

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES 1   20
2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 16-Jan-2008	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable)
6. ISSUED BY AFGHANISTAN ENGINEER DISTRICT US ARMY CORPS OF ENGINEERS KABUL APO AE 09356	CODE W917PM	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. W917PM-08-R-0017	
		X	9B. DATED (SEE ITEM 11) 28-Dec-2007	
			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. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> 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. 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.)  The purpose of this amendment for W917PM-08-R-0017 is to incorporate a revised Section 01010 and to notify the offerors that the due date will not be extended and that no questions will be taken after 18 January 2008.				
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  _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED  16-Jan-2008

## SECTION SF 30 BLOCK 14 CONTINUATION PAGE

**SUMMARY OF CHANGES**

## SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

The following have been added by full text:

SECTION 01010 REVISED 0002**SECTION 01010  
SCOPE OF WORK****1. GENERAL**

The project consists of the design, site-adaptation, and construction of a new garrison facility for the ANA brigade in Farah, Afghanistan. Refer to site coordinates for approximate site location. The project is defined as providing the design, material, labor, and equipment to construct buildings, roads, utilities and other infrastructures for 2000 personnel to include: barracks, shower/latrines and storage facilities, dining facilities (DFAC); Embedded Training Team Compound (ETTC) facilities; power plants and electrical distribution system, communication system, sanitary sewer collection system and waste water treatment, water source and distribution system; and road network inside of the compound and access road to the compound from Farah.

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 included herein:

IBC, International Building Codes 2003

NFPA 101, Life Safety Codes

UFC 4-010-01, DoD Minimum Anti-Terrorism Standards for Buildings.

**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 can commence, the Contractor's Quality Control Manager is required to have completed the U.S. Army Corps of Engineers CQM course, or equivalent. The Construction Trades Training Center (CTTC) in Jalalabad, Afghanistan provides a course that satisfies the requirement. Courses are offered at regular intervals. For enrollment and course information contact CTTC at the following:

Mhd. Haris

e-mail: [mharis@afghanreconstruction.org](mailto:mharis@afghanreconstruction.org)

Telephone: 0700 08 0602

Pervaiz

e-mail: [adpzmuj@yahoo.com](mailto:adpzmuj@yahoo.com)

Telephone: 0700 61 3133

## 2. LOCATION

2.1 All work under this task order is for the design, site-adaptation, and construction of ANA Infantry Battalion facilities at Farah, Afghanistan. Aproximate coordinantes are:

32.317913D Lat/ 62.139483D Long.

32.318056D Lat/62.160729D Long.

32.299872D Lat./62.139654D Long.

32.30015D Lat. 62.160895D Long.

## 3. UNEXPLODED ORDNANCE (UXO)

**Contractor IS NOT responsible for clearance/removal.**

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 site has been cleared and the certificate of clearance is available for review.

It is the responsibility of the Contractor to be aware of the risk of encountering UXO/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/mine, unless they have appropriate accreditations from the MAC.

If a UXO/mine is encountered during project construction, the Contractor shall immediately stop work in the affected area and immediately notify the Contracting Officer. UXO/mine disposal will not be the responsibility of the Contractor.

## 4. SITE AND UTILITY WORK REQUIREMENTS

Drawings and technical references are contained in Appendix and Section 01015. All requirements for building area size are net square meters excluding the exterior walls unless specifically indicated otherwise.

The contractor shall plan and design the entire garrison master site and utility plans to include all base and option items. Electric power, water, sewage, and ground drainage systems shall be designed and built to support all base and options items listed in the Section 00010. Design and construction of electric power, water, sewage, and ground drainage system are included in the base bid item. The cost of connecting utilities of electric power, water, sewage, and ground drainage system to a building/facility shall be included in the total cost of the building/facility, and the connection shall follow the master plan/design of the general site utility systems. Therefore it is highly possible that a utility connection for one building is also sized to support other buildings or option items according to the master design.

### 4.1 MASTER PLANNING, MOBILIZATION, GENERAL SITE WORK

The Farah garrison site is approximately 1000 meters X 500 meters, see **Appendix A** for grid coordinates of de-mined area, and **Appendix B** site layout concept (only for reference, the contractor will develop the actual layout to be most functional, logical, and engineering sound). The Master Planning shall include but not limit to: general site grading and storm drainage system plan, physical site layout of roads, buildings, facilities, structures; utility plans of electric, water, and sewage systems; and location of construction supporting facilities and other temporary structures.

