sub>SM</sub> FOR DESIGN SUBMITTAL COMMENT AND RESPONSE

### 1.2.3.1 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>

#### 1.2.3.2 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 a vendor identification and 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>.

#### 1.2.3.3 NOTIFICATION OF DrChecks<sub>SM</sub> FILE ACCESS

The Afghanistan Engineer District 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.

#### 1.2.3.4 FURTHER CONTRACTOR INFORMATION AFTER DrChecks<sub>SM</sub> REVIEWS

See Paragraph 3.7.4, Government Review, for further procedures and requirements associated with Design Submittal reviews.

### 1.2.4 CONSTRUCTION SUBMITTALS

#### 1.2.4.1 Contractor Furnished Government Approved Construction Submittals (GA)

Government approved construction submittals are primarily related to plans (Contractor Quality Control, Accident Prevention, Resident Management System, Area Use, etc.), schedules (Project Schedule/Network Analysis), and certificates of compliance, reports and records/statements. They may also include proposed variations to approved design documents in accordance with the paragraph entitled "VARIATIONS".

In addition, GA construction submittals are required for the following:

##### a. CIVIL FEATURES

**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.

b. MECHANICAL FEATURES

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, variable air volume (VAV) boxes.

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.

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.

c. ELECTRICAL FEATURES

PRODUCT DATA and SHOP DRAWINGS: generators (and its auxiliaries), load bank, transformers, substations, panels/switchboards/motor control centers, lightning protection, receptacles, circuit breakers.

DESIGN DATA: lightning protection and grounding.

TEST DATA: Lightning protection and grounding.

d. ARCHITECTURAL FEATURES

PRODUCT DATA/CATALOGUE CUTS/SHOP DRAWINGS/SCHEDULES: 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).

COLOR BOARD: Architectural finishes

PRODUCT DATA/CATALOGUE CUTS/INSTALLATION INSTRUCTIONS:  
Exterior Insulation and Finish System (EIFS)

SHOP DRAWINGS: Casework/Cabinetry

1.2.4.2 For Information Only Construction Submittals (FIO)

All submittals not requiring Designer of Record or 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. All Contractor submittals shall be subject to review by the Government at any time during the course of the contract. Any Contractor submittal found to contain errors or omissions shall be resubmitted as one requiring "approval". No adjustment for time or money will be allowed for corrections required as a result of noncompliance with plans or specifications. Normally submittals For Information Only will not be returned. Approval of the Contracting Officer is not required on FIO submittals. These submittals will be used for information purposes. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications and will not prevent the Contracting Officer from requiring removal and replacement if nonconforming material is incorporated in the work.

1.2.4.3 Variations

After design submittals have been reviewed and cleared for construction by the Contracting Officer, no submittal for the purpose of substituting materials, equipment, systems, and patented processes will be considered by the Government unless submitted in accordance with the paragraph entitled VARIATIONS.

1.2.4.4 Additional Shop Drawings and Submittals

In accordance with the paragraph entitled DESIGN DISCREPANCIES, the Government may request the Design-Build Contractor to provide additional shop drawing and submittal type data subsequent to completion of the design.

1.2.4.5 Incomplete Design

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

1.3 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.

### 1.3.1 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.

#### 1.3.1.1 Organizational Responsibility

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

#### 1.3.1.2 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.

#### 1.3.1.3 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.

### 1.3.2 Responsibility for Errors or Omissions

It is the sole responsibility of the Contractor to ensure that submittals do or do not 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.

#### 1.3.2.1 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.

### 1.3.3 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 as indicated in the paragraph entitled VARIATIONS.

### 1.3.4 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.

### 1.3.5 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.

### 1.3.6 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 similar to 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: \_\_\_\_\_

## 1.4 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. However, the local language of host country shall be added to project As-Built drawings.

## 1.5 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.

### 1.5.1 Drawings

#### 1.5.1.1 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.

#### 1.5.1.2 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.

### 1.5.2 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.

### 1.5.3 Specifications

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

## 1.6 WITHHOLDING OF PAYMENT FOR SUBMITTALS

### 1.6.1 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.

### 1.6.2 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.

## PART 2 PRODUCTS

### 2.1 GENERAL

The following are contract deliverables which expound upon and finalize the design parameters/requirements outlined within the contract documents. They shall be prepared in such a fashion that the Prime Contractor is responsible to the Government and not as an internal document between the Prime Contractor and its Subcontractors, Vendors, Suppliers, etc.

### 2.2 PROJECT NARRATIVE

The Project Narrative shall be a bound set and shall contain the contract Request For Proposal (RFP) Sections 01010 and 01015 (and any additional RFP sections that are appropriate). The RFP Section 01010 and 01015 shall be the latest version. 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.

### 2.3 DESIGN ANALYSIS

#### 2.3.1 Submittal

A design analysis, written in the English language with SI units of measure, shall be submitted for review by the Government. The design analysis is a written explanation of the project design which is expanded and revised (updated) 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 criteria for and the history of 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 noted in Paragraph 1.2.1.

### 2.3.2 Format

Format of design analysis shall closely match the standard format referenced within the RFP.

## 2.4 DESIGN CALCULATIONS

All design calculations shall be presented such that they are easily understood, correlated with RFP requirements (Section 1010 and 1015 criteria; codes; all other applicable or pertinent criteria) and all final conclusions clearly documented and summarized. The Design 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 this information and the resulting project components shown in plans and specifications.

### 2.4.1 Submittal

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. They 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.

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) that the design/analysis will be compared to (codes, Corps of Engineers Engineering Regulations, Engineering Manuals, 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.

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.

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.

#### 2.4.2 Computer Analysis

Provide a clear summary of all computer outputs and highlight in the outputs information used in the analysis and design accomplished elsewhere in the calculations.

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.

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.

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.

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.

## 2.5 SPECIFICATIONS

Specifications shall be prepared in accordance with the Construction Specifications Institute (CSI) format. The Contractor-prepared specifications shall include as a minimum, all applicable specification sections referenced by the CSI. Where the CSI 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.

### 2.5.1 Use of Unified Facilities Guide Specifications (UFGS)

UFGS (Uniform Federal 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).

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>.

### 2.5.2 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.

### 2.5.3 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.

### 2.5.4 Industry Standards

#### 2.5.4.1 U.S. Industry Standards

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>.

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: National Fire Protection Association (NFPA), International Building Code (IBC), American Concrete Institute (ACI), American Water Works Association (AWWA), ADAAG (ADA Accessibility Guidelines) for Buildings and Facilities, etc. Standards referenced shall be by specific issue; the revision letter, date or other specific identification shall be included.

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.

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.

#### 2.5.4.2 Non U.S. Industry Standards

If non-U.S. industry standards (e.g., codes, regulations, or technical references and norms) are authorized for use under this contract and are incorporated in the Contractor's design, one (1) copy of each standard referenced shall be provided to the Government.

Where a U.S. design and/or construction standard cannot be referenced due to non-availability of products and/or systems, another specification format using the CSI guidelines may be utilized for that particular product and/or system. If a majority of the specifications within this project reference non-U.S. products due to availability and/or other factors, the entire set of specifications are not required to be in UFGS and SpecsIntact format.

## 2.6 DRAWINGS

### 2.6.1 Computer Assisted Design and Drafting (CADD)

Computer Assisted Design and Drafting (CADD) is required for all work related to this contract. The CADD deliverables shall meet the requirements of the A/E/C CADD Standard (Release 3.0). Emphasis is on drawings meeting sheet layout standards, level/layer naming standards and sheet naming conventions. The CADD standards may be downloaded at the CAD/BIM Technology Center at the following link: <https://cadbim.usace.army.mil/default.aspx?p=s&t=13&i=4>.

The Contractor shall furnish all softcopy design submittals (and As-Builts) using software applications in either .dwg (AutoCAD, AutoDesk release 2005 or later) or in .dgn (MicroStation, Bentley Systems version 8.0 or later) format. In addition, the Contractor is required to submit the softcopy design submittals in .pdf (Adobe Acrobat) format. Drawings prepared in any convention other than CADD, must have the written approval of the Contracting Officer.

