SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. W5J9LE-11-R-0069	2. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED *(RFP)*	3. DATE ISSUED 12-Aug-2011	PAGE OF PAGES 1 OF 60

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO. O&M 10-0097A

7. ISSUED BY CODE W5J9LE	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE
AFGHANISTAN DISTRICT SOUTH (AES) US ARMY CORPS OF ENGINEERS APO AE AFGHANISTAN TEL: FAX:	**See Item 7** TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME BERNARD V MORA	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*

SOLICITATION

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

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

Adraskan Electrical Upgrades

O&M 10-0097A Andraskan Electrical Upgrades

The Government intends to award one Firm Fixed Price contract for the design and installation of an electrical system for the Afghanistan National Training Center in Herat Province, Adraskan, Afghanistan.

This award will be made on the basis of lowest price technically acceptable to the responsible prospective contractor whose proposal is responsive to the solicitation requirements.

The magnitude of this construction project is estimated between $500,000.00 and $1,000,000.00

See instructions to offerors in Section 00100 for details.

The point of contact for this solicitation is Mark Jones. For any questions, email mark.t.jones@usace.army.mil

11. The Contractor shall begin performance within 10 calendar days and complete it within 180 calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* FAR 52.211-10 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [ ] YES [X] NO	12B. CALENDAR DAYS

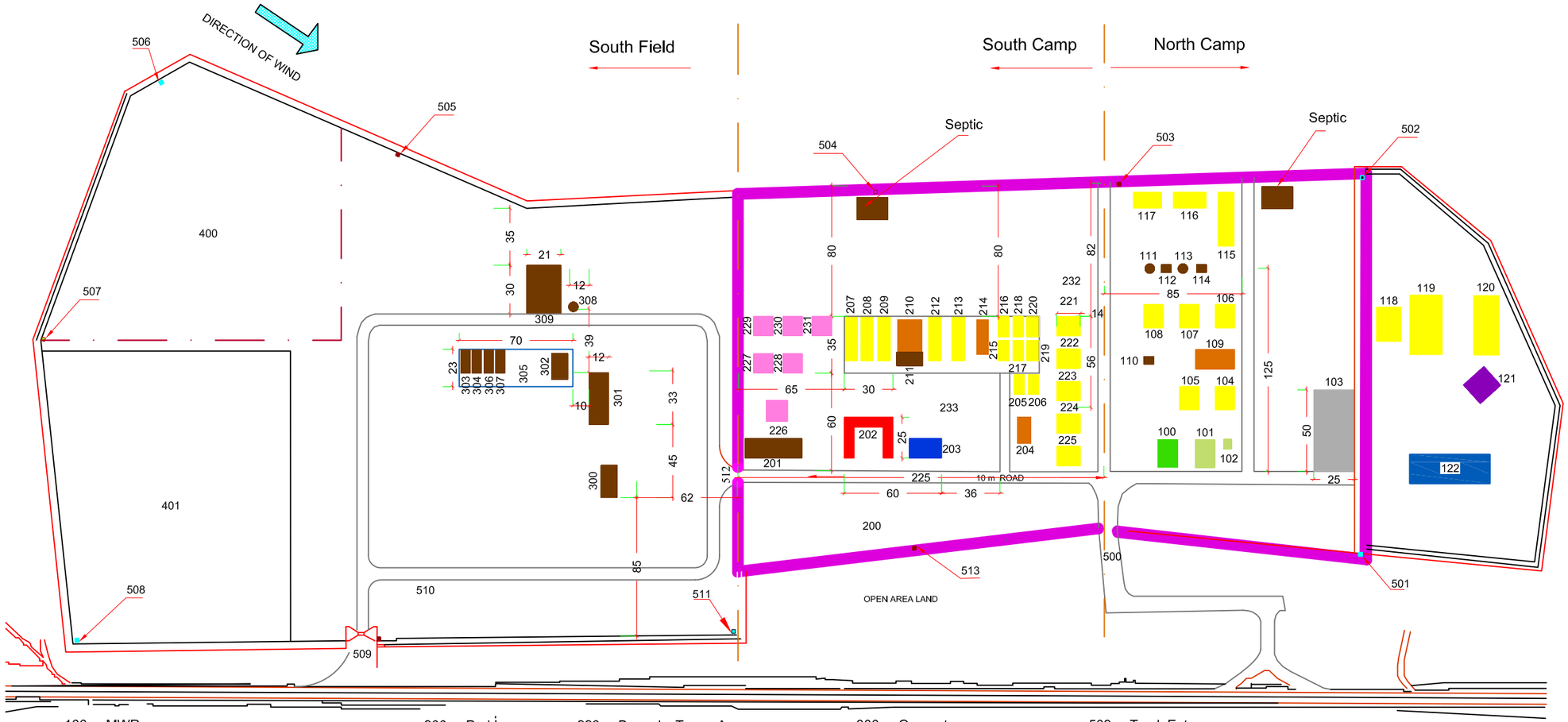
13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM *(hour)* local time 27 Aug 2011 *(date).* If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [ ] is, [X] is not required.

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

D. Offers providing less than 120 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.



100	MWR	200	Parking	223	Barracks Type - A	300	Generator
101	Weapons Cleaning	201	Laundry	224	Barracks Type - B	301	K-span (existing)
102	Weapons Storage	202	Admin	225	Barracks Type - B	302	K-span (new)
103	Helipad	203	Clinic	226	IT.Training	303	Storage
104	Barracks Type - C	204	DFAC	227	Classroom	304	Storage
105	Barracks Type - C	205	Barracks	228	Classroom	305	Open Storage
106	Barracks Type - C	206	Barracks	229	Classroom	306	Storage
107	Barracks Type - C	207	Barracks	230	Classroom	307	Storage
108	Barracks Type - C	208	Barracks	231	Classroom	308	Water Tower
109	DFAC	209	Barracks	232	UG Water Tank	309	Fuel Depot
110	Laundry	210	DFAC	233	Parade Ground		
111	Water Tower	211	Store				
112	Water Purification System	212	Barracks			400	Small Arms Firing Range
113	Water Tower	213	Barracks			401	Driving Course
114	Generator Pad	214	DFAC				
115	Barracks	215	Barracks			500	Main Entry
116	Barracks	216	Barracks			501	Guard Tower
117	Barracks	217	Barracks			502	Guard Tower
118	Barracks (future)	218	Barracks			503	Guard Tower
119	Barracks (future)	219	Barracks			504	Guard Tower
120	Barracks (future)	220	Barracks			505	Guard Tower
121	Mosque (existing)	221	Barracks Type - A			506	Guard Tower
122	ANP Station (existing)	222	Barracks Type - A			507	Guard Tower
						508	Guard Tower

509	Truck Entry
510	Guard Tower
511	Guard Tower
512	South Security Gate
513	Guard Tower

LEGEND

Guard Tower	Clinic	Barracks
Classrooms	Office	New Perimeter Wall
Exis.Build.	Support	IT.Training
Existing Roads	DFAC	New Guard Tower
MWR	Armory	Helipad

0 25m 50m 100m 200m

NOTE: ALL DIMENSIONS ARE IN METERS

Do not scale drawing
Dimensions provided supercede others

SCALE: 1:3000
DATE: Apr.2007
FIGURE: P12. Adraskan

AFGHAN NATIONAL SECURITY FORCE
Comprehensive Plan for Facilities Development

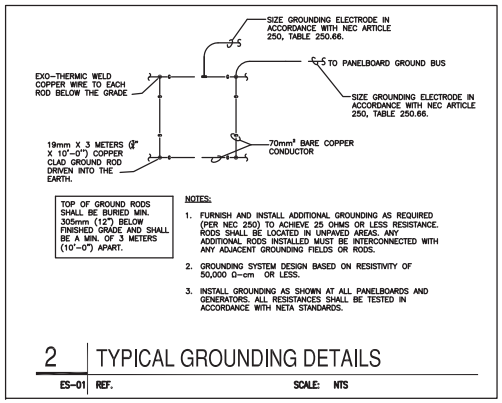
Adraskan Training Facility,Herat RTC
Conceptual Master Plan

MACTEC
MACTEC Engineering and Consulting, Inc.
3200 Town Point Drive,
Suite 100 Kennesaw,
Georgia 30144
Phone (770) 421-3400
Fax (770) 421-3488

REVISION : 4
DESIGNED : Nasruddin Marouf
DRAWN : Nasruddin Marouf
CHECKED: Howarth / Hardesree
IN CHARGE: Wheeler
PROJECT: 6311-06-0060

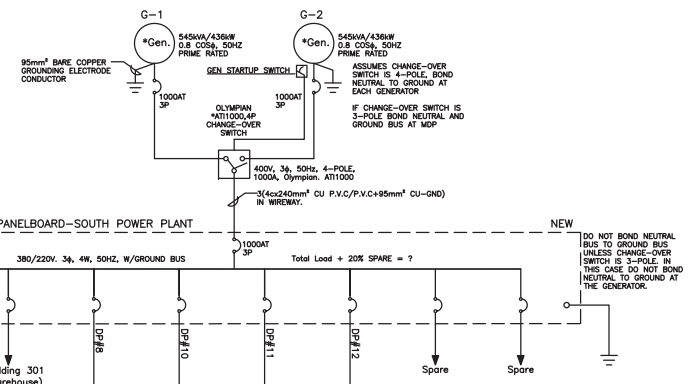
FOR OFFICIAL USE ONLY

C: Documents and Settings ANSF_7 Desktop Doc's BOOK 1 ANCOP Training Adraskan-Final ANCOP Adraskan (Hirat)4-Final-1.dwg 12/17/2007 9:36am ANSF_7



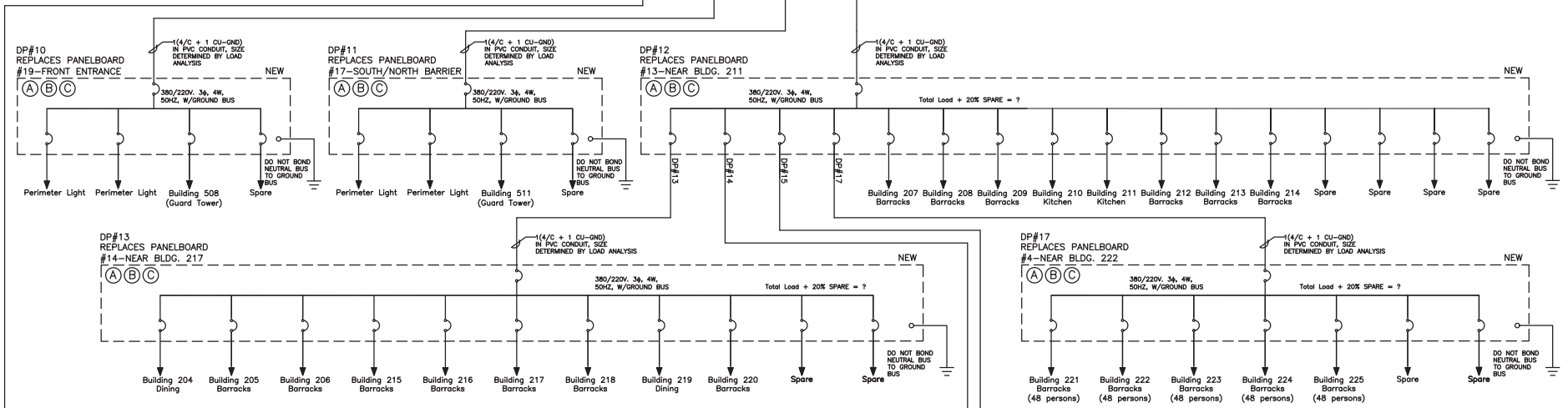
2 TYPICAL GROUNDING DETAILS

ES-01 REF. SCALE: NTS



GENERAL NOTES:

1. THE MAIN DISTRIBUTION PANELBOARD SHALL BE RATED FOR 380/220VAC, 50HZ, 35 kAIC/0.5sec.
2. ALL PANELBOARDS SHALL BE RATED FOR 380/220VAC, 50HZ, 25 kAIC/0.5sec.
3. ALL PANELBOARDS SHALL BE EQUIPPED WITH SURGE PROTECTION DEVICES (SPD'S).
4. A GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED AT EACH REMOTE BUILDING AND SHALL BE TESTED IN ACCORDANCE WITH NETA. ALL TEST RESULTS SHALL BE VERIFIED.
5. ALL CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 70 (NEC), 2008, TABLE 310.16.
6. IN ADDITION TO AMPERE RATINGS, CONDUCTOR SIZES SHALL BE DETERMINED BY MINIMIZING VOLTAGE DROPS. THE MAXIMUM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET SHALL NOT EXCEED 5%.
7. BRANCH CIRCUIT AND FEEDER CALCULATIONS SHALL BE CALCULATED IN ACCORDANCE WITH NFPA 70 NEC, ARTICLE 220.
8. ALL ELECTRICAL PANELBOARDS SHALL BE SIZED WITH 20% SPARE CAPACITY.
9. ALL PANELBOARDS SHALL BE EQUIPPED WITH INTEGRAL MAIN OVERCURRENT PROTECTION. PANELBOARDS SHALL NOT BE MAIN LUG ONLY.
10. ALL UNDERGROUND CIRCUITS SHALL BE BURIED A MINIMUM OF 610mm (24") BELOW GRADE.
11. ONLY ONE CIRCUIT SHALL BE CONNECTED TO A CIRCUIT BREAKER.
12. ALL CIRCUITS SHALL HAVE GROUNDING CONDUCTORS.
13. ALL BUILDINGS SHALL BE EQUIPPED WITH MAIN OVERCURRENT PROTECTION. FOR BUILDINGS WITH MORE THEN ONE ELECTRICAL PANEL (EX. BUILDING 221, 2-STORIES) A MAIN BREAKER ALONG WITH AN INDIVIDUAL BREAKER FOR EACH FLOOR PANELBOARD SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING.
14. **THIS ONE-LINE ATTEMPTS TO ACCOUNT FOR ALL LOADS. IT IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR TO ACCOUNT FOR ALL LOADS IN DEVELOPING THE FINAL PANELBOARD SCHEDULES. ALL PANELBOARDS AND FEEDERS THROUGHOUT THE INSTALLATION SHALL BE REPLACED WITH APPROVED AND RATED EQUIPMENT. NO EXCEPTIONS UNLESS THE EQUIPMENT IS PROVED TECHNICALLY SOUND BY A QUALIFIED ENGINEER.



BRANCH-CIRCUIT AND FEEDER CALCULATIONS:

1. LIGHTING LOADS FOR ALL BUILDINGS SHALL BE CALCULATED IN ACCORDANCE NFPA 70, NEC, 2008, TABLE 220.12 OR THE CONNECTED LOAD AT 100% DEMAND FACTOR, WHICHEVER IS GREATER.
2. GENERAL USE RECEPTACLES SHALL BE CALCULATED AT 250VA PER SINGLE RECEPTACLE AND 100% DEMAND FACTOR. FOR SPECIFIC APPLIANCE LOADS THE OUTLET SHALL BE CALCULATED BASED ON THE AMPERE RATING OF THE LOAD SERVED.
3. FOR HEATING AND AIR-CONDITIONING EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE MAXIMUM NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND FACTOR.
4. FOR ELECTRICAL WATER HEATERS THE CALCULATED LOAD SHALL BE BASED ON THE NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND.
5. FOR ALL SPECIALTY EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE NAMEPLATE RATING AT 100% DEMAND FACTOR. THIS INCLUDES LAUNDRY EQUIPMENT, KITCHEN EQUIPMENT, PUMPS, ETC., NO COINCIDENT FACTORS SHALL BE APPLIED TO THESE LOADS.
6. 20% SPARE CAPACITY SHALL BE INCLUDED.
7. ALL LOADS SHALL BE CONSIDERED CONTINUOUS AND THEREFORE FEEDERS SHALL BE RATED AT 125% OF CONTINUOUS. THIS VALUE IS AFTER THE EQUIPMENT HAS BEEN PROPERLY DERATED IF APPLICABLE.
8. A DETAILED LOAD ANALYSIS OF THE INSTALLATION SHALL BE CONDUCTED, PRIOR TO COMMENCEMENT OF WORKS.

NOTE:

AN OLYMPIAN ATI 1000A CHANGE-OVER SWITCH IS CURRENTLY USED TO MANUALLY TRANSFER POWER FROM ONE GENERATOR TO ANOTHER. ACCORDING TO THE CURRENT MAINTENANCE PERSONNEL THE GENERATORS ARE CYCLED EVERY 7 DAYS.

NOTE:

1. (W) KILOWATTHOUR METER
2. (V) VOLTMETER
3. (A) AMP METER
4. (A) PHASE A LIGHT
5. (B) PHASE B LIGHT
6. (C) PHASE C LIGHT

1 SOUTH ANTC-NEW SINGLE LINE DIAGRAM

ES-02 REF. SCALE: NTS

FOR INFORMATION ONLY
NOT FOR DESIGN OR CONSTRUCTION

DESCRIPTION	REVISED BY	DATE

DESIGNED
DRAWN
CHECKED
TE GRANGE
M. ANDREWS
DATE
1 NOVEMBER 2009

ADRASKAN NATIONAL TRAINING CENTER

SCALE

PROJECT NO. 200.01

DRAWING NO. ES-01

© Yukon Territory 1970 South One-Line ES-01.dwg 11/04/2009 1:19pm mandrews

NOTE:

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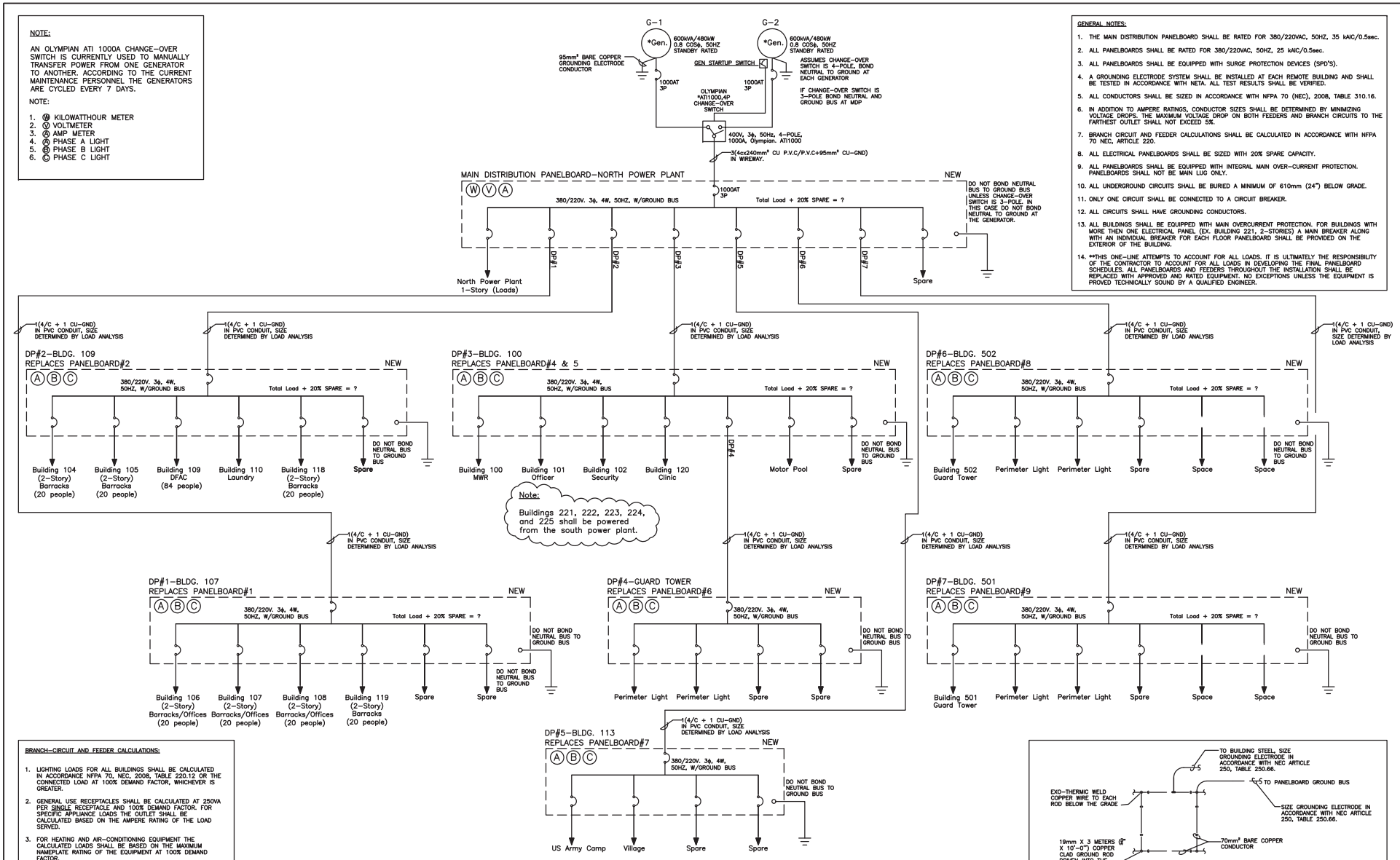

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8. A DETAILED LOAD ANALYSIS OF THE INSTALLATION SHALL BE PERFORMED PRIOR TO COMMENCEMENT OF WORK.

1 NORTH ANTC-NEW SINGLE LINE DIAGRAM

EN–01 REF. SCALE: NTS

TOP OF GROUND RODS SHALL BE BURIED MIN. 305mm (12") BELOW FINISHED GRADE AND SHALL BE A MIN. OF 3 METERS (10'–0") APART.

NOTES:

1. FURNISH AND INSTALL ADDITIONAL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELDS OR RODS.
2. GROUNDING SYSTEM DESIGN BASED ON RESISTIVITY OF 50,000 Ω–cm OR LESS.
3. INSTALL GROUNDING AS SHOWN AT ALL PANELBOARDS AND GENERATORS. ALL RESISTANCES SHALL BE TESTED IN ACCORDANCE WITH NETA STANDARDS.

2 TYPICAL GROUNDING DETAILS

EN–01 REF. SCALE: NTS

FOR INFORMATION ONLY
NOT FOR DESIGN OR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE

DESIGNED
DRAWN
CHECKED
M. ANDREWS
DATE
1 NOVEMBER 2009

ADAKSKAN NATIONAL TRAINING CENTER

SCALE

PROJECT NO.
200.01

DRAWING NO.
EN–01

C:\Users\Mandrews\ANTC North Gen–Line EN–01.dwg 11/04/2009 1:19pm mandrews

Panel No 4, Information for block on panel door

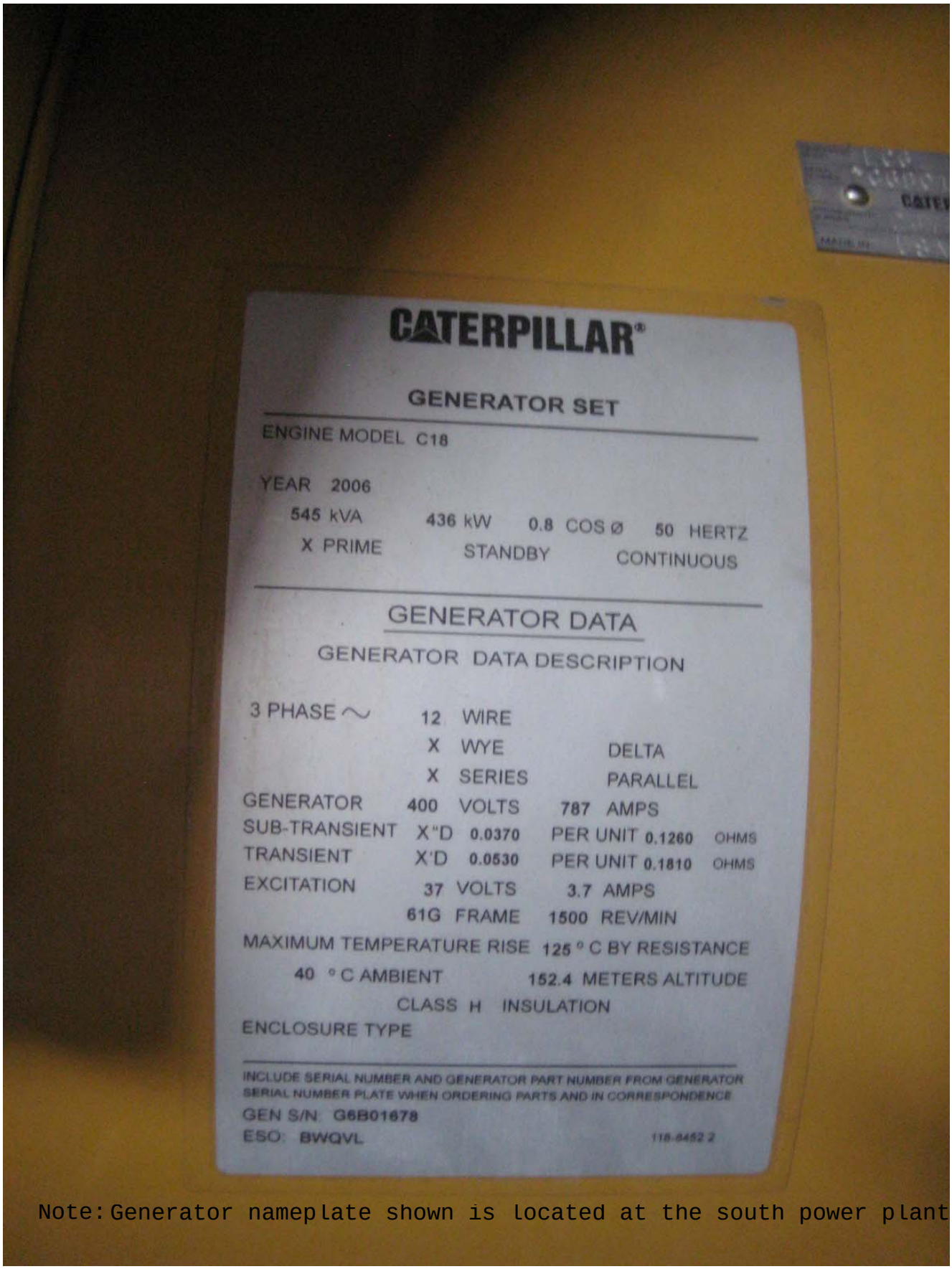
Panel No 13 front view, information


PANEL NO 12
125 A
FED FROM
PANEL NO 10
FED TO 226
227.228.229.230
231.PANEL NO
18


PANEL NO 10
600 AMP
SUPPLIED FROM 300
SUPPLIED TO
PANEL NO 12.13.17
BUILDING NO
201.202.203


205
204


ABB
SACE S3
I
on
O
off



Note: Generator nameplate shown is located at the south power plant

ELECTRICAL REPORT
FOR
AFGHAN NATIONAL CIVIL ORDER POLICE (ANCOP)
NATIONAL TRAINING CENTER
ADRASKAN, AFGHANISTAN
HERAT PROVINCE

Prepared for:

Combined Security Transition Command - Afghanistan
Combined Joint –Engineers

Prepared by:

And

AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT

1 November 2009

1.0 EXECUTIVE SUMMARY

This Report is prepared at your request to provide a summary of opinions and impressions to-date regarding the electrical systems at the Afghanistan National Training Center-Adraskan.

The bases for our recommendations were developed from MACTEC's Engineering Site Visit – October 9, 2009 through October 16, 2009

On October 9, 2009 at your request, Mr. Mark Andrews, Senior Electrical Engineer, P.E., and Mr. Hayat Rahman, Electrical Engineer of the MACTEC engineering staff, traveled to ANCOP-Afghanistan National Training Center, Adraskan, Afghanistan and inspected the electrical systems. Over 100 items were corrected during our site visit in conjunction with HEB International's electrical team and management. Electrical items which were repaired ranged from lamp replacement to breaker replacement.

In our recommendations we relied upon various codes, standards, regulations, ordinances, product data, manufacturers' materials, various editions of the National Electrical Code NFPA 70 (NEC), NFPA 70B, NFPA 70E, NFPA 921, IEEE, UL, DIN, IEC, BS, IES and other similar reference materials.

The POC for this study is Mark Andrews. I can be reached at MAANDREWS@MACTEC.com or Roshan Cell 0794-013-707 (Kabul).

1.1 Objectives

1. Review the Electrical Systems

   Review the electrical systems from the power generator plants to the outlets in the ANCOP compound for safety and operability.

2. Develop a Scope of Work for Electrical Repairs

   Develop a list of electrical items which require repair or replacement. The recommended electrical corrections have been developed in both narrative and schematic. Neither the drawings nor the narrative represent the entire scope of work, it is the responsibility of the contractor to examine each building and repair or replace electrical equipment in order to meet the intent of this report. The NFPA 70, NEC will be the bases for the electrical installations. In developing the load analysis for the compound all calculations shall begin at the load and shall be comprehensive. No work shall commence until the load analysis is complete and both single-line and plan drawings are completed.

1.2 Results

1. Electrical Issues

Mark Andrews, P.E. Senior Electrical Engineer and Hayat Rahman, Electrical Engineer conducted an examination of the installation. The following major issues were found:

- Incorrect distribution of power at the North and South power plants.
- Feeder circuits installed without grounding conductors and improper bonding at remote electrical equipment.
- Panelboards installed without feeder grounding conductors and without means to return fault current back to the source via a low impedance path. No verification that grounding electrode systems were tested.
- Potential difference of 70VAC found between neutral and grounding conductors at several locations.
- Improper location and size of overcurrent protection. Some circuit breakers are double tapped and overloaded. Many of the electrical panel boards appear to be secondhand and/or of inferior quality.
- Splices made within surface nonmetallic raceways and visible signs of past fires.
- Installation of inferior quality electrical equipment, specifically: light fixtures, panel boards, circuit breakers, receptacles, and switched receptacles.
- Improper installation of circuits for water dispensers.
- Failure to install ground fault protection for receptacles in areas exposed to moisture and personnel.
- Lack of manufacturer's documentation for electrical panels, light fixtures, receptacles, circuit breakers, etc.
- Poor workmanship in almost all installations, several self-extinguished fires were found within the installations. Poor workmanship leads to shortened life span of installations and hazardous conditions.
- Failure to install proper grounding at remote panel boards includes electrode conductors exposed and laying on the surface of the ground.
- Failure to install lighting fixtures correctly throughout the installation, exposed electrical wiring was found repeatedly.