The contractor shall plan the site with good storm drain design, a site perimeter to include water well source, and avoid any existing wadi and flood zone.

#### **4.2 SECURITY MEASURES**

The contractor shall provide GENERAL perimeter force protection security for developing the site. Security may include but is not limited to temporary fences and private security guards. Perimeter security shall prevent unauthorized site access and provide safety protection to the contractor's work force and government personnel for the duration of the project in facing minor enemy attack. The contractor shall provide a statement describing what measures, facilities, and task force have included and for how long in corresponding to the price proposal Item of "Security Measures". The Contractor is responsible for providing security of the site diligently; however, local police, ANA units, and Coalition forces should be coordinated to support the large scale security of the site.

If the local security situation requests measures **more than** the general provision specified by the contractor, the contractor shall inform the government immediately or in advance if possible. The government may choose to provide security from military units or pay the contractor additional cost to increase the security measures.

#### **4.3 WATER SYSTEM AND FACILITIES**

Contractor shall design and construct a complete water supply, pumping, storage and distribution system with valves, fittings, bends and related accessories for optimum system performance. Design and construction includes installation of water service piping from the supply line with connection to the end user facility.

The water system design and construction include locating the site for water well, drilling of water well and installation of well pump and the sheltering building. The contractor is required to drill maximum two wells at the most potential location within the perimeter of the Garrison according to water study provided by the government. Include installation of hydro-pneumatic water storage tank, service booster pumps, ground storage tank(s) (GST), and underground pipe distribution system, sized for the entire base of 2000 occupants. Assume that the well shall be constructed to deliver a minimum 345-414 kPa 50-60 pounds per square inch (psi) at a flow rate that is twice the required daily demand. The storage tanks shall provide capacity for a minimum of 100 percent of the required daily demand based on 155 L/capita/day (41gal/capita/day). The distribution system shall be designed to provide a minimum 276 kPa (40 psi) at ground level at all points in the systems. Minimum pressures of 207 kPa (30 psi), under peak domestic flow conditions, can be tolerated in small areas as long as all peak flow requirements can be satisfied. Maximum water pressures in distribution mains and service lines shall not exceed 520 kPa (75 psi) at ground elevation. Maximum pressure of 100 psi can be allowed in small, low lying areas not subject to high flow rates and surge pressures. Fire hydrant flow and irrigation systems shall not be included in design calculations. Provide an enclosed water well house.

#### **4.4 SEWAGE SYSTEM AND WASTE WATER TREATMENT PLAN**

The Contractor shall design and construct sanitary sewer gravity collection and treatment system for the garrison, including sanitary sewer collection piping to the user facilities, conveyance of raw sewage to a treatment plant(s), processing of sludge and proper disposal of treated effluent. Underground packaged treatment system is preferred. The contractor is to design the system in the most economic and efficient way in determining the number and location of the treatment plants. Included in the design is the possibility that part of the treated water can be used for irrigation and car wash.

The system shall consist of all the necessary ancillary items appurtenances such as manholes, cleanouts and building service connections plus other standard fittings for optimum system performance. System capacity shall be calculated based on a hydraulic waste load that is equivalent to 80 percent of the

Required Daily Demand for the water system, or as 33 gallons per capita per day (gpcd), whichever is greater.

#### 4.5 POWER PLANT AND DISTRIBUTION SYSTEM

The contractor shall optimize the power plant design to provide the most economic and efficient solution to the electricity demands and in determining the number and location of the power plants, a centralized power plant is not required. A power plant shall include generators, switchgear, and all appurtenances necessary to meet the electrical demand. Generator size is not to exceed 1MW (1,000kW). Provide a properly ventilated generator shack over generators. Generation shall supply 125% of the maximum calculated demand load plus one (1) additional generator. All generators shall be identical in capacity, features, and manufacturer. Generators shall be provided with a synchronizer switch so that when the total power demand from one (1) generator reaches 90% of the generator's maximum capacity, an additional generator shall automatically start and supplement the running generator, sharing the load between the generators equally. Generators shall be provided with load banks matched to the maximum calculated demand load.