### 2.6.2 Drawings

Drawings shall be prepared in the English language with metric (SI) units of measure. All the drawings and details of the working drawings shall be adequately labeled and cross-referenced. Complete, thoroughly checked, and coordination with other engineering disciplines design drawings shall be submitted. At the final design submittal (100%) 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.

### 2.6.3 Drawing Size Border Sheets

All drawings shall be prepared in size "A1" border sheets (594mm by 841mm). Hardcopy design submissions may be printed on half size drawing sheets ("A3", 279 mm by 420 mm) for purposes of saving paper and for ease of review. If drawings are not readable in the half size reduction, the Contractor shall submit all drawings in A1 border sheets. All final contract drawing sets (As-Builts) shall be submitted on A1 border sheets. Drawing sheets shall be trimmed to specified size if necessary.

### 2.6.4 Sequence of Design Drawings

Referencing the A/E/C CADD Standard (pg. 13, Table 2-1 of the A/E/C CADD standards) the sequence of drawings shall follow the sequence as shown below:

#### Discipline

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

#### 2.6.5 Drawing Folder Structure

CADD files shall be organized in a folder structure to what is described in Paragraph 2.6.4. For multi-building projects a folder of each building type shall be created and the applicable folders shown in each building type folder.

#### 2.6.6 Drawing Sheet Assembly

CADD files shall be organized to what is described in “Option 2 – Use of Design Model Only” (page 10, Figure 2-3 of the A/E/C CADD Standard). This method will utilize one view and the use of “paper space” is not used. The border sheet shall be X-REF into each model file and scaled up to the applicable scale.

#### 2.6.7 Model Files

Model files represent the building’s physical layout and components such as floor plans and elevations. Model files shall be drawn to full size (1:1) in the default view. Floor Plan Model files represent one floor. Model files shall have coordinates (x,y,z) of 0,0,0 in paper space on layout. The exception for model files with coordinates 0,0,0 shall be the civil site plan (see section 1.5.1.2 Georeferencing).

#### 2.6.8 Border Sheet Files

Border sheet files are used to assemble model files for plotting and viewing purposes. Every border sheet file has a drawing area, title block, border and represents one plotted drawing.

#### 2.6.9 Layer/Level names

Layer or level files names shall follow the guidelines of appendix A and B of the A/E/C CADD standards. For AutoCAD, .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.

#### 2.6.10 Drawing File Naming Convention

CADD files shall follow the naming convention as described in the A/E/C CADD Standards. For model files reference pg 12 - 16, figure 2-4, tables 2-1 and 2-2. for sheet files reference pg 18 – 22, figure 2-5, table 2-3.

#### 2.6.11 Sheet Identification Block

The sheet identifier will follow the name of the border sheet file. This will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in pg 23, figure 2-6 of the A/E/C CADD Standards.

#### 2.6.12 Drawing Scales

The scales indicated on the following list shall, in general, be used for all drawings. The Contractor may, at its option, make exceptions to scales indicated, if approved in writing by the Contracting Officer.

| <b>TYPICAL DRAWING SCALES</b> |               |
|-------------------------------|---------------|
| <b>DRAWING TYPE</b>           | <b>METRIC</b> |
| SITE PLAN                     | 1:200         |
|                               | 1:400         |
|                               | 1:500         |
|                               | 1:600         |
|                               | 1:700         |
|                               | 1:1000        |
|                               | 1:2000        |
|                               | 1:5000        |
|                               | 1:6000        |
|                               | 1:10000       |
| FLOOR PLAN                    | 1:20000       |
|                               | 1:50          |
|                               | 1:100         |
|                               | 1:200         |
| 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           |
|                               |               |

#### 2.6.13 Symbols, Line styles, & Patterns

Approved symbols, line styles, and patterns shall be in accordance with AEC CAD Standard Release 3.0 or current version (see Appendix D of the A/E/C CADD Standards). The approved symbols, line styles, and patterns associated with AutoCAD software may be downloaded in the following link:  
<https://tsc.wes.army.mil/products/standards/aec/aecstdsym.asp>

#### 2.6.14 Plotter Prepared Original Drawings

Plotter prepared original drawings shall be prepared on 20 pound bond paper, unless otherwise approved and shall be plotted on the matte side. Raster plotters must provide a minimum resolution of 400 dpi while vector plotters shall provide a minimum resolution of 0.0010 inch with an accuracy of +0.1% of the move and a repeatability error of not more than 0.005 inch. Drawings produced from dot matrix plotters are not acceptable. Plots accompanied by the digital design file may be prepared on vellum: translucent bond is not acceptable. 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 (see pg. 27, Table 3-4 of the A/E/C CADD Standards). Drawings plotted in color is not acceptable. Manual changes to plotted originals are not acceptable.

#### 2.6.15 Title and Revision Block

Title and revision block shall match examples shown in 1335a-Attachments-AED.pdf, Figures 1 through 4, furnished as an attachment to this RFP.

#### 2.6.16 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.

#### 2.6.17 Location 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.

#### 2.6.18 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 total plan shall be placed on one sheet at a

smaller scale. Appropriate key plans and match lines shall appear on segmented drawings. Key plans shall be used not only to relate large scale plans to total floor plans but also to relate individual buildings to complexes of buildings. Key plans shall be drawn in a convenient location and shall indicate the relative location of the represented plan area by crosshatching.

#### 2.6.19 Specifications Placed on the Drawings

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

#### 2.6.20 Revisions

Drawing revisions shall be prepared only on the original CADD files. A revision area is required on all sheets.

#### 2.6.21 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.

#### 2.6.22 Government Provided files

At the Preconstruction meeting, the Contractor shall be provided a CD that shall contain the AED border sheet, the A/E/C CADD standards, and various other files related to the compliancy of CADD files to the A/E/C CADD standards.

### PART 3 EXECUTION

#### 3.1 GENERAL

##### 3.1.1 Design Concept Coordination Meeting

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 Construction Clearance), 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.

### 3.1.2 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.

## 3.2 SUBMITTAL REGISTER

### 3.2.1 Design Submittals

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.

### 3.2.2 Construction Submittal Register (ENG Form 4288)

Attached to this section is ENG Form 4288 which the Contractor is responsible for developing for this contract. All Design and construction submittals shall be shown on this register. The submittal register shall be the controlling document 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.

### 3.3 TRANSMITTAL FORM (ENG Form 4025)

The sample transmittal form (ENG Form 4025) 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.

### 3.4 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.

### 3.5 SCHEDULING

#### 3.5.1 Design Submittals

Adequate time (a minimum of fourteen (14) full calendar days exclusive of mailing time) shall be allowed for Government review and comment in DrChecks<sub>SM</sub>. If the Contractor fails to submit design submittals in a timely fashion, or repetitively submits design submittals that are 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.

#### 3.5.2 Construction Submittals

Contractor furnished Government Approved Construction Submittals (GA) for items noted in Paragraph 1.2.4 of this Section, or others as required by the COR, shall be submitted to the Area or Resident Office, per directions given at the Pre-Construction meeting. Adequate time (a minimum of fourteen (14) full calendar days exclusive of mailing time) shall be allowed for AED review and comment.

#### 3.5.3 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. Adequate time (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.

### 3.6 SUBMITTAL PROCEDURE

#### 3.6.1 Design Submittals

### 3.6.1.1 Afghanistan Engineer District (AED)

One (1) half-size 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:

#### AFGHANISTAN ENGINEER DISTRICT

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

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. The label shall indicate it has been scanned for viruses and the anti-virus software and version clearly indicated.

### 3.6.1.2 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.

### 3.6.1.3 Editable CADD Format As-Builts

This is a Design-Build project and in accordance with Contract Clause 52.227-7022 GOVERNMENT RIGHTS (UNLIMITED), the Government has non-exclusive rights to use the design on other projects. Therefore, the As-Builts furnished to the Government must be in an editable format. See Section 01780A CLOSEOUT SUBMITTALS, Paragraphs 1.1 and 1.2, for all requirements associated with submission of editable CADD format As-Builts required as part of this contract.