- Failure to size and terminate conductors properly.
- Short circuits and considerable damage found at panel boards, inferior quality panel board construction.
- Failure to utilize proper electrical raceway and fittings, utilized plumbing fittings for some electrical installations.
- Failure to properly seal electrical enclosures.
- Failure to install underground feeders at proper depth.
- Inconsistent manufacture of electrical overcurrent devices, no verification devices are OEM.

1.3 Recommendations

General Electrical and Architectural:

- Design and install an electrical system with all equipment including main distribution panels, feeders, conduit, branch circuit panel boards, and other items required for the installation. Replace existing electrical devices including light fixtures, fixture lamps, light switches, receptacles, distribution panels, branch circuit panel boards, conductors, junction boxes, conduit, grounding, and other items in order to meet the intent of the electrical codes and this report. All electrical, both interior and exterior, shall be calculated and installed per the National Electrical Code, construction specifications, and the attached new conceptual electrical drawings. The attached drawings are for concept only and do not include all loads, it is the responsibility of the contractor to perform a detailed site analysis in order to account for all loads. All circuits will have resettable circuit breakers. Conduit will be used to protect all internal wiring. All interior fixtures and conductors shall be installed directly to the surface of walls and/or ceilings, except where noted. The contractor shall be responsible for patching and sealing all incidental damage to walls and floors caused by the new electrical installation. Conflicts between criteria and local standards shall be brought to the attention of the Project Engineer for resolution. All available information shall be furnished to the Project Engineer for approval.
- Install new site electrical feeders throughout the installation. Feeders shall be sized in accordance with NFPA 70, NEC. All feeders shall be equipped with a grounding conductor. Feeders shall be installed in accordance with the NEC and shall not be placed less then 600mm below grade. Feeders shall be installed in a minimum of schedule 40 PVC conduit with approved fittings, primer, and cement. The routing of feeders shall be provided in a detailed electrical site plan drawing prior to installation.

- Unless noted otherwise, all material used shall be in compliance with the requirements of the applicable UL, IEC, or German (DIN) Standards. In the event that IEC or DIN Standard materials are unavailable, contractor may then select comparable British Standard (BS). Material and equipment installed shall be for the appropriate application. All materials and equipment shall be a standard product of a manufacturer regularly engaged in the manufacture of the product and shall essentially duplicate items that have been in satisfactory use for at least two years.

- Install new main distribution switchboards at each of the power plants. Both switchboards shall be sized in accordance with the calculated demand loads. An ammeter, voltmeter and kilowatt-hour meter will be provided at each switchboard, to monitor energy usage, with a selector switch provided for reading all three phases. Refer to EN-01 North ANTC-New Single-Line Diagram and ES-01 South ANTC-New Single-Line Diagram. It is the responsibility of the contractor to account for all building loads; a completed single-line drawing shall be submitted and approved prior to installation of electrical equipment.

- Install new electrical distribution panel boards as required in accordance with EN-01 North ANTC-New Single-Line Diagram and ES-01 South ANTC-New Single-Line Diagram. Panel boards shall be submitted and approved prior to installation. All panel boards shall be circuit breaker 'bolt-on' type panels. Minimum size circuit breaker shall be rated at no less than 20 amperes. Circuit breakers shall be connected to bus bar(s) within the panel boards. Daisy chain (breaker-to-breaker) connections are not acceptable. Indoor distribution panels shall be surface mounted. All circuit breakers shall be labeled with an identification corresponding to the panel schedule. A 3-pole circuit breaker shall be a single unit and not made up of three single-pole circuit breakers connected with a wire, or bridged to make a 3-pole breaker. All panels shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari. Complete single-line drawings shall be provided for all systems installed, with all major items identified and labeled for respective rating. All wiring shall be copper, minimum #12 AWG (or 4.0 mm sq wire) installed in metal conduit or other approved raceway. Conductor jacket or insulation shall be color coded and approved prior to installation. Raceway and wiring shall be surface mounted. All splicing and terminations of wires shall be performed in a junction box or at the beginning or ending of a circuit.

- Contractor must provide detailed load calculations and electrical drawings prior to purchasing and installing any electrical equipment.

- Install new grounding electrode systems for each remote panelboard and distribution panelboard. All grounding electrode systems shall be tested

and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductor shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- Install new lighting fixtures as required throughout the installation, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for appropriate application, i.e. appropriate for that location where installed. Only existing fixtures which have legitimate manufacturer's documentation and approval from the authority having jurisdiction may remain.

- Assure that ground fault circuit interrupters (GFCI) are installed in all bathrooms, kitchen, DFAC areas, wet locations (pump rooms), and exterior receptacles.

- All hot water heaters and split packaged AC units shall be placed on individual circuits and shall have approved disconnects.

- All switched receptacles (made in Iran) throughout the installation shall be replaced with approved devices. All cord connected plugs on split packaged AC units shall be replaced unless legitimate manufactures information is available indicating these devices are rated for the installation.

- No more than 10 outlets per 20 amp circuit unless otherwise noted on the drawings. Outlets shall be evenly spaced along walls and shall be calculated at 250VA per single receptacle. Specific appliance outlets shall be calculated at the ampere rating of the load served. Use a minimum of #12 AWG ($4mm^2$) wire for 20 amp circuits.
- Acceptance Testing: Contractor shall develop and submit for approval complete acceptance test procedures on all systems provided. As a minimum the testing procedures shall comply with the requirements of

NFPA 70 (NEC) and International Electrical Testing Association Inc. (NETA).

- Replace all plastic ceilings with approved fire rated gypsum wall board or an acceptable alternative. The exception to this requirement is within restroom areas and approval from the authority having jurisdiction.

- All plastic panels used in shower areas shall be replaced with approved bathroom tiles.

Containerized Training Buildings, Open Barracks, and Barracks (104, 105, 106, 107, 108, 118, 119, 221, 222, 223, 224, 225, 227, 228, 229, 230, 231):

- Replace all plastic ceilings with approved fire rated gypsum wall board or an acceptable alternative. The exception to this requirement is within restrooms areas. Some buildings (ex.118) have already had alterations made and may not require the same extent of work as other buildings. However, this does not exempt this building from a thorough inspection to assure the building meets all requirements.

- All plastic panels used in shower stall areas shall be replaced with approved bathroom tiles to eliminate water leakage. Prior to the installation of new tiles plumbing fixtures and piping repairs shall be made to correct any deficiencies in existing plumbing systems.

- Install new lighting fixtures throughout buildings as required, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for the appropriate application, i.e. appropriate for that location where installed. Barracks will be equipped with enough fixtures to provide 30 FC or 300 Lux. Only existing fixtures which have legitimate manufacturer's documentation, show no signs of failure, and are acceptable to the project engineer may remain. All fixtures shall be installed in accordance with the NEC; under no condition shall fixtures have any exposed wiring. The current lighting fixture installations in the above referenced buildings violate all internationally recognized standards.

- Install exterior light fixtures at each entrance of building on each floor. Fixtures shall be a minimum of 100W and shall be equipped with a switch inside the door and a photocell.

- Replace all electrical devices (switches, receptacles, switched receptacles) with submitted and approved devices unless current manufacturer data is available which substantiates device usage. Install additional or replace all electrical circuits which are inadequately sized to handle the load.

- Replace exterior main panel board with new approved panel. Panel shall be equipped with a main circuit breaker and a circuit breaker for each floor. Panel boards shall be new and rated for exterior use. The exterior panel board shall be equipped with a surge suppression device a neutral bus and a ground bus. Under no condition shall circuit breakers be double tapped.
- Replace interior panel boards with approved panel boards with the exception that existing interior panel boards which have legitimate manufacturer's documentation and show no signs of failure may remain. Interior panel boards shall be rated for the locations and shall be equipped with a ground and neutral bus.
- Install approved hardwired fire alarm devices on each floor of building. Smoke devices shall be interconnected on each floor and be rated for 220VAC, 50Hz with 9VDC backup, Gentex Corporation or equivalent. A minimum of one circuit per floor shall be installed.
- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance test on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.
- All panels shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

Containerized Laundry and Dining Facilities (110 and 109):

- Install new lighting fixtures throughout buildings, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for appropriate application, i.e. appropriate for that location where installed. The laundry shall be equipped with enough fixtures to provide 30 FC or 300 Lux. The dining facility shall be equipped with enough fixtures to provide 30 FC or 300 Lux and the kitchen area 50 FC or 500 Lux. Only existing fixtures which have legitimate manufacturer's documentation, show no signs of failure, and are acceptable to the project engineer may remain. All fixtures shall be installed in accordance with the NEC; under no condition shall fixtures have any exposed wiring. The current lighting fixture installations in the above referenced buildings violate all internationally recognized standards.
- Install exterior light fixtures at each entrance of building. Fixtures shall be a minimum of 100W and shall be equipped with a switch inside the door and a photocell.
- Replace all electrical devices (switches, receptacles, switched receptacles) with submitted and approved devices unless current manufacturer data is available which substantiates device usage. Install additional or replace all electrical circuits which are inadequately sized to handle the load.
- Replace exterior main distribution panel(s) with new approved panel(s). Panel(s) shall be equipped with a main circuit breaker and a circuit breaker for all sub-panels. Panel boards shall be new and rated for exterior use. The main panel board shall be equipped with a surge suppression device a neutral bus and a ground bus. Under no condition shall circuit breakers be double tapped.
- Replace interior panel boards with approved panel boards with the exception that existing interior panel boards which have legitimate manufacturer's documentation and show no signs of failure may remain. Interior panel boards shall be rated for the locations and be equipped with a ground and neutral bus.

- Install approved hardwired fire alarm devices in the DFAC building. Smoke devices shall be interconnected and be rated for 220VAC, 50Hz with 9VDC backup, Gentex Corporation or equivalent. A minimum of two circuits shall be installed.

- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance tests on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.

- All panels shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

<u>Clinic, Administration, MWR, and Security (120,101,102, and 100):</u>

- Install approved lighting fixtures in buildings, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall

be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for appropriate application, i.e. appropriate for that location where installed. All offices shall be equipped with enough fixtures to provide 50 fc or 500 lux and all corridors shall have 20 fc or 200 lux. The exception is the Clinic which will have 50 fc or 500 lux throughout with the exception of the restrooms which shall be 30 fc or 300 lux. The MWR illuminance can be 30 fc or 300 lux. Only existing fixtures which have legitimate manufacturer's documentation, show no signs of failure, and are acceptable to the project engineer may remain. All fixtures shall be installed in accordance with the NEC; under no condition shall fixtures have any exposed wiring.

- Install exterior light fixtures at each entrance of building. Fixtures shall be a minimum of 100W and shall be equipped with a switch inside the door and a photocell.

- Replace all electrical devices (switches, receptacles, switched receptacles) with submitted and approved devices unless current manufacturer data is available which substantiates the use of the devices. Install additional or replace all electrical circuits which are inadequately sized to handle the load.

- Replace exterior main distribution panel(s) with new approved panel(s). Panel(s) shall be equipped with a main circuit breaker and a circuit breaker for all sub-panels. Panel boards shall be new and rated for exterior use. The main panel boards shall be equipped with a surge suppression device a neutral bus and a ground bus. Under no condition shall circuit breakers be double tapped.

- Replace interior panel boards with approved panel boards with the exception that existing interior panel boards which have legitimate manufacturer's documentation and show no signs of failure may remain. Interior panel boards shall be rated for the locations and be equipped with a ground and neutral bus.

- Install approved hardwired fire alarm devices in each building. Smoke devices shall be interconnected on each floor and be rated for 220VAC, 50Hz with 9VDC backup, Gentex Corporation or equivalent. A minimum of one circuit per floor shall be installed.

- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance test on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable.

Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.

- All panel boards shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

<u>Pump Houses, Electrical Room, Water Storage Tank (111,112,113, and 114):</u>

- Install new lighting fixtures in buildings as required, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for appropriate application, i.e. appropriate for that location where installed. All mechanical/electrical rooms shall be equipped with enough fixtures to provide 20 fc or 200 lux. <u>Only existing fixtures which have legitimate manufacturer's documentation, show no signs of failure, and are acceptable to the project engineer may remain.</u> All fixtures shall be installed in accordance with the NEC; under no condition shall fixtures have any exposed wiring. The fixtures shall be rated for wet locations.

- Replace all electrical devices (switches, receptacles, switched receptacles) as required with submitted and approved devices unless current manufacturer's data is available. A minimum of one GFI convenience receptacle shall be installed in each mechanical/electrical room. Install additional or replace all electrical circuits which are inadequately sized to handle the load. All pumps shall be equipped with appropriate disconnects rated for the location.

- All panel(s) shall be equipped with a main circuit breaker and a circuit breaker for all sub-panels. Panel boards shall be new and rated for exterior use. The main panel boards shall be equipped with a surge suppression device a neutral bus and a ground bus. Under no condition shall circuit breakers be double tapped.
- Pump control cabinets shall be inspected, in the event they are found suitable for the location and application they may remain.
- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance tests on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.

- All panel boards shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

Army Installations (115,116, and 117):

- Inspect all lighting fixtures in these buildings; replace fixtures or components as required with approved equipment.
- Inspect all electrical devices (switches, receptacles, and switched receptacles) in these buildings; replace devices as required with approved equipment.
- Inspect all panels in these buildings; replace components as required. Under no condition shall circuit breakers be double tapped.
- Install approved hardwired fire alarm devices in each building. Smoke devices shall be interconnected on each floor and be rated for 220VAC, 50Hz with 9VDC backup, Gentex Corporation or equivalent. A minimum of one circuit per floor shall be installed. In the event the existing fire alarm systems are considered suitable this requirement may be waived.
- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance test on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.
- All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections

shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.

- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

ANP Barracks, Guard Towers, Generator Plants, ANP Administration, ANP Kitchen and Dining Facilities, Storage Bldgs., Miscellaneous Bldgs.:

- Inspect each building individually, install approved lighting fixtures in buildings where required, lighting fixtures shall be submitted and approved prior to purchase. Fluorescent light fixtures shall be power factor corrected and equipped with standard magnetic ballast(s). All light fixtures shall be capable of receiving standard lamps used locally. Light fixtures shall contain at least two ballasts. Fixtures shall be fully factory wired and designed for the appropriate application, i.e. appropriate for that location where installed. Only existing fixtures which have legitimate manufacturer's documentation, show no signs of failure, and are acceptable to the project engineer may remain. All fixtures shall be installed in accordance with the NEC; under no condition shall fixtures have any exposed wiring.
- Install exterior light fixtures at each entrance of building. Fixtures shall be a minimum of 100W and shall be equipped with a switch inside the wall or door.
- Replace electrical devices (switches, receptacles, switched receptacles) as required with submitted and approved devices unless current manufacturer data is available which substantiates use. Install additional or replace all electrical circuits which are inadequately sized to handle the load.
- Replace exterior main distribution panel(s) with new approved panel(s). Panel(s) shall be equipped with a main circuit breaker and a circuit breaker for all sub-panels. Panel boards shall be new and rated for exterior use. The main panel boards shall be equipped with a surge suppression device a neutral bus and a ground bus. Under no condition shall circuit breakers be double tapped.

- Replace interior panel boards with approved panel boards unless the existing interior panel boards have legitimate manufacturer's documentation and show no signs of failure. Interior panel boards shall be rated for the locations and be equipped with a ground and neutral bus.
- All electrical conductors both new and existing shall be insulation and continuity tested in accordance with NETA. No splices shall be allowed within existing raceways. In the event splices are found in the raceway then either an approved junction box shall be installed or a new conductor shall be pulled. Perform insulation-resistance test on each conductor with respect to ground and adjacent conductors. Applied potential shall be 500 volts dc for 300 volt rated cable and 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Perform continuity tests to insure correct cable connection. Replace all cables which fail.
- All new panel boards shall be provided with a minimum of 20% spare capacity for future load growth. All panel boards shall be provided with a panel schedule. Schedules shall be typed, written in English and Dari.
- Install new grounding electrode systems for each exterior panel board. All grounding electrode systems shall be tested and approved. Final measurement of the ground resistance shall be in compliance with the requirements of the authority having jurisdiction, but shall not exceed 25 ohms when measured less than 48 hours after rainfall. The grounding electrode system shall consist of 19mm x 3000mm copper ground rods. The grounding electrode system shall be connected to the metal frame of the building or structure where applicable and all grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeders and branch circuit raceways. Grounding conductors shall be green-colored, unless the authority having jurisdiction requires a different color-coded conductor. Ground rods shall be copper-clad steel.
- Install approved hardwired fire alarm devices in all barracks, administration, kitchen, and dining facility buildings. Smoke devices shall be interconnected on each floor and be rated for 220VAC, 50Hz with 9VDC backup, Gentex Corporation or equivalent. A minimum of one circuit per floor shall be installed.
- The requirements in the NEC, NFPA 70, address the fundamental principles of the International Electrotechnical Commission Standards (IEC 60364-1) and should be closely adhered to. The code may require products, construction, or materials which are not consistent with US standards, in this case (ex. receptacles, switches) the IEC shall be

followed. The NEC is not intended as a design specification or an instruction manual for untrained persons.

2.0 SUPPORTING DATA

The supporting data includes color photographs taken from the compound. These pictures represent examples of issues which are prevalent at the compound; they are not intended to address all the electrical issues. The numbers of items which require correction are beyond the scope of this report.

2.1 Attached Photographs and Drawings

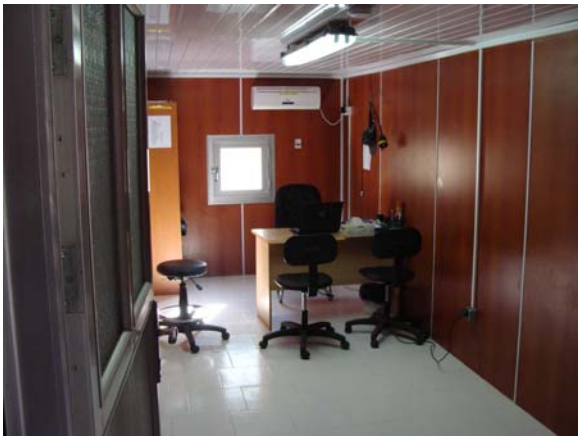
- Photographs
- Drawings EN-01, EN-02, ES-01, ES-02, and ENS-01

Leaking Shower Stalls Module Bldgs.

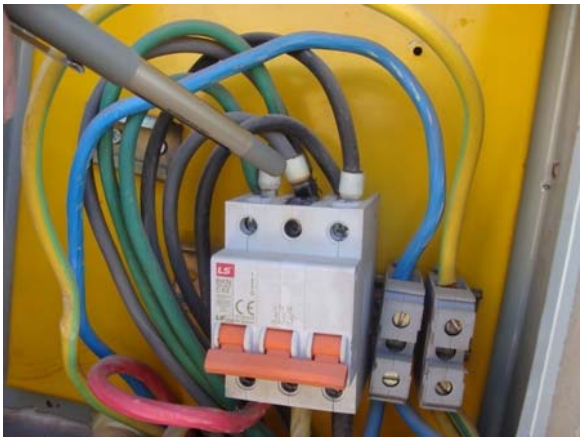
Improper Termination of Cables & Sealing.

Double Tapping Conductors

Overloaded Conductors



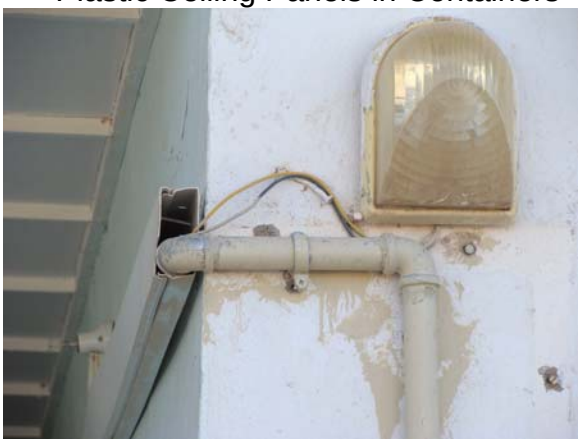
Clinic-Overall Good Condition



Poor Conductor Terminations

Plastic Ceiling Panels in Containers

Failed Panel boards



Exposed Wiring & Incorrect Electrical Ftgs.

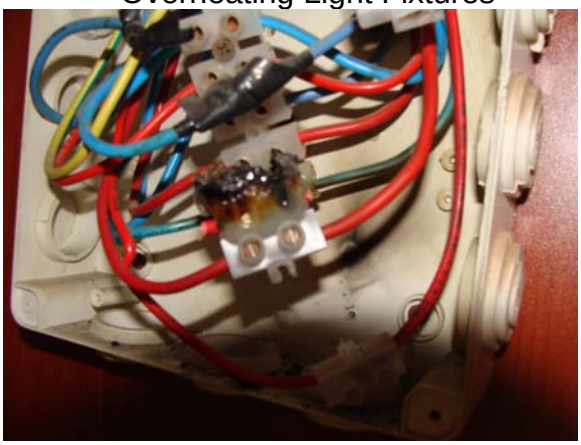
Faulted Panel Boards

Exposed Fixture Wiring

Past Fires

Overheating Light Fixtures

Overheating Receptacles



Overheating Terminal Blocks

Exposed Electrical Fixture Wiring

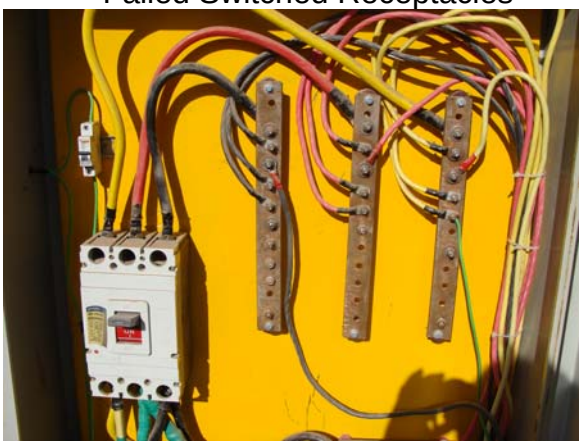
Improper Feeder Over-current Protection

2.5mm² Wire on 250A Circuit Breaker

No GFCI Protection for Ext. Receptacles

Failed Switched Receptacles

Poor Workmanship

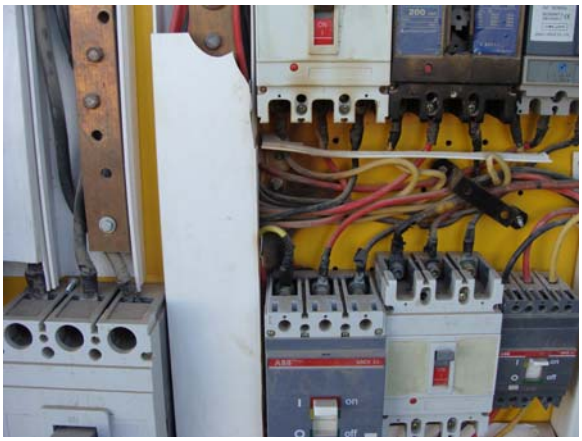


Improper Feeder Overcurrent Protection

Visible Signs of Arcing-Inferior Equipment

Potential Between Neutral & Ground

Improper Routing of Grounding Electrode Conductors



MDP-Overheating and Arcing

Water Damage from Showers

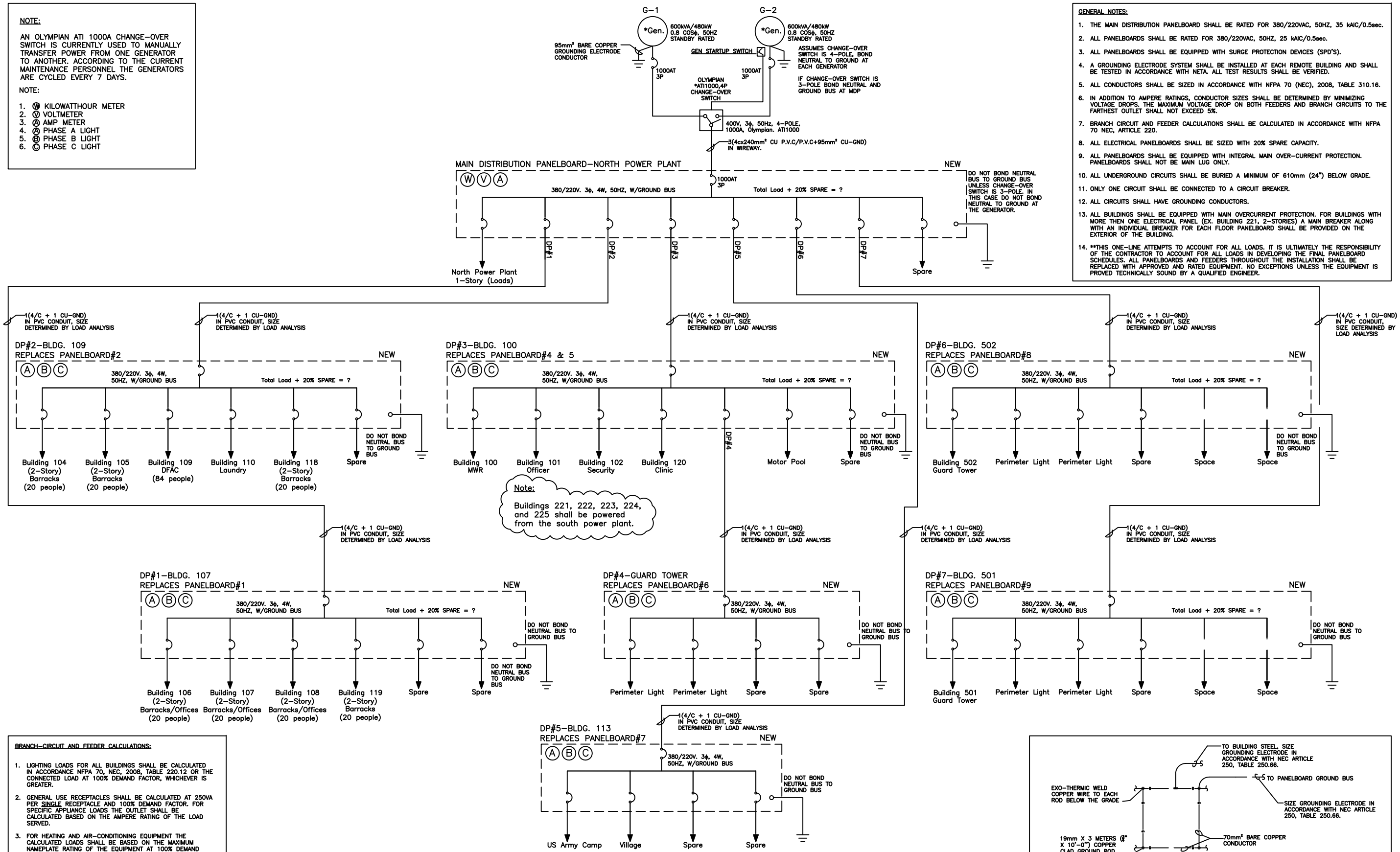
Lack of Overcurrent Protection

NOTE:

AN OLYMPIAN ATI 1000A CHANGE-OVER SWITCH IS CURRENTLY USED TO MANUALLY TRANSFER POWER FROM ONE GENERATOR TO ANOTHER. ACCORDING TO THE CURRENT MAINTENANCE PERSONNEL THE GENERATORS ARE CYCLED EVERY 7 DAYS.

NOTE:

1. Ⓦ KILOWATTHOUR METER
2. Ⓥ VOLTMETER
3. Ⓐ AMP METER
4. Ⓐ PHASE A LIGHT
5. Ⓑ PHASE B LIGHT
6. Ⓒ PHASE C LIGHT



GENERAL NOTES:

1. THE MAIN DISTRIBUTION PANELBOARD SHALL BE RATED FOR 380/220VAC, 50HZ, 35 kAIC/0.5sec.
2. ALL PANELBOARDS SHALL BE RATED FOR 380/220VAC, 50HZ, 25 kAIC/0.5sec.
3. ALL PANELBOARDS SHALL BE EQUIPPED WITH SURGE PROTECTION DEVICES (SPD'S).
4. A GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED AT EACH REMOTE BUILDING AND SHALL BE TESTED IN ACCORDANCE WITH NETA. ALL TEST RESULTS SHALL BE VERIFIED.
5. ALL CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 70 (NEC), 2008, TABLE 310.16.
6. IN ADDITION TO AMPERE RATINGS, CONDUCTOR SIZES SHALL BE DETERMINED BY MINIMIZING VOLTAGE DROPS. THE MAXIMUM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET SHALL NOT EXCEED 5%.
7. BRANCH CIRCUIT AND FEEDER CALCULATIONS SHALL BE CALCULATED IN ACCORDANCE WITH NFPA 70 NEC, ARTICLE 220.
8. ALL ELECTRICAL PANELBOARDS SHALL BE SIZED WITH 20% SPARE CAPACITY.
9. ALL PANELBOARDS SHALL BE EQUIPPED WITH INTEGRAL MAIN OVER-CURRENT PROTECTION. PANELBOARDS SHALL NOT BE MAIN LUG ONLY.
10. ALL UNDERGROUND CIRCUITS SHALL BE BURIED A MINIMUM OF 610mm (24") BELOW GRADE.
11. ONLY ONE CIRCUIT SHALL BE CONNECTED TO A CIRCUIT BREAKER.
12. ALL CIRCUITS SHALL HAVE GROUNDING CONDUCTORS.
13. ALL BUILDINGS SHALL BE EQUIPPED WITH MAIN OVERCURRENT PROTECTION. FOR BUILDINGS WITH MORE THEN ONE ELECTRICAL PANEL (EX. BUILDING 221, 2-STORIES) A MAIN BREAKER ALONG WITH AN INDIVIDUAL BREAKER FOR EACH FLOOR PANELBOARD SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING.
14. **THIS ONE-LINE ATTEMPTS TO ACCOUNT FOR ALL LOADS. IT IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR TO ACCOUNT FOR ALL LOADS IN DEVELOPING THE FINAL PANELBOARD SCHEDULES. ALL PANELBOARDS AND FEEDERS THROUGHOUT THE INSTALLATION SHALL BE REPLACED WITH APPROVED AND RATED EQUIPMENT. NO EXCEPTIONS UNLESS THE EQUIPMENT IS PROVED TECHNICALLY SOUND BY A QUALIFIED ENGINEER.