The Contractor shall provide bulk fuel storage capacity based on 30 days full-load operation for the requirements of this contract. Contractor shall provide fuel for testing and inform the government a month in advance to supply operation fuel before turnover to the Government. All the fuel tanks shall be double walled container with proper support and accessible for refuel from a utility road away from the living and office area. Provide chain link fence and gates around entire fuel storage and power facility. Fuel Storage Tank design and installation shall be in complete compliance with NFPA, API and NEC codes.

#### 4.6 FORCE PROTECTION PERIMETER, GUARD FACILITY AND ECP

The Contractor shall design and construct force protection measures to include stone masonry walls, Entry Control Point (ECP), guard towers, guard houses, illumination system. The designer shall incorporate force protection setbacks for new facilities to maximum extent possible as permitted by size of the site and the requirements of the user. Force protection design shall be in accordance with Joint Security Directorate Antiterrorism/Force Protection Guide, March 2002; UFC 4-010-01, Minimum DoD Antiterrorism Standards for Buildings; and UFC 4-010-02, DoD Minimum Antiterrorism Standoff Distances for Buildings.

- 4.6.1 Perimeter Wall: Base size is 1000 meters X 500 meters. Design and construct a Force Protection Perimeter Fence (3000 meters); with 1,500 meters of stone masonry wall and 1,500 meters chain link fence. Provide additional two (2) gates into compound other than the ECP; 12 guard towers at 275 meter maximum intervals. Native stone masonry walls are preferred. The height of the walls shall measure at least 2.5 meters from the inside and outside grades. The wall shall be topped with barbed wire outriggers and single-coil concertina style razor wire. The ground grade shall slope away from the wall for at least 5 meters.
- 4.6.2 Gates: The gates shall be swing type gates of 3.65 m wide x 2.4 m high leafs, constructed of steel plates, steel tube frame, and steel tube intermediate posts and rails at the masonry wall and the same type of material when the gate is at the chain-link fence section.
- 4.6.3 Entry Control Point: The Primary ECP shall include a entrance road, manually operated sliding steel gate, a 12 m<sup>2</sup> guard house with a toilet and a sink, vehicle drop arm barriers; passive anti-ram barriers; and jersey barriers placed in serpentine pattern to prevent high speed vehicle entry into compound. Provide a rejection lane after vehicle inspection and before entering the compound.
- 4.6.4 Guard Towers: The Contractor shall design and construct a total of 12 Guard towers which shall have a minimum of 3m x 3m in size. The design drawings are provided as **Appendix T**. The

guard tower shall be constructed so that there are no obstruction views in any direction. The guard tower shall have a metal door and horizontal sliding windows with metal window frame. Glazing for the windows shall be a 16mm thick laminated glass. Windows shall be located on all 4 sides to provide a 360 degree viewing area. Windows shall not be screened. Guard Tower shall have a split pack AC unit, general lighting, one 360-degree omni-directional searchlight, one weather-resistant duplex receptacle. For communications, provide two RJ-45 phone jacks with Category 5e cable back to the Communication Building. 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
- zenon lamp
- weatherproof design

#### 4.7 ROAD NETWORK AND SITE ACCESSORIES

The Contractor shall design the entire road and parking network in the Master Plan. The roads shall be designed to carry traffic of a 7.5 ton vehicle. A storm drainage system shall be incorporated. The road layout shall provide access to entry control points, buildings, parking lots, fuel points, generator yard, domestic water and wastewater treatment plant facilities, power generator plant and solid waste collection points. Sidewalks are required from building to roads and between buildings designed in a way logical to the needs of pedestrians. The Contractor shall construct the entire road, parking, and walkway network finished **with compacted aggregated gravel** to minimize loss of surface material. The pavement for the road network will be an optional bid item.

**SOLID WASTE COLLECTION POINT:** The Contractor shall design and construct, in proper locations a total of 10 solid waste collection points through out the garrison. The solid waste collection point 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. The solid waste collection point shall have a metal roof covering.