### 3.6.2 Post Design Construction Submittals

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

AFGHANISTAN ENGINEER DISTRICT

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

### 3.6.3 Submittal Numbering System

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

#### 3.6.3.1 Submittals

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

- a. List is prepared according to contract specifications and drawings, picking up 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 | "Subdrainage System"                 |
| Section 03300 | "Concrete For Building Construction" |
| Section 04200 | "Masonry"                            |

#### 3.6.3.2 Numbering procedures for transmittal on ENG FORM 4025

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. When furnishing one or more items from the same Section at a given time, a single ENG Form 4025 can be used to identify and submit these items. Block 'b' of the 4025 entitled "DESCRIPTION OF ITEM SUBMITTED" should provide an accurate and unique description of each item being proposed by the Contractor. Item numbers (block "a" of the 4025 entitled "ITEM NO.") will be automatically generated in QCS for each ENG Form 4025. QCS will track and automatically generate the "ITEM NO." for all following ENG Form

4025s for the same Section number. To illustrate, a transmittal for the 35% Design Submittal required by Section 01335 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

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

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.

### 3.6.3.3 Resubmittals

Should the Contractor be required to resubmit any transmittal due to one or more items on that transmittal being Coded "C" (Cleared for Construction, except as noted in attached comments, Resubmission Required) or "E" (NOT Cleared for Construction, see attached comments, Resubmission Required) by the Government, 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.

As an example, assume the 65% Design Submittal is provided to the Government as Transmittal 01335-9. Due to omissions or errors in that Submittal which result in a Code "E" being given, then the subsequent 65% 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".

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.

The Contractor 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 the attachment titled "1335a-Attachments-AED.pdf" (Figures 1-4) for required Title Block Required Annotations drawing guidance.

#### 3.6.4 Variations

If Design or construction submittals show variations from the contract parameters and/or requirements, the Contractor shall justify such variations in writing, at the time of submission. Additionally, the Contractor shall also annotate block "h" entitled "variation" of ENG FORM 4025. 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:

- a. Reason or purpose for proposed variation, substitution, or revision.
- b. How does quality of variation compare with quality of the specified item? This shall be in the form of a technical evaluation tabulating differences between the item(s) originally specified and what is proposed.
- c. Provide a cost comparison. This shall include an acquisition and life cycle cost comparison.
- d. 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.
- e. 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.
- f. Advantage to the Government, if variation is approved, i.e. Operation and Maintenance considerations, better product, etc.
- g. Ramifications and impact, if not approved.

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.

### 3.6.5 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.

## 3.7 REVIEW OF CONTRACTOR PREPARED DESIGN DOCUMENTS

### 3.7.1 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.

### 3.7.2 Independent Design Review

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. 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. 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.

### 3.7.3 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, correct and unified. 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, by annotating Column "g" (titled "For Contractor Use Code") of this Form with the letter "A," meaning the Contractor has reviewed it and is indicating it is "Approved as Submitted". Design submittals 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.

### 3.7.4 Government Review

- a. Within 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.
- b. If a design submittal is deficient (errors on ENG Form 4025, 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.
- c. 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. Therefore, the Contractor shall not consider any review performed by the Government as an excuse for incomplete work.

- d. 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, resubmission required
  - E - NOT Cleared for Construction, see attached comments, resubmission required
  - FX – Receipt acknowledged, does not comply as noted with contract requirements.

These codes shall NOT be used by the Contractor.

Design submittals Cleared for Construction by the Contracting Officer shall not relieve the Contractor from responsibility for any design errors or omissions and any liability associated with such errors, nor from responsibility for complying with the requirements of this contract.

#### 3.7.4.1 Incorporation of Government Review Comments

- a. 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. 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.
- b. If the Contractor disagrees technically with any comment or comments 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.

- c. 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.
- d. 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.

#### 3.7.4.2 Conferences

As necessary, conferences will be conducted between the Contractor and the Government to resolve review comments.

A review conference may be held at the completion of 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.

#### 3.7.4.3 Design Deficiencies

Design deficiencies noted by the Government shall be corrected prior to the start of design for subsequent features of work which may be affected by, or need to be built upon, the deficient design work.

#### 3.7.5 Design Discrepancies

The Contractor shall be responsible for the correction of incomplete design data, omissions, and design discrepancies 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.

### 3.8 Phased or "Fast-Track" Design

#### 3.8.1 General

If approved by the Government, design and construction sequencing may be effected on an incremental basis as each approved phase or portion (e.g., demolition, geotechnical, site work, exterior utilities, foundations, substructure, superstructure, exterior closure, roofing, interior construction, mechanical, electrical, etc.) of the design is completed.

#### 3.8.2 Design Phases

Complete or partial design phasing may or may not have been specified by the Government elsewhere in this contract. For construction sequencing or phasing that the Government has not specifically mandated, the Design-Build Contractor may submit a proposed phasing plan. Design phasing proposed by the Design-Build Contractor shall be submitted to the Government for approval.

#### 3.8.3 Sequence of Design-Construction (Fast-Track)

After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submission requirements and obtain Government review of each submission. The contractor may begin construction on portions of the work for which the Government has reviewed the final design submission and has determined satisfactory for purposes of beginning construction. The Contracting Officer will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Government, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

#### 3.8.4 Notice-to-Proceed for Limited Construction

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

#### 3.8.5 In-Place Construction Payment

No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

#### 3.8.6 Commencement of Construction

Construction of work may begin after receipt of the clearance for construction (Notice to Proceed) for each design phase. Any work performed by the Contractor

prior to receipt of the clearance for construction, shall be at the Contractor's own risk and expense. Work cleared for construction that does not conform to the design parameters and/or requirements of this contract shall be corrected by the Contractor at no additional cost or time to the Government.

### 3.9 Conduct of Work

#### 3.9.1 Performance

Perform the work diligently and aggressively, and promptly advise the Contracting Officer of all significant developments.

#### 3.9.2 Telephone Conversations

Prepare a summary, and promptly furnish a copy thereof to the Contracting Officer, of all telephone conversations relating to the design work under this contract.

#### 3.9.3 Cooperation with Others

Cooperate fully with other firms, consultants and contractors performing work under the program to which this contract pertains, upon being advised by the Contracting Officer that such firms or individuals have a legitimate interest in the program, have need-to-know status, and proper security clearance where required.

#### 3.9.4 Technical Criteria

All designs, drawings, and specifications shall be prepared in accordance with the contract documents and with the applicable publications referenced therein. As soon as possible, the Contractor shall obtain copies of all publications applicable to this contract. Availability of publications (where to purchase) is contained in Specification Section 01420 entitled: SOURCES FOR REFERENCE PUBLICATIONS. Any deviations from the technical criteria contained in the contract documents or in the applicable publications, including the use of criteria obtained from the user or other sources, must receive prior approval of the Contracting Officer. Where the technical criteria contained or referred to herein are not met, the Contractor will be required to conform his design to the same at his own time and expense.

#### 3.9.5 Conflicts

Any conflicts, ambiguities, questions or problems encountered by the Contractor in following the criteria shall be immediately submitted in writing to the Contracting Officer with the Contractor's recommendations. Prior to submission to the Government the Contractor shall take appropriate measures to obtain clarification of design criteria requirements, to acquire all pertinent design information, and to incorporate such information in the work being performed.

### 3.9.6 Design Priorities

The design of this project shall consider the remote location and harsh environment of this project and the impact this will have on sources of technical supply, the cost of construction, the low level of maintenance, and the difficulty of obtaining replacement parts. Unless stated otherwise in this contract, the following design priorities shall be followed.

#### 3.9.6.1 Construction Life Span Levels

Permanent Construction. Buildings and facilities shall be designed and constructed to serve a life expectancy of more than 25 years, to be energy efficient, and to have finishes, materials, and systems that are low maintenance and low life-cycle cost.

#### 3.9.6.2 Operability

Systems including but not necessarily limited to mechanical, electrical, communications, etc., must be simple to operate and easy to maintain.

#### 3.9.6.3 Standardization

Use of standardized materials, products, equipment, and systems is necessary to minimize the requirements for replacement parts, storage facilities, and service requirements.

#### 3.9.6.4 Topographic Surveys, Easements, and Utilities

Unless otherwise stated in the contract, the Contractor will be responsible for detailed topographic mapping, available easements, and utility information for the project.