BRANCH-CIRCUIT AND FEEDER CALCULATIONS:

1. LIGHTING LOADS FOR ALL BUILDINGS SHALL BE CALCULATED IN ACCORDANCE NFPA 70, NEC, 2008, TABLE 220.12 OR THE CONNECTED LOAD AT 100% DEMAND FACTOR, WHICHEVER IS GREATER.
2. GENERAL USE RECEPTACLES SHALL BE CALCULATED AT 250VA PER SINGLE RECEPTACLE AND 100% DEMAND FACTOR. FOR SPECIFIC APPLIANCE LOADS THE OUTLET SHALL BE CALCULATED BASED ON THE AMPERE RATING OF THE LOAD SERVED.
3. FOR HEATING AND AIR-CONDITIONING EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE MAXIMUM NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND FACTOR.
4. FOR ELECTRICAL WATER HEATERS THE CALCULATED LOAD SHALL BE BASED ON THE NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND.
5. FOR ALL SPECIALTY EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE NAMEPLATE RATING AT 100% DEMAND FACTOR. THIS INCLUDES LAUNDRY EQUIPMENT, KITCHEN EQUIPMENT, PUMPS, ETC., NO COINCIDENT FACTORS SHALL BE APPLIED TO THESE LOADS.
6. 20% SPARE CAPACITY SHALL BE INCLUDED.
7. ALL LOADS SHALL BE CONSIDERED CONTINUOUS AND THEREFORE FEEDERS SHALL BE RATED AT 125% OF CONTINUOUS. THIS VALUE IS AFTER THE EQUIPMENT HAS BEEN PROPERLY DERATED IF APPLICABLE.
8. A DETAILED LOAD ANALYSIS OF THE INSTALLATION SHALL BE PERFORMED PRIOR TO COMMENCEMENT OF WORK.

1 NORTH ANTC-NEW SINGLE LINE DIAGRAM

EN-01 REF. SCALE: NTS

TOP OF GROUND RODS SHALL BE BURIED MIN. 305mm (12") BELOW FINISHED GRADE AND SHALL BE A MIN. OF 3 METERS (10'-0") APART.

NOTES:

1. FURNISH AND INSTALL ADDITIONAL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELDS OR RODS.
2. GROUNDING SYSTEM DESIGN BASED ON RESISTIVITY OF 50,000 Ω-cm OR LESS.
3. INSTALL GROUNDING AS SHOWN AT ALL PANELBOARDS AND GENERATORS. ALL RESISTANCES SHALL BE TESTED IN ACCORDANCE WITH NETA STANDARDS.

2 TYPICAL GROUNDING DETAILS

EN-01 REF. SCALE: NTS

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DESCRIPTION	REV	DATE	BY	SUBAPP

DESIGNED
DRAWN
CHECKED
IN CHARGE M. ANDREWS
DATE 1 NOVEMBER 2009

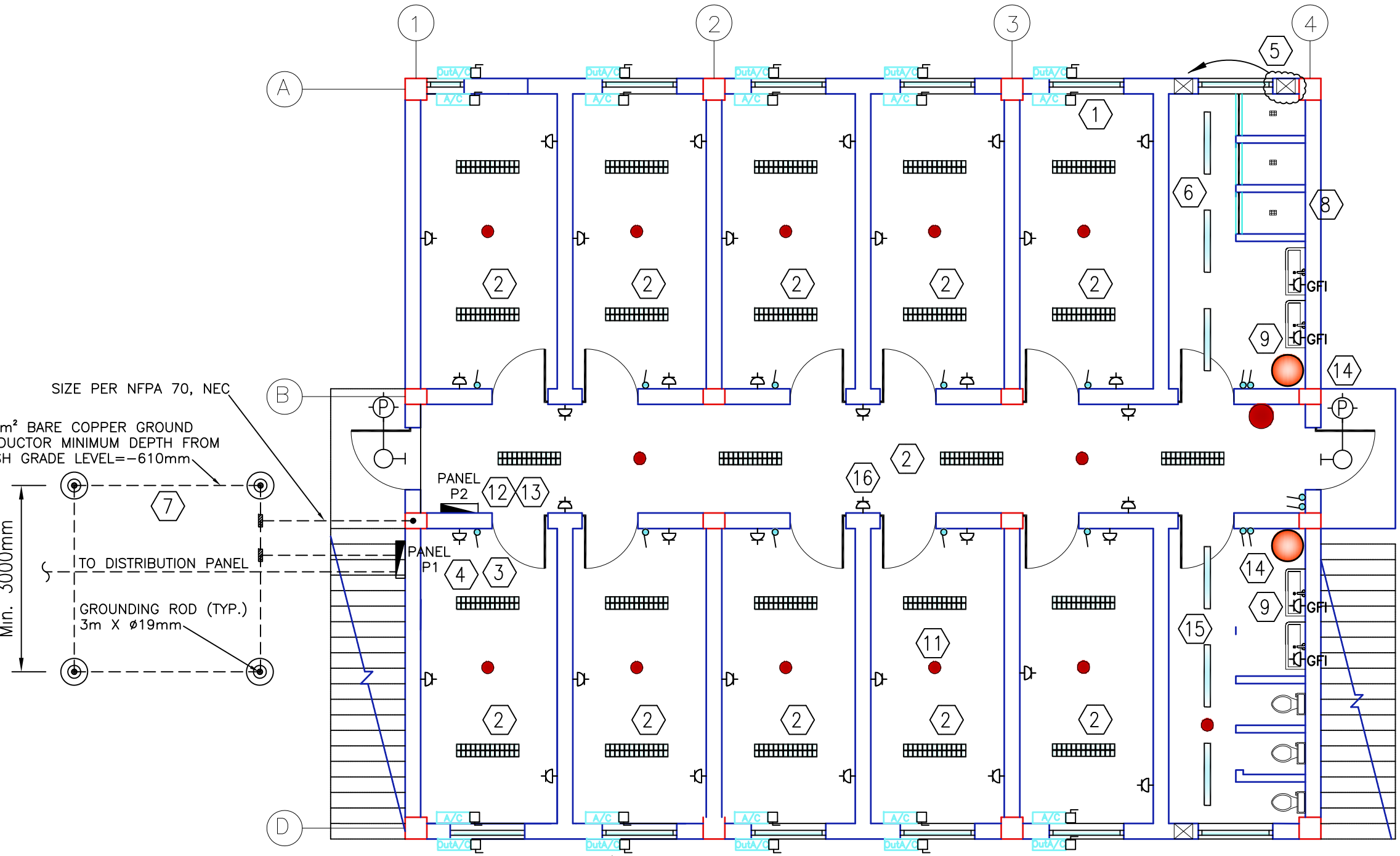
ADRASKAN NATIONAL TRAINING CENTER

SCALE

PROJECT NO. 200.01

DRAWING NO. EN-01

© USACE/Anchorage ANTC North Gen-Line Dia-01.dwg 11/6/2009 5:19pm mandrews



1 TYPICAL CONTAINER 20 PERSON BARRACKS

EN−02 SCALE: NTS

GENERAL NOTES:

1. INSTALL APPROVED 220VAC, 50HZ SMOKE DETECTORS WITH 9VDC BACKUP, GENTEX CORPORATION OR EQUIVALENT. ALL DETECTORS SHALL BE HARDWIRED ON AN INDIVIDUAL CIRCUIT FOR EACH FLOOR. INSTALL A MINIMUM OF 13 SMOKE DETECTORS ON EACH FLOOR. (1) IN THE TOILET ROOM, (2) IN THE HALLWAY, AND (1) IN EACH BEDROOM. NONE REQUIRED IN THE SHOWER AREA.
2. REMOVAL OR DAMAGE OF FIRE ALARM DEVICES BY TENANTS SHOULD BE STRICTLY ENFORCED.
3. UNDER NO CIRCUMSTANCES PLACE ANY OBSTRUCTION IN FROM OF EXIT DOORS.
4. REPLACE PANELBOARD "P1" WITH AN APPROVED PANELBOARD.
5. ALL WORK TYPICAL FOR ALL BUILDING FLOORS.
6. MINIMUM SIZE WIRE IS 4mm² (#12AWG).
7. NO SPLICES WITHIN WIREWAYS, ONLY IN APPROVED JUNCTION BOXES.
8. DRAWINGS ARE DIAGRAMMATIC, SOME BUILDINGS MAY HAVE DIFFERENT FEATURES.

NUMBERED NOTES:

1. REPLACE SWITCHED RECEPTACLES WITH APPROVED DISCONNECT. INSTALL EACH SPLIT PACKAGE UNIT ON INDIVIDUAL 20A CIRCUIT (TYPICAL INSIDE/OUTSIDE UNITS).
2. REPLACE PLASTIC CEILING PANELS WITH FIRE RATED GWB OR APPROVED EQUIVALENT. RESTROOMS DO NOT HAVE TO BE REPLACED.
3. REPLACE ALL FLUORESCENT FIXTURES WITH APPROVED 2−LAMP FIXTURES OR RECEIVE APPROVAL FROM AHJ TO KEEP.
4. FOR 2−STORY BUILDINGS INSTALL NEW PANELBOARD WITH MAIN CIRCUIT BREAKER AND A CIRCUIT BREAKER FOR EACH FLOOR (PANELBOARD "P1").
5. WHERE APPLICABLE MOVE EXHAUST FANS IN SHOWERS TO HALLWAYS.
6. ALL SHOWER LIGHT FIXTURES SHALL BE PLACED IN THE HALLWAYS, RELOCATE LIGHT FIXTURES IF OVER THE SHOWER STALLS.
7. FURNISH AND INSTALL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELD OR RODS.
8. NO ELECTRICAL WIRING SHALL BE LOCATED IN SHOWER STALLS. IN THE EVENT WIRING IS LOCATED IN THESE AREAS RELOCATE TO THE SHOWER HALLWAYS.
9. INSTALL GFI RECEPTACLES IN ALL RESTROOM AREAS BOTH SHOWERS AND TOILETS.
10. INSTALL GFI RECEPTACLES FOR WATER DISPENSER LOCATED ON OUTSIDE OF BUILDING WHERE APPLICABLE. INSTALL ON INDIVIDUAL CIRCUIT. PROPERLY PROTECT WATER DISPENSER FROM ELEMENTS.
11. INSTALL APPROVED 220VAC, 50HZ SMOKE DETECTORS WITH 9VDC BACKUP, GENTEX CORPORATION OR EQUIVALENT (TYPICAL).
12. INSTALL NEW APPROVED ELECTRICAL BRANCH CIRCUIT PANELBOARD WITH MAIN OVERCURRENT PROTECTION (PANELBOARD "P2").
13. PERFORM A CONTINUITY AND INSULATION TEST ON EACH BRANCH CIRCUIT CONDUCTOR AT 1000VDC. REPLACE OR REPAIR ALL CONDUCTORS WHICH FAIL TESTS. LABEL EACH CIRCUIT AND INSTALL PANEL SCHEDULE IN PANELBOARD.
14. INSTALL AN INDIVIDUAL CIRCUIT FOR EACH ELECTRIC HOT WATER HEATER. IF SEPARATE CIRCUITS ARE ALREADY PROVIDED THEN TEST CIRCUITS, IF A CONDUCTOR FAILS THEN REPAIR OR REPLACE.
15. INSTALL NEW 2−LAMP WATER RESISTANT LIGHT FIXTURES IN RESTROOM AREAS (TYPICAL OF 6).
16. THE HALLWAY RECEPTACLES SHALL BE ON AN INDIVIDUAL CIRCUIT (MAXIMUM 6 RECEPTACLES PER CIRCUIT). SINGLE RECEPTACLES SHALL BE CALCULATED AT 250VA EACH.

N

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DATE
NOVEMBER 1, 2009

REV DATE BY SUB/APP

ARKANSAN NATIONAL TRAINING CENTER

BARRACKS 104, 105, 106, 107, 108, 118

SCALE

PROJECT NO.
200.01

DRAWING NO.
EN−02

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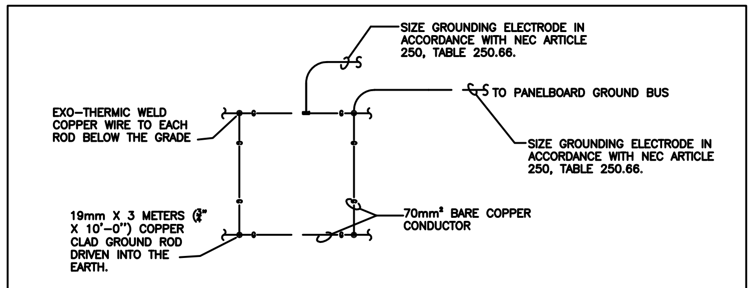


NOTES:

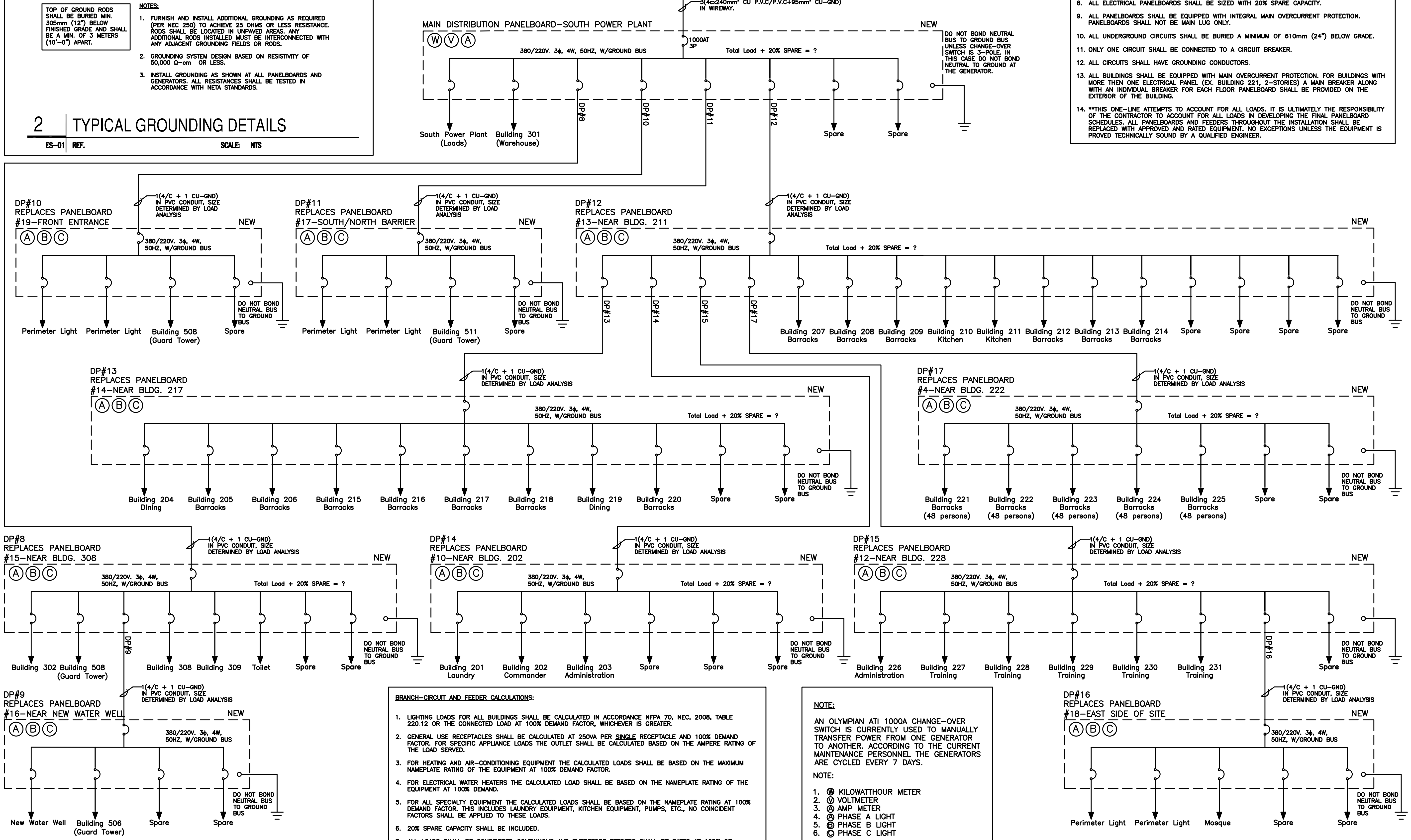
1. FURNISH AND INSTALL ADDITIONAL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELDS OR RODS.
2. GROUNDING SYSTEM DESIGN BASED ON RESISTIVITY OF 50,000 Ω-cm OR LESS.
3. INSTALL GROUNDING AS SHOWN AT ALL PANELBOARDS AND GENERATORS. ALL RESISTANCES SHALL BE TESTED IN ACCORDANCE WITH NETA STANDARDS.

2 TYPICAL GROUNDING DETAILS

ES-01 REF. SCALE: NTS

GENERAL NOTES:

1. THE MAIN DISTRIBUTION PANELBOARD SHALL BE RATED FOR 380/220VAC, 50HZ, 35 kAIC/0.5sec.
2. ALL PANELBOARDS SHALL BE RATED FOR 380/220VAC, 50HZ, 25 kAIC/0.5sec.
3. ALL PANELBOARDS SHALL BE EQUIPPED WITH SURGE PROTECTION DEVICES (SPD'S).
4. A GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED AT EACH REMOTE BUILDING AND SHALL BE TESTED IN ACCORDANCE WITH NETA. ALL TEST RESULTS SHALL BE VERIFIED.
5. ALL CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 70 (NEC), 2008, TABLE 310.16.
6. IN ADDITION TO AMPERE RATINGS, CONDUCTOR SIZES SHALL BE DETERMINED BY MINIMIZING VOLTAGE DROPS. THE MAXIMUM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET SHALL NOT EXCEED 5%.
7. BRANCH CIRCUIT AND FEEDER CALCULATIONS SHALL BE CALCULATED IN ACCORDANCE WITH NFPA 70 NEC, ARTICLE 220.
8. ALL ELECTRICAL PANELBOARDS SHALL BE SIZED WITH 20% SPARE CAPACITY.
9. ALL PANELBOARDS SHALL BE EQUIPPED WITH INTEGRAL MAIN OVERCURRENT PROTECTION. PANELBOARDS SHALL NOT BE MAIN LUG ONLY.
10. ALL UNDERGROUND CIRCUITS SHALL BE BURIED A MINIMUM OF 610mm (24") BELOW GRADE.
11. ONLY ONE CIRCUIT SHALL BE CONNECTED TO A CIRCUIT BREAKER.
12. ALL CIRCUITS SHALL HAVE GROUNDING CONDUCTORS.
13. ALL BUILDINGS SHALL BE EQUIPPED WITH MAIN OVERCURRENT PROTECTION. FOR BUILDINGS WITH MORE THEN ONE ELECTRICAL PANEL (EX. BUILDING 221, 2-STORIES) A MAIN BREAKER ALONG WITH AN INDIVIDUAL BREAKER FOR EACH FLOOR PANELBOARD SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING.
14. **THIS ONE-LINE ATTEMPTS TO ACCOUNT FOR ALL LOADS. IT IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR TO ACCOUNT FOR ALL LOADS IN DEVELOPING THE FINAL PANELBOARD SCHEDULES. ALL PANELBOARDS AND FEEDERS THROUGHOUT THE INSTALLATION SHALL BE REPLACED WITH APPROVED AND RATED EQUIPMENT. NO EXCEPTIONS UNLESS THE EQUIPMENT IS PROVED TECHNICALLY SOUND BY A QUALIFIED ENGINEER.



BRANCH-CIRCUIT AND FEEDER CALCULATIONS:

1. LIGHTING LOADS FOR ALL BUILDINGS SHALL BE CALCULATED IN ACCORDANCE NFPA 70, NEC, 2008, TABLE 220.12 OR THE CONNECTED LOAD AT 100% DEMAND FACTOR, WHICHEVER IS GREATER.
2. GENERAL USE RECEPTACLES SHALL BE CALCULATED AT 250VA PER SINGLE RECEPTACLE AND 100% DEMAND FACTOR. FOR SPECIFIC APPLIANCE LOADS THE OUTLET SHALL BE CALCULATED BASED ON THE AMPERE RATING OF THE LOAD SERVED.
3. FOR HEATING AND AIR-CONDITIONING EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE MAXIMUM NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND FACTOR.
4. FOR ELECTRICAL WATER HEATERS THE CALCULATED LOAD SHALL BE BASED ON THE NAMEPLATE RATING OF THE EQUIPMENT AT 100% DEMAND.
5. FOR ALL SPECIALTY EQUIPMENT THE CALCULATED LOADS SHALL BE BASED ON THE NAMEPLATE RATING AT 100% DEMAND FACTOR. THIS INCLUDES LAUNDRY EQUIPMENT, KITCHEN EQUIPMENT, PUMPS, ETC., NO COINCIDENT FACTORS SHALL BE APPLIED TO THESE LOADS.
6. 20% SPARE CAPACITY SHALL BE INCLUDED.
7. ALL LOADS SHALL BE CONSIDERED CONTINUOUS AND THEREFORE FEEDERS SHALL BE RATED AT 125% OF CONTINUOUS. THIS VALUE IS AFTER THE EQUIPMENT HAS BEEN PROPERLY DERATED IF APPLICABLE.
8. A DETAILED LOAD ANALYSIS OF THE INSTALLATION SHALL BE CONDUCTED, PRIOR TO COMMENCEMENT OF WORKS.

NOTE:

AN OLYMPIAN ATI 1000A CHANGE-OVER SWITCH IS CURRENTLY USED TO MANUALLY TRANSFER POWER FROM ONE GENERATOR TO ANOTHER. ACCORDING TO THE CURRENT MAINTENANCE PERSONNEL THE GENERATORS ARE CYCLED EVERY 7 DAYS.

NOTE:

1. Ⓦ KILOWATTHOUR METER
2. Ⓥ VOLTMETER
3. Ⓐ AMP METER
4. Ⓐ PHASE A LIGHT
5. Ⓑ PHASE B LIGHT
6. Ⓒ PHASE C LIGHT

1 SOUTH ANTC-NEW SINGLE LINE DIAGRAM

ES-02 REF. SCALE: NTS

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CHECKED					
IN CHARGE M. ANDREWS					
DATE 1 NOVEMBER 2009	REV	DATE	BY	SUB	APP	DESCRIPTION

ADRASKAN NATIONAL TRAINING CENTER

SCALE

PROJECT NO. 200.01

DRAWING NO. ES-01

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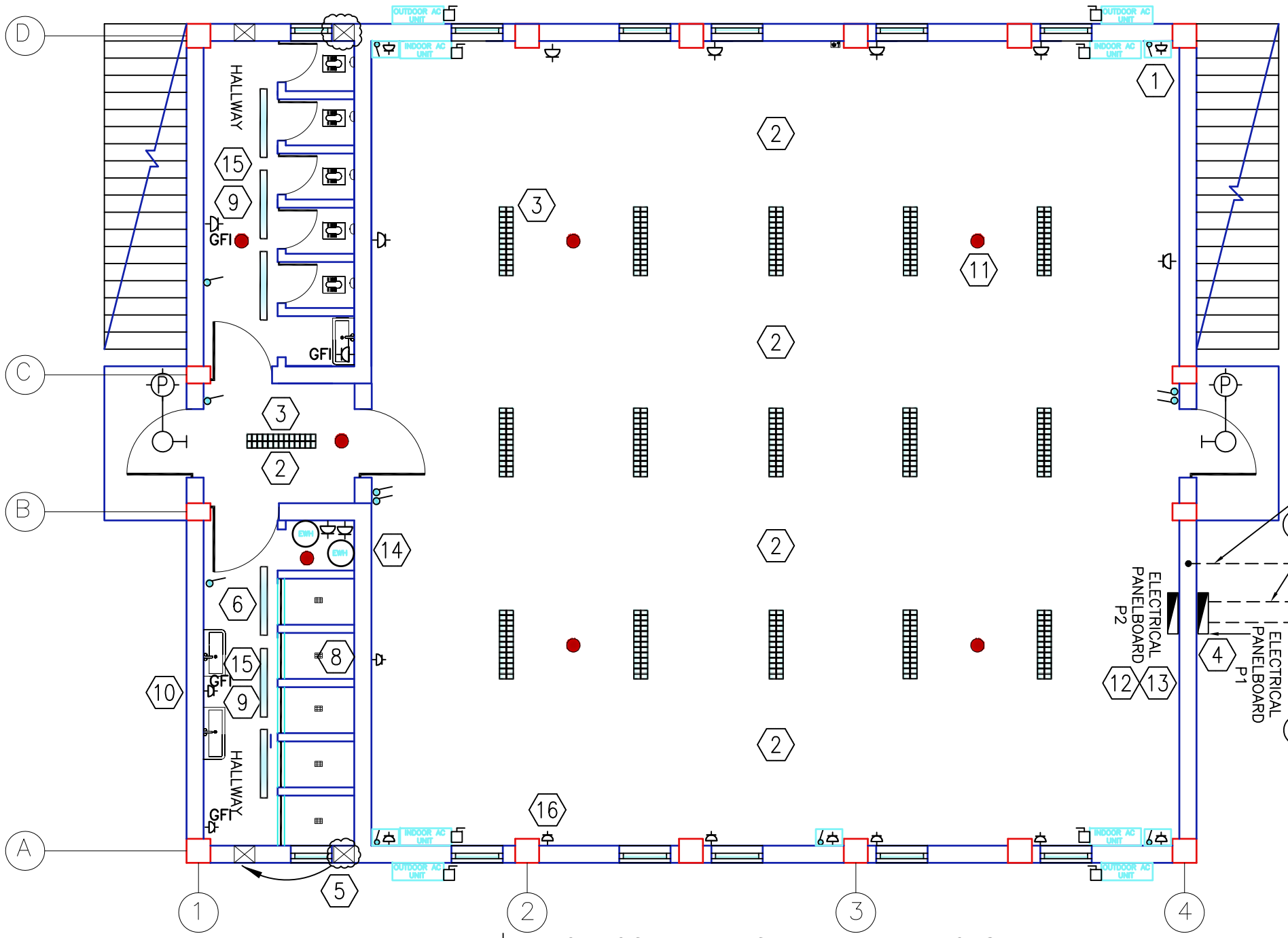
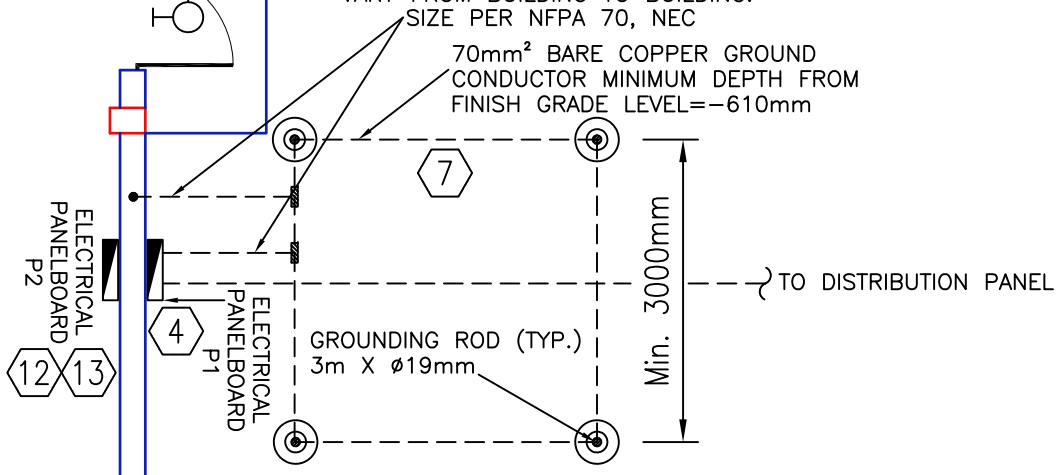


1 TYPICAL CONTAINER OPEN BAY BARRACKS
ES-02 SCALE: NTS

GENERAL NOTES:

1. INSTALL APPROVED 220VAC, 50HZ SMOKE DETECTORS WITH 9VDC BACKUP, GENTEX CORPORATION OR EQUIVALENT. ALL DETECTORS SHALL BE HARDWIRED ON AN INDIVIDUAL CIRCUIT FOR EACH FLOOR. INSTALL A MINIMUM OF 7 SMOKE DETECTORS ON EACH FLOOR. (1) IN THE ELECTRICAL HOT WATER HEATER AREA, (1) IN THE TOILET ROOM, (1) IN THE HALLWAY, AND (4) EQUALLY SPACED IN THE OPEN BARRACKS.
2. REMOVAL OR DAMAGE OF FIRE ALARM DEVICES BY TENANTS SHOULD BE STRICTLY ENFORCED.
3. UNDER NO CIRCUMSTANCES PLACE BEDS IN FRONT OF DOORS.
4. REPLACE PANELBOARD "P1" WITH AN APPROVED PANELBOARD.
5. ALL WORK TYPICAL FOR ALL BUILDING FLOORS.
6. MINIMUM SIZE WIRE IS 4mm² (#12AWG).
7. NO SPLICES WITHIN WIREWAYS, ONLY IN APPROVED JUNCTION BOXES.
8. DRAWINGS ARE DIAGRAMMATIC, BUILDING CHARACTERISTICS MAY VARY FROM BUILDING TO BUILDING.