#### 4.8 ACCESS ROAD TO THE GARRISON

The Contractor shall design, construct a site access road of 7KM in length of wearing surface of 7.3 meter wide with 1.0 meters shoulders, graded for proper drainage, provided with necessary drainage measures in accordance with applicable sections of TM 5-822-2 standards, and Ministry of Public Works and Highway Standards. The access road will connect from a major regional road near the city of Farah to the main entrance of the new Farah Garrison. High erosion areas such as shallow drainage ditches and wadi crossings shall be armored with a hard surfaced crossing such as an at-grade concrete crossing structure. Erosion prevention structures shall be constructed in slide and flood areas to prevent road blockage and wash-out.

Pavement surface should consist of 150mm thick compacted aggregate base course material compacted to 95% maximum density placed above 150mm of scarified sub-grade compacted to 95% maximum density with proper drainage. Provide 1.0 meter wide, aggregate base shoulder 150mm thick @ 2.0% slope on both sides of the roadway.

### 5 BUILDINGS AND FACILITY COMPLEX

The contractor is required to provide **innovative method** to construct the garrison in the most economic and efficient way without compromising the quality and timeliness. The contractor is to propose and decide the structure system and construction methods as long as the basic requirements specified in this RFP are met. For example, pre-engineered building system, site manufactured panel system, 3-D Wall Panel System used in other projects previously, and other creative construction methods fitting for the local situation are encouraged by the government in order to reduce cost and increase efficiency.

The toilet/shower facilities shall be located with toilets facing North/South away from Mecca, for cultural reasons. Do not provide urinals for cultural reasons in ANA Camp. Toilet shall be eastern style for ANA facilities, western style for ETT, and half western half eastern for interpreter Barrack.

## 5.1 ETT BARRACKS

The Contractor shall design and construct barracks with a plan shown in **Appendix C**.

The Contractor shall incorporate the following features into the barracks:

- 1) Provide 4 power outlets in each room.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation. Shatter-proof film shall be applied to the windows.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in each room with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet/shower rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings. Toilet facilities shall be built separately for men and women (80% Men and 20% Women)
- 10) Each barracks facility shall include a laundry room with utilities to support the installation of eight commercial washers, minimum 30 pounds capacity and eight commercial dryers

## 5.2 ETT DFAC

Facility shall be a western style kitchen for the combined ETT and Interpreter forces in the compound, the floor plan is attached in **Appendix D**. Stoves and ovens shall be commercial propane. This facility shall provide cafeteria-style feeding and a short order grill next to a heated serving line w/sneeze guard 8 meter length min. Provide an adequate grease trap with clean out to collect discharge from the kitchen area prior to discharging into the sewer system.

- 1) Provide a dining area, storage and office, toilets, and kitchen per **Appendix D**.
- 2) Provide gas fired cooking stoves. Provide a ventilation system (hood) over stoves that is capable of preventing smoke and steam generated during cooking from entering other areas.
- 3) All floors in buildings shall be slip-free ceramic tiles. Floor drains shall be incorporated in the dining areas with the floor sloped to drain. Walls in kitchen area and toilet room shall be finished with

ceramic tiles and ceilings with gloss water-resistant paint. Walls and ceilings in other areas are flat paint finish.

- 4) Provide at least 4 floor drains in Kitchen common area. A grease trap shall be installed to prevent undesirable discharge into the sewer system.
- 5) Provide one walk-in cooler and one walk-in freezer of no less than 16 M<sup>3</sup> each. Provide other electrical outlets for other mobile refrigerators/freezers and cooking equipments.
- 6) Provide 10% exterior area for window with double insulated glass glazing. Shatter-proof film shall be applied to the windows.
- 7) Provide a depressed door mat for mud removal at the entrance.
- 8) Provide evaporative cooling and heat pump AC system for the dining facility.
- 9) Provide one large pot washing sink with a low rim/curb height, one two compartment sink, one three-compartment sink, and one mop sink at the cooking and preparation area. Provide one two-compartment sink at rough preparation area. Provide hot water to kitchen sinks, hand wash stations, and the shower unit through electric water boiler(s).
- 10) Provide Propane Storage shack with capacity for four (4) weeks operation. Install a canopy and partition to protected propane tanks used for stoves at connection point exterior to the building.
- 11) Provide at least one pair of RJ45 outlets (for telephone and data) in the office, with wires connected to the connection point at exterior of the building which will be connected to the Communication Building.
- 12) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

### 5.3 ETT MWR

ETT MWR floor plan is attached as **Appendix E** The Contractor shall incorporate the following features into the ETT MWR:

- 1) Provide power outlets in walls no more than 4 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation. Shatter-proof film shall be applied to the windows.