#### 3.9.6.5 Horizontal and Vertical Control

The mapping shall be based on the base coordinate system. If the base system cannot be found, the surveyor shall use any established monuments. If monuments have been destroyed or do not exist, an assumed horizontal and vertical datum shall be established, using arbitrary coordinates of 10,000n and 10,000e and an elevation of 1,000 meters. The horizontal and vertical control established on site shall be a closed loop with third order accuracy and procedures. Provide three (3) concrete survey monuments at the survey site. All of the control points established at the site shall be plotted at the appropriate coordinate point and shall be identified by name or number, and adjusted elevations. The location of the project site, as determined by the surveyor shall be submitted in writing to the Contracting Officer. The site location shall be identified by temporary markers, approved by the Contracting Officer before proceeding with the surveying work.

### 3.9.6.6 Topography Requirements

A sufficient quantity of horizontal and vertical control shall be established to provide a detailed topographic survey at 1:500 scale with one quarter meter contour intervals minimum. Intermediate elevations shall be provided as necessary to show breaks in grade and changes in terrain.

The contours shall accurately express the relief detail and topographic shapes. In addition, 90 percent of the elevations or profiles interpolated from the contours shall be correct to within one-half of the contour interval and spot elevations shall be correct within plus or minus 20 millimeters.

Spot elevations affecting design of facilities shall be provided. Specifically, break points or control points in grades of terrain such as tops of hills, bottoms of ditches and gullies, high bank elevations, etc.

All surface and sub-surface structures features within the area to be surveyed shall be shown and identified on the topographic maps. In addition, these features shall be located by sufficient distance ties and labeled on the topographic sheets to permit accurate scaling and identification.

The location and sizes of potable, sanitary, electrical and mechanical utilities within the survey site shall be shown on the survey map. Sanitary manholes and appurtenances shall show top elevations and invert elevations.

### 3.9.6.7 Geotechnical Investigation

Unless otherwise stated in the contract, the Contractor will be responsible for Geotechnical investigation, including subsurface explorations, sampling, field and laboratory testing, and water studies where applicable.

### 3.9.6.8 Cathodic Protection and Earth Resistance

Unless otherwise stated in the contract, the Contractor will be responsible for determining whether cathodic protection on buried structures and underground utility systems are needed for special electrical grounding and counterpoise systems, and for gathering the field data necessary for design.

### 3.9.6.9 Water Supply and Quality Data

Unless otherwise stated in the contract, the Contractor will be responsible for obtaining all water supply and water quality data. This 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.

### 3.9.6.10 Occupational Safety and Health Act

The facilities, systems, and equipment designed under this contract shall comply with the Occupational Safety and Health Act (OSHA), Code of Federal Regulations, Title 29, Chapter XVII, Parts 1910 and 1926. Any problems in incorporating these standards due to conflicts with other technical criteria shall be submitted to the Contracting Officer for resolution.

### 3.9.6.11 Asbestos Containing Materials

Asbestos containing material (ACM) will not be used in the design of new structures or systems. In the event no other material is available which will perform the required function or where the use of other material would be cost prohibitive, a waiver for the use of asbestos containing materials must be obtained from AED.

### 3.9.6.12 Existing Construction

Asbestos containing materials (ACM) presently included in existing construction to be rehabilitated or otherwise modified as a result of this project shall be removed and a non-asbestos containing material substituted in lieu thereof.

### 3.9.6.13 Suspected Asbestos Containing Materials

All such structures and systems shall be inspected to determine the presence or probable presence of ACM. When ACM is suspected, a documented survey will be performed. The survey will be developed into an abatement design and will be made a part of the design documents. In the event no other material is available which will perform the required function or the use of a substitute material would be cost prohibitive due to initial cost and tear-out of existing construction, a waiver for the retention of the asbestos containing material must be obtained from the Contracting Officer.

## 3.10 VALUE METHODOLOGY/VALUE ENGINEERING

The Contractor during the course of his design shall be alert for and shall identify those high-cost low-value items or areas which he considers may be accomplished in different ways that will increase the value of the project at the same or less cost. Potential value engineering study items shall be reported to the Value Engineer through the Contracting Officer.

### 3.10.1 Performance Oriented Value Engineering Change Proposal (VECP)

In reference to Contract Clause 52.248-3, "Value Engineering - Construction", the Government may refuse to entertain a "Value Engineering Change Proposal" (VECP) for those "performance oriented" aspects of the Contract Documents which were addressed in the Contractor's accepted contract proposal and which were

evaluated in competition with other Proposers for award of this contract. For purposes of this clause, the term "performance oriented" refers to those aspects of the design criteria or other contract requirements which allow the Proposer or the Contractor certain latitude, choice of and flexibility to propose in its accepted contract offer a choice of design, technical approach, design solution, construction approach or other approach to fulfill the contract requirements. Such requirements generally tend to be expressed in terms of functions to be performed, performance required or essential physical characteristics, without dictating a specific process or specific design solution for achieving the desired result.

### 3.10.2 Prescriptive Oriented Value Engineering Change Proposal (VECP)

The Government may consider a VECP for those "prescriptive" aspects of the Solicitation documents, not addressed in the Contractor's accepted contract proposal or addressed but evaluated only for minimum conformance with the Solicitation requirements. For purposes of this clause, the term "prescriptive" refers to those aspects of the design criteria or other Solicitation requirements wherein the Government expressed the design solution or other requirements in terms of specific materials, approaches, systems and/or processes to be used. Prescriptive aspects typically allow the Proposers little or no freedom in the choice of design approach, materials, fabrication techniques, methods of installation or other approach to fulfill the contract requirements.

### 3.11 ATTACHMENTS

The following attachments form an integral part of this specification:

ENG FORM 4025R, 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 -

(End of Summary of Changes)



## 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)*



PROJECT INFO  
4 LINES ALLOWED

SHEET TITLE  
3 LINES ALLOWED

PROJECT ID BLOCK  
SHEET TITLE BLOCK

|                               |               |
|-------------------------------|---------------|
| PROJECT NO.                   | PROJECT TITLE |
| INSTALLATION NAME OR LOCATION |               |
| BUILDING TYPE                 | DRAWING TITLE |

SHEET IDENTIFICATION  
BLOCK

SHEET SEQUENCE NUMBER

DISCIPLINE  
DESIGNATOR

|   |
|---|
| SHEET<br>REFERENCE<br>NUMBER:<br><b>X-XXX</b><br>SHEET -- OF -- |
|---|

SHEET NUMBER

TOTAL NUMBER OF SHEETS

FIGURE 1 - AED TITLE BLOCK

MANAGEMENT BLOCK

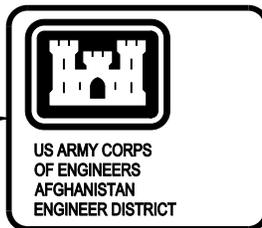
|  |  |                     |               |                       |                     |
|--|--|---------------------|---------------|-----------------------|---------------------|
| U.S. ARMY ENGINEER DISTRICT, AFGHANISTAN<br>CORPS OF ENGINEERS<br>APO AE 96338 |  | DESIGNED BY: _____  |               | DATE: _____           | REV. _____          |
|  |  | DWN BY: _____       | CKD BY: _____ | DESIGN FILE NO. _____ |                     |
|  |  | REVIEWED BY: _____  |               | DRAWING CODE: _____   |                     |
|  |  | SUBMITTED BY: _____ |               | FILE NAME: _____      |                     |
|  |  |                     |               | PLOT SCALE: _____     | PLOT DATE: xx-xx-xx |

AE DESIGN FIRM  
COMPANY LOGO  
COMPANY INFORMATION

FIGURE 2 - AED MANAGEMENT BLOCK

H

DESIGNER IDENTIFICATION  
BLOCK (DO NOT ALTER)