NUMBERED NOTES:

1. REPLACE ALL SWITCHED RECEPTACLES WITH APPROVED DISCONNECT. INSTALL EACH SPLIT PACKAGE UNIT ON INDIVIDUAL 20A CIRCUIT (TYPICAL INSIDE/OUTSIDE UNITS).
2. REPLACE PLASTIC CEILING PANELS WITH FIRE RATED GWB OR APPROVED EQUIVALENT.
3. REPLACE ALL FLUORESCENT FIXTURES WITH APPROVED 2-LAMP FIXTURES.
4. FOR 2-STORY BUILDINGS INSTALL NEW PANELBOARD WITH MAIN CIRCUIT BREAKER AND A CIRCUIT BREAKER FOR EACH FLOOR (PANELBOARD "P1").
5. WHERE APPLICABLE MOVE EXHAUST FANS IN SHOWERS TO HALLWAYS.
6. ALL SHOWER LIGHT FIXTURES SHALL BE PLACED IN THE HALLWAYS, RELOCATE FIXTURES WHICH ARE OVER THE SHOWER STALLS.
7. FURNISH AND INSTALL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELD OR RODS.
8. NO ELECTRICAL WIRING SHALL BE LOCATED IN SHOWER STALLS. IN THE EVENT WIRING IS LOCATED IN THESE AREAS RELOCATE TO THE BATHROOM SHOWER HALLWAYS.
9. INSTALL GFI RECEPTACLES IN ALL RESTROOM AREAS BOTH SHOWERS AND TOILETS.
10. INSTALL GFI RECEPTACLES FOR WATER DISPENSER LOCATED ON OUTSIDE OF BUILDING WHERE APPLICABLE. INSTALL ON INDIVIDUAL CIRCUIT. PROPERLY PROTECT WATER DISPENSER FROM ELEMENTS.
11. INSTALL APPROVED 220VAC, 50HZ SMOKE DETECTORS WITH 9VDC BACKUP, GENTEX CORPORATION OR EQUIVALENT.
12. INSTALL NEW APPROVED ELECTRICAL BRANCH CIRCUIT PANELBOARD WITH MAIN OVERCURRENT PROTECTION (PANELBOARD "P2").
13. PERFORM A CONTINUITY AND INSULATION TEST ON EACH BRANCH CIRCUIT CONDUCTOR AT 1000VDC. REPLACE OR REPAIR ALL CONDUCTORS WHICH FAIL TESTS. LABEL EACH CIRCUIT AND INSTALL PANEL SCHEDULE IN PANELBOARD.
14. INSTALL AN INDIVIDUAL CIRCUIT FOR EACH ELECTRIC HOT WATER HEATER. IF INDIVIDUAL CIRCUITS ARE ALREADY PROVIDED THEN TEST CIRCUITS, IF CONDUCTOR FAILS CONTINUITY TEST THEN REPAIR OR REPLACE.
15. INSTALL NEW 2-LAMP WATER RESISTANT LIGHT FIXTURES IN RESTROOM AREAS (TYPICAL OF 6).
16. INSTALL A MAXIMUM OF 6 SINGLE RECEPTACLES PER GENERAL-PURPOSE BRANCH CIRCUIT.

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DESCRIPTION | REV | DATE | BY | CHKD | APP'D

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M. ANDREWS
DATE
NOVEMBER 1, 2009

ADRASKAN NATIONAL TRAINING CENTER

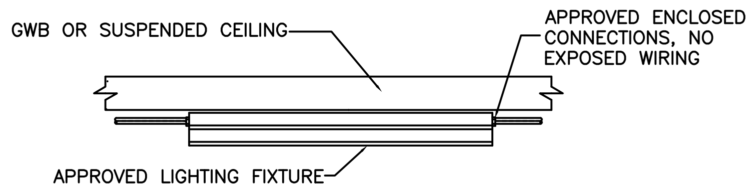
OPEN BAY BARRACKS 221, 222, 223, 224, 225, 227, 228, 229, 230, 231

SCALE

PROJECT NO.
200.01

DRAWING NO.
ES-02

© Yukon/Adraskan Open Bay Barracks ES-02.dwg 11/6/2009 1:32pm mandrews



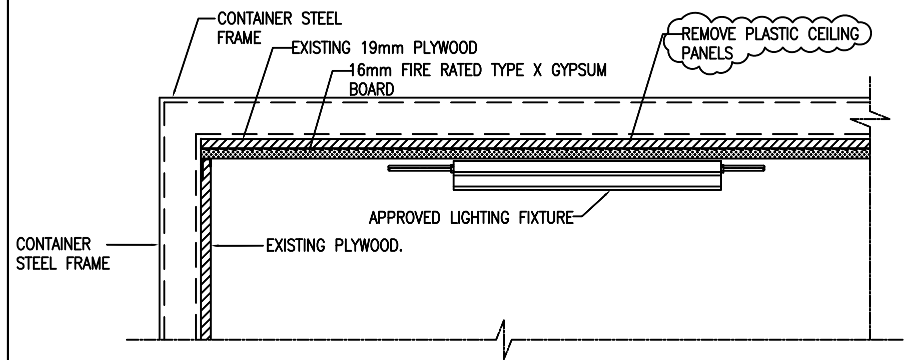
ALL CEILINGS AND LIGHTING FIXTURES:

PLASTIC CEILING PANELS SHALL NOT BE ALLOWED IN BUILDINGS WITH THE EXCEPTION OF THE RESTROOMS. REPLACE ALL PLASTIC CEILINGS WITH APPROVED FIRE RATED MATERIALS AND REPLACE LIGHTING FIXTURES WITH APPROVED FIXTURES.

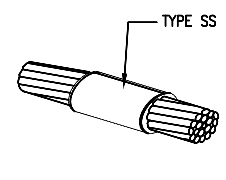
FIRE RATED GYPSUM BOARD IS THE PREFERRED METHOD TO FIRE RATE THE CEILINGS. IN THE EVENT GWB IS NOT AVAILABLE THEN APPROVED FIRE RESISTANT SUSPENDED CEILINGS MAY BE USED. NO ELECTRICAL SHALL BE PLACED IN THE SUSPENDED CEILINGS.

REMOVE ALL PLASTIC CEILING PANELS PRIOR TO INSTALLING NEW CEILINGS. ALL LIGHTING FIXTURES SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. THE SURFACE TEMPERATURE OF THE FIXTURES SHALL BE AN IMPORTANT CRITERIA IN DETERMINING FIXTURE ACCEPTABILITY. FIXTURE LAMPS SHALL BE T836W OR T840W, BALLASTS SHALL BE RATED FOR THE LAMP.

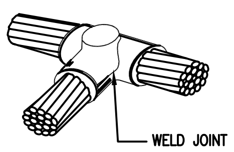
2 | TYPICAL SURFACE MOUNTED LIGHT FIXTURE
ENS-01 | REF. SCALE: NTS



3 | TYPICAL GYPSUM BOARD CEILING W/FIXTURE
ENS-01 | REF. SCALE: NTS



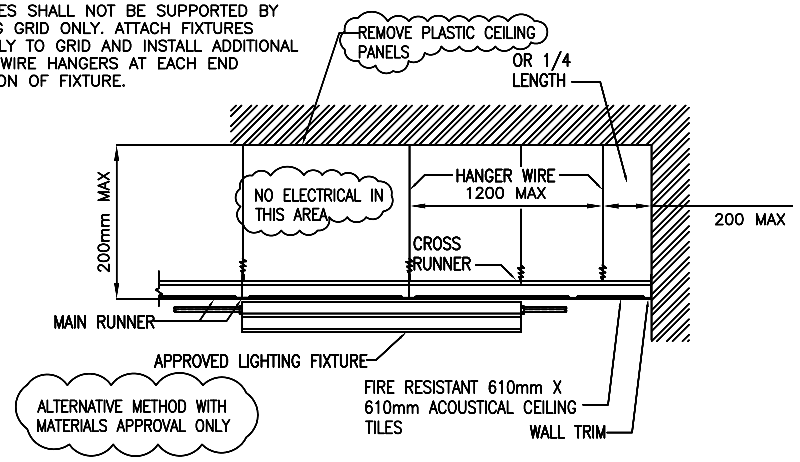
4A | HORIZONTAL SPLICE
ENS-01 | REF. SCALE: N.T.S.



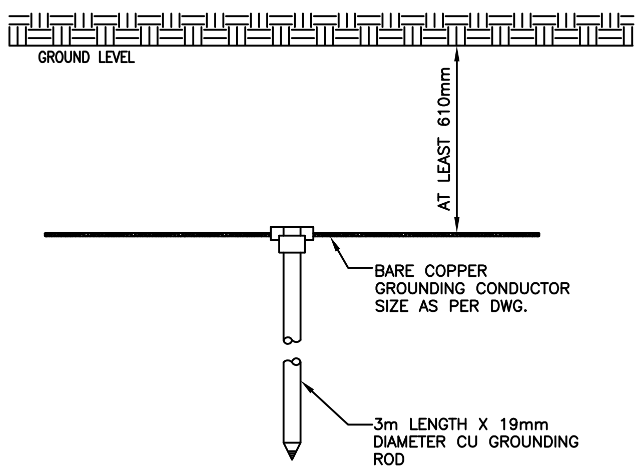
4B | T-CONNECTION WELDING POINT
ENS-01 | REF. SCALE: N.T.S.

LIGHT FIXTURES:

FIXTURES SHALL NOT BE SUPPORTED BY CEILING GRID ONLY. ATTACH FIXTURES DIRECTLY TO GRID AND INSTALL ADDITIONAL 3 MM WIRE HANGERS AT EACH END LOCATION OF FIXTURE.

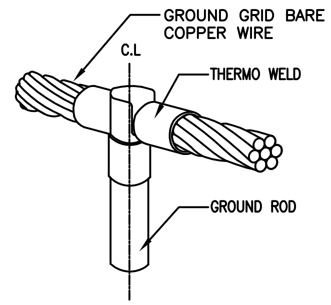


5 | ALTERNATE SUSPENDED CEILING W/FIXTURE
ENS-01 | REF. SCALE: NTS

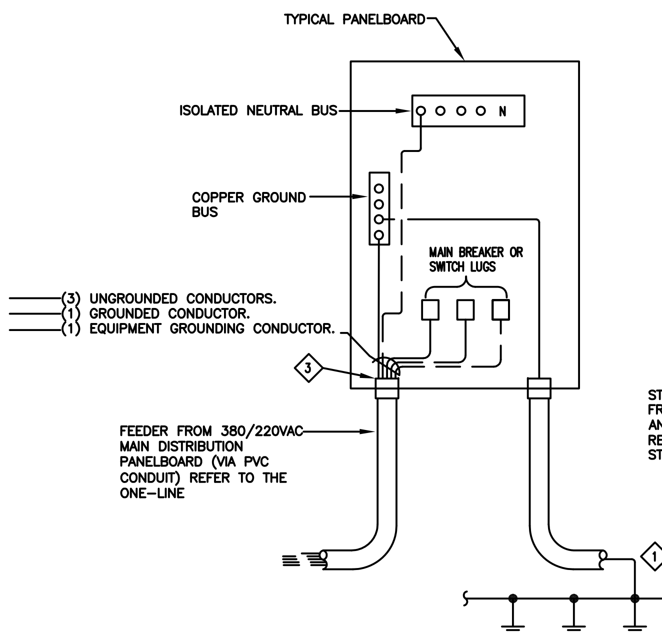


6 | GROUND ROD INSTALLATION DETAIL
ENS-01 | REF. SCALE: NTS

7 | NOT USED
ENS-01 | REF. SCALE: N.T.S.

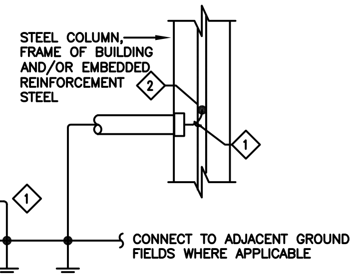


4C | GROUND ROD CONNECTION POINT
ENS-01 | REF. SCALE: N.T.S.

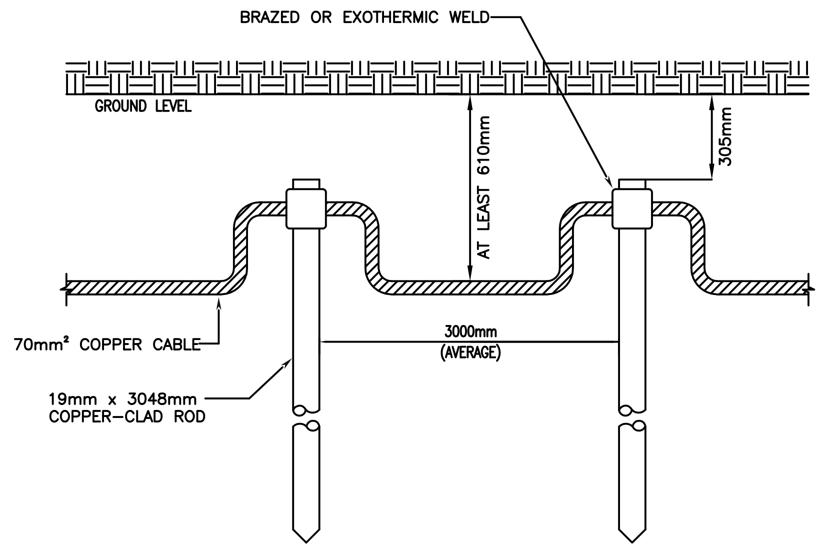


PANELBOARD GROUNDING NOTES:

1. EQUIPMENT ELECTRODE CONDUCTOR, COPPER ONLY, SIZE PER N.E.C. ARTICLES AND TABLE 250-66. DO NOT BOND BETWEEN NEUTRAL AND GROUND.
2. EXOTHERMIC WELD TO BUILDING STEEL IN THE CLOSEST ACCESSIBLE LOCATION. IN MOST INSTANCES THE GROUND CAN BE CONNECTED TO THE FLOOR JOISTS OF THE STEEL BUILDING. FOR EXISTING CONCRETE BUILDINGS CONNECT TO PANELBOARDS ONLY.
3. GROUND BUSHING IF METALLIC.



8 | TYPICAL PANELBOARD GROUNDING & BONDING
ENS-01 | REF. SCALE: NTS



GROUNDING NOTES:

1. FURNISH AND INSTALL ADDITIONAL GROUNDING AS REQUIRED (PER NEC 250) TO ACHIEVE 25 OHMS OR LESS RESISTANCE. RODS SHALL BE LOCATED IN UNPAVED AREAS. ANY ADDITIONAL RODS INSTALLED MUST BE INTERCONNECTED WITH ANY ADJACENT GROUNDING FIELDS OR RODS.
2. GROUNDING SYSTEM DESIGN BASED ON RESISTIVITY OF 50,000 Ω-cm OR LESS.
3. INSTALL GROUNDING AS SHOWN AT ALL PANELBOARDS AND GENERATORS. ALL RESISTANCES SHALL BE TESTED IN ACCORDANCE WITH NETA STANDARDS.

9 | TYPICAL MULTI-GROUND ROD INSTALLATION
ENS-01 | REF. SCALE: NTS

1 | ADRASKAN TRAINING CENTER-ELECTRICAL DETAILS
ENS-01 | REF. SCALE: NTS

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DESIGNED
DRAWN
CHECKED
IN CHARGE: M. ANDREWS
DATE: 1 NOVEMBER 2009

REV	DATE	BY	SUB	APP	DESCRIPTION

SCALE
PROJECT NO. 200.01
DRAWING NO. ENS-01

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SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER ***(Must be fully completed by offeror)***

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*	15. TELEPHONE NO. *(Include area code)*
	16. REMITTANCE ADDRESS *(Include only if different than Item 14)* **See Item 14**
CODE / FACILITY CODE	

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

AMOUNTS	SEE SCHEDULE OF PRICES

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

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)

AMENDMENT NO.										
DATE										

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

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

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	**ITEM**	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)
26. ADMINISTERED BY CODE		27. PAYMENT WILL BE MADE BY: CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*	31A. NAME OF CONTRACTING OFFICER *(Type or print)*
	TEL: EMAIL:
30B. SIGNATURE / 30C. DATE	31B. UNITED STATES OF AMERICA BY / 31C. AWARD DATE

TABLE OF CONTENTS

SECTION 00010

PROPOSAL SCHEDULE

Provide a price for all items.

No.	Description	Qty	Unit	Unit Price	Total Amount
	BASE PROPOSAL				
0001	**GENERAL**				
0001AA	Mobilization & Demobilization	1	LS	XXX	$
0001AB	Security	1	LS	XXX	$
0001AC	Site Planning & Design Costs	1	LS	XXX	$
0001AD	As-Built Drawings	1	LS	XXX	$
0001AE	Main Distribution Panels, metering	1	LS	XXX	$
0001AF	Sub Distribution Panels	1	LS	XXX	$
0001AG	Temporary Power	1	LS	XXX	$
0001AH	PVC conduit	1	LS	XXX	$
0001AJ	Branch panels	1	LS	XXX	$
0001AK	Branch circuits, metallic conduit	1	LS	XXX	$
0001AL	Grounding equipment	1	LS	XXX	$
0001AM	Testing and Commissioning	1	LS	XXX	$
0001AN	Replacement of 4 existing Generators	1	LS	XXX	$
0002	**DBA INSURANCE**				
0002AA	DBA Insurance	1	LS	XXX	$
The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherfoord invoice submitted by the offeror after contract award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by Contract modification to reflect actual premium amounts paid.					
	TOTAL PROPOSAL:				$

PROPOSAL SCHEDULE NOTES

1. Offeror shall submit prices on all items. Scope of work on each items are described in Section 01010. The quantities shown in the proposal schedule shall take precedence and be used for developing the proposal.

2. Only one contract for the entire schedule will be awarded under this solicitation. This project will be awarded as a lump sum contract. This Proposal Schedule is an accounting tool for allocating funds to applicable budget.

3. Costs associated with this project shall include design and construction costs, site development, and utility installation.

4. DESIGN COSTS DEFINITION: Design costs shall consist of design analysis, drawings, and specifications for all facilities.

5. PERIOD OF PERFORMANCE AND LIQUIDATED DAMAGES: See Section 00150 for performance schedule and liquidated damages. Period of performance is defined as the number of calendar days from receipt of notice to proceed. Liquidated damages are assessed at the stated rate per day for every day of delay past the period of performance until contract completion for either the Base Items or the Optional Items whichever is applicable.

6. Abbreviations:

LS = Lump Sum

-END OF SECTION-

SECTION 00113

SECTION 00113

PROCEDURES FOR SUBMITTAL OF OFFERS AND PROPOSAL EVALUATION CRITERIA

GENERAL

BASIS AND INTENT

The intent of this Request for Proposal (**Solicitation**) is to select one (1) Contractor for the design-build (DB) to upgrade the Afghan National Police (ANP) – National Training Center (NTC), Adraskan Electrical Power System.

The basis of award is Lowest Price Technically Acceptable (LPTA).

The Contracting Officer will award a fixed price contract to the successful Offeror whom the Source Selection Authority determines conforms to the **Solicitation** and is technically acceptable, is fair and reasonable, and offers the lowest price to the Government. The contract will NOT be awarded solely on the basis of lowest price.

DEFINITIONS

When the word 'Offeror' is encountered throughout Section 00113, it is intended to mean a company seeking to do business with the Government that submits a proposal in response to this solicitation.

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

When the word 'Government' is encountered throughout this Section, it is intended to mean US Army Corps of Engineers Afghanistan District - South (AES).

SUBMITTALS

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

GENERAL SUBMISSION REQUIREMENTS

Offerors submitting proposals for this project should limit submissions to data essential for evaluation of proposals so that a minimum of time and monies will have been expended in preparing information required herein. However, in order to be effectively and equitably evaluated, the proposals must include information sufficiently detailed to clearly describe the Offeror's capabilities to successfully complete the project. Proposals should follow in the order of sequence set forth in the **Solicitation**. Information provided out of sequence may not be evaluated and may result in the Offeror's disqualification from award. **Attached forms shall be used**. Offeror's alternate forms are not acceptable. Requirements stated in this **Solicitation** are minimums.

SUBMISSION ADDRESS

Proposals for this solicitation will be accepted until the date and time indicated on Standard Form 1442. Offerors shall submit their proposals electronically, in PDF format, to the following email addresses:

mark.t.jones@usace.army.mil with a courtesy copy to tas.contracting@usace.army.mil.

All questions and inquiries shall be submitted by email to:

mark.t.jones@usace.army.mil with a courtesy copy to tas.contracting@usace.army.mil.
Electronic (as email) inquiries to this solicitation must be received by this office not later than Seven (7) calendar days prior to the due date of proposals. Questions received less than seven days prior to the due date of proposals will not be entertained.

Faxed Proposals, Modifications Thereto, Or Cancellations Will Not Be Accepted. However, offers may be withdrawn in writing by e-mail. Any written notice to withdraw an offer sent to this office must be received in the office designated for receipt of offers not later than the exact date and time set for receipt of proposals.

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

SITE VISIT

There will be no site visit for this project.

PROPOSAL EVALUATION PROCESS

A Source Selection Evaluation Board (SSEB), comprised of representatives of the US Army Corps of Engineers (USACE), User/Customer, and other required personnel, will evaluate the proposals. Offerors are advised that the technical evaluation and rating of proposals will be conducted in strict confidence so that the Technical and Performance Capability parts of the proposals are reviewed and rated without knowledge of the price offered. The number and identities of the Offerors are not revealed to anyone who is not involved in the evaluation and award process or to other Offerors. Proposals will be evaluated based on the factors described herein, and the basis of award is Lowest Price Technically Acceptable (LPTA).

The evaluation process essentially consists of three (3) parts:

1. Proposal Compliance Review - Responsibility Determination
2. Technical and Performance Capability Evaluation
3. Price and Pro Forma Information Evaluation

PROPOSAL COMPLIANCE REVIEW - RESPONSIBILITY DETERMINATION

This is an initial review to ensure that all required forms and certifications are complete and that both a technical and price proposal were received. **Incomplete Submissions Will Not Be Evaluated Further.**

TECHNICAL & PERFORMANCE CAPABILITY EVALUATION

The SSEB will evaluate and rate those proposals passing the first review, above. Proposals will be evaluated against the **Solicitation** requirements. Factors will be rated either 'Acceptable' or 'Unacceptable'. If a proposal is determined an 'Unacceptable,' further evaluation by the SSEB is not warranted.

PRICE & PRO FORMA INFORMATION EVALUATION

The SSEB can evaluate Price and Pro Forma Information independent of the Technical and Performance Capability evaluation. The SSEB will not have access to price information until completion of the Technical and Performance Capability evaluation.

PROPOSAL SUBMISSION REQUIREMENTS & INSTRUCTIONS

Offerors are required to submit a proposal made up of a Technical and Performance Capability proposal (Volume I) and a Price and Pro Forma Information proposal (Volume II). All proposal materials shall be submitted in Two (2) PDF Files ('Volume I' and 'Volume II') with a table of contents and continuous page numbering for each Volume. A **Project Schedule** shall be included with the Technical and Performance Capability materials. **The Proposal Shall Not Mix the Contents of Volume I and II; Each Volume Shall Be a Separate Electronic File.** The sections should parallel the submission requirements identified below. Failure to place the required submission information under the appropriate tab may result in a lower rating if the evaluators cannot readily find the appropriate information.

There is a limit of 50 pages total for the entire package using a minimum font size of 11 and a minimum margin size of 13 mm (1/2") on all sides. **Information Submitted Which Exceeds The Specified Limit Will Not Be Evaluated.** Page size to be based on A4 (210 mm x 300 mm) or 8-1/2" x 11" Letter Size, and must be readily formatted for printing on a standard printer. The **Project Schedule** size shall be based on a larger sheet (maximum size A3 (300 mm x 420 mm or 11" x 17") and included in Volume I in the PDF package. **Format Restrictions Will Be Strictly Adhered To And Enforced.**

PROPOSAL INFORMATION & RELATED EVALUATION FACTORS

Proposals will be evaluated (in English) in accordance with the evaluation factors. Offerors are reminded to include their best technical and price terms in their initial offer and not to automatically assume that they will have an opportunity to participate in discussions or be asked to submit a revised offer. The Government may make award of a conforming proposal without discussions if deemed to be within the best interests of the Government.

Volume I - Technical and Performance Capability:

Factor 1 Experience
Factor 2 Personnel
Factor 3 Past Performance

Volume II - Price and Pro Forma Information:

Tab A Standard Form 1442
Tab B Section 00010, Proposal Bid Schedule

Additional Information Provided Beyond The Required Documentation May Not Be Evaluated.

TECHNICAL & PERFORMANCE CAPABILITY

FACTOR 1 – EXPERIENCE

FACTOR 1 - SUBMISSION REQUIREMENTS

The Government will evaluate the offeror's prior experience as either a prime contractor or sub-contractor. AT LEAST ONE (1) submission shall demonstrate experience as a prime contractor.

Each offeror shall complete a minimum of two (2), but no more than three (3), project 'Contractor Experience' form(s), attached at the end of this solicitation, (Appendix A, Form A1), for each project submitted. All blocks must be filled-in and all data must be accurate, current and complete. Submission requirements (in English) for experience are:

a. If claiming Prime Contractor Experience, a Prime Contractor must have self-performed, on site at least 25% of the direct contract labor, exclusive of other general condition or field overhead personnel, material, equipment, design or subcontractors for projects submitted to demonstrate its experience.

b. EACH project provided to demonstrate experience must have an awarded contract value of over $75,000.00 (USD).

c. AT LEAST ONE (1) of the projects used to demonstrate experience must have been constructed in Afghanistan within the last 5 years from the date of the solicitation.

d. AT LEAST ONE (1) Project used to demonstrate experience: Completed within the last 5 years from the date of this solicitation must demonstrate experience AT LEAST ONE (1) of the following construction facilities, features, or activities:
   (i) Electrical Power Plants
   (ii) Electrical Power Generating Systems

e. Individual task order of a Multiple Award Task Order Contract (MATOC) may be submitted as a single project to demonstrate experience as defined in Section 4.1.1.1 – a thru e. Combining contract values of individual task orders of a MATOC is not allowed to meet criteria 4.1.1.1 – b above.

FACTOR 1 - EVALUATION CRITERIA

"Acceptable" Rating:
The SSEB will evaluate experience submitted per Section 5.1.1.1. Offerors must meet all of the experience requirements identified in Section 5.1.1.1 to receive an 'Acceptable' rating.

"Unacceptable" Rating
Proposals that do not clearly meet the minimum acceptable requirements identified in Section 5.1.1.1 will receive an "Unacceptable" rating.

FACTOR 2 – PERSONNEL

FACTOR 2 - SUBMISSION REQUIREMENTS

Provide resumes for EACH of the following key personnel (note, key personnel resumes shall not exceed two pages per key personnel):
a. Overall Project Manager
b. Construction Superintendent
c. Quality Control Manager
d. Senior Electrical Design Engineer

The Overall Project Manager, Construction Superintendent and Quality Control Manager shall have:

- Documentation identifying each person is a current full-time employee of the Prime Contractor or a letter of intent signifying their employment for this project
- Minimum of five (5) years of relevant experience in their assigned job position

The Senior Design Engineer shall have:

- Documentation identifying each person is a current full-time employee of either the Prime Contractor or sub-consultant or a letter of intent signifying their employment for this project.
- 4-year college graduate with an engineering degree [degree, year awarded, and specialization to be indicated on the 'Personnel Resume/Experience' form (Appendix A, Form A2)].
- Minimum of five (5) years of engineering experience [total number of years' experience to be indicated on the 'Personnel Resume/Experience' form (Appendix A, Form A2)].

Resumes must include the information on 'Personnel Resume/Experience' form (Appendix A, Form A2). All information must be filled in and all data should be accurate, current, and complete.

NOTE: Identified personnel must be used on the project. Any substitution of identified persons will not be permitted without prior approval of the Contracting Officer. Identification of two individuals proposed for a single position will result in the evaluation of only the least qualified person. A single individual cannot be identified as 'key personnel' for more than one 'key personnel' position.

FACTOR 2 - EVALUATION CRITERIA

"Acceptable" Rating

The SSEB will evaluate the resumes of the key personnel for compliance with requirements per Section 5.1.2.1. Offerors must meet all of the key personnel requirements identified in Section 5.1.2.1 to receive an 'Acceptable' rating.

"Unacceptable" Rating

Proposals that fail to include substantial evidence that the offeror can provide key personnel with the qualifications and relevant experience as specified in Section 5.1.2.1 will be considered to NOT meet the minimum requirements of the SOLICITATION and will receive an 'Unacceptable' rating for this Factor.

FACTOR 3 - PAST PERFORMANCE

FACTOR 3 - SUBMISSION REQUIREMENTS

A completed 'Past Performance Questionnaire' (Appendix A, Form A3) is required for AT LEAST ONE (1) of the 'Project Experience' forms submitted. **The 'Past Performance Questionnaire' must be submitted by the Point of Contact (POC) from the Point of Contact's listed email address, and must not be included in the Offeror's proposal package.** Since compliance by POCs is not ensured, the Offeror is encouraged to have more than one **'Past Performance Questionnaire'** per project. All blocks must be filled in and all data must be accurate, current, and complete. Where multiple POCs are used for a single project, provide an additional "Reference Point of Contact (POC)" section for each additional reference and attach to the associated 'Project Experience' form.

Reference Points of Contact may include: The USACE COR for the Project, the Owner's Representative, the Primary Facility User familiar with the project, or someone whom the Offeror was under the direction

of. For projects where the Offeror was not Prime, the Prime Contractor who the Offeror worked under may be used as a POC. Additional references shall NOT be equipment and material suppliers and dealers or sub-contractors or persons not associated with the project. Provided reference information must match project names, contract numbers, project locations, owner's name, points of contact (POC), telephone numbers, and email addresses.

The Offeror may provide in the package additional ratings, letters of recommendation, commendations, and awards on projects which demonstrate past construction performance. However, documents that can be verified (i.e. such as a performance review sent by a POC) will have greater weight in the evaluation process. Additional materials in the proposal are included in the total submittal page count.