- 8) Provide two pair of RJ45 outlets (for telephone and data) in each room with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

#### **5.4 ETT INTERPRETER BARRACKS**

The Contractor shall design and construct barrack building shown in **Appendix F**.

The Contractor shall incorporate the following features into the barracks:

- 1) Provide 4 power outlets in each room.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation. Shatter-proof film shall be applied to the windows.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in each room with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet/shower rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.
- 10) Each barracks facility shall include a laundry room with utilities to support the installation of eight commercial washers, minimum 30 pounds capacity and eight commercial dryers

#### **5.5 ETT CAMP PERIMETER WALL GATES AND ACCESSARIES**

ETT Camp perimeter walls consist of stone walls or HESCO with one entry control point, which shall include, a 6 m<sup>2</sup> guard house, vehicle drop arm barriers; passive anti-ram barriers; and jersey barriers placed in serpentine pattern to prevent high speed vehicle entry into compound. The Camp shall not be visible from the entry point protected by walls. The perimeter dimension shall be minimum 100mx100m.

Provide 2 collection points for solid waste storage.

#### **5.6 BARRACK BUILDING TYPE A & B**

The Contractor shall design and construct Type A barracks and Type B barracks shown in Appendix G and H

The Contractor shall incorporate the following features into the barracks:

- 1) Provide 6 ceiling fans and 48 power outlets evenly located in the large open rooms in each barrack building.
- 2) At least one power outlets every 4 m.
- 3) Concrete stoops shall be provided at all exterior doors.
- 4) Wall mounted electric forced air AC unit shall be used to maintain a minimum temperature of 18 degree Celsius during winter and 30 degree Celsius during Summer .
- 5) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 6) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 7) The floor is smooth concrete finished with gray colored floor paint.
- 8) Provide 10% exterior area for window with double insulated glass glazing for light and ventilation.
- 9) Flat ceilings shall be located 3m above finish floor. Sloped ceilings shall be located at an average height of 3m above finished floor, with the lowest point no less than 2.6m above finished floor.
- 10) Provide four pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 11) Toilet/shower rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.
- 12) Provide a 2 m<sup>2</sup> closet space in each barrack building.

## 5.7 LATRINE SHOWER ABLUTION FACILITY

The Contractor shall design and construct a toilet, shower, abluion building and the conceptual floor plan is attached in **Appendix I**. The Contractor shall incorporate the following features into the building:

- 1) All sinks shall be trough type constructed of block and concrete with ceramic tile exterior and lining capable of withstanding abuse.
- 2) Shower stalls shall be large enough to allow room to dress and undress between an outer and inner shower curtain and shall have a solid door on the outside.
- 3) All toilets shall be eastern style with wall-mounted hose bib on the right side of the occupant as he faces the stall door. Urinals are not required. Face all toilets in the North/South axis for cultural reasons.
- 4) Drainage for the entire facility shall be accomplished using a sloping floor leading to trench drains.
- 5) Showers shall contain a single mixing valve for hot and cold water mixing and a wall mounted shower head.

- 6) Electric hot water heaters shall be installed to provide hot water to the showers, ablution, and sinks.
- 7) 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.
- 8) All water lines inside of the building shall be galvanized steel and surface mounted... All hot water and cold water piping shall be insulated and provided with stainless steel protective covers.
- 9) Accessories shall include soap dishes, curtain rods, robe hooks, metal shelf.
- 10) Electric split unit will provide heating and cooling capacity to maintain to maintain a minimum temperature of 18 degree Celsius during winter and 30 degree Celsius during Summer.
- 11) All floors will be finished using ceramic tiles and all walls will have ceramic tile wainscots extending 2.0 m above the finish floor.
- 12) The lowest ceiling height shall be no less than 3.3m above finished floor.
- 13) The partition for the toilets and showers can be any durable and tamper-resistant opaque material with less thickness considered better.