ISSUE BLOCK

| SYMBOL | DESCRIPTION            | DATE     | APPR. | SYMBOL | DESCRIPTION      | DATE | APPR. |
|--------|------------------------|----------|-------|--------|------------------|------|-------|
|        | AS-BUILT SUBMITTAL     | DATE     |       |        |                  |      |       |
|        | 100% DESIGN SUBMITTAL  | DATE     |       |        |                  |      |       |
|        | 99% DESIGN RESUBMITTAL | DATE     |       |        |                  |      |       |
|        | 99% DESIGN SUBMITTAL   | DATE     |       | △      | REVISED AS-BUILT |      |       |
|        | 65% DESIGN RESUBMITTAL | DATE     |       | △      | MOD P0003        |      |       |
|        | 65% DESIGN SUBMITTAL   | DATE     |       | △      | MOD P0002        |      |       |
|        | 35% DESIGN SUBMITTAL   | DATE     |       | △      | AMENDMENT P0001  |      |       |
|        | DESCRIPTION            | 1 AUG 07 | APPR. | SYMBOL | DESCRIPTION      | DATE | APPR. |

FIGURE 3 - AED ISSUE BLOCK  
& REQUIRED NOTATIONS

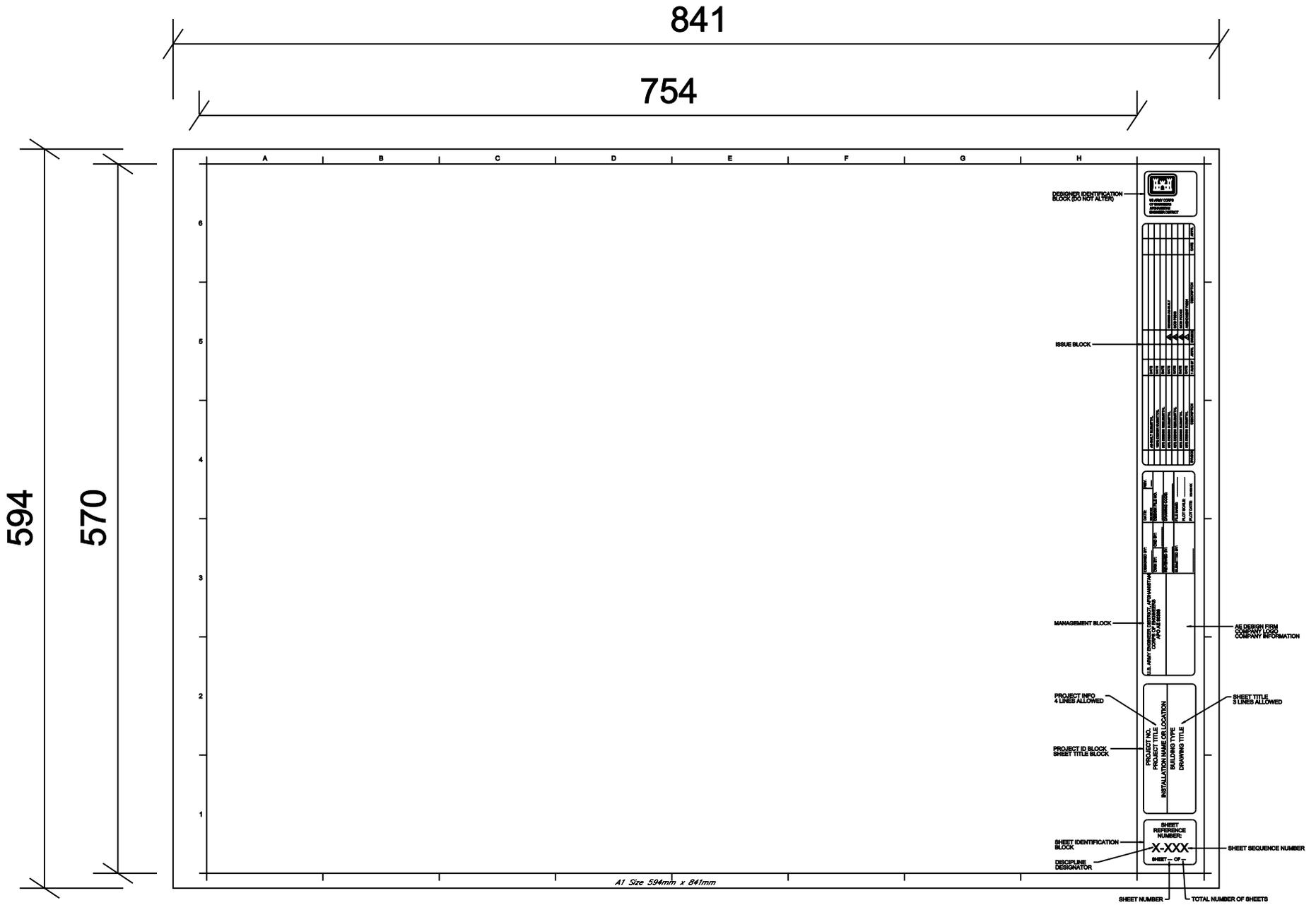


FIGURE 4 - BORDER SHEET SIZE

Questions and Answers 1  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

NOTE: If any Government responses indicate a change to the technical proposal, it is not official until an amendment is issued.

Q1: Geotechnical information to calculate how much cut and/or fill required.

*A1: Per 1010 4.2 Site Planning The Project construction site is about 380 meter by 1000 meter at approximately 380,000 SM. Nearly half of the project construction site is already part of the existing Camp Gamberi Installation. Contractor is responsible to verify actual site condition before bidding. Recommend contractor visit the site to get visual confirmation.*

Q2: The construction area is inside the existing camp or will be in expanding camp?

*A2: Please refer to “ANA Camp Gamberi Phase 3” in Appendix A. Conceptual Site Layout Plan. There is some overlap into the existing Camp Gamberi site.*

Q3: Security is contractor’s responsibility?

*A3: Per 1010 4.1.2 SECURITY MEASURES  
The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed. This may include but not limited to: Security guards, temporary fencing, material during delivery, and control access to the construction site.*

Q4: Demining of the construction area done or not, who is the responsibility?

*A4: Per 1010 3.1 UXO REMOVAL AND CLEARANCE The contractor is not responsible for the clearance or removal of mines and unexploded ordnance (UXO) from the site prior to the commencement of construction.  
**The demining is currently being done by other contractor.***

Q5: In the solicitation first page at the point no. 11 it is written that work should completed 300 calendar day with reference of 52.211-10 but 52.211-10 shows 180 days (is not the same duration).

*A5: The completion date should read 300 calendar days. An Amendment will be issued to correct Clause 52.211-10.*

Questions and Answers 1  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

Q6: I need information about land specification. How much cubic meter dig and carrying?

*A6: Per 1010 4.2 Site Planning Para 3. The Project construction site is about 380 meter by 1000 meter at approximately 380,000 SM. Nearly half of the project construction site is already part of the existing Camp Gamberi Installation. Contractor is responsible to verify actual site condition before bidding. Recommend contractor visit the site to get visual confirmation.*

Q7: Detail of drainage requirements with regard to the wadi emphasized in RFP?

*A7: Per 1010 4.2 Site Planning Para 1. Contractor shall divert or mitigate the impact of erosion and flooding due to existing wadi(s) in the Master Plan. Contractor shall clearly outline and show their design proposal for diversion or mitigation. The location of the facilities on the site plan may have to be adjusted in coordination with any diversion or mitigation of Wadi proposal. After site investigation, Contractor shall proposal wadi mitigation in design submittal after award.*

Q8: Security required?

*A8: See answer to question 3.*

Q9: Where on the google aerial is project site located. I believe the area within the boundaries also, include all of Camp Gamberi?

*A9: See drawings Appendix\_A2\_Gamberi\_Site\_CSB.pdf*

Q10: If you can provide the specialty of wadi mentioned above?

*A10: See response to question 7.*

Q11: Where on the Google aerial is the project site located? I believe the area within the boundaries also, includes all of Camp Gamberi?

*A11: See images attached to the RFP.*

Q12: Generators—Please clarify. Are the two (2) “spare generators” in addition to the primary and standby generator?