FACTOR 3 - EVALUATION CRITERIA

"Acceptable" Rating
To receive an "Acceptable" rating, the proposal must include and/or demonstrate, that based on the offeror's performance record, the Government has a reasonable expectation that the offeror will successfully perform the required effort, or the offeror's performance record is unknown (See note below.)

Note: In the case of an offeror without a record of relevant past performance or for whom information on past performance is not available or so sparse that no meaningful past performance rating can be reasonably assigned, the offeror may not be evaluated favorably or unfavorably on past performance (see FAR 15.305 (a)(2)(iv)). Therefore, the offeror shall be determined to have unknown past performance. In the context of acceptability/unacceptability, "unknown" shall be considered "acceptable."

"Unacceptable" Rating
An "Unacceptable" rating will be given when, based on the offeror's performance record, the Government has no reasonable expectation that the offeror will be able to successfully perform the required effort.

The Government reserves the right to check any or all cited references to verify supplied information and to assess owner satisfaction.

PRICE & PRO FORMA INFORMATION

TAB A, STANDARD FORM 1442

TAB A - SUBMISSION REQUIREMENTS

The offeror shall submit Standard Form 1442. This form is included in Section 00010 of this solicitation. Submit a completed Section 00600 – Representations and Certifications

TAB A - EVALUATION CRITERIA

Standard form 1442 is to be completed and duly executed with an original signature by an official authorized to bind the company in accordance with FAR 4.102.

TAB B, SECTION 00010, PROPOSAL BID SCHEDULE

TAB B - SUBMISSION REQUIREMENTS

The Offeror shall complete and submit in its entirety Section 00010, Proposal Bid Schedule. This form is included in Section 00010 of this solicitation.

TAB B - EVALUATION CRITERIA

The price (Proposal Bid Schedule) may be evaluated by the SSEB for reasonableness through the use of cost and or price analysis.

JOINT VENTURE (JV)

If the Offeror is a Joint Venture (JV), include a copy of the JV Agreement. If a JV Agreement has not yet been finalized / approved, indicate its status. The JV Agreement will not count towards the 50-page limit.

-END OF SECTION-

U.S. ARMY CORPS OF ENGINEERS

APPENDIX A

Appendix A, Form A1, CONTRACTOR EXPERIENCE FORM

Your firm's name

_____

Project name and project location (city, state, country)

_____

Project owner's name (government agency, commercial firm, or other organization)

_____

Project owner's complete address

_____

Your company's role (prime contractor, joint venture, subcontractor) _____

Percentage of work your company performed: _____%

Contract number for this project: _____
Contract value, at time of award $ _____
Final invoiced amount (or amount invoiced to date): $ _____

Relevant dates
Date of contract: _____
Date work began: _____
Completion date, initial: _____
Completion date, actual: _____

Points of contact
English-speaking technical point of contact for the project owner
Name and title _____
Email address _____
Phone number _____

English-speaking technical point of contact for the project owner
Name and title _____
Email address _____
Phone number _____

Description of construction contract work

- Describe detailed nature and scope of work.
- Detail how the project demonstrates experience requirements in Section 00113, Paragraph 4.1.1.1.
- Also include an explanation of any performance problems or other conflicts with the customer. (Offerors will be evaluated for the ability to provide timely, complete work; be certain to explain any differences between the initial and actual completion dates above.)
- Use continuation sheet for additional information, if necessary.

Current status of the project (check one)

___ Work continuing, on schedule
___ Work continuing, behind schedule
___ Work completed, no further action pending
___ Work completed, routine administrative action pending
___ Work completed, claims negotiation pending/underway
___ Work completed, litigation pending/underway
___ Terminated for convenience
___ Terminated for default
___ Other (Explain, use additional sheets as necessary)

Appendix A, Form A2. PERSONNEL RESUME / EXPERIENCE FORM

NOTE

- Key personnel resumes shall not exceed two pages per key personnel
- Attach separate documentation of full time employment or letter of intent
- Attach separate documentation of college degree (photocopy, transcript, etc)

Name: _____

Title: _____

Name of your firm: _____

Number of years with this firm _____

Number of years with other firms _____

Number of years in field of work _____

Education

Degree(s) _____

Year(s) awarded _____

Specialization: _____

Registration/Accreditation

◯ YES No. _____ Country/State _____ Year _____

◯ NO

Your assignment on this project _____

_____

Experience and qualifications relevant to this project

Include a POC with phone number for the two most recent projects described:

PROJECT #1

Project name and location: _____

General scope of project: _____

_____

_____

Your role in the project and a description of the duties you performed: _____

_____

_____

POC for reference (name and phone number):

Name: _____

Telephone Number: _____

PROJECT #2

Project name and location: _____

General scope of project: _____

_____

_____

Your role in the project and a description of the duties you performed: _____

_____

_____

POC for reference (name and phone number):

Name: _____

Telephone Number: _____

PROJECT #3

Project name and location: _____

General scope of project: _____

_____

_____

Your role in the project and a description of the duties you performed: _____

_____

_____

PROJECT #4

Project name and location: _____

General scope of project: _____

_____

_____

Your role in the project and a description of the duties you performed: _____

_____

_____

Appendix A, Form A3, PAST PERFORMANCE QUESTIONNAIRE

- *Part I of this form is to be completed by the Offeror*
- *Part II of this form is to be completed by a POC, Point of Contact (respondent)*

Notation to the Point of Contact:

Please provide your candid responses. The information that you provide will be used in the awarding of federal contracts. Therefore, it is important that your information be as factual, accurate and complete as possible to preclude the need for follow up by the evaluators. If you do not have knowledge of or experience with the company in question, please forward this questionnaire to the person who does.

Return Information

Please return this completed performance questionnaire prior to the solicitation due date via email to mark.t.jones@usace.army.mil with a courtesy copy to tas.contracting@usace.army.mil.

PART I (Part I is to be completed by the Offeror)

A. Contract Identification

Contractor: _____

Company Name / Division: _____

Address: _____

_____

Contract/Project Identification/Title: _____

Contract Number: _____

Contract Type: _____

Prime Contractor Name (if different from the contractor name cited above): _____

_____

Contract Award Date: _____

Forecasted or Actual Contract Completion Date: _____

Nature of the Contractual Effort: _____

B. Identification of Offeror's Representative

Name: _____

Title: _____

Date: _____

Telephone number: _____

Fax number: _____

Email address: _____

Address: _____

_____

PART II – Evaluation (Part II is to be completed by Point of Contact - Respondent)

A. Compliance of products, services, documents, and related deliverables to specification requirements and standards of good workmanship

Select one:

- ◯ Exceeds contractual requirements (explanation must be provided in comments field below)
- ◯ Meets contractual requirements
- ◯ Failed to meet contractual requirements (explanation must be provided in comments field below)

Comments

_____

_____

_____

_____

B. Effectiveness of project management (to include use ad control of subcontractors)

Select one:

- ◯ Exceptional (explanation must be provided in comments field below)
- ◯ Satisfactory
- ◯ Unsatisfactory (explanation must be provided in comments field below)

Comments

_____

_____

_____

_____

C. Timeliness of performance for services and product deliverables

Select one:

- ◯ Exceeds contractual requirements (explanation must be provided in comments field below)

◯ Meets contractual requirements
◯ Failed to meet contractual requirements (explanation must be provided in comments field below)

Comments

D. Effectiveness in forecasting and controlling project cost

Select one:

◯ Exceptional (explanation must be provided in comments field below)
◯ Satisfactory
◯ Unsatisfactory (explanation must be provided in comments field below)

Comments

E. Commitment to customer satisfaction and businesslike concern for its customers' interests

Select one:

◯ Exceptional (explanation must be provided in comments field below)
◯ Satisfactory
◯ Unsatisfactory (explanation must be provided in comments field below)

Comments

F. Overall satisfaction

Select one:

◯ Exceptional (explanation must be provided in comments field below)
◯ Satisfactory

◯ Unsatisfactory (explanation must be provided in comments field below)

Comments

_____

_____

_____

_____

G. General comments; provide any other relevant performance information

Comments

_____

_____

_____

_____

_____

_____

H. Other information sources; please provide the following information

Are you aware of other relevant past efforts by this company?

◯ Yes

◯ No

If yes, please provide the name and telephone number of appoint of contact.

Name _____

Telephone number _____

I. Respondent identification – please provide the following information:

Respondent's name: _____

Respondent's organization: _____

Respondent's title: _____

Telephone number: _____

Fax number: _____

Email: _____

Address: _____

_____

CLAUSES INCORPORATED BY REFERENCE

52.215-1 Instructions to Offerors--Competitive Acquisition JAN 2004

CLAUSES INCORPORATED BY FULL TEXT

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

(1) Obviously misplaced decimal points will be corrected;

(2) Discrepancy between unit price and extended price, the unit price will govern;

(3) Apparent errors in extension of unit prices will be corrected;

(4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

52.236-28 PREPARATION OF PROPOSALS--CONSTRUCTION (OCT 1997)

(a) Proposals must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including--

(1) Lump sum price;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words “no proposal” in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of provision)

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

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

http://farsite.hill.af.mil/

http://acquisition.gov/comp/far/index.html

(End of provision

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of"(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any **Defense FAR supplement (48 CFR Chapter 2)** provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

DBA

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

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

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

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

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

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

(3) Total DBA Cost: _____
(Amount of DBA Premium) Ex: $100 K multiplied by 3% is $3,000.00

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

(d) CNA Insurance is utilizing Rutherfoord International as their managing Broker. The primary POC is the USACE DBA Program Administrator is Nikki Houngmany, (703) 813-6571 usace@rutherfoord.com. The alternate POC is Sara Payne, Senior Vice President, (703) 813-6503 sara.payne@rutherfoord.com.

(e) Labor Category/Job Classification Definitions:

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

CONSTRUCTION: "Blue-collar" workers providing services such as carpentry, electrical, plumbing, mechanical, concrete/asphalt, de-mining, roofing, landscaping, janitorial, trash removal, Port-a-John/septic cleaning, pest exterminating, auto repair/dismantling, drivers/couriers, and heavy equipment operation and maintenance. Construction site supervisors/managers and life support service providers are included in this category as well as all Unskilled and Manual Labor Day Laborers. * *Most work will fall into this category**

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

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

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (APR 2010)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property (if offeror checks “have”, the offeror shall also see 52.209-7, if included in this solicitation); and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.; and

(D) Have [ballot], have not [ballot], within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) The tax liability is finally determined. The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(ii) The taxpayer is delinquent in making payment. A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(2) Examples. (i) The taxpayer has received a statutory notice of deficiency, under I.R.C. Sec. 6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. Sec. 6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. Sec. 6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) Principal, for the purposes of this certification, means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (JAN 2011)

(a) Definitions. As used in this provision--

Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

Federal contracts and grants with total value greater than $10,000,000 means--

(1) The total value of all current, active contracts and grants, including all priced options; and

(2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror ( ) has ( ) does not have current active Federal contracts and grants with total value greater than $10,000,000.

(c) If the offeror checked “has” in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

(1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

(i) In a criminal proceeding, a conviction.

(ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of $5,000 or more.

(iii) In an administrative proceeding, a finding of fault and liability that results in--

(A) The payment of a monetary fine or penalty of $5,000 or more; or

(B) The payment of a reimbursement, restitution, or damages in excess of $100,000.

(iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.

(2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the Central Contractor Registration database at http://www.ccr.gov (see 52.204-7).

(End of provision)

52.225-20 PROHIBITION ON CONDUCTING RESTRICTED BUSINESS OPERATIONS IN SUDAN--CERTIFICATION (AUG 2009)

(a) Definitions. As used in this provision--

Business operations means engaging in commerce in any form, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

Marginalized populations of Sudan means--

(1) Adversely affected groups in regions authorized to receive assistance under section 8(c) of the Darfur Peace and Accountability Act (Pub. L. 109-344) (50 U.S.C. 1701 note); and

(2) Marginalized areas in Northern Sudan described in section 4(9) of such Act.

Restricted business operations means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate--

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

(2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;

(3) Consist of providing goods or services to marginalized populations of Sudan;

(4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;

(5) Consist of providing goods or services that are used only to promote health or education; or

(6) Have been voluntarily suspended.

(b) Certification. By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(End of provision)

52.225-25 PROHIBITION ON ENGAGING IN SANCTIONED ACTIVITIES RELATING TO IRAN--CERTIFICATION (SEP 2010)

(a) Definition.

Person--

(1) Means--

(i) A natural person;

(ii) A corporation, business association, partnership, society, trust, financial institution, insurer, underwriter, guarantor, and any other business organization, any other nongovernmental entity, organization, or group, and any governmental entity operating as a business enterprise; and

(iii) Any successor to any entity described in paragraph (1)(ii) of this definition; and

(2) Does not include a government or governmental entity that is not operating as a business enterprise.

(b) Certification. Except as provided in paragraph (c) of this provision or if a waiver has been granted in accordance with FAR 25.703-2(d), by submission of its offer, the offeror certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act of 1996. These sanctioned activities are in the areas of development of the petroleum

resources of Iran, production of refined petroleum products in Iran, sale and provision of refined petroleum products to Iran, and contributing to Iran's ability to acquire or develop certain weapons.

(c) Exception for trade agreements. The certification requirement of paragraph (b) of this provision does not apply if--

(1) This solicitation includes a trade agreements certification (e.g., 52.225-4, 52.225-11 or comparable agency provision); and

(2) The offeror has certified that all the offered products to be supplied are designated country end products or designated country construction material.

(End of provision)

252.225-7023 PREFERENCE FOR PRODUCTS OR SERVICES FROM IRAQ OR AFGHANISTAN (APR 2010)

(a) Definitions. Product from Iraq or Afghanistan and service from Iraq or Afghanistan, as used in this provision, are defined in the clause of this solicitation entitled ``Requirement for Products or Services from Iraq or Afghanistan'' (DFARS 252.225-7024).

(b) Representation. The offeror represents that all products or services to be delivered under a contract resulting from this solicitation are products from Iraq or Afghanistan or services from Iraq or Afghanistan, except those listed in--

(1) Paragraph (c) of this provision; or

(2) Paragraph (c)(2) of the provision entitled Trade Agreements Certificate,'' or ``Trade Agreements Certificate--Inclusion of Iraqi End Products,'' if included in this solicitation.

(c) Other products or services. The following offered products or services are not products from Iraq or Afghanistan or services from Iraq or Afghanistan:

(Country of Origin)

(Line Item Number)

(d) Evaluation. For the purpose of evaluating competitive offers, the Contracting Officer will increase by 50 percent the prices of offers of products or services that are not products or services from Iraq or Afghanistan.

(End of provision)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 2005)

(a) Definitions. As used in this provision--

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States means the 50 States, the District of Columbia, outlying areas, and the outer Continental Shelf as defined in 43 U.S.C. 1331.

(3) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.225-7042 AUTHORIZATION TO PERFORM (APR 2003)

The offeror represents that it has been duly authorized to operate and to do business in the country or countries in which the contract is to be performed.

(End of provision)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUL 2010
52.222-29	Notification Of Visa Denial	JUN 2003
52.222-50	Combating Trafficking in Persons	FEB 2009
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.225-14	Inconsistency Between English Version And Translation Of Contract	FEB 2000
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-27	Prompt Payment for Construction Contracts	OCT 2008
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-7	Permits and Responsibilities	NOV 1991
52.244-6	Subcontracts for Commercial Items	DEC 2010
52.246-21	Warranty of Construction	MAR 1994
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (May 2004) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	JAN 2009
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.204-7000	Disclosure Of Information	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.222-7002	Compliance With Local Labor Laws (Overseas)	JUN 1997
252.225-7041	Correspondence in English	JUN 1997
252.225-7044	Balance of Payments Program--Construction Material	DEC 2010
252.229-7000	Invoices Exclusive of Taxes or Duties	JUN 1997
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7008	Assignment of Claims (Overseas)	JUN 1997
252.232-7010	Levies on Contract Payments	DEC 2006
252.233-7001	Choice of Law (Overseas)	JUN 1997
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.247-7023 Alt III	Transportation of Supplies by Sea (May 2002) Alternate III	MAY 2002

CLAUSES INCORPORATED BY FULL TEXT

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH

CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (DEC 2010)

(a) Definition. Commercially available off-the-shelf (COTS) item, as used in this clause--

(1) Means any item of supply (including construction material) that is--

(i) A commercial item (as defined in paragraph (1) of the definition in FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 U.S.C. App. 1702), such as agricultural products and petroleum products.

(b) The Government suspends or debars Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract, in excess of $30,000 with a Contractor that is debarred, suspended, or proposed for debarment by any executive agency unless there is a compelling reason to do so.

(c) The Contractor shall require each proposed subcontractor whose subcontract will exceed $30,000, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(d) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the Excluded Parties List System). The notice must include the following:

(e) Subcontracts. Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that--

(1) Exceeds $30,000 in value; and

(2) Is not a subcontract for commercially available off-the-
shelf items.

(End of clause)

52.209-9 Updates of Publicly Available Information Regarding Responsibility Matters (JAN 2011)
(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database at http://www.ccr.gov.

(b)(1) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(2) The Contractor will have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3)(i) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(ii) As required by section 3010 of Public Law 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(End of clause)

52.232-34 PAYMENT BY ELECTRONIC FUNDS TRANSFER—OTHER THAN CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend payment due dates until such time as the Government makes payment by EFT (but see paragraph (d) of this clause).

(b) Mandatory submission of Contractor's EFT information. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (j) of this clause). The Contractor shall provide this information directly to the office designated in this contract to receive that information **no later than 15 days prior to submission of the first request for payment.** If not otherwise specified in this contract, the payment office is the designated office for receipt of the Contractor's EFT information. If more than one designated office is named for the contract, the Contractor shall provide a separate notice to each office. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the Contractor provides EFT information applicable to multiple contracts, the Contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. (1) The Government is not required to make any payment under this contract until after receipt, by the designated office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than 30 days after its receipt by the designated office to the extent payment is

made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the payment office. If such suspension would result in a late payment under the prompt payment terms of this contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall provide the EFT information required by paragraph (j) of this clause to the designated office, and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information provided by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.

(j) EFT information. The Contractor shall provide the following information to the designated office. The Contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause.

(1) The contract number (or other procurement identification number).

(2) The Contractor's name and remittance address, as stated in the contract(s).

(3) The signature (manual or electronic, as appropriate), title, and telephone number of the Contractor official authorized to provide this information.

(4) The name, address, and 9-digit Routing Transit Number of the Contractor's financial agent.

(5) The Contractor's account number and the type of account (checking, saving, or lockbox).

(6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the Contractor's financial agent.

(7) If applicable, the Contractor shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the Contractor's financial agent is not directly on-line to the Fedwire Transfer System; and, therefore, not the receiver of the wire transfer payment.

(End of clause)

52.236-13 ACCIDENT PREVENTION (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the

contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(End of clause)

52.243-4 CHANGES (JUN 2007)

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

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished property or services; or

(4) Directing acceleration in the performance of the work.

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

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

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

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

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

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

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

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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

http://farsite.hill.af.mil/

http://acquisition.gov/comp/far/index.html

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any **Defense FAR supplement (48 CFR Chapter 2)** clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.225-7024 REQUIREMENT FOR PRODUCTS OR SERVICES FROM IRAQ OR AFGHANISTAN (APR 2010)

(a) Definitions. As used in this clause--

(1) Product from Iraq or Afghanistan means a product that is mined, produced, or manufactured in Iraq or Afghanistan.

(2) Service from Iraq or Afghanistan means a service (including construction) that is performed in Iraq or Afghanistan predominantly by citizens or permanent resident aliens of Iraq or Afghanistan.

(b) The Contractor shall provide only products from Iraq or Afghanistan or services from Iraq or Afghanistan under this contract, unless, in its offer, it specified that it would provide products or services other than products from Iraq or Afghanistan or services from Iraq or Afghanistan.

(End of clause)

252.225-7995 CONTRACTOR PERSONNEL PERFORMING IN THE UNITED STATES CENTRAL COMMAND AREA OF RESPONSIBILITY (DEVIATION 2011-O0004) (APR 2011)

(a) Definition. As used in this clause—

“Chief of mission” means the principal officer in charge of a diplomatic mission of the United States or of a United States office abroad which is designated by the Secretary of State as diplomatic in nature, including any

individual assigned under section 502(c) of the Foreign Service Act of 1980(Public Law 96-465) to be temporarily in charge of such a mission or office.

(b) General. (1) This clause applies when contractor personnel are required to perform in the United States Central Command (USCENTCOM) Area of Responsibility (AOR) and are not covered by the clause at DFARS 252.225-7040,Contractor Personnel Authorized to Accompany U.S. Armed Forces Deployed Outside the United States.

(2) Contract performance may require work in dangerous or austere conditions. Except as otherwise provided in the contract, the Contractor accepts the risks associated with required contract performance in such operations.

(3) Contractor personnel are civilians.

(i) Except as provided in paragraph (b)(3)(ii) of this clause, and in accordance with paragraph (i)(3) of this clause, contractor personnel are only authorized to use deadly force in self defense.

(ii) Contractor personnel performing security functions are also authorized to use deadly force when use of such force reasonably appears necessary to execute their security mission to protect assets/persons, consistent with the terms and conditions contained in the contract or with their job description and terms of employment.

(4) Service performed by contractor personnel subject to this clause is not active duty or service under 38 U.S.C. 106.

(c) Support. Unless specified elsewhere in the contract, the Contractor is responsible for all logistical and security support required for contractor personnel engaged in this contract.

(d) Compliance with laws and regulations. The Contractor shall comply with, and shall ensure that its personnel in the USCENTCOM AOR are familiar with and comply with, all applicable—

(1) United States, host country, and third country national laws;

(2) Treaties and international agreements;

(3) United States regulations, directives, instructions, policies, and procedures; and

(4) Force protection, security, health, or safety orders, directives, and instructions issued by the USCENTCOM Commander; however, only the Contracting Officer is authorized to modify the terms and conditions of the contract.

(e) Preliminary personnel requirements.

(1) Specific requirements for paragraphs (e)(2)(i) through (e)(2)(vi) of this clause will be set forth in the statement of work or elsewhere in the contract.

(2) Before contractor personnel depart from the United States or a third country, and before contractor personnel residing in the host country begin contract performance in the USCENTCOM AOR, the Contractor shall ensure the following:

(i) All required security and background checks are complete and acceptable.

(ii) All personnel are medically and physically fit and have received all required vaccinations.

(iii) All personnel have all necessary passports, visas, entry permits, and other documents required for contractor personnel to enter and exit the foreign country, including those required for in-transit countries.

(iv) All personnel have received theater clearance, if required by the Combatant Commander.

(v) All personnel have received personal security training. The training must, at a minimum—

(A) Cover safety and security issues facing employees overseas;

(B) Identify safety and security contingency planning activities; And

(C) Identify ways to utilize safety and security personnel and other resources appropriately.

(vi) All personnel who are U.S. citizens are registered with the U.S. Embassy or Consulate with jurisdiction over the area of operations on-line at http://www.travel.state.gov.

(3) The Contractor shall notify all personnel who are not a local national or ordinarily resident in the host country that—

(i) Such employees, and dependents residing with such employees, who engage in conduct outside the United States that would constitute an offense punishable by imprisonment for more than one year if the conduct had been engaged in within the special maritime and territorial jurisdiction of the United States, may potentially be subject to the criminal jurisdiction of the United States (see the Military Extraterritorial Jurisdiction Act of 2000 (18 U.S.C. 3261 et seq.);

(ii) Pursuant to the War Crimes Act, 18 U.S.C. 2441, Federal criminal jurisdiction also extends to conduct that is determined to constitute a violation of the law of war when committed by a civilian national of the United States;

(iii) Other laws may provide for prosecution of U.S. nationals who commit offenses on the premises of United States diplomatic, consular, military, or other Government missions outside the United States (18U.S.C. 7(9)).

(f) Processing and departure points. The Contractor shall require its personnel who are arriving from outside the area of performance to perform in the USCENTCOM AOR to—

(1) Process through the departure center designated in the contract or complete another process as directed by the Contracting Officer;

(2) Use a specific point of departure and transportation mode as directed by the Contracting Officer; and

(3) Process through a reception center as designated by the Contracting Officer upon arrival at the place of performance.

(g) Registration of Contractor personnel and private security contractor equipment.

(1) The Contractor is required to register in the automated webbased Synchronized Predeployment and Operational Tracker (SPOT) following the procedures in paragraph (g)(4) of this clause.

(2) Prior to deployment of contractor employees, or, if already in the USCENTCOM AOR, upon becoming an employee under this contract, the Contractor shall enter into SPOT, and maintain current data, including actual arrival date and departure date, for all contractor personnel, including U.S. citizens, U.S. legal aliens, third-country nationals, and local national contractor personnel, who are performing this contract in the USCENTCOM AOR as follows:

(i) In all circumstances, this includes any personnel performing private security functions.

(ii) For personnel other than those performing private security functions, this requirement excludes anyone—

(A) Hired under contracts valued less than $100,000;

(B) Who will be performing in the CENTCOM AOR less than 30 continuous days; or

(C) Who, while afloat, are tracked by the Diary Message Reporting System

(3) Weapons, armored vehicles, helicopters, and other military vehicles used by personnel performing private security functions under this contract must be entered into SPOT, and the currency of such information must be maintained.

(4) Follow these steps to register in and use SPOT:

(i) SPOT registration requires one of the following login methods:

(A) A Common Access Card or a SPOT-approved digital certificate; or

(B) A Government-sponsored SPOT user ID and password or an Army Knowledge Online (AKO) account
.
(ii) To register in SPOT:

(A) Contractor company administrators should register for a SPOT account at https://spot.altess.army.mil; and

(B) The customer support team must validate user need. This process may take two business days. Company supervisors will be contacted to validate Contractor company administrator account requests and determine the appropriate level of user access.

(iii) Upon approval, all users will access SPOT at https://spot.altess.army.mil/.

(iv) Refer SPOT application assistance questions to the Customer Support Team at 717-458-0747 or SPOT.helpdesk@us.army.mil. Refer to the SPOT Enterprise Suite Resource Center at http://www.resource.spot-es.net/ for additional training resources and documentation regarding registration for and use of SPOT.

(5) The Contractor shall submit aggregate contractor personnel counts at a minimum quarterly or as directed by the Contracting Officer by category (i.e. U.S. third country national or local national) of those contractor personnel who are on contracts valued greater than $100,000, but performing less that 30 days in the AOR (e.g. day laborers).

(6) The Contractor shall ensure that all contractor personnel in the database have a current DD Form 93, Record of Emergency Data Card, on file with both the Contractor and the designated Government official. The Contracting Officer will inform the Contractor of the Government official designated to receive the data card.

(h) Contractor personnel. The Contracting Officer may direct the Contractor, at its own expense, to remove and replace any contractor personnel who fail to comply with or violate applicable requirements of this contract. Such action may be taken at the Government's discretion without prejudice to its rights under any other provision of this contract, including termination for default or cause.

(i) Weapons.

(1) If the Contracting Officer, subject to the approval of the USCENTCOM Commander, authorizes the carrying of weapons—

(i) The Contracting Officer may authorize an approved Contractor to issue Contractor-owned weapons and ammunition to specified employees; or

(ii) The **(N/A - USACE DOES NOT ISSUE WEAPONS TO CONTRACTORS)** may issue Government-furnished weapons and ammunition to the Contractor for issuance to specified contractor employees.

(2) The Contractor shall provide to the Contracting Officer a specific list of personnel for whom authorization to carry a weapon is requested.

(3) The Contractor shall ensure that its personnel who are authorized to carry weapons—

(i) Are adequately trained to carry and use them—

(A) Safely;

(B) With full understanding of, and adherence to, the rules of the use of force issued by the USCENTCOM Commander; and

(C) In compliance with applicable Department of Defense and agency policies, agreements, rules, regulations, and other applicable law;

(ii) Are not barred from possession of a firearm by 18 U.S.C. 922; and

(iii) Adhere to all guidance and orders issued by the USCENTCOM Commander regarding possession, use, safety, and accountability of weapons and ammunition.

(4) Upon revocation by the Contracting Officer of the Contractor's authorization to possess weapons, the Contractor shall ensure that all Government-furnished weapons and unexpended ammunition are returned as directed by the Contracting Officer.

(5) Whether or not weapons are Government-furnished, all liability for the use of any weapon by contractor personnel rests solely with the Contractor and the Contractor employee using such weapon.

(j) Vehicle or equipment licenses. Contractor personnel shall possess the required licenses to operate all vehicles or equipment necessary to perform the contract in the area of performance.

(k) Military clothing and protective equipment.

(1) Contractor personnel are prohibited from wearing military clothing unless specifically authorized by the USCENTCOM Commander. If authorized to wear military clothing, contractor personnel must wear distinctive patches, arm bands, nametags, or headgear, in order to be distinguishable from military personnel, consistent with force protection
measures.

(2) Contractor personnel may wear specific items required for safety and security, such as ballistic, nuclear, biological, or chemical protective equipment.

(l) Evacuation. (1) If the Chief of Mission or USCENTCOM Commander orders a mandatory evacuation of some or all personnel, the Government will provide to United States and designated third country national contractor personnel the level of assistance provided to private United States citizens.

(2) In the event of a non-mandatory evacuation order, the Contractor shall maintain personnel on location sufficient to meet contractual obligations unless instructed to evacuate by the Contracting Officer.

(m) Notification and return of personal effects. (1) The Contractor shall be responsible for notification of the contractor personnel designated next of kin, and notification as soon as possible to the U.S. Consul responsible for the area in which the event occurred, if the individual—

(i) Dies;

(ii) Requires evacuation due to an injury; or

(iii) Is isolated, missing, detained, captured, or abducted.

(2) The Contractor shall also be responsible for the return of all personal effects of deceased or missing contractor personnel, if appropriate, to next of kin.

(n) Mortuary affairs. Mortuary affairs for contractor personnel who die in the area of performance will be handled in accordance with DoD Directive 1300.22, Mortuary Affairs Policy.

(o) Changes. In addition to the changes otherwise authorized by the Changes clause of this contract, the Contracting Officer may, at any time, by written order identified as a change order, make changes in place of performance or Government-furnished facilities, equipment, material, services, or site. Any change order issued in accordance with this paragraph shall be subject to the provisions of the Changes clause of this contract.