## 5.8 DFAC NUMBER #1 COMPLEX

The contractor shall construct a new Dining Facility (DFAC), design drawing package of this building will be provided for construction to successful Contractor. The floor plan is attached in **Appendix J**. General requirements as follows:

- 1) The contractor can re-design and select structure and construction method different from what the government provided.
- 2) All structural members shall have a fire resistance of at least 1 hour corresponding with construction type 2A as defined in the International Building Code.
- 3) Provide evaporative Cooling and heat pump AC unit for cooling and heating.
- 4) All floors in building shall be slip-free ceramic tiles, except utility and storage type rooms. The dining area shall have the floor sloped to 4 floor drains.
- 5) One collection point suitable for solid waste disposal temporary storage area adjacent to the DFAC.
- 6) Hand wash stations in the entry vestibule shall be provided. Trough type sinks shall be used.
- 7) 6 Floor drains shall be installed in the kitchen cooking and dishwashing areas.
- 8) Install a large wash basin with a low rim height designed for washing very large pots. Two two-compartment sink, two three-compartment sink, and one mop sink at the cooking and preparation area. Provide one two-compartment sink at preparation area. Provide hot water to kitchen sinks, hand wash stations, and the shower unit through electric water boiler(s).
- 9) The Contractor shall provide space and electrical outlets for future installation of walk-in refrigerators and walk-in freezers.

- 10) Dining Facility Propane Storage- Provide Propane Storage for four (4) weeks operation assuming all stoves are in operation at the highest fuel consumption rate.
- 11) The stoves are a commercial grade propane type appliance.
- 12) Walls in kitchen shall be ceramic tile up 2 meter above floor and the cooking area shall be ceramic tile to the ceiling.
- 13) The Contractor shall provide walk-in cooler and walk-in freezer each with no less than 20 M<sup>3</sup>.
- 14) Kitchen ventilation design shall be in accordance with NFPA 92A, NFPA 96, NFPA 204, NFPA 211, and other standards listed in this document as appropriate.
- 15) Cooking area shall be provided canopy type exhaust-only kitchen hoods and associated exhaust fans. These exhaust hoods shall include baffle type aluminum filters to trap grease/oil. The exhaust fan sizing calculations should recognize the use of propane burning stoves in the kitchen, and that there will be excessive steam and moisture loading due to the use of large pots on this type of stove.
- 16) Motorized dampers shall be provided to change outdoor/return air mix and to allow summer/winter operation. Exhaust ventilation in the Kitchen area shall be provided with roof or wall mounted centrifugal exhaust fans.
- 17) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2 m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

## 5.9 BATTALION HQ BUILDING

The battalion HQ building floor plan is attached as **Appendix K** The Contractor shall incorporate the following features into the design and construction of the building:

- 1) Provide power outlets in walls no more than 3 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in each room with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.

- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

### 5.10 ANA LAUNDRY FACILITY

The contractor shall design and construct 150 SM ANA laundry building to host 10 commercial washer and 10 commercial dryers, a walking area and a counter, one toilet room, one storage for dirty clothes and one storage for clean laundry.

- 1) Provide power outlets in walls no more than 4 m apart and utilities for the dryers and washers.
- 2) Provide 5 deep-well sinks and 5 local clothes ringers for extreme dirty clothes.
- 3) Concrete stoops shall be provided at all exterior doors.
- 4) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer. Good ventilation system.
- 5) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide one pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.

### 5.11 BATTALION STORAGE BUILDING

Construct Storage Building with the plan shown in **Appendix L**. Design shall be for open bay facilities, Provide office with 52 inch ceiling fan and an AC unit. Provide two roll up doors. Building shall have 5 meter high unobstructed space. Provide bollards at all vehicle doors, two each jamb.

- 1) Provide power outlets no more than 4 m apart in the walls.
- 2) Wall mounted electric forced air AC unit shall be used to maintain a minimum temperature of 18 degree Celsius during winter and 30 degree Celsius during Summer .
- 3) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 4) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 5) The floor is smooth concrete finished with gray colored floor paint.
- 6) Provide 10% exterior area for window with double insulated glass glazing for light and ventilation.

- 7) Provide 4 pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 8) Provide a special Arms Storage Area shall have three equal separate spaces with walls and heavy duty metal doors and framed lockable door to each 8 RPGs, 8 Machine Guns, and all long-arm weapons for each person assigned to both the Battalion and Company.

### 5.12 BOQ TYPE B

The Contractor shall design and construct Type B BOQ as shown in **Appendix M**.