Questions and Answers 1  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

*A12: Paragraph 4.8.1 of section 01010 states “There shall be a total of two spare generators at the power plant at the end of this contract.*

Q13: Water- for one day’s requirement of 1640 personnel is estimated to be approximately 467,400 liters per day. There is no problem designing a storage and distribution system for that quantity but, how will only two wells provide that quantity? Are more well’s anticipated to be added to the project for the future planned personnel?

*A13: Two wells max, Well(s) should be sized appropriately to handle expected full demand. (4 lit/sec per well pump)*

Q14: Sanitary Sewer System

- a. Section 01015 2.5.4 states there is no functional or salvageable sanitary sewer collection treatment or disposal facilities at the “CSB” site.
- b. Section 01010 4.7 states to either tie into the existing sanitary Base sewer and treatment system or provide a new system with treatment plant.

Please clarify the existing Sanitary Sewer System capacity and condition including a recommendation regarding tie-in into the existing system or providing a new treatment plant.

*A14: Contractor shall investigate the existing Sanitary Sewer and Treatment System at the installation to determine existing capacity. The intent is to tie to the existing system if the existing Sanitary Sewer and Treatment system will support the additional sanitary load of 1,640 personnel. If the existing Sanitary Sewer and Treatment system will not support an additional personnel, then the Contractor shall design and construct a separate sanitary sewer distribution system served by a package waste water treatment plant.*

Q15: No specific CLIN was provided for Force Protection requirements specifically to include:

- a. Compound illumination system
- b. Security Communication System
- c. Loudspeakers and Alarm System.

Is it the intention of the Owner to include these items costs within CLIN 0002AL Guard Towers?

*A15: Items listed above should be accounted for under 0002AB Security Measures.*

Questions and Answers 1  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

Q16: CLIN 0003AD Battalion HQs building states (1) building – section 01010; 4.18 states construct two (1) Battalion HQs. How many HQs buildings are to be constructed?

*A16: Only One Battalion HQs is required in this Solicitation. Section 1010-4.18 should read “construct one (1) Battalion HQs.*

Q17: Laundry facility 4.19 - Is the contractor responsible for supplying the washers and dryers?

*A17: Washer and Dryers are not required in this scope of work. Large trough sinks and tables are required, please refer to section 1010 -4.19 for complete scope requirements.*

Q18: How many Battalion Headquarters Buildings will be constructed? Is it going to be 1 or 2?

*A18: See answer to question 16.*

Q19: In the drawings is Officer/NCO building drawing basically demonstrates the 9 BOQ Type B Barracks that need to be constructed?

*A18: Yes, the Drawing represents the building design that will need to be constructed.*

Q20: What is the estimated water depth in the existing well at Camp Gamberi?

*A20: Existing water well is approximately 150 meters deep.*

Q21: In 4.20 (Vehicle Refueling Point) of the RFP, 20,000 lt of diesel tank is required; however in 7.5.5 of Technical Specifications 38,000 lt of diesel tank is required. We kindly would like to learn actually which capacity (20,000 or 38,000) is required in the design process?

*A21: Section 1010 4.20 Vehicle Re-fueling Point States “The Contractor shall design and construct a low profile vehicle re-fueling point, as specified in Section 01015, capable of storing 20,000 liters (5283 gallons) of diesel and 10,000 liters (2641 gallons) of MOGAS.” Section 1015- 7.5.5 Motor Pool Fuel Point (Storage/Dispensing) States “Motor Pool 38,000 liters of Diesel and 10,000 liters of MOGAS. (For standard Battalion size compound) Unless otherwise stated in the 1010 Scope of Work.” Therefore the requirement is 20,000 liters of Diesel.*

Questions and Answers 1  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

Q22: What is the approximate distance between the existing power plant and the barracks area that will be constructed?

*A22: The approximate distance between the existing power plant and the barracks area is 660 meters. Contractor is responsible to verified all dimensions.*

Q23: What is the approximate distance between the existing WWTP and the Power Plant?

*A23: The approximate distance between the existing WWTP and the Power Plant is 260 meters. Contractor is responsible to verified all dimensions.*

Q24: Table of Contents are not provided in this RFP, only price schedule and realistic project schedule is mentioned. Can we go with the format we have seen in other RFP's Like 1. Proposal Cover Sheet, 2. The SF 1442 and Acknowledgement of Amendments, 3. Section, 00010, Pricing Schedule, 4. Representations, Certification, and other Statement of Offerors & 5. JV Agreement, if Applicable.

*A24: A cover sheet and a table of contents is required for Volume I (see Paragraph 2, Section 0110). A Table of Contents is not currently required for Volume II.*

Q25: We have concern about the submission time of the proposal, in the first page of proposal it's motioned 5:00pm, 5-Feb-09 & in proposal preparation notes it clearly written that offer closing time is 13:00, please indicate the exact time.

*A25: The proposal due date and time is 5 Feb 2009, 5:00 PM Kabul time. The proposal submission time stated in Section 0110, paragraph 1.3 will be corrected in an Amendment.*

Q26: Proposal Submission Time: In the SF1442 13A – due time is 5:00pm. In Section 00110, page 1 – due time is 13:00 hrs.

*A26: See answer to Question 25.*

Q27: Number of Copies: Referencing Proposal Format Section 1.7, Para 7. “Submit 1 original and 4 copies of all drawings and printed matter (Bound Volume) as well as 2 CDs.

Question: Does this mean 4 copies and 1 original for Volume 1; and, 4 copies and 1 original for Volume 2. Also, is there 1 CD for Volume 1 and 1 CD for Volume 2? Or do you want both of the CDs to contain Volume 1 and Volume 2?

Questions and Answers 1  
for  
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Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
18 January 2009

*A27: For Volume I, one original and four copies are required and for Volume II, one original and two copies are required (See Paragraph 2.0, General, in Section 00110). Item (7) Number of copies, in paragraph 1.7.1 of Section 00110 will be deleted in an Amendment.*

Q28: How long is our price good? In the RFP, SF1422-13D, the statement reads, “Offers providing less than 300 calendar days for Government acceptance after the date offers are due, will not be considered and will be rejected.”

*A28: Block 13D of the SF1442 should read “90”calendar days. This will be corrected in an Amendment. Please insert in Block 17 of SF1442(Back) any number of calendar days equal to or greater than the minimum requirement in Block 13D.*

Q29: Proposal Format Numbering System – In the Solicitation Factor 1 begins with 2.1.1; in the Proposal Evaluation section of the RFP (and Amendment 1), Section 00120 Factor 1 begins with 1.1.1.

*A29: Section 00110 is for Proposal Preparation. Please follow the submission instructions in Section 00110.*

Q30: Is the proposal single-spaced or double spaced?

*A30: There is no requirement for single-space or double space; however, please note the page limitation requirements in Section 00110, paragraph 2.0.*

\*\*\*\*\* End of Q&A \*\*\*\*\*

Questions and Answers 2  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
19 January 2009

NOTE: If any Government responses indicate a change to the technical proposal, it is not official until an amendment is issued.

Q1: Factor 3 - Personnel and Resource – 2.1.3.2 (Key Personnel). Subfactor a: Project Manager for Design and for Construction.

Question: Is there a project manager for Design and another project manager for Construction; or, is this position for a Project Manager for Design and Construction? 1 project manager or 2 project managers?

*A1: One Project Manager for Design and another Project Manager for Construction are required. See Amendment 0002.*

\*\*\*\*\* End of Q&A \*\*\*\*\*

Questions and Answers 3  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
25 January 2009

NOTE: If any Government response indicate a change to solicitation specifications, it is not official until an amendment is issued.

Q1: In regard with technical proposal's experience factor, a brief explanation that illustrates and so on ...my question is are we required to provide drawings or merely written explanation?

*A1: In Amendment 0002, Section 00110, Paragraph 2.1.1. Factor 1, Experience line h. Schematic site/land use plan showing the proposed project facility placement and orientation, vehicular circulation, and other site improvements was deleted. Therefore, no design drawings are required for submission with proposals.*

Q2: Referring to Section 01010, Para. 4.8.1 "POWER PLANT GENERATORS" it is required to provide generators based on the N+2 concept, so if we use the spare pads in the existing power plant it may not be enough to meet the required N+2 concept. Please advise.