(p) Subcontracts. The Contractor shall incorporate the substance of this clause, including this paragraph (p), in all subcontracts that require subcontractor personnel to perform in the USCENTCOM AOR.

(End of clause)

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

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

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

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

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

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

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

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

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

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

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

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

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

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Section	Title
00010	Proposal Schedule
00110A	Tech Performance Capability
00110B	Attachments
00150	The Design-Build Process
00555	Design Concept Documents
01010	Scope of Work

01040	Security Plan
01060	Special Clauses
01312	Quality Control System (QCS)
01321	Project Schedule
01335	Submittal Procedures for Design/Build Projects
01335A	Attachments AED-S
01335B	E- Submittal Format
01415	Metric Measurements
01451	Contractor Quality Control
01525	Safety & Occupational Health Requirements
01780	Closeout Procedures & Submittals
01780A	Closeout Submittals
1781	Operation and Maintenance Data
Appendix A	Site Plan
Appendix B	South SLD (ES-01)
Appendix C	North SLD (EN-01)
Appendix D	Existing Panels and Generator

Final MACTEC Electrical Report

(End of clause)

252.246-7004 SAFETY OF FACILITIES, INFRASTRUCTURE, AND EQUIPMENT FOR MILITARY OPERATIONS (OCT 2010)

(a) Definition. Discipline Working Group, as used in this clause, means representatives from the DoD Components, as defined in MIL-STD-3007F, who are responsible for the unification and maintenance of the Unified Facilities Criteria (UFC) documents for a particular discipline area.

(b) The Contractor shall ensure, consistent with the requirements of the applicable inspection clause in this contract, that the facilities, infrastructure, and equipment acquired, constructed, installed, repaired, maintained, or operated under this contract comply with Unified Facilities Criteria (UFC) 1-200-01 for--

(1) Fire protection;

(2) Structural integrity;

(3) Electrical systems;

(4) Plumbing;

(5) Water treatment;

(6) Waste disposal; and

(7) Telecommunications networks.

(c) The Contractor may apply a standard equivalent to or more stringent than UFC 1-200-01 upon a written determination of the acceptability of the standard by the Contracting Officer with the concurrence of the relevant Discipline Working Group.

(End of clause)

Section 00800 - Special Contract Requirements

CLAUSES INCORPORATED BY REFERENCE

52.203-5	Covenant Against Contingent Fees	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.242-14	Suspension of Work	APR 1984
52.246-12	Inspection of Construction	AUG 1996

CLAUSES INCORPORATED BY FULL TEXT

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

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 180 calendar days from notice to proceed.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $**1,102.50** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) 60 percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining 40 percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

C3

C3 CLAUSE 952.222-0001 PROHIBITION AGAINST HUMAN TRAFFICKING, INHUMANE LIVING CONDITIONS, AND WITHHOLDING OF EMPLOYEE PASSPORTS (JUL 2010)

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

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

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

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

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

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

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

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

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

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

C3 CLAUSE 952.223-0001 REPORTING KIDNAPPINGS, SERIOUS INJURIES AND DEATHS (JUL 2010)

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

Report the following information:

Contract Number
Contract Description & Location
Company Name

Reporting party:
Name
Phone number
e-mail address

Victim:
Name
Gender (Male/Female)
Age
Nationality
Country of permanent residence

Incident:
Description
Location
Date and time

Other Pertinent Information

C3 CLAUSE 952.225-0003 FITNESS FOR DUTY AND MEDICAL/DENTAL CARE LIMITATIONS (NOV 2010)

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

(b) The contractor shall not deploy an individual with any of the following conditions unless approved by the appropriate CENTCOM Service Component (ie. ARCENT, AFCENT, etc.) Surgeon: Conditions which prevent the wear of personal protective equipment, including protective mask, ballistic helmet, body armor, and chemical/biological protective garments; conditions which prohibit required theater immunizations or medications; conditions or current medical treatment or medications that contraindicate or preclude the use of chemical and biological protective's and antidotes; diabetes mellitus, Type I or II, on pharmacological therapy; symptomatic coronary artery disease, or with myocardial infarction within one year prior to deployment, or within six months of coronary artery bypass graft, coronary artery angioplasty, or stenting; morbid obesity (BMI >/= 40); dysrhythmias or arrhythmias, either symptomatic or requiring medical or electrophysiological control; uncontrolled hypertension, current heart failure, or automatic implantable defibrillator; therapeutic anticoagulation; malignancy, newly diagnosed or under current treatment, or recently diagnosed/treated and requiring frequent subspecialist surveillance, examination, and/or laboratory testing; dental or oral conditions requiring or likely to require urgent dental care within six months' time, active orthodontic care, conditions requiring prosthodontic care, conditions with immediate restorative dentistry needs, conditions with a current requirement for oral-maxillofacial surgery; new onset (< 1 year) seizure disorder, or seizure within one year prior to deployment; history of heat stroke; Meniere's Disease or other vertiginous/motion sickness disorder, unless well controlled on medications available in theater; recurrent

syncope, ataxias, new diagnosis (< 1year) of mood disorder, thought disorder, anxiety, somatoform, or dissociative disorder, or personality disorder with mood or thought manifestations; unrepaired hernia; tracheostomy or aphonia; renalithiasis, current; active tuberculosis; pregnancy; unclosed surgical defect, such as external fixeter placement; requirement for medical devices using AC power; HIV antibody positivity; psychotic and bipolar disorders. (Reference: Mod 10 to USCENTCOM Individual Protection and Individual/Unit Deployment Policy, Tab A: Amplification of the Minimal Standards of Fitness for Deployment to the CENTCOM AOR).

(c) In accordance with military directives (DoDI 3020.41, DoDI 6000.11, CFC FRAGO 09-1038, DoD PGI 225.74), resuscitative care, stabilization, hospitalization at Level III (emergency) military treatment facilities and assistance with patient movement in emergencies where loss of life, limb or eyesight could occur will be provided. Hospitalization will be limited to emergency stabilization and short-term medical treatment with an emphasis on return to duty or placement in the patient movement system.

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

(e) Notwithstanding any other provision of the contract, the contractor shall be liable for any and all medically-related services or transportation rendered. To view reimbursement rates that will be charged for services at all DoD deployed medical facilities please go to the following website: http://comptroller.defense.gov/rates/fy2011.html (change fiscal year as applicable).

C3 CLAUSE 952.225-0004 COMPLIANCE WITH LAWS AND REGULATIONS (JUL 2010)

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

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

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

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

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

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

C3 CLAUSE 952.225-0005 MONTHLY CONTRACTOR CENSUS REPORTING (JUL 2010)

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

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

C3 CLAUSE 952.225-0009 - MEDICAL SCREENING AND VACCINATION REQUIREMENTS FOR THIRD COUNTRY NATIONALS OR LOCALLY HIRED EMPLOYEES OPERATING IN THE CENTCOM AREA OF RESPONSIBILITY (AOR) (NOV 2010)

(a) Contractors, and subcontractors at any tier shall ensure and provide satisfactory evidence that all locally hired employees, including Local National (LN), Third Country National (TCN), and U.S. employees, working on bases have been screened for and do not currently have active tuberculosis (TB).

(1) Contractors may initially utilize a testing method of either a chest x-ray or TB skin test (TST), depending on the originating country a contracted employee.

(i) Chest x-rays (CXR's), symptom survey, and Body Mass Index (BMI) shall be taken, and TSTs administered within 12 months prior to the start of deployment/employment. Contractors are required to bring in a physical copy of the pre-employment CXR film as it is the only way to verify interval changes should an active case of TB occur.

(A) Third Country Nationals (TCNs) and Local Nationals (LNs) cannot be screened with the TST. They need the pre-employment screening with a quality CXR, Body Mass Index (BMI) and symptom survey

(B) Small-Risk Nationals (SRNs), those with less than 25 TB cases per 100,000 persons annually (mostly expats from Europe and US), can be screened via the TST.

(ii) Annual re-screening for TCNs, and LNs will be performed with a CXR conducted by the Contractors medical provider or local economy provider, who will look for interval changes from prior CXR's and review any changes in the symptom survey.

(iii) SRN's do not require annual TB re-screening. However, for a TB contact investigation, a TST or Interferon Gamma Release Assay (IGRA) is required.

(iv) For a contact investigation, all personnel with a positive TST or IGRA will be evaluated for potential active TB with a symptom screen, exposure history, BMI, and CXR. All cases of suspected or confirmed active TB must be reported to the theater Preventive Medicine (PM) physician and/or TB Consultant as soon as possible. TB reporting is required within 24 hours to the PM POC. Contact tracing, and medical coding have specific requirements. All Small-Risk National (SRN) contract personnel are required to be MEDEVAC'd out of theater, at the contractor's expense, for treatment of active TB, after consultation with the Theater PM or TB Consultant at the USF-I Surgeon's office. For SRN personnel, the contractor is responsible for management and compliance with all prescribed public health actions.

(v) Screening may be performed either by a licensed medical provider from the local economy or by the contractors' licensed medical staffs. Contractors shall maintain medical screening documentation and make it available to the Contracting Officer upon request.

(2) TB screening and documentation is a requirement prior to receiving badges to work in the Iraq Joint Operations Area. A copy of the TB screening documentation shall be provided to the responsible Base Operations Center (BOC) prior to issuance of base access badges.

(b) Contractor employees, including subcontractors at any tier, who work in positions where they are working in food service, water and ice production facilities, shall have current Typhoid and Hepatitis "A" (full series) immunizations in accordance with the Centers for Disease Control and Prevention guidelines (e.g. typhoid vaccination booster is required every 2 years), in addition to the required TB tests. The contractor medical provider must complete a pre-placement examination to include a stool sample test for ova and parasites, and annual medical screening form or equivalent for food service, ice and water production workers.

(c) Proof of individual employee vaccinations shall be provided to the Contracting Officer and COR showing that their employees and their subcontractor employees at any tier have received the above vaccinations. The contractor shall maintain their employees' vaccination records for examination by the Contracting Officer. The contractor shall ensure that their subcontractors at any tier maintain their respective employees' vaccination records for examination by the Contracting Officer.

(d) The contractor is responsible for management and compliance with all prescribed public health actions regarding TB in the contracted personnel. The contractor also bears the responsibility of ensuring that adequate health management for TB (screening / diagnosis / treatment / isolation) is available at the contractor's chosen health care provider for their contracted and subcontracted personnel.

NOTE: Contractors are reminded of the requirement to comply with their contract and all regulatory guidance (DoD Instructions/Regulations, Federal Acquisition Regulation/Defense Federal Acquisition Regulation Supplement, and FRAGO's) as applicable regarding Medical Screening and Vaccination Requirements.

C3 CLAUSE 952.225-0011 GOVERNMENT FURNISHED CONTRACTOR SUPPORT (JUL 2010)

The following is a summary of the type of support the Government will provide the contractor, on an "as-available" basis. In the event of any discrepancy between this summary and the description of services in the Statement of Work, this clause will take precedence.

U.S. Citizens Accompanying the Force

___APO/FPO/MPO/Postal Services	___DFACs	___Mil Issue Equip
___Authorized Weapon	___Excess Baggage	___MILAIR
___Billeting	___Fuel Authorized	___MWR
___CAAF	___Govt Furnished Meals	_X_Resuscitative Care
_X_Controlled Access (CAC)/ID Card	___Military Banking	___Transportation

___Commissary	___Military Clothing	___All
___Dependents Authorized	___Military Exchange	___None

Third-Country National (TCN) Employees

___APO/FPO/MPO/Postal Services	___DFACs	___Mil Issue Equip
___Authorized Weapon	___Excess Baggage	___MILAIR
___Billeting	___Fuel Authorized	___MWR
___CAAF	___Govt Furnished Meals	_X_Resuscitative Care
_X_Controlled Access (CAC)/ID Card	___Military Banking	___Transportation
___Commissary	___Military Clothing	___All
___Dependents Authorized	___Military Exchange	___None

Local National (LN) Employees

___APO/FPO/MPO/Postal Services	___DFACs	___Mil Issue Equip
___Authorized Weapon	___Excess Baggage	___MILAIR
___Billeting	___Fuel Authorized	___MWR
___CAAF	___Govt Furnished Meals	_X_Resuscitative Care
_X_Controlled Access (CAC)/ID Card	___Military Banking	___Transportation
___Commissary	___Military Clothing	___All
___Dependents Authorized	___Military Exchange	___None

C3 CLAUSE 952.225-0013 CONTRACTOR HEALTH AND SAFETY (NOV 2010)

(a) Contractors shall comply with all National Electrical Code (NEC 2008), Specifications as outlined, and MIL Standards and Regulations. All infrastructure to include, but not limited to, living quarters, showers, and restrooms shall be installed and maintained in compliance with these standards and must be properly supported and staffed to ensure perpetual Code compliance, prevent hazards and to quickly correct any hazards to maximize safety of those who use or work at the infrastructure (NEC Table 352.20). Specifically, the use of magnetic ballasts in lighting for new construction or replacement of existing magnetic ballasts during refurbishment, alterations or upgrades with new magnetic ballasts is prohibited. The government has the authority to enter and inspect contractor employee living quarters at any time to ensure the prime contractor is complying with safety compliance standards outlined in the 2008 National Electric Code (NEC).

(b) The contractor shall correct all deficiencies within a reasonable amount of time of contractor becoming aware of the deficiency either by notice from the government or a third party, or discovery by the contractor. Further guidance on mandatory compliance with NFPA 70: NEC 2008 can be found on the following link http://www.nfpa.org.

952.225-0016 CONTRACTOR DEMOBILIZATION (AFGHANISTAN) (AUG 2011)

(a) Full demobilization of contractors and subcontractor(s) in the Afghanistan Combined Joint Operations Area (CJOA) is critical to Responsible Drawdown. The prime contractor is required to submit a demobilization plan to the Contracting Officer a minimum of 120 days prior to the end of the contract performance period or when requested by the Contracting Officer. The demobilization plan shall address, as a minimum, the following procedures detailed below. The procedures outline specific guidance to ensure a timely and responsible exit from theater. Prime contractors are responsible and accountable to ensure their subcontractor(s) at all tiers comply with responsible and timely exit from theater immediately following contract performance completion or termination.

(1) Exit from Afghanistan: The prime contractor shall follow the exit guidance issued by the United States (U.S.) Embassy and shall ensure subcontractor(s) at all tiers also follow the exit procedures. The prime contractor is responsible to remain cognizant of Afghan laws regarding exit from Afghanistan. It is the prime contractor's responsibility to ensure that the most recent exit procedures are followed and to ensure that subcontractor(s) at all tiers are in compliance with exit procedures.

(2) Letter of Authorization (LOA): The prime contractor is responsible for demobilizing its workforce, including subcontractor employees at all tiers, and all contractor owned and subcontractor owned equipment out of theater as part of the prime contractor's exit strategy. This exit strategy must include reasonable timeframes starting with the end of the contract performance period and not exceeding 30 days. The Contracting Officer has the authority to extend selected LOAs up to, but not exceeding 30 calendar days after the contract completion date to allow the prime contractor to complete demobilization of its workforce and contractor owned equipment, as well as subcontractor(s) workforce and owned equipment, out of the Afghanistan CJOA. The prime contractor shall notify the Contracting Officer a minimum of 30 days prior to the end of the contract period to request up to a 30-day extension of selected LOAs beyond the contract completion date to complete demobilization. The request shall include at a minimum:

(i) the name of each individual requiring a new LOA;
(ii) the number of days for the LOA (no more than 30 calendar days); and
(iii) justification for the request (e.g., what function the individual(s) will be performing during the demobilization period).

The Contracting Officer may request additional information for an LOA extension. If approved by the contracting officer, this is a no cost extension of an employee's LOA due to demobilization and in no way is an extension of the contract performance period.

(3) Badging: The prime contractor is responsible to ensure all employee badges, including subcontractor employees at all tiers, are returned to the local Access Control Badging Office for de-activation and destruction. The prime contractor shall submit a Badge Termination Report to ensure each record is flagged and the badge is revoked. If a prime and/or subcontractor employee's badge is not returned, the prime contractor shall submit a Lost, Stolen or Unrecovered Badge Report to the appropriate Access Control Badging Office. Contractor employees in possession of a Common Access Card (CAC) shall be responsible for turning in the CAC upon re-deployment through a CONUS Replacement Center in the U.S. Failure to return employee badges in a timely manner may result in delay of final payment.

(4) Contractor Controlled Facility Space: If the prime contractor has entered into a Memorandum of Understanding with the Installation Mayor or Garrison for site space, buildings, facilities, and/or Containerized Housing Units (CHU) to house prime and/or subcontractor employees (at all tiers), the prime contractor is responsible to notify the Installation Mayor or Garrison Commander of intent to vacate at least 90 calendar days prior to the end of the contract performance period. The prime contractor shall provide notification to the Installation Mayor or Garrison Commander to perform an inspection of all facilities as soon as practicable, but no more than 30 days, after the end of the contract period. If damages are discovered, the prime contractor shall make the necessary repairs. The prime contractor shall notify the Installation Mayor or Garrison Commander for re-inspection of the facilities upon completion of the repairs. If the Installation Mayor or Garrison Commander inspects the property, site space, buildings, facilities, and/or CHUs and finds they have not been properly cleaned, cleared, and/or environmentally remediated, or if the prime contractor fails to repair any damages within 30 calendar days after the end of the contract performance period, the final contract payment shall be reduced by the amount of the specified damages/repairs or the expenses incurred by the USG to properly clean, clear, and/or environmentally remediate the premises.

(5) Government Furnished Equipment (GFE)/Materials (GFM): Federal Acquisition Regulation (FAR) clause 52.245-1 governs and applies to any issues regarding GFE/GFM or Government Furnished Property (GFP).

(6) Contractor Personal Property: The contractor is advised that all personal property left on the respective installation after the date of departure of said premises, shall be sold or otherwise disposed of, as follows:

(i) A request for the return of the property will be honored, if feasible, and if received before the expiration of the period of time allowed to vacate the installation.
(ii) If abandoned property is left on the respective installation, contractual remedies may be enforced against the contractor, (See paragraph (b) of this clause for potential contractual remedies). Additionally, even if the contractor waives its interest to all abandoned personal property, the contractor may still be liable for all costs incurred by the USG to remove or dispose of the abandoned property.
(iii) The contractor hereby authorizes the USG authority to dispose of any and all abandoned personal property in any manner the USG may deem suitable and hereby releases and discharges the USG and its agents from any and all claims and demands whatsoever that could otherwise be asserted because of the disposition of said abandoned personal property.

(7) Synchronized Predeployment Operational Tracker (SPOT): The prime contractor is responsible to close out the deployment of personnel, including subcontractor employees at all tiers, at the end of the contract completion period and to release the personnel from the prime contractor's company in the SPOT database. The release of employee information must be accomplished no more than 30 calendar days after the end of the contract completion date.

(8) Accountability of Prime and Subcontractor Personnel: Whether specifically written into the contract or not, it is the expectation of the USG that for any persons brought into the Afghanistan CJOA for the sole purposes of performing work on USG contracts, contract employers will return employees to their point of origin/home country once the contract is completed or their employment is terminated for any reason. If the prime contractor fails to re-deploy an employee, or subcontractor employee at any tier, the USG shall notify the applicable U.S. Embassy to take appropriate action. Failure by the prime contractor to re-deploy its personnel, including subcontractor personnel at any tier, at the end of the contract completion date, could result in the contractor being placed on the Excluded Parties List System (EPLS) and not be allowed to propose on future U.S. contracts anywhere in the world.

(9) Personnel Recovery: Any DoD contractor with unaccounted for employees shall follow the instructions in the "Contractor Accountability and Personnel Recovery" Clause 952.225-0020. The contractor may use the Contracting Fusion Cell as a resource to track or research employees last known location and/or to view LOA's.

(b) CENTCOM - Joint Theater Support Contracting Command (C-JTSCC) and external agencies will utilize all available contracting remedies to guarantee compliance with demobilization requirements. Such actions include, but are not limited to withholding payment, issuing a cure notice, issuing a negative Contractor Performance Assessment Reporting System (CPARS) evaluation, reduction of award fee, debarment, reimbursement of U.S. Government expenses, and/or any other legal remedy available to a contracting officer. The USG reserves the right to **withhold payment** from the prime contractor not in compliance with the above procedures included herein. Additionally, the Contracting Officer shall document all unresolved contractor compliance issues in CPARS, which shall have an adverse past performance affect on future contracts with the USG, anywhere in the world.

(End of Clause)

952.225-0020 CONTRACTOR ACCOUNTABILITY AND PERSONNEL RECOVERY (AFGHANISTAN) (AUG 2011)

(a) Contract performance may require work in dangerous or austere conditions. Except as otherwise provided in the contract, the contractor accepts the risks associated with required contract performance in such operations.

(1) Unaccounted Personnel: It is the expectation of the USG that any contractor brought into Afghanistan for the sole purposes of performance of work on a USG contract must be accounted for at all times by their respective employers. Additionally, contractors who maintain living quarters on a USG base shall verify the location of each of its employees' living quarters a minimum of once a month. If a DoD contracted employee becomes missing and evidence does not indicate foul play, a Personnel

Recovery (PR) event is NOT automatically triggered. Such an event will be treated as an accountability battle drill by the employer's chain of command or civilian equivalent.

(2) Contractor Responsibilities: The contractor is responsible to take all necessary steps to locate and investigate the unaccounted for employee(s) whereabouts to the maximum extent practicable. To assist in this process, contractors may use the Contracting Fusion Cell as a resource to track or research employee's last known location and/or to view LOA's. All missing personnel will be immediately reported to the installation division Personnel Recovery Officer (PRO), Mayor's cell, Military Police Station and/or the Criminal Investigative Division, and the Base Defense Operations Center (BDOC).

(3) Contractor Provided Information: If it is determined that a potential criminal act has occurred, the USD PRO (or USFOR-A Personnel Recovery Division (PRD) with prior coordination) will attempt to validate the missing person's identity through the employer. The contractor shall provide the information to PRD within 12 hours of request. The required information the contractor should keep on file includes but is not limited to: copy of the individuals Letter of Authorization generated by the Synchronized Pre-deployment and Operational Tracker System (SPOT), copy of passport and visas, housing information of where the individual resides such as room number and location, DD Form 93, Record of Emergency Data, copy of badging, and contact information for known friends or associates.

(b) If USFOR-A PRD determines through investigation that the unaccounted personnel have voluntarily left the installation either seeking employment with another contractor or other non-mission related reasons, PRD will notify the contractor. The contractor shall ensure that all government-related documents such as LOA's, visas, etc. are terminated/reconciled appropriately within 24 hours of notification by PRD in accordance with subparagraph (a)(8) of C-JTSCC Clause 952.225-0016 entitled "Contractor Demobilization (Afghanistan)". Contractors who fail to account for their personnel or whose employees create PR events will be held in breach of their contract and face all remedies available to the contracting officer.

(End of Clause)

C3 CLAUSE 952.236-0001 ELECTRICAL AND STRUCTURAL BUILDING STANDARDS FOR CONSTRUCTION PROJECTS (JUL 2010)

(a) The standards set forth herein are the minimum requirements for the contract. These standards must be followed unless a more stringent standard is specifically included. In such case the most stringent standard shall be required for contract acceptance.

(b) The contractor, in coordination with the Contracting Officer, Base Camp Mayor, Base/Unit Engineers, and requiring activity shall evaluate, upgrade, build, and/or refurbish buildings to a safe and livable condition. This work may include refurbishment, construction, alterations, and upgrades. All work shall be in accordance with accepted standards of quality.

(c) As dictated by the Unified Facilities Criteria (UFC) the contract shall meet:

(1) "the minimum requirements of United States' National Fire Protection Association (NFPA) 70,
(2) 2008 National Electrical Code (NEC),
(3) American National Standards Institute (ANSI) C2, and
(4) United States' National Electrical Safety Code (NESC).

(d) These standards must be met when it is reasonable to do so with available materials. When conditions dictate deviation, then provisions within the International Electrical Code (IEC) or British Standard (BS 7671) shall be

followed. Any deviations from the above necessary to reflect market conditions, shall receive prior written approval from a qualified engineer and the Contracting Officer.

(e) The following internet links provide access to some of these standards:

UFC: http://65.204.17.188/report/doc_ufc.html
NFPA 70: http://www.nfpa.org
NESC: http://www.standards.ieee.org/nesc

TRAVEL WARNINGS

The contractor shall provide all personnel working under this contract, and shall require subcontractors to provide their personnel, with a written notification advising such personnel to be aware of US State Department Travel Warnings with respect to Afghanistan, available at http://travel.state.gov, in the event they wish to consider bringing their dependants into Afghanistan. A copy of the notice *shall be furnished to the contracting officer upon award of the contract*, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel. At no time, subject to the written approval of the contracting officer, may the contractor allow such dependants, or any other unauthorized individuals, to be present on the project site grounds, whether in transit or otherwise.

(End of clause)

APPLICATION OF US CRIMINAL JURISDICTION

Reference DODI 5525.11. The contractor is directed to provide all of its personnel working under this contract, and to require all of its subcontractors to provide their personnel, with written notification that - with the exception of nationals of Afghanistan and those ordinarily resident in Afghanistan - contractor and subcontractor personnel, and the dependents of contractor and subcontractor personnel who are residing with such personnel, may be subject to US criminal jurisdiction as provided for in the Military Extraterritorial Jurisdiction Act, 18 USC 3261-3267; see Section 3267(1)(A)(iii)(I) and (2)(A)(iii). A copy of the notice *shall be furnished to the contracting officer upon award of the contract*, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel.

(End of clause)

DBA
WORKERS COMPENSATION INSURANCE (DEFENSE BASE ACT) (APRIL 2011)

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

(b) The contractor agrees to procure Defense Base Act (DBA) insurance pursuant to the terms of the contract between the U.S. Army Corps of Engineers (USACE) and **CNA Insurance** unless the contractor has a DBA self-insurance program approved by the Department of Labor. Proof of this self-insurance shall be provided to the Contracting Officer. The contractor shall submit proof of a valid DBA Insurance policy with CNA Insurance for the Prime and their Subcontractor's at every tier prior to performance of the contract. The current rates under the USACE, C3 and 408th CSB contract are as follows:

Service	$3.50	per $100 of employee remuneration

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

(c) **Labor Category/Job Classification Definitions:**

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

CONSTRUCTION: "Blue-collar" workers providing services such as carpentry, electrical, plumbing, mechanical, concrete/asphalt, de-mining, roofing, landscaping, janitorial, trash removal, Port-a-John/septic cleaning, pest exterminating, auto repair/dismantling, drivers/couriers, and heavy equipment operation and maintenance. Construction site supervisors/managers and life support service providers are included in this category as well as all Unskilled and Manual Labor Day Laborers.

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

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

NOTE: More than one rate may be applicable as more than one type of labor may be applicable for a particular contract.

(d) The contractor agrees to insert a Special Contract Requirement substantially the same as this one in all subcontracts (at every tier) to which DBA is applicable. Every subcontractor shall procure its own DBA Insurance coverage directly from CNA Insurance Co.

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

(f) CNA's Broker (Rutherfoord International) shall provide proof of confirmation of coverage within 3 working days of receipt of a complete insurance application. This confirmation should be used by the Contracting Officer to issue notice to proceed with performance.

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

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

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

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

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

Susan R. Fox, Email: Susan.R.Fox@usace.army.mil

(i) The Insurance carrier/Broker will conduct periodic audits of actual contractor payroll amounts. When a return is due for over-payment of premium on a specific audit, such returned premium shall be returned to the U.S. Department of Treasury.

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

(End of clause)

W5J9LE-11-R-0069

US Army Corps
of Engineers
Afghanistan Engineer District South

ANP (O&M)

Electrical Upgrades, Adraskan,
Herat Provenience, Afghanistan

Design/Build Project Specifications And Drawings

Proposal Requirements, Contract Forms, Conditions of the Contract

AUGUST 2011

THIS IS A SINGLE-PHASE REQUEST FOR PROPOSAL

SECTION 00150

THE DESIGN-BUILD PROCESS

1.0 DESIGN-BUILD (DB) PROCESS

The facility shall be designed and built by a single DB Contractor. The DB Contractor may be a single firm or a team of firms that includes registered Architects and Engineers either employed by or subcontracted to the DB Contractor. Licensing jurisdiction of Architects and Engineers of record shall be shall be verifiable. The DB Contractor shall be the Architect/Engineer-of-Record, whether the DB Contractor utilizes services of licensed architects and engineers employed by its firm or subcontracts with independent architectural and/or engineering firm(s). The DB Contractor shall be solely liable for design errors and/or omissions and should be insured as the A-E firm against design errors and omissions. For this specification, the term "Government" is defined as the Contracting Officer for the US Army Corps of Engineers, Afghanistan Engineer District-South (AED-S).

Section 00555, Design Concept Documents, identifies project documents furnished herein to be used as the basis for the project design and construction documents. The successful Offeror shall be required to complete the design and construction documentation, and construct the project in compliance with these completed requirements.

No work can begin on any phase of the process until an authorization Clearance For Construction (CFC) for that phase is issued.

1.1 PROPOSAL PHASE

The Proposal Phase includes the period from the time from the issuance of the Request for Proposals (RFP) through the selection process and the final award of the DB contract.

The proposals to be submitted include a Technical and Performance Capability Proposal and Price Proposal. The contents and organization of the proposal is described in Section 00110A. The Government will evaluate and award the DB contract to a single Offeror based upon the criteria which are outlined in Section 00110A.

1.2 DESIGN PHASE

The successful DB Contractor shall develop and submit for formal review Design Phase Submittals as indicated below and in the project schedule. The DB Contractor is encouraged to develop and submit multiple cost saving proposals for innovative design alternatives.

1.2.1 DESIGN CONSTRUCTION PHASE SUBMITTALS

Design Construction Submittal shall include, as required, complete design analysis (DA), drawings and specifications for site preparation work and utility construction. After Government acceptance of the Design Construction Submittal, the Government may issue a CFC letter to commence with the Build Phase.