The Contractor shall incorporate the following features into the BOQ:

- 1) Provide 4 power outlets in each room.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain a minimum temperature of 18 degree Celsius during winter and 30 degree Celsius during Summer .
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint.
- 7) Provide 10% exterior area for window with double insulated glass glazing for light and ventilation.
- 8) Provide 4 pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet/shower rooms shall be finished with ceramic tile for floor and wall areas 2 meters above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

### 5.13 BOQ TYPE A

The Contractor shall design and construct Type A BOQ as shown in **Appendix N**.

The Contractor shall incorporate the following features into the BOQ:

- 1) Provide 4 power outlets in each suite.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfortable temperature for summer and winter.

- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor in living space is smooth concrete finished with mid-grade carpet.
- 7) Provide 10% exterior area for window with double insulated glass glazing for light and ventilation.
- 8) Provide one pair of RJ45 outlets (for telephone and data) in each suite with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet/shower rooms shall be finished with ceramic tile for floor and wall areas 2 meters above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

#### **5.14 BRIGADE HQ BUILDING**

The Brigade HQ building floor plan is attached as **Appendix O** The Contractor shall incorporate the following features into the design and construction of the building:

- 1) Provide power outlets in walls no more than 3 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide one pair of RJ45 outlets (for telephone and data) near each power outlet with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2 meters above floor, and paint of gross water-resistant finish for rest walls and ceilings.

#### **5.15 GARRISON HQ BUILDING**

The Garrison HQ building floor plan is attached as **Appendix P** The Contractor shall incorporate the following features into the design and construction of the building:

- 1) Provide power outlets in walls no more than 3 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.

- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in each room with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

#### **5.16 COMMUNICATION BUILDING AND COMMUNICATION SYSTEM**

The Communication building floor plan is attached as **Appendix Q**. The Contractor shall build the building shell for the central communication function and incorporate the following features into the design and construction of the building:

- 1) Provide power outlets in walls no more than 3 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC units shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.
- 9) Floor depression and special power requirement shall be determined at a design charrette.

The communication cable system for the Garrison is **not included this contract** and it will be designed and installed under another contract.

#### **5.17 MOTOR POOL COMPLEX**

The Contractor shall design and construct a motor pool gravel holding area of 150m x 150m, and a maintenance garage shall be included.

- a. After leveling, grading, and compacting the holding yard, the contractor shall overlay the entire graded area with 15cm of compacted 25mm gravel/crush stone.
- b. Construct 2.4 meter high chain link fence with barbed wire and vehicle gates surrounding the vehicle holding yard. The contractor shall install barbed wire on supporting arms above the fence posts.
- c. Construct entry control points each consisting of a vehicle gate and a pedestrian gate. Extend each end member of the gate frames sufficiently above the top member to carry three strands of barbed wire in horizontal alignment.
- d. The contractor shall construct one three bay vehicle maintenance facility with plan provided by **Appendix R**, Ground slab for garage shall be 300 mm thick to support seven ton vehicles. All concrete shall be reinforced with deformed steel rebar. Provide garage doors measuring at least 4.5 meter in height and 3 meter in width.
- e. A proper drainage plan shall be incorporated into the maintenance building and exterior concrete finish which shall both slope away from the facility. There shall be a sub-base course installed and compacted to 95% compaction prior to pouring any concrete.
- f. Provide at least one pair of RJ45 outlets (for telephone and data) at each power outlet location in offices, with wires connected to one central location in the building convenient for service connection. Provide a toilet, a sink and a shower unit inside the building.
- g. Provide HVAC split unit to the office and toilet room.
- h. Provide a POL storage building according to Appendix R, which is located at least 10m away from the building and is securely lockable.
- i. Provide two bollards located at each side of the entrances to the rollup door.
- j. Preferred building type is pre-engineered metal assembly.
- k. A maintenance pit shall be provided with steps into the pit. The Pit shall not be more than 100mm in width and to have concrete safety curbs.
- l. Provide an exhaust fan system for maintenance bay to provide adequate ventilation for vehicle exhaustive fume.

#### VEHICLE REFUELING POINT

The Contractor shall provide for a total capacity of 40,000 liters of diesel storage and 10,000 liters of MOGAS storage; complete with concrete containment dike (if applicable), power, and dispensing pumps. The tank systems shall be a pre-engineered fully assembled fuel storage package. Provide reinforced concrete pad suite for this application.