*A2: The last sentence in Section 01010, Para 4.8.1 states "There shall be a total of two spare generators at the power plant at the end of this contract." The two spare generators are already installed at the power plant. There are, therefore, three spaces available for the power requirements for this contract.*

Q3: Referring to Section 01010, Para. 4.23 "COMMUNICATION SYSTEM BUILDING" it is required to provide backup generator for this building, please confirm that an ATS is also required in the scope.

*A3: An ATS is part of the scope.*

Q4: Referring to Section 01010, Para. 4.23 "COMMUNICATION SYSTEM BUILDING" it is required to provide UPS room for this building, please confirm that the provision of UPS unit is not in the scope.

*A4: A UPS is not in the scope.*

Q5: Referring to Section 01015, Para. 9.4.18 "TELEPHONE/COMPUTER NETWORK SYSTEM" it is required to provide telephone and computer outlets for the Corps Brigade and Battalion HQ building office only, but it seems a conflict between this section and the following sections so please advise:

- As per section 01015, para10.9.2 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for MWR GYM /RECREATION CENTER.

Questions and Answers 3  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
25 January 2009

- As per section 01015, para10.9.3 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for Barracks.
- As per section 01015, para10.9.4 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for DFAC.
- As per section 01015, para10.9.5 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for POL Storage.
- As per section 01015, para10.9.6 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for Fuel Point.
- As per section 01015, para10.9.7 it is required 12 pairs copper, 6 strands fiber optic cable and outlets for General Warehouse Storage.
- As per section 01015, para10.9.8 it is required 6 pairs copper and outlets for CSB Organic Wheeled Vehicle Maintenance Facility.
- As per section 01015, para10.9.9 it is required 12 pairs copper and outlets for Laundry Facility.

*A5: Section 01015, Paragraph 9.4.18 does not state to provide telephone and computer outlets for the Corps Brigade and Battalion HQ building office only, the paragraph is restated below*

**“9.4.18 TELEPHONE/COMPUTER NETWORK SYSTEM**

Each Corps Brigade, and Battalion HQ building office, room shall have telephone and computer data outlets. Telephone/data System shall include cross-connect boxes, duplex RJ-45 telephone outlets with a minimum of 4 pair Category 5 Enhanced (CAT 5e) cable terminating at each outlet (jack). The Contracting Officer shall determine outlet locations for individual rooms. Telephone wiring shall be recessed in finished areas and surface mounted in metal conduits in unfinished areas. Two 4 inches conduits shall be providing from the cross connect box to the outside communication hand-hole. See paragraphs 10 thru 10.16 below for additional requirements for communications systems.”

Q6: Please clarify the type of enlisted barrack type A or B? As there is a conflict between 01010 Para. #4.16 and the drawing in appendix A.

*A6: Refer to the Amendment 2, revised Appendices drawings. Appendix A\_4.16 Enlisted Open Bay Barracks are for enlisted soldiers. Appendix A\_4.16 Officer/NCO Building are the type “B”.*

Q7: With regards to the CSB vehicle maintenance facility, the scope of work states that its area is 1395 m2, while the drawings indicate that it is 1782 m2. Please clarify.

*A7: Refer to the Amendment 2, revised Appendices drawings Appendix A\_4.22. Contractor is to provide Vehicle Maintenance Facility per Appendix A and partial design. Replace first sentence of 1010 4.22 CSB Organic Vehicle Maintenance Facility should read: Design and construct the Vehicle Maintenance facility in accordance with the drawings contained in the Appendices (approximate size is 1680 SM).*

Questions and Answers 3  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
25 January 2009

Q8: With regards to the GSE communication and armament maintenance facility, according to the proposal schedule it is a Basic item, while to the Scope of work Para. 4.24 it is an optional item. Please clarify.

*A8: Refer to the Amendment 2, Section 01010 4.24 GSE Communications and Armament Maintenance Facility. The text (Option Item) has been deleted. This is a base bid item.*

Q9: What is the anticipated award date for this contract?

*A9: Anticipated award date is End of February 2009.*

Q10: Section 4.8 of the RFP indicates that if the existing electrical distribution system will not supply the addition of this project, including the future 1,640-person load, then the contractor shall design and construct the entire electrical distribution system. Please clarify if CLIN 0002AF should be priced with the assumption that the existing system will be adequate to supply the addition, or if only if CLIN 0002AF should be priced with the assumption that we will need to design and build an entire new electrical system.

*A10: The contractor is to price what is stated in the third paragraph of 4.8 in Section 01010 and the requirements outlined in paragraph 9.4 in Section 01015.*

Q11: Section 4.7 of the RFP indicates that the contractor shall investigate the existing sanitary sewer and treatment system to determine capacity. If the existing system will not support the addition personnel, then the contractor shall design and construct a separate system. Please clarify if CLIN 0002AF should be priced with the assumption that the existing system will be adequate to supply the additional personnel, or if CLIN 0002AF should be priced with the assumption that the contractor will be required to design and construct a separate sanitary sewer distribution system.

*A11: Contractor should consider both cases and then provide one appropriate bid accordingly.*

Q12: In Section 4.34, the RFP states that that the contractor shall provide temporary facilities including a DFAC Kitchen, but no sit down dining area is required. There is no description of the temporary DFAC kitchen. Could the Government specify what items you want included in the DFAC Kitchen?

Questions and Answers 3  
for  
Solicitation No. W917PM-09-R-0028  
Afghanistan National Army Corps Support Battalion (CSB) at Gamberi Garrison  
25 January 2009

*A12: DFAC Kitchen should provide propane cooking stove, washing station, and food prep area. For reference only, See attached information on a mobile kitchen that ANA uses in current temporary Camps.\*\**

Q13: Will the Government provide land for temporary life support area for contractor personnel at Gamberi to be utilized during the period of performance?

*A13: The temporary life support area will need to be within the CSB ANA Garrison Phase 3 site. It must be within the new perimeter wall for security reasons. The contractor may propose location and size, but must coordinate with the COR.*

Q14: Will contractor personnel, to include LNs and TLNs, be authorized to live on Gamberi base or within the perimeter of the construction site, during the period of performance of this contract?

*A14: The Contractor will be responsible for site security. Contractor may provide temporary camp for his workers within construction site limits, however it must not interfere with new construction, existing ANA Garrison Construction, ANA Soldier temporary life Support area, and ANA operations once permanent life support buildings are completed. Contractor must coordinate any worker camp area with COR.*

Q15: Will the Government consider contracts performed in Iraq and Pakistan as acceptable Experience under Factor 1 and Past Performance under Factor 4? We ask that the Government, to ensure fair and open competition among contractors/bidders, consider a corporate experience on contracts that are highly relevant in scope, size, and complexity to the present effort, but that are/were not conducted in Afghanistan.

*A15: An Amendment will be issued to revise Factor 1- Experience to include contracts performed within Iraq, Tajikistan, and Pakistan.*

\*\*\*\*\* End of Q&A \*\*\*\*\*

## **DESIGN “B”**

**A 2-unit facility divides food service taskings, and creates a larger workspace footprint. Both units are meant to travel together and sited in close proximity to one another.**