2.0 BUILD PHASE

The Build Phase shall be initiated by a Clearance For Construction (CFC) letter issued by the Contracting Officer.

A CFC will be provided separately by the Contracting Officer for each phase of the work. The Government may give the DB Contractor authorization for the Build Phase for portions of the work following review and approval of the particular Design Construction Submittal.

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

3.0 PROJECT SCHEDULE:

The following is an internal design schedule and is subject to modification by the Offeror to suit their particular method of operation. Overall time constraints are required and cannot be changed except by contract modification. Prospective Offerors shall be required to submit a complete schedule for design and construction that meets or exceeds the overall time goals of the Government for this project.

MILESTONE ***All days are in calendar days.***	Written Notice to Proceed (NTP) following Contract Award (Day 0)
DESIGN PHASE	
Pre-design Meeting	Within Seven (7) days from NTP.
100% Design Package Submittal Due	Within Thirty (30) days following NTP.
Design Package Submittal Review Conference	Within Seven (7) days following Design Package Submittal Review.
Incorporate Changes to CD Submittal and Re-Submit for Review & Approval	Within Ten (10) days following Review Conference.
BUILD PHASE	
Clearance For Construction (CFC)	Within Seven (7) days following Review and Approval of 100% Design Package.
Total Design and Construction Period	180 Days -Performance Period

4.0 LIQUIDATED DAMAGES:

Liquidated damages in the amount of **$1,102.50** every calendar day of delay shall be assessed and charged to the Contractor.

--END OF SECTION--

SECTION 00555

DESIGN CONCEPT DOCUMENTS

1. GENERAL

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

The extent of development of these requirements in no way relieves the successful Offeror from the responsibility of completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

1.1 ENGINEERING AND DESIGN CRITERIA

General design requirements are set forth in Section 01010.

1.2 APPENDIX DOCUMENTS

See Appendices for further technical requirements, criteria, and parameters that are a part of this contract.

1.3 SPECIFICATIONS

General specification requirements are set forth in Section 01010.

1.4 ORDER OF PRECEDENCE

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

1. Minimum requirements of the RFP.
2. Written requirements supersede drawings, except site adapt, standard design building drawings must be followed.
3. All other conflicts, duplications, or overlaps shall be referred to the Contracting Officer Representative for resolution.

1.5 ADDITIONAL DOCUMENTS/CRITERIA FURNISHED BY THE GOVERNMENT

The following documents will be furnished to the Design-Build Contractor when requested by the Offeror or Contractor:

Design Criteria published by the Government, such as Technical Manuals (TM), Engineer Manuals (EM), Engineer Technical Letters (ETL) and other documents related to the design referenced herein which are not available on the Internet (including the http://www.wbdg.org/ website), shall be provided by the US Army Corps of Engineers.

The Following Will Not Be Furnished To The Contractor.

Commercial design criteria and specifications will not be furnished by the Government.

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

-- END OF SECTION --

SECTION 01010

SCOPE OF WORK

1. GENERAL

The project consists of the design and installation of an electrical system for the Afghanistan National Training Center in Adraskan, Afghanistan. The project is defined as the replacing of existing electrical distribution panelboards with approved electrical panelboards including main distribution panels; plus 20% spare for future loads. Also, for the South side, include conduit, branch circuit panel boards. Include all other items required for the installation of the system as shown on appendix B attached.

Replacement of two 600 kVA existing generators at the North power plant and two 545 kVA existing generators at the South power plant for a total of four (4) existing generators.

Contractor is responsible for supplying temporary power to the clinic, TOC, Security & Communication and DFAC buildings while replacing the panelboards for these buildings. A site map of the facility is illustrated in Appendix A. A single line diagram showing all panel boards associated with the required replacement (South Power Plant) and their location is located in Appendix B. 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:

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 SUBMITTAL PROCEDURES of the Basic Contract.

1.3 SECURITY

Security is critical to construction in Afghanistan, especially on roads and remote areas away from Coalition Force bases. The risk/threat level for the area surrounding this project site is **Moderate** relative to the chance of attack, improvised explosive devices (IEDs), kidnapping, theft, and vandalism. The Contractor must have an appropriate amount of security/protection to match the threat in the project area and along the supply routes. A detailed security plan in accordance with Section 01040 SECURITY shall be approved by the Government before construction notice to proceed.

1.4 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 (USACE) Construction Quality Management (CQM) course, or equivalent. The CQM course will be offered periodically by the Afghanistan Engineer District (AED), USACE. Additional approved CQM courses include those offered by the Commercial Technical Training Center (in Jalalabad) and the Champion Technical Training Center (in Kabul). The Quality Assurance Branch of the AED can provide information related to AED offerings of the CQM course, as well as contact information for training centers. Alternative CQM courses, other than those mentioned above, must be approved by the Quality Assurance Branch.

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

1.5 ELECTRICAL WORKERS QUALIFICATIONS

Electrical work shall be performed by Qualified Personnel with verifiable credentials that are thoroughly knowledgeable with applicable code requirements. Verifiable credentials consist of a certificate of graduation from an approved trade school and required amount of experience, depending on work being performed, and should be identified in the proposal that is submitted. A qualified person is one who has received training in and has demonstrated skills and knowledge in the construction and operation of electrical equipment and installations and the hazards involved. This includes the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, to determine the nominal voltage of exposed live parts, the clearance distances and corresponding voltages to which the qualified person will be exposed.

1.5.1 SUPERVISORY ELECTRICIAN

Supervisory electricians must be graduates of an approved trade school, and must have two years of relevant electrician experience. Approved programs include but are not limited to the Afghanistan Technical and Vocational Institute (in Kabul), the Kunar Trades Training Center, and the Commercial Technical Training Center (in Jalalabad). Work experience resumes and graduation certificates shall be submitted and approved prior to commencement of any design or construction involving electrical work. Approval is granted by the Contracting Officer's Representative with guidance by the Quality Assurance Branch and/or the Safety Office of the Afghanistan Engineer District, US of the Army Corps of Engineers.

1.5.2 ELECTRICIANS

Electricians must be graduates of an approved trade school and must be able to provide upon request a certification of successful course work completion and graduation in addition to a resume of work experience.

1.6 AED DESIGN REQUIREMENTS DOCUMENTS

AED Design Requirements documents shall be adhered to in this contract. These documents are listed below (References) and are available from the COR. These documents shall be used as the basis for design and construction, and for selecting options within the United Facilities Guide Specifications (UFGS) discussed below. It is the contractor's option to use specifications contained in the AED Design Requirements Documents, when provided, or to adapt the UFGS specifications to match the requirements provided in the AED Design Documents and specifications. Data and requirements in the AED Design Requirements documents shall supersede UFGS language where there are conflicts.

1.7 CONSTRUCTION PROJECT SIGN

The contactor shall fabricate and display at least one sign to identify the project site as an Islamic Republic of Afghanistan sponsored project. The sign shall meet or exceed the requirements provided in Section 01060 SPECIAL CLAUSES. Exact placement of the sign at the project site shall be coordinated with the COR.

2. LOCATION

The site is located in Adraskan, Herat, at the following grid coordinates.

Corner 1	41S MT 30831 21132
Corner 2	41S MT 30681 20732
Corner 3	41S MT 30897 20642
Corner 4	41S MT 31056 21044

3. 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. The site has been cleared to a minimum depth of 1 meter and the certificate of clearance is available for review. No construction activities are to be conducted without review of the written clearance certification for the site. If sub-surface construction activities will be performed on this site the clearance certification must state that the clearance depth was conducted to a minimum 1 meter in depth. ***If the contract parameters for sub-surface construction exceed the minimum 1 meter clearance depth the contractor WILL be responsible for clearance to these depths.*** The contractor may only provide clearance/removal services via UN Mine Action Center for Afghanistan (UNMACA) accredited entities and Clearance/removal may only be undertaken in accordance with International Mine Action Standards (IMAS), Afghanistan Mine Action Standards (AMAS), and applicable U.S. Army Corps of Engineer (USACE) Ordnance & Explosives (OE) safety standards.

The Contractor shall obtain their initial mine clearance certificates during the initial dig permit request from the Base Engineer (NATO J-4 Offices). A secondary copy is presented to the contractor at the Pre-Construction Conference. The phone number for reporting a UXO on KAF is DSN 312-841-2004.

NOTE 1: For previous UXO/mine information, and a copy of the clearance certification the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations,
Email: sediq@unmaca.org
Cell: +93 070 295207

Hansie Heymans, Chief Information Officer,
Email: hansie@unmaca.org
Cell: +93 070 294286

UXO Safety/ Demining COR, USACE
tan.uxo.demining.safety@usace.army.mil, Roshan:079-948-7559 Comm:540-722-5305

NOTE 2: ***For construction in excess of 1 meter in depth on areas previously cleared.*** The contractor will provide a standard UXO/Demining safety work plan to the US Army Corps of Engineers UXO / Demining COR for review prior to commencement of all UXO clearance / demining activities on the project sites. Once the UXO/ Demining clearance has concluded, the contractor shall provide the US Army Corps of Engineers UXO / Demining COR a clearance certificate for review and approval before any construction activities are to commence.

NOTE 3: The contractor should be aware that many areas demined by NGOs and other groups may have only been cleared to a depth of 13 cm for humanitarian purposes. If construction will take place, a minimum of 1 meter in depth is mandatory.

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, mark the area of the UXO/Mine and immediately notify the Contracting Officer, COR or the Government Construction Representative. UXO/Mine disposal will not be the responsibility of the Contractor unless the area exceeds the 1 meter clearance depth of the original clearance certificate.

4. SUMMARY OF WORK

4.1 BASE BID

- Mobilization
- Demobilization
- Temporary Power
- Replacement of 4 existing Generators
- Main Distribution Panels, metering
- Sub Distribution Panels
- PVC conduit
- Branch panels
- Branch circuits, metallic conduit
- Grounding equipment
- Testing and Commissioning
- As-Built Drawings

4.2 MECHANICAL

The work covered by this section consists of design, supply, fabrication, and installation of electrical generators systems. It also includes the delivery to site, erection, setting to work, adjusting, testing, balancing and handing over in perfect operating and running condition all of the equipment including all necessary associated mechanical works.

4.2.1 SPECIALIST SUB-CONTRACTORS QUALIFICATIONS

The generator works shall be executed by a specialist sub-contractor experienced in the design and installation of generator equipment to include ductwork and knowledge in fabricating specialized equipment for indoor design conditions.

4.2.2 STANDARD PRODUCTS & SUBMITTALS

All generators, materials, and equipment shall be standard product of a manufacturer regularly engaged in the manufacture of the product. **For standardization and commonality of equipment, all major equipment items shall be the same model and manufacturer as the existing caterpillar generator.**

The Contractor shall submit the following for equipment to be provided under this section of the specification: Manufacturer's data including performance characteristics at design conditions; Catalog cuts showing dimensions, performance data, electrical requirements, compliance with the codes, standards and regulations; Drawings, as necessary, indicating location and installation details.

4.2.3 CODES, STANDARDS, & REGULATIONS

The design and installation of equipment, materials, and work covered under the mechanical services shall conform to the standards, codes, and regulations provide in the paragraph below where applicable

except where otherwise indicated under particular clause(s).

4.2.4 DESIGN CONDITIONS

Outside Design Conditions (Contractor shall use the below weather date for equipment compatibility with the site conditions).

Herat Area:

Latitude – (approx.) 33.63 deg. North

Longitude – (approx.) 62.25 deg. East

Elevation – (approx.) 1,336 m (4,385 ft)

Summer – 38 C (100 F) Dry Bulb (DB) & 20 C (68 F) Wet Bulb (WB)

Winter – (-6 C/21 F)

Daily Range – 9 C (17 F)

4.2.5 DUCT SYSTEMS

Air shall be moved by the generator cooling fans to achieve proper airflow through the alternator and prime mover and shall be introduced from the exterior louvers and building openings for removal by means of a ducted radiator fan system terminating at a second exterior louver.

4.2.5.1 DUCTWORK

Ductwork shall be comprised of generator heat removing exhaust air ducting, fittings and louvers. Ductwork shall be constructed of galvanized steel and installed as per SMACNA “HVAC Duct Construction Standards (Metal and Flexible).” Flexible non-metallic duct may be used for vibration isolation only.

4.2.5.2 OUTSIDE AIR INTAKE AND EXHAUST LOUVERS

Existing outside air louvers shall be reused.

4.2.6 MECHANICAL REQUIREMENTS FOR GENERATORS

Generator models, quantities, and sizes shall be as stated in this document. The following shall be provided in the Mechanical design and installation for **Prime** stationary generator sets and related mechanical systems. This includes, but not limited to: Isolation mountings, exhaust systems, cooling systems, ventilation, and equipment configuration. See Electrical for power and electrical equipment requirements and Plumbing for fuel system requirements.

The generator set(s) shall be the manufacturer's design for indoor installation with skid-mounted high-ambient temperature radiator rated for 50 C (120 F).

Heating devices for the generator set engine coolant and starter batteries shall be provided as per manufacturer's recommendation for cold starting. Ambient temperature and elevation derating calculations shall be clearly shown in the design analysis (DA).

4.2.6.1 INTERIOR INSTALLED GENERATORS

All interior installed generator sets (i.e. In a 4-wall enclosure with roof) shall be provided with, as a minimum, a muffler system and vibration isolators to prevent damage to the building structure.

Interior installed generator sets, with skid-mounted radiators and installed in an enclosed building, shall have the ventilation air drawn directly from the outside and discharged directly to the outside. All enclosed building housing generator sets shall be provided with intake and exhaust louvers. All radiator exhaust air shall be ducted to the exhaust louver assembly.

4.2.7 OPERATIONS & MAINTENANCE (O&M) FOR MECHANICAL

The O&M manuals must be provided prior to any training activities. Manuals shall be “tri-lingual” in Dari, Pashto, and English.

All control panels shall have tri-lingual name plates in Dari, Pashto and English.

(Paragraph 4.6.8)

4.3 PLUMBING

The Contractor shall design and install fuel-oil distribution systems required in the facilities as described herein. The Contractor shall reuse the existing fuel storage tanks and be responsible for complete design and construction of all fuel distribution systems required for full and safe operation as required in this contract.

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

4.3.1 SUB-CONTRACTORS QUALIFICATIONS

The plumbing systems shall be executed by a generator specialist subcontractor experienced in the design and construction of these types of systems.

4.3.2 STANDARD PRODUCTS & SUBMITTALS

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

The Contractor shall submit the following for equipment to be provided under this section of the specification: Manufacturer’s data including performance characteristics at design conditions; Catalog cuts showing dimensions, performance data, electrical requirements, compliance with the codes, standards and regulations; Drawings, as necessary, indicating location and installation details.

4.3.3 CODES, STANDARDS, AND REGULATIONS

The design and installation of equipment, materials, and work covered under the mechanical services shall conform to the standards, codes, and regulations provide in the paragraph below where applicable except where otherwise indicated under particular clause(s).

4.3.4 GENERATOR FUEL STORAGE & DISTRIBUTION

The work shall include the fabrication and installation of the entire fuel distribution system. Existing storage tanks shall be reused.

4.3.4.1 FUEL DISTRIBUTION SYSTEM

Fuel system shall be designed to supply clean fuel to the generator(s). Fuel shall be transferred from the existing bulk storage tank(s) by either the generator engine fuel pump(s), bulk tank submersible pump(s), or duplex-fuel pumps as determined by the designer and/or manufacturer, and be fitted with in-line fuel filters within 2 m (7') of the tank shell.

Fuel piping shall be black steel for **ALL** piping above grade and either steel or fiberglass for underground. **Rubber hoses shall not be allowed**. **Under NO circumstances shall GALVANIZED piping, fittings, valves, or other equipment be used for fuel oil or diesel conveyance.** Secondary containment for underground fuel piping shall be provided with either double-wall fiberglass, double-wall black steel inner and steel outer with cathodic protection, double-wall black steel inner and fiberglass outer, or either black steel or fiberglass piping located in a concrete secondary containment trench with applied POL-resistant coating and removable covers (traffic-rated as applicable). Piping shall be installed straight and true to

bear evenly on supports. Piping shall be free of traps, not embedded in concrete or pavement, and drain toward the corresponding storage tank when elevation permits. Belowground nonmetallic pipe shall be installed in accordance with pipe manufacturer's instructions. Belowground piping shall be laid with a minimum pitch of 0.4 m per 100 m (0.4 percent slope).

Day tank(s) shall be provided only if so determined by the designer and/or manufacturer and **shall be provided one (1) for each generator set** and with secondary containment (i.e. Double-wall tank, containment dike, etc.). Complete fuel piping hydraulic calculations shall be clearly shown in the design analysis (DA) with the generator engine fuel pump manufacturers specifications (in the form of a catalog cut). and, if provided, the submersible or in-line fuel pump manufacturer's specifications.

4.3.4.2 PIPE TESTING AND TURNOVER

A tightness test shall be performed on each storage tank and associated piping. The tank tests shall be performed prior to making piping connections. Tests shall be capable of detecting a 0.1 ml/s (0.0126 cu.ft/h) leak rate from any portion of the tank while accounting for effects of thermal expansion or contraction.

4.4 TESTING AND COMMISSIONING

The Contractor shall test and commission all equipment and systems. Prior to testing the Contractor shall submit a detailed testing plan to the Contracting Officer for approval. The testing shall demonstrate that the power plant generation and all mechanical and plumbing systems operate as a complete integrated system in accordance with manufacturer specifications.

The north power plant is connected thru a manual transfer switch MTS, while the south side power plant generators are connected and synchronized together on one grid. Both the MTS and synchronizing equipment will remain and tested as part of the system by Contractor.

4.5 DEMOLITION AND GRADING

Minor site demolition is required prior to construction of new work. If grading at the site is required, the contractor shall conform to requirements within references herein.

If existing ground is disturbed, native crushed stone 100 mm thick shall be placed around all buildings, from the building wall or building landscaping out 2m and all areas of anticipated foot or vehicle traffic to reduce erosion and to provide dust control. SITE ELECTRICAL DISTRIBUTION SYSTEM

4.6 ELECTRICAL DISTRIBUTION SYSTEM

4.6.1 POWER SYSTEM: The contractor shall design and construct a three phase 380/220 VAC power system for distribution to all existing buildings beginning at an existing power plant at existing south electrical generator facilities and extending to all facilities requiring power. All electrical design and installation shall meet British Standard BS 7671, 17th Edition requirements. All exposed wiring shall be run and pulled through conduits. Conductors and circuits shall be sized for the specific loads. Voltage shall be 220/380 V, 50 hertz. MDP is 1000A. All panelboards must be listed as indicated in section 4.6.4.

EXISTING GENERATORS: The four (4) existing generators size is prime rated at 545kVA on the south end and 600kVA on the North side of camp. **The contractor shall be specifically responsible to remove/replace all four (4) existing generators with same model and manufacturer as the existing Caterpillar generator at the South side power plant. The contractor shall ensure the power ratings for each new generator remain 545 kVA for the south plant and 600 kVA for the north plant. The contractor shall be specifically responsible to remove/replace all existing panel boards, and not re-use any existing electrical distribution equipment.**

Generators shall be de-rated as necessary for the ambient temperature and altitude of the site.

Whenever a generator starts, it shall go through a cool down cycle prior to shutdown. All relaying shall be automatically reset for automatic restart and stopping of generators as the load increases or decreases.

Contractor is responsible for supplying temporary power while replacing existing panel-boards at the dining facility buildings 109, 204, 210, 214 and to the clinic building 203.

4.6.2 CONDUCTORS

All cable and wire conductors shall be copper. Conductor jacket or insulation shall be color coded to satisfy BS requirements. The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of higher degree C rated conductors on circuits with protective device terminals rated at a lower degree C is allowed but must be de-rated to the rating of the device terminals.

4.6.3 GROUNDING AND BONDING

Grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermally welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeder and branch circuit raceways. Grounding conductor shall be green-colored, unless the local authority requires a different color-coded conductor. Ground rods shall be 20 millimeters (0.75 inches) in diameter and 3 meters (~10 feet) long made of copper-clad steel. Final measurement of the ground resistance shall be in compliance with the requirements of the local authority but shall not exceed 25 ohms when measured more than 48 hours after rainfall.

4.6.4 ENCLOSURES

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

4.6.5 TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

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

4.6.6 CONDUIT RACEWAY SYSTEM

Metal conduit (EMT) system shall be complete, to include but not limited to, necessary junction and pull boxes for all surface mounted conduit systems. PVC conduit, junction and pull boxes are allowed for raceways located in masonry walls. Smallest conduit size shall be no less than 20mm (0.75 inch) in diameter. All empty conduits shall be furnished with pull wire or cord or rope (depending on the size of conduit and length of run). System design and installation shall be per NFPA 70 requirements. Exterior conductors below grade shall be installed in concrete encased PVC conduit at a depth of 1220 millimeters.

4.6.7 CABLE TRAY RACEWAY SYSTEM

Cable trays shall be ladder type and provided with, but not limited to, splices, end plates, dropouts and miscellaneous hardware. System shall be complete with manufacturer's minimum standard radius and shall be free of burrs and sharp edges. Nominal width of cable tray shall be 300mm (12 inch) and rung spaced at 150mm (6 inch). Nominal depth shall be 100mm (4 inch). System design and installation shall be per NFPA 70 requirements.

4.6.8 IDENTIFICATION NAMEPLATES

Major electrical equipment, such as transformers, panel-boards, and load centers, etc. shall be provided with permanently installed engraved identification nameplates.

4.6.9 SCHEDULES

All panel boards and load centers shall be provided with a directory. Directory shall be typed written in English, Dari and Pashto

Single Line Diagram

Complete single line diagrams shall be provided for all systems installed. All major items in each system shall be identified and labeled for respective ratings. Single line diagrams for each system, installed in a clear plastic frame, shall be provided.

4.7 FACILITIES

This project shall consist of the facilities as defined on the single line diagram attached in Appendix B.

4.7.1 TRASH POINT

The Contractor shall design, in a location convenient for easy removal, a trash collection point. It shall be located inside the compound walls. The trash 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. Trash Point shall have a metal roof covering.

5. COMPLETION OF WORK

All work required under this contract shall be completed within 180 calendar days from issuance of Notice to Proceed. The 180 calendar days includes government review time from Notice to Proceed for site work.

6. SPARE PARTS

Refer to other sections herein for requirements.

7. REFERENCES

7.1 CODES AND TECHNICAL CRITERIA

The work within this contract shall be designed and constructed in accordance with the most current below criteria:

1. International Code Commission (ICC) - International Building Codes (IBC).
2. Unified Facilities Criteria (UFC) - (Note: Unified Facility Criteria (UFC) is available online at: http://www.wbdg.org/)
3. U.S. Army Corps of Engineers (USACE) - Safety: Safety And Health Requirements (EM 385-1-1).

Additional guidance criteria:

1. International Electro-technical Commission (IEC) - Standards for Safety.
2. Electrical Power Distribution (UFC 3-550-01), Minimum DoD Antiterrorism Standards for Buildings (UFC 4-010-01), DoD Minimum Antiterrorism Standoff Distances for Buildings (UFC 4-010-02), Security Engineering: Fences, Gates, and Guard Facilities (UFC 4-020-03), Security Engineering: Entry Control Facilities/Access Control Points (UFC 4-022-01), **etc.** (Note: Unified Facility Criteria (UFC) is available online at: http://www.wbdg.org/)

- END OF SECTION -

SECTION 01040

SECURITY

1.0 SPECIFIC CONTRACT SECURITY ASSESSMENT

The Contractor will construct the Project in an active war zone where International Security Assistance Forces (ISAF) may conduct offensive and defensive operations against a variety of hostile forces, to include members of the Taliban. The Contractor understands that it may not receive any support whatsoever in securing the Project site and in securing the transportation of materials to the Project site. Neither U.S. Government nor other ISAF forces are available to provide exclusive security for the Project. The Contractor is responsible for securing the Project site and in securing the transportation of materials to the Project site. The Contracting Officer possesses no ability to control the operations of either ISAF or hostile forces. The Government, acting in its sovereign capacity in its prosecution of its operations, may take actions which directly or indirectly affect the Contractor. These kinds of acts are general in application, not specifically directed at the Contractor. The Contractor recognizes that such actions may be taken, and that they will not entitle the Contractor to make claims for excusable or compensable delays. The Contractor possesses sufficient information about the specific security situation at the site to enable it to formulate an appropriate security plan. The Contractor understands that the security situation at the Project is subject to significant transformation in a short time span based on the changing operational picture in the region. The Contractor's security plan will take this factor into account.

2.0 GOVERNMENT PREREQUISITES TO CONTRACTOR DEPLOYMENT OF SITE SECURITY PERSONNEL

The following regulations and policies apply to Contractor-Provided Site Security Personnel:

a. DODI 3020.41; **Contractor Personnel Authorized to Accompany the U.S. Armed Forces**; 3 OCT 2005 (available at www.dtic.mil/whs/directives/corres/pdf/302041p.pdf).

b. DODI 3020.50; **Private Security Contractors (PSCs) Operating in Contingency Operations**; 22 JUL 2009 (available at www.dtic.mil/whs/directives/corres/pdf/302050p.pdf).

c. USCENTCOM Contracting Command, **Acquisition Instruction**; 5 NOV 2010 (available at http://c3-training.net/policy.html).

d. DFARS Subpart 225.74, Defense Contractors Outside the United States.

The Contractor understands its responsibilities under these regulations, policies, and standard contract clauses, as well as its responsibilities under Afghan law, with regard to its contracts for and employment of security personnel. The Contractor is not authorized to deploy any site security personnel until it complies with all prerequisites identified in these references. The Contractor acknowledges that its repeated failure to comply with these regulations, policies, and standard contract clauses constitute grounds for the Government to terminate the Contractor for default.

3.0 GOVERNMENT REPRESENTATIVES

During the Project, USACE may disseminate essential security information to the Contractor and will attempt to assist with any Contractor's questions and concerns. The USACE Area Office OIC/NCOIC will serve as the Area Office Security Officer and the Resident Office OIC/NCOIC will serve as the Resident Office Security Officer (collectively "the Security Officers").

4.0 SECURITY COORDINATION

Contractor will be required to coordinate construction site security with any Afghan or Coalition Forces and Local Governments that are available, if any, to assist the Contractor on a case-by-case basis. Coordination does **not** include nor imply making any unauthorized or illegal payments to the local ANA/ANP or Local/Provincial Government Officials for permission or protection to construct the project. The Contractor will immediately inform the Government if asked to make any such payments, and the Government will provide further direction to the Contractor. Corruption will not be tolerated at any level, under any circumstances. Conducting business in this manner will be grounds for termination of the contract.

5.0 SECURITY PLAN

The Security Officers will review and approve all current and future Contractor security plans prior to submittal approval by the authorized representative of the Contracting Officer. The Security Officers shall ensure that all Contractor security plans are in accordance with the Contract requirements. The security plans shall address movement of Contractor labor, material, and equipment. The Security Officers will lead the quality assurance program to ensure Contractors are executing their approved security plans. The Government will not allow the Contractor to start work on the Project site without an approved security plan.

5.1 SECURITY RATING

Each contract or task order will be assigned a rating by the Area Office Security Officer. This rating will determine the level of approval for the security plan. Assistance from the District's J2/J3 may be required to assess the rating. Ratings and approval levels are below:

a. Extremely High Risk: District Commander
b. High Risk: Deputy CDR, Chief of E&C, Area OIC, J2 OIC, or J3 OIC
c. Moderate Risk: Chief of Construction, Area OIC/NCOIC, or Area Engineer
d. Low Risk: Resident OIC/NCIOC, Resident Engineer

The rating assigned is in no way an indication that the security situation at the site will remain at a constant level throughout the Project.

5.2 SITE SECURITY FOR PROJECTS OUTSIDE OF ACTIVE COALITION FORCE BASES

The Contractor shall develop a site security plan and program to provide 24 hr/7 days a week security for the Project throughout its performance. The security plan must consider all construction-related sites; batch plants, material sources, stockpiles, worker camps and any other location where there is a major construction effort. The plan must also address security as it relates to the transportation of materials, equipment, personnel, and other items and individuals to the site. The Contractor is expected to perform all required actions to protect the construction site compound from theft and vandalism and personnel from physical harm. These measures are strictly for the protection and defense of the on-site people and property; Contractors are not authorized to conduct any type of offensive operations. For security of road construction, transportation of supplies, and equipment convoys, see the appropriate section below.

5.3 ESTIMATED THREAT ASSESSMENT

The Contractor is expected to develop a site security plan to cover a range of security operations from low to high threat. Included in this security plan will be the capability for a surge of manpower and equipment required during high threat conditions. The Contractor is expected to notify all on-site personnel of increased threats and protective action to take.

5.4 ADDITIONAL CIVILIAN ARMING REQUIREMENTS

The Contractor must include in its security plan, and must continue to maintain throughout the Project, current information on the following items for all its armed civilian personnel: MOI license number, AISA

license, armed Contractor & subcontractor company names, contract number/title, contracting agency (USACE-AES), type of work, number/type of weapons authorized, POC for company with contact details, Government Contracting Officer and COR with contact details, number of security personnel by type (U.S., Afghan, Other), company's country of registration/origin, names, photos, and tazkira numbers of security personnel as well as those personnel with access to weapons/ammo and those persons who will be handling or transporting explosives. In addition the Contractor will immediately update any change to the coordinates of the Contractor's base camps, quarries, and current work locations. The Contractor shall submit, prior to the commencement of construction, a plan for security protection, with a list of the chain of command. Perimeter security shall prevent unauthorized site access and provide safety protection to the Contractor work force and government personnel for the duration of the project.

6.0 SECURITY PLAN SUBMITTAL REQUIREMENTS

Contractors will submit all security plans in accordance with contract Section 01335 – Submittal Procedures for Projects.