- The fueling area shall have a metal roof awning covering it;
- Fuel point facility shall be enclosed by a chain link fence, with one lockable vehicle gate (Entry and exit gates for use by large refuel trucks).
- An 8 SM building shall be used by the operator and located near the exit gate of the Fuel Point Facility.

- The Fuel Point Facility shall be paved with a compacted crushed aggregate surface sloped for proper drainage;
- Reinforced concrete slab adjacent to the fueling point, where vehicles can park while fueling, with a minimum 1% slope in three directions and 150mm curb along the slab on the sloped side to contain fuel spills;
- Reinforced concrete slab where tanks will be placed to suite this application.
- Bollards to protect the tanks from vehicles;
- Provide electrical service to the tank units as per the manufacturer's recommendations;
- The system shall include two diesel dispensers with dual hoses and one gasoline dispenser with dual hoses;
- All tanks shall be factory pre-wired; meeting UL Standards 142 and 2085, and UFC Appendix IIF.

### **6.1 ANA MWR FACILITY**

ANA MWR floor plan is attached as **Appendix E** The Contractor shall incorporate the following features into the ANA MWR:

- 1) Provide power outlets in walls no more than 4 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

### **6.2 BUNKERS**

Provide Concrete Personnel Bunkers through out compound; with seating for 600 persons. Site and grade so water cannot stand inside bunkers. Provide 150 mm base course of gravel under sandbags.

### **6.3 ANTI VEHICLE TRENCH**

Provide an anti-vehicle trench (3 meters wide X 2 meters deep) around perimeter fence and walls. Ditch shall be adjacent to all force protection fences and walls. Ditch shall be 5 meters from perimeter fences and walls. Design anti-vehicle trenches to drain and not hold water after rainfall.

### **6.4 ROAD PAVING**

Pave the road in accordance with the design criteria described in this Section and in Section 1015. The Applicable design provision of TM 5-822-5 The asphalt pavement surface shall have a smooth transition

to any existing and proposed concrete culvert with and asphalt pavement surface constructed on top of the concrete.

The item for paving access road is to pave the entire 7 KM access road with asphalt.

The item for paving the roads in the Camp includes: Asphalt paving for all vehicle access roads and parking spaces, and concrete paving for all sidewalks and walkways.

## 6.5 RECEPTION BUILDING

Reception building floor plan is attached as **Appendix S**. The Contractor shall incorporate the following features into the facility:

- 1) Provide power outlets in walls no more than 4 m apart.
- 2) Concrete stoops shall be provided at all exterior doors.
- 3) Wall mounted electric forced air AC unit shall be used to maintain comfort in winter and summer.
- 4) Maintain a building envelop of R-13 wall insulation, R-30 roof insulation, double insulated windows, and insulated metal doors.
- 5) Select the optimal construction method proved to be economic, durable, and fast-erecting.
- 6) The floor is smooth concrete finished with gray colored floor paint, walls and ceilings flat paint finish.
- 7) Provide at least 10% exterior area for window with double insulated glass glazing for natural light and ventilation.
- 8) Provide two pair of RJ45 outlets (for telephone and data) in the building with wires connected to central location in the building and a connection point to the exterior of the building which will be able to link to the communication system in the garrison.
- 9) Toilet rooms shall be finished with ceramic tile for floor and wall areas 2m above floor, and with paint of gross water-resistant finish for rest walls and ceilings.

## 7 GENERAL NOTES AND CRITERIA

7.1 If there is conflict between Section 01010 and Section 01015, Section 01010 takes precedence.

7.2 Design and Construct circulation pathways and exit 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.

7.3 All work required under this contract shall be completed within 300 calendar days from Notice to Proceed. Review Section 00150 for Schedule requirements.

7.4 Following facilities shall have three flag poles for the Peoples Islamic Republic of Afghanistan and the United States of America: DFAC #1 and #2, Brigade and Garrison HQ Buildings.

### EXAMPLE: MARKING (NOT TO SCALE)



At the base of the flag pole a marble plate shall show following:

از طرف دولت امریکا  
برای مردم افغانستان

From the People of the United States  
to the People of Afghanistan  
In 2008

-- End of Section --

(End of Summary of Changes)