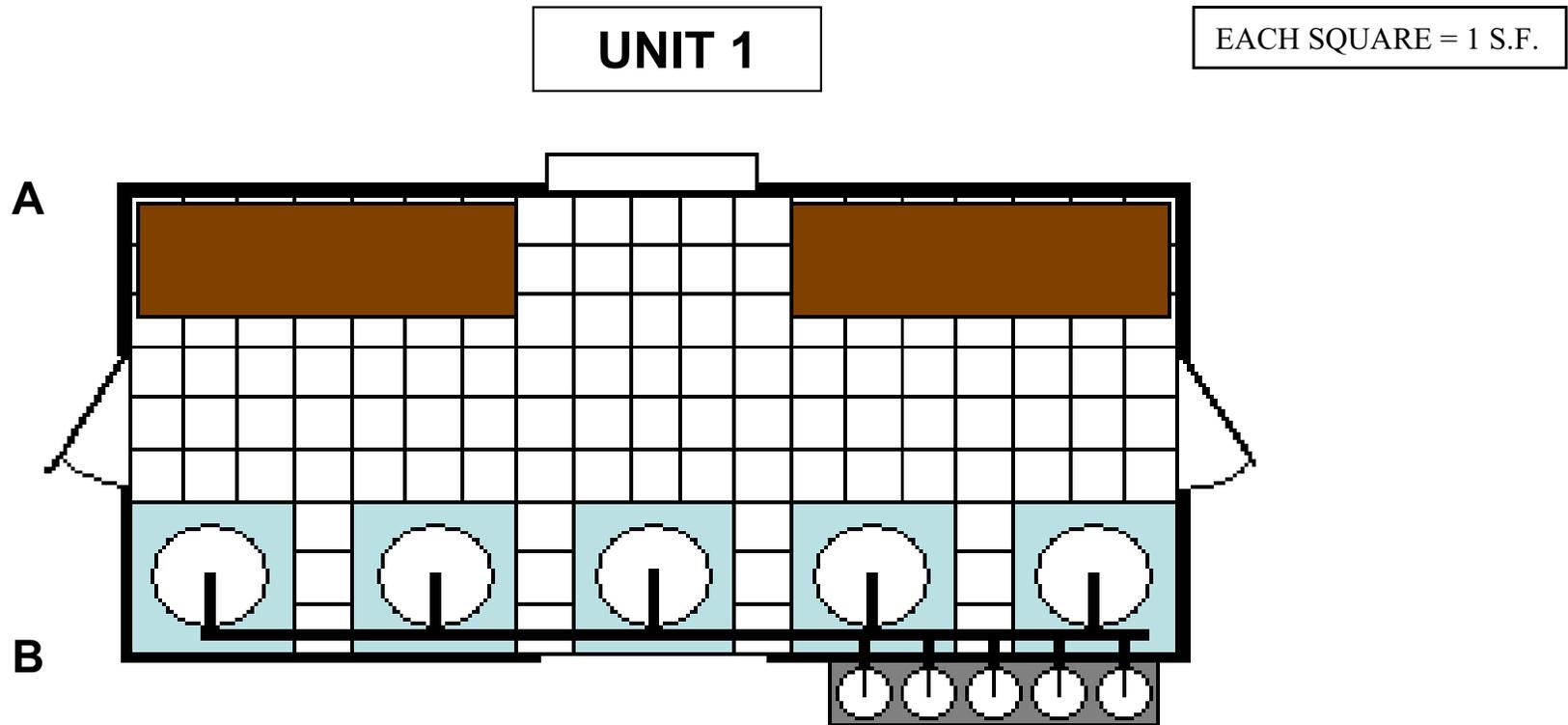
**DESIGN B allows for one unit designed for food preparation, utensil and food cleaning and storage. The second unit is designed for cooking and serving.**

**DESIGN B uses propane as a heating source.**

**DESIGN B is designed for accommodation of an entire brigade.**

**DESIGN B is not a field unit, it is meant to provide food prep, cooking and serving functions where existing utilities exist and is designed to tie into them.**

# MOBILE D-FAC / DESIGN "B" – DOUBLE UNIT – COOKING/SERVING UNITS



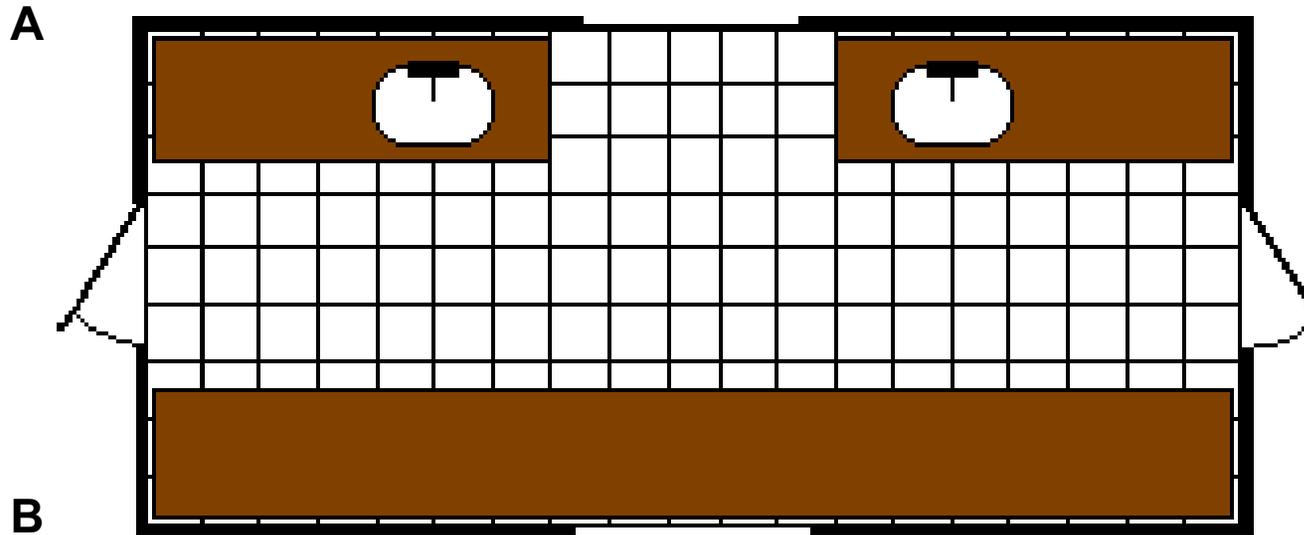
## **NOTES:**

- STRUCTURE IS FABRICATED FROM A 10' X 20' CONEX SHIPPING CONTAINER.
- FIVE PROPANE BURNERS ARE TO BE LOCATED AGAINST ONE WALL AND FIXED TO THE FLOOR WITH A 1' CLEARANCE BETWEEN THEM.
- PROPANE TANKS ARE STORED IN A RACK OUTSIDE THE STRUCTURE WITH SECURITY CHAIN.
- TWO DOORS ARE TO BE INSTALLED ON EACH END OPENING OUTWARD ON CENTER LINE. PADLOCK HASPS TO BE INSTALLED ON EACH.
- ONE LIGHTING FIXTURE ADEQUATE TO ILLUMINATE ENTIRE INTERIOR TO BE MOUNTED IN CENTER OF CEILING..
- DRAINAGE SYSTEM FROM FLOORING TO BE INSTALLED.
- STANDARD FOOD COOKING VENTILATION TO BE INSTALLED.
- TWO 3.5' X 3.0' WINDOWS TO BE INSTALLED IN WALLS "A" AND "B" ON CENTER LINE.

# MOBILE D-FAC – DESIGN “B” – DOUBLE UNIT – PREP/STORAGE UNIT

UNIT 2

EACH SQUARE = 1 S.F.



## NOTES:

- STRUCTURE IS FABRICATED FROM ONB (1) 10' X 20' CONEX SHIPPING CONTAINER.
- FLOOR MOUNTED COUNTERS ARE TO BE PLACED ON BOTH SIDES OF STRUCTURE.
- COUNTERS ON “A” SIDE WILL BE STANDARD HEIGHT WITH DEEP SINKS INSTALLED. EACH TO BE APPROX 6.5' LONG AND FIXED 2.5 FEET BACK FROM CENTER LINE.
- COUNTER ON SIDE “B” WILL RUN ENTIRE LENGTH OF STRUCTURE. OPEN CABINETS ARE TO BE INSTALLED UNDER COUNTER.
- UPPER OPEN-FACED CABINETS TO BE LOCATED ENTIRE LENGTH OF STRUCTURE ABOVE COUNTER AND AT STANDARD DISTANCE FROM CEILING.
- ONE LIGHTING FIXTURE ADEQUATE TO ILLUMINATE ENTIRE INTERIOR TO BE MOUNTED IN CENTER OF CEILING..
- DRAINAGE SYSTEM FROM FLOORING TO BE INSTALLED
- DRAINAGE SYSTEM FROM DEEP SINKS TO BE INSTALLED.
- STANDARD FOOD PREP AREA VENTILATION TO BE INSTALLED.
- TWO DOORS ARE TO BE INSTALLED ON EACH END OPENING OUTWARD. PADLOCK HASPS TO BE INSTALLED ON EACH.