7.0

COMMUNICATION

The Contractor will operate a 24/7 security operations center with communication capability to each guard on duty and the ability to notify all on-site personnel of increased threats and protective actions to take. The operations center will also have 24/7 communication with the local Coalition, ANA, or ANP security forces. The Contractor shall have communication with the Resident Office Security Officer at all times for rapid emergency response; the Resident Office Security Officer will give the Contractor the District J2/J3 contact information. Communication can be via cell phone, email, satellite phones, VHF, HF, CODAN, text, or other communication technologies compatible with the Government's capabilities. The Contractor will provide the Government with their contact information (names, numbers, frequencies, email addresses, transponder IDs, etc.) for the site encompassing all available communication means.

8.0 CONTRACTOR PROVIDED EQUIPMENT

The Contractor will provide the operational security equipment including but not limited to weapons, radios, uniforms, vehicles, vehicle fuel, phones, and other equipment as proposed by the Contractor to provide complete site security.

9.0 KEY CONTROL

The Contractor shall establish and implement methods in writing to ensure that all keys issued by the Contractor are not lost or misplaced and are not used by unauthorized persons. The Contractor shall develop procedures covering key control that will be included in their quality control system (See Section 01451). The project managers will keep a master log of all keys and provide a copy to the contracting officer's representative (COR) for verification. If a key is lost or stolen, the Contractor shall pay to have all impacted locks changed/rekeyed immediately.

10.0 CRITICAL INFORMATION TO REPORT

The Government is responsible for the management and oversight of DOD Contracted AC/PSCs delivering services throughout the CJOA-A. Given the impact of either Contractor misbehavior or catastrophic attacks against Contractors, it is critical that information regarding AC/PSC incidents is communicated quickly and accurately to the Government for purposes of management, fact-finding, and mitigation where necessary. The Government must receive the information addressed below. The Contractor will report any of these information requirements immediately to the Resident Office Security Officer:

a. AC/PSC Escalation of Force to include the use of weapons resulting in the death or injury of an Afghan citizen, coalition, or U.S. service member, other government official, or Contractor
b. AC/PSC accidents, traffic, or otherwise, resulting in the death or injury of an Afghan citizen, coalition, or U.S. service member, governmental official, or Contractor.
c. Attacks against AC/PSC activities by Anti-Afghan Forces resulting in the death or injury of an Afghan citizen, coalition or US service member, governmental official, or Contractor.

d. Reports of “lost convoys.” These are AC/PSC escort or independent activities which have lost contact with their companies.
e. AC/PSC Escalation of Force, accidents, or other activities that result in significant damage to Afghan or USG vehicles, materials or facilities.
f. Anti-Afghan Force actions including small arms fires (SAF), RPG fire, indirect fire (IDF), improvised explosive devices (IEDs), and/or complex attacks against AC/PSC activities.
g. Contractor accidental or negligent discharge of a weapon.

SECTION 01060

SPECIAL CLAUSES

1. GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 SCHEDULE OF MEETING

At the earliest practicable time, prior to commencement of the work, the Contractor and any Subcontractors whose presence is necessary or requested, shall meet in conference with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to the details of the administration and execution of this contract. This will include but not necessarily be limited to the Contractor's Quality Control (CQC) Program, the Contractors Accident Prevention Program, submittals, correspondence, schedule, access to the work site, security requirements, interface requirements, temporary facilities and services, hazards and risks, working after normal hours or on weekends or holidays, assignment of inspectors, representations, special requirements, phasing, and other aspects of this project that warrant clarification and understanding.

1.1.2 MEETING MINUTES

It shall be the responsibility of the Contractors CQC System Manager to prepare detailed minutes of this meeting and submit those minutes to the Contracting Officer for approval within three (3) workdays. Any corrections deemed necessary by the Contracting Officer shall be incorporated and resubmitted within two (2) calendar days after receipt. Upon approval of the minutes by the Contracting Officer, the Contractor shall distribute the minutes to all parties present or concerned.

1.2 AREA USE PLAN

The Contractor shall submit to the Contracting Officer, within10 calendar days after award of this contract, an Area Use Plan designating intended use of all areas within the project boundaries. This plan shall include, but not necessarily be limited to the following:

1. Proposed location and dimensions of any area to be fenced and used by the Contractor.
2. Avenues of ingress and egress to the fenced areas and details of the fence installation.
3. Proposed location, dimensions, and number of any trailers and facilities to be used.
4. Proposed location and dimensions of any construction plants.
5. Drawings showing temporary electrical, water, and sewage disposal installations.
6. Drawings showing temporary material storage and hazardous storage areas.
7. Drawings showing any areas that may require to be graveled.

The Area Use Plan shall also include a narrative description of the building structural system, the site utility system and the office or administration facilities. The Contractor shall also indicate if the use of a supplemental or other staging area is desired. **The Contractor shall not begin construction of the mobilization facilities prior to approval by the Contracting Officer of the Area Use Plan described herein.**

1.3 CONTRACTOR'S MOBILIZATION AREA

The Contractor will be permitted to use an area approved by the Contracting Officer within the contract limits for operation of his construction equipment , shops, warehouses,and offices. Utilities will be provided for the Contractor as described below. The Contractor is responsible for obtaining any required

additional mobilization area above that designated. The construction site shall be cleared of construction debris and other materials and the area restored to its final grade.

1.3.1 CONTRACTOR'S TEMPORARY FACILITIES

1.3.1.1 GENERAL

All facilities within the Contractor's mobilization area shall be of substantial construction suitable for the local weather conditions. Sanitary facilities shall meet the requirements of Corps of Engineers, Safety and Health Requirements Manual EM 385-1-1. Local nationals will not be granted any privileges under this contract. Government provided services are for American and Foreign national Contractors only.

1.3.1.2 ADMINISTRATIVE FIELD OFFICES

The Contractor may provide and maintain administrative field office facilities within the mobilization area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

1.3.1.3 STORAGE AREA

The Contractor shall construct a temporary 1.8 m (6') high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored green or brown, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless approved in writing by the Contracting Officer.

1.3.1.4 APPEARANCE OF MOBILIZATION SITE FACILITIES AND/OR TRAILERS

Mobilization Site Facilities and/or Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers or other transportable structures which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the construction site until such work or maintenance has been performed to the satisfaction of the Contracting Officer.

1.3.1.5 MAINTENANCE OF STORAGE AREA

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse unpaved areas which are not established roadways with construction equipment or other vehicles, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of soil onto paved or established roadways; gravel gradation shall be at the Contractor's discretion.

1.3.1.6 SECURITY PROVISIONS

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own facilities and equipment in accordance with Contract Section 01040.

1.3.1.7 SANITATION

a. Sanitary Facilities: The Contractor shall be responsible for maintaining such facilities at no expense to the Government.

b. Trash Disposal: The Contractor shall be responsible for collection and disposal of trash from the work areas and from the mobilization area. General construction debris and demolition debris shall be collected and transported by the Contractor to a location designated by the Government. Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Loose debris capable of being windblown, shall be immediately placed in sealed or covered containers to prevent it from being blown onto taxiways or runways. Any dirt or soil that is tracked onto paved or surfaced roadways shall be cleaned daily. Materials resulting from demolition activities that are salvageable shall be stored within the fenced area described above. Stored material not indoors, whether new or salvaged, shall be neatly stacked when stored.

1.3.1.8 TELEPHONE

The Contractor shall make arrangements to install and pay all costs for telephone facilities desired.

1.3.1.9 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of mobilization facilities, trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse unpaved areas shall be removed and all such areas restored to their original conditions.

1.3.2 PROTECTION & MAINTENANCE OF TRAFFIC PATTERNS

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic patterns. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Host Nation and base authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with base traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.3.2.1 USE OF EXISTING ROADS AS HAUL ROUTES

The Contractor shall be responsible for coordinating with the base authorities for use of any existing roads as haul routes. Construction, and routing of new haul roads, and/or upgrading of existing roads to carry anticipated construction traffic shall be coordinated with the Base authorities and is the sole responsibility of the Contractor.

1.3.2.2 EMPLOYEE PARKING

The Contractor is responsible for transporting workers (local nationals) from off post to the worksite, coordinating security identification screening, and cooperating in gate searches with the Base authorities.

1.3.3 TEMPORARY PROJECT SAFETY FENCING AND BARRICADES

The Contractor shall impose all measures necessary to limit public access to hazardous areas and to ensure the restriction of workers to the immediate area of the construction and mobilization site. The Contracting Officer may require in writing that the Contractor remove from the work area any employee found to be in violation of this requirement.

1.3.3.1 BARRICADES

Barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night. Travel to and from the project site shall be restricted to a route approved by the Contracting Officer.

1.4 RESPONSIBILITY FOR PHYSICAL SECURITY

Prior to mobilization, the Contractor shall submit his proposed means of providing project security to meet the requirements of Contract Section 01040 and prevent unauthorized access to equipment, facilities, materials and documents, and to safeguard them against sabotage, damage, and theft. 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.

1.5 DUST CONTROL

The Contractor shall be required to control objectionable dust in the work areas, access roadways, and haul roads by means of controlled vehicle speeds or dust palliatives. Vehicles transporting sand, cement, gravel or other materials creating a dust problem shall be covered, as directed by the Contracting Officer, or in accordance with local Laws, codes, and regulations.

1.6 DIGGING PERMITS

1.6.1 REQUIREMENTS FOR DIGGING PERMITS

Prior to the start of any work activity that requires excavation within the current base, the Contractor shall obtain a digging permit.

1.6.2 REQUESTS FOR DIGGING PERMITS

Requests for Digging Permits shall be submitted to Contracting Officer a minimum of seven (7) days prior to the start of the work activity covered by the permit. The request for a Digging Permit shall include a narrative description of the work to be performed and a detailed map of the area of the excavation clearly marking the location of all known utilities or other obstructions. If the work activity covered by the Digging Permit request also requires a utility outage, a separate request for the outage shall be submitted in accordance with the paragraph, Connections To Existing Utilities.

1.6.3 PREPARATION OF REQUESTS FOR DIGGING PERMITS

Prior to submitting a request for a Digging Permit, the Contractor shall carefully review the area to be excavated to determine the location of existing utilities and other obstructions. The Contractor will review available drawings and will conduct a visual inspection of the site. The Contractor will utilize underground utility detecting devices such as metal and cable detectors to determine the location of existing utilities. All utility lines found shall be clearly flagged or marked and the location of the utility shall be shown on the drawing to be submitted with the request for Digging Permit.

1.6.4 EXISTING UNDERGROUND UTILITIES

The Contractor shall exercise utmost care in researching locations of existing utilities and reducing damage to existing utilities. Any utilities damaged by the Contractor shall be promptly repaired by the Contractor. The Contracting Officer will review and approve any proposed repairs. Any damage to

existing utilities will be immediately reported to the Contracting Officer and the Base Commander.

1.7 OUTAGES & CONNECTIONS TO EXISTING UTILITIES SERVICES

To minimize temporary outage impacts to the mission of the installation, all outages shall be scheduled as directed by Contracting Officer Representative (COR). During temporary power outages, the contractor shall be responsible for supplying continuous power to dining facility buildings 109,204,210,214 and to the clinic building 203.

1.7.1 GENERAL

Any outage involving disruption of electrical service beyond the work area shall be requested in writing at least 10 days in advance of the date requested for the commencement of the outage. The Contractor shall provide a request, detailing the type of outage needed (i.e. Water, Sewer, Electrical, Steam, etc.), the time needed to perform the work, the reason for the outage, and the known affected facilities. The Contracting Officer shall be contacted prior to the outage to confirm the time and date. If the Contractor fails to initiate work at the approved time, the Contracting Officer may cancel the approved outage and may direct the Contractor to resubmit a new request. No part of the time lost due to the Contractors failure to properly schedule an outage shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.7.2 EXISTING UNDERGROUND UTILITIES

The Contractor is provided notice that existing utilities may be present in the construction area. The Contractor shall exercise the utmost care in researching locations of existing utility lines by implementing control measures to eliminate, or reduce to a level acceptable to the Contracting Officer, the chance of damaging or destroying existing utilities.

1.7.3 USE OF UNDERGROUND UTILITY DETECTING DEVICE

Prior to any excavation, a metal and/or cable-detecting device shall be used along the route of the excavation. All underground utilities discovered by this method will be flagged a minimum distance of 500 mm (20") on each side of the location.

1.7.4 HAND EXCAVATION

Hand excavation methods and special supervisory care shall be used between any flagged markers, in areas of known or suspected hazards, and in areas known or suspected to have multiple and/or concentrated utility lines or connections.

1.7.5 REPAIR OF DAMAGED TO EXISTING UTILITIES

The Contractor shall be responsible to repair any items damaged. The method of repair and schedule for performance of the repair shall be coordinated with, and subject to the approval of, the Contracting Officer. The repair work and any temporary work required to keep the system operational while repairs are being completed, shall be performed at no cost to the Government.

1.8 ELECTRICITY (CONTRACTOR PROVIDED)

Electrical service is not available for use under this contract; therefore all electric current required by the Contractor shall be the responsibility of the Contractor, furnished at his own expense. The Contractor shall provide diesel generators to meet his demand requirements. The means of doing so, such as by

temporary distribution systems, shall be the responsibility of the Contractor. All temporary connections for electricity shall be subject to the approval of the Contracting Officer and shall comply with Corps of Engineers manual EM 385-1-1 entitled Safety and Health Requirements Manual. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer. Before final acceptance of systems, or facilities, all temporary connections installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

1.9 WORK OUTSIDE REGULAR HOURS

If the Contractor desires to carry on work outside regular base duty hours, or on holidays, including the following U.S. holidays: New Year's Day, Martin Luther King Jr Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving and Christmas. the Contractor shall submit an application to the Contracting Officer. Due to reliance upon local national laborers and time off due to local observances, there may be disruptions. Potentials dates are the following local observances: National Islamic Holiday of Ashura, Ramadan (actual date varies – check with local authorities). The Contractor shall allow ample time to enable satisfactory arrangements to be made by the Government for inspecting the work in progress. At night, exterior lighting shall be provided in conformance with EM-385-1-1 entitled "Safety and Health Requirements Manual".

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1.10 SCHEDULING OF WORK IN EXISTING FACILITIES

As soon as practicable, but in any event not later than 30 calendar days after award of this contract, the Contractor shall meet in conference with the Contracting Officer, or his duly authorized representatives, to discuss and develop mutual understanding relative to the scheduling of work in and access to the existing facilities where work has to be performed under this contract, so that the Contractor's proposed construction schedule is coordinated with the operating and security requirements of the installation.

1.11 SPECIAL FACILITIES AND SERVICES TO BE FURNISHED BY THE CONTRACTOR

The Contractor shall furnish the facilities and services listed in this clause for Corps of Engineers personnel and other persons as designated by the Contracting Officer. All facilities, furnishings, materials, and equipment shall be new when furnished at the site. The Contractor shall fully maintain and repair all facilities, furnishings and equipment listed below. All facilities, furnishings, materials, and equipment furnished and/or installed by the Contractor under this clause shall remain the property of the Contractor at the completion of the contract. Facility structures shall be modular or containerized, suitable for easy movement at a later date.

1.12 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in accordance with Section 01335, Submittal Procedures For Design-Build. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company involved and shall contain the name and address of the Contractor, the project name and location, description and the quantity of the items involved, and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material.

1.13 ACCIDENT PREVENTION

The Contractor shall comply with all applicable Host Country laws and with such additional measures as

the Contracting Officer may find necessary in accordance with Contract Clause 52.236-13 entitled Accident Prevention (Nov 1991)-Alternate 1 (Apr 1984). Applicable provisions of the Corps of Engineers manual entitled Safety and Health Requirements Manual EM 385-1-1 will be applied to all work under this contract. The referenced manual may be obtained from the Contracting Officer at the jobsite or from the Afghanistan Engineer District-South (AED-S), Afghanistan.

1.13.1 ACCIDENT PREVENTION PROGRAM

Within 15 days after award of this contract, and at least 10 days prior to the accident prevention pre-work conference, four (4) copies of the Accident Prevention Plan required by the Contract Clause 52.236-13 entitled, Accident Prevention (Nov 1991)- Alternate I shall be submitted for review by the Contracting Officer. The Contractor shall not commence physical work at the site until the Accident Prevention Plan (APP) has been reviewed and accepted by the Contracting Officer. The APP shall meet the requirements listed in Appendix "A" of EM385-1-1. The program shall include the following: TAC Form 61 " Accident Prevention Program Hazard Analysis (Activity Hazard Analysis)" fully completed and signed by an executive officer of the company in block No. 13. The Activity Hazard Analysis is a method in which those hazards likely to cause a serious injury or fatality are analyzed for each phase of operations. Corrective action is planned in advance, which will eliminate the hazards. An analysis is required for each new phase of work. On large or complex jobs the first phase may be presented in detail with the submittal of the Accident Prevention Plan rather than presenting the complete analysis. If the plan is to be presented in phases, a proposed outline for future phases must be submitted as a part of the initial Accident Prevention Plan submittal. Accident Prevention Plans will be reviewed for timeliness and adequacy at least monthly with a signature sheet signed and dated documenting that these reviews took place. Copy of company policy statement of Accident Prevention and any other guidance as required by EM 385-1-1, Appendix A.

1.13.2 GROUND FAULT CIRCUIT INTERRUPTER (GFCI) REQUIREMENT – OVERSEAS CONSTRUCTION

The Corps of Engineers Health and Safety Manual, EM 385-1-1, section 11.D.05.b. states: "The GFCI device shall be calibrated to trip within the threshold values of 5 ma +/- 1 ma as specified in Underwriters Laboratory (UL) Standard 943." A variance from USACE has been granted allowing 10 ma, in lieu of 5 ma, for overseas activities that use 220 Volts (V)/50 hertz (Hz) electrical power.

1.13.3 TEMPORARY POWER - ELECTRICAL DISTRIBUTION BOXES

EM 385-1-1 section 11.A.01.a. states, "All electrical wiring and equipment shall be a type listed by a nationally recognized testing laboratory for the specific application for which it is to be used." This includes temporary electrical distribution boxes. Locally manufactured electrical boxes will not be allowed. Only manufactured electrical distribution boxes that meet the European CE requirements, with 10 ma CE type GFCIs installed shall be allowed.

Contractors shall:

a. Make no modifications that might void any CE or manufacturer certification.

b. Test the installed systems to demonstrate that they operate properly and provide the 10 ma earth leakage protection.

c. Ensure GFCIs will have an integral push-to-test function. The testing shall be performed on a regular basis.

d. Check that proper grounding is checked regularly and flexible cords, connectors, and sockets inspected before each use.

1.14 HAZARDOUS MATERIALS

Should the Contractor encounter asbestos or other hazardous materials, during the construction period of this contract, he shall immediately stop all work activities in the area where the hazardous material is discovered. The Contractor shall then notify the Contracting Officer; identify the area of danger; and not proceed with work in that area until given approval from the Contracting Officer to continue work activities. Hazardous material is considered to be asbestos, explosive devices, toxic waste, or material hazardous to health and safety. The Contractor shall secure the area from daily traffic until it is safe to resume normal activities.

1.15 SPARE PARTS

1.15.1 GENERAL

The requirements of this clause are in addition to any requirements for the provision of specific spare parts to be provided by the Contractor included in Technical Provisions. The Contractor shall furnish spare parts as directed by the Contracting Officer under the provisions of this clause for all equipment for which O&M data is to be provided under the clause, Operation And Maintenance (O&M) Data, of this contract. The term "spare parts" as used herein shall include spare parts, special tools, and test equipment.

1.15.2 SELECTION OF SPARE PARTS TO BE FURNISHED

The Contractor shall provide master parts lists, recommended spare parts lists and lists of special tools and test equipment as a part of the equipment O&M data required by the clause, Operation And Maintenance (O&M) Data. The master parts list shall include the supplier's price for each part. After review of the lists, the Contracting Officer will select spare parts and furnish written direction to the Contractor indicating quantities and types of spare parts to be furnished by the Contractor. Written directions for spare parts orders may be provided on an incremental basis as reviews of O&M data submitted by the Contractor are completed but will not necessarily be issued in the sequence in which the Contractor submitted the equipment O&M data.

1.15.3 PROCUREMENT AND DELIVERY OF SPARE PARTS

The Contractor shall procure and be responsible for delivery, receipt, handling, placing in storage, inventory, and turnover to the Contracting Officer all spare parts selected by the Contracting Officer. In addition to the recommended spare parts list required in paragraph, Selection Of Spare Parts To Be Furnished, the Contractor is responsible to have one (1) year supply of manufacturer's recommended spare parts on site ready to turn over to the Contracting Officer at the time of acceptance of the facility.

1.15.3.1 SHIPMENT AND DELIVERY

The Contractor shall be responsible for the shipment and delivery of spare parts to the location on or near the site in Afghanistan as selected by the Contracting Officer. The Contractor shall provide all manpower and equipment required to receive and place into designated storage areas all spare parts purchased under this clause. The Contractor shall give the Contracting Officer 30 calendar days notice of arrival at the site of the first shipment.

1.15.3.2 TURNOVER OF SPARE PARTS

The Contractor shall notify the Contracting Officer 72-hours prior to delivery of spare parts to the designated storage area. The Contractor and the Contracting Officer will perform a joint inventory of the spare parts and the spare parts will be turned over to the Contracting Officer. Spare parts purchased under this clause shall not be used by the Contractor.

1.15.3.3 PARTS AND PACKAGE IDENTIFICATION

Prior to shipment from point of purchase, each spare part shall be tagged or otherwise marked or labeled. Such labeling may be placed or affixed to the container, box or packaging in which spare parts are located when it is not feasible to place or affix such labeling directly on each spare part. Tags or labels shall include, but not necessarily be limited to; part number, description, parent equipment name and number location, project and/or other data as directed by the Contracting Officer.

1.15.3.4 PRESERVATION AND PACKAGING INSTRUCTION

a. Items ordered under this contract shall be preserved and packed for a minimum of three (3) years shelf life storage. All items shall be individually packaged except when the manufacturer specifies that the items are to be used in sets. Appropriate identification labels must be affixed to the items protective box or package. After the spare parts are packaged, the manufacturer shall weigh the spare parts and packaging and place the weight and size of the packaged container on the label with other information as outlined herein. Each item, not normally identified with manufacturer's name and part number, shall have an appropriate label affixed to it with manufacturer's name and part number.

b. Machined spare parts shall be lubricated or coated in order to withstand extensive periods of storage in a highly corrosive atmosphere.

c. Large items (greater than 22.7 kg (50 lbs), or larger than 0.03 CM (1.0 cu.ft) shall be packaged in waterproof wooden boxes and properly braced. Cushioning shall be used to prevent damage to the item and to the packaging material.

d. Solid state components, such as diodes, transistors, integrated circuits or equipment consisting of such parts that can be damaged as a result of static electricity and other stray electro-magnetic fields shall be packaged in heat-sealed, aluminum foil, laminated, flexible packages.

e. All other spare parts shall be packaged in heat sealed plastic bags or wrap. Delicate and more fragile items such as test equipment shall be cushioned or wrapped with transparent bubble wrap material prior to being inserted into the plastic package.

1.15.4 WARRANTY

All spare parts provided by the Contractor under this clause are subject to the general warranty clauses of this contract.

1.15.5 PAYMENTS FOR SPARE PARTS

Payments for spare parts ordered under the paragraph entitled "Selection of Spare Parts To Be Furnished" will be made under the work item of the Work Breakdown Sheet entitled "Spare Parts". Payments for spare parts specifically required elsewhere in this contract shall be considered as part of those equipment costs and shall be included in other payment items as appropriate. Payments for spare parts ordered under this clause shall be based on the invoice price (FOB supplier) plus certified invoice price of surface shipment to the site in Afghanistan. The invoice price (FOB supplier) shall include the separately listed cost for preservation and packaging by the manufacturer as specified herein. The Contractor shall provide invoices and any additional backup, which may be required to demonstrate that the invoices presented represent the cost of spare parts, preservation and packaging, and cost of surface shipment to the site. Payment for handling, delivery, inventory, turnover, customs, overhead or profit shall not be paid or allowed under this Contract Provision, and shall be included in the cost for installation of this equipment under the other appropriate payment items of this contract. Price increases over prices furnished under paragraph, Selection Of Spare Parts To Be Furnished, shall be fully substantiated. Payment for spare parts will be made after the spare parts have been accepted at the site by the Contracting Officer. If the total payments under the work item entitled "Spare Parts" does not reduce the balance of this work item to zero, the remaining balance will be deducted from the final contract amount. If orders exceed the work item entitled "Spare Parts", a modification for equitable adjustment will be

issued in accordance with Contract Clause 52.243-4 entitled CHANGES. Payments for spare parts ordered under this clause shall constitute full payment for all cost of the spare parts and associated cost of preservation and packaging, and cost of surface shipment to the site. Other ancillary costs shall be included by the Contractor under the other appropriate work items of this contract and no additional cost except as provided herein will be allowed.

1.16 OPERATION AND MAINTENANCE (O&M) DATA

1.16.1 GENERAL

The requirements contained herein are in addition to all shop drawings submission requirements stated in other sections of the specifications. The Contractor shall include the provisions for all items required under this clause in all purchase orders and sub-contract agreements. Submittals required hereinafter will not relieve the Contractor of any responsibilities under the Warranty of Construction Provisions of this contract or under the various Guarantee Clauses of the Technical Provisions.

1.16.2 SUBMITTALS

The Contractor shall submit all items requiring submission of O&M data under this and other sections of these specifications in accordance with Section 01335, Submittal Procedures For Design-Build, of the specifications.

1.16.3 OPERATION AND MAINTENANCE (O&M) DATA

The Contractor shall furnish operation and maintenance manuals for all facilities constructed under this contract. The manuals shall be loose leaf, indexed and shall consist of manufacturer's brochures, manufacturer's operation and maintenance manuals, service and repair manuals, catalogs, service bulletins, instruction charts, diagrams, other information as necessary to support the operation and maintenance of the end items of equipment, assemblies and systems. Each type of facility (housing, barracks, mosque, etc.) shall be covered by a separate manual (or manuals) consisting of all data pertaining to the equipment and/or systems within that facility. Identical equipment within a single major system shall require only one submittal of data. The Contractor shall furnish all O&M manuals to the Contracting Officer not less than thirty (30) calendar days prior to contract completion. Required number of submittals (number of sets) shall be as specified in Section 01335, Submittal Procedures For Design-Build.

1.16.4 RECOMMENDED SPARE PARTS LIST

The Contractor shall furnish a recommended spare parts list containing equipment manufacturers' recommendations for five (5) years; two (2) years and one (1) year spare parts stock levels in Afghanistan. Current unit price and effective date, lead time, shelf life for each individual part, and total cost of all recommended parts shall be furnished.

1.16.5 SUPPLEMENTAL SUBMITTALS OF DATA

After initial submittal of O&M manuals and until final acceptance of all equipment, the Contractor shall prepare and deliver to the Contracting Officer supplemental technical data as previously described for all changes, modifications, revisions and substitutions to equipment and components. For equipment or systems introduced into the contract under change order, or modified by change order, supplemental data shall be furnished within 45 calendar days after issuance of the change order. The supplemental data furnished shall be properly prepared and identified for insertion into the O&M manuals.

1.16.6 FRAMED INSTRUCTIONS FOR SYSTEMS

Approved wiring and control diagrams showing the complete layout of the entire system, including equipment, piping, valves and control sequence, framed under glass or in approved laminated plastic, shall be posted, where applicable, in all mechanical equipment rooms. In addition, detailed operating instructions explaining safe starting and stopping procedures for all systems shall be prepared in typed form along with the inspections required to insure normal safe operations. The instructions shall be framed as specified above for the wiring and control diagrams and posted beside the diagram. Proposed diagrams, instructions, and other sheets shall be submitted for approval prior to posting. Operating instructions shall be posted before acceptance testing of the systems and verified during acceptance testing.

1.16.7 ADDITIONAL SUBMITTALS/RE-SUBMITTALS

The Contracting Officer reserves the right to determine whether the above specified information, as furnished by the Contractor, is adequate and complete and to require such additional submittals by the Contractor as necessary to insure that adequate information has been furnished to provide the satisfactory operation and maintenance of the various items of equipment and to fulfill the intent of the specifications. Additional submittals or resubmittals supplementing incorrect or incomplete data shall be made within 30 calendar days after receiving notice by the Contracting Officer. All costs arising from these resubmissions shall be borne by the Contractor.

1.17 INSTRUCTIONS AND TRAINING FOR OPERATION & MAINTENANCE

1.17.1 GENERAL

The Contractor shall be responsible for the instruction and training of operating and maintenance personnel as specified below and in the Technical Provisions of the specifications. Unless otherwise indicated in the Technical Provisions, operating and maintenance instructions shall be given for a minimum period as follows:

Title:	Duration of Training:
Electrical Systems	1.0 1 [10] Day(s)

1.17.2 OPERATION & MAINTENANCE TRAINING

The Contractor shall provide competent instructors for training of personnel designated by the Contracting Officer to operate mechanical and electrical building systems and equipment, perform the required preventive maintenance to minimize breakdown, and to perform necessary repairs when malfunction or breakdown of equipment occurs. Such training shall consist of on-the-equipment training for the period specified, which shall be completed prior to acceptance of a system or equipment, as applicable. The operating and maintenance manual data, as specified to be furnished in these Special Clauses, shall be used as the base material for training.

The instructor(s) shall have no other duties during the period of training. Emphasis will be given to electrical features, in accordance with approved training plans.

1.17.3 ARRANGEMENTS

The training shall be for not less than the periods of time specified, one (1) day per week, and 1-hours per day, subject to review and approval by the Contracting Officer.

Each individual training session shall be presented one time only, shall be video recorded in a television system compatible with the local area, and be scheduled in a manner acceptable to the Contracting Officer. At the completion of training, the video recordings shall become the property of the Government.

Recordings obtained will be used in future training by the Government.

The Government reserves the right to copy, in any manner, the subject training material, or training sessions given by the Contractor, without additional cost to the Government.

1.17.4 SCHEDULING

The Contractor shall contact the Contracting Officer for the purpose of preliminary planning, scheduling, and coordination of training, to maximize effectiveness of the training program for available operating and maintenance personnel. The Contractor shall initiate and make arrangements for such contact within 30 calendar days after receipt of notification of award of contract; and shall include all significant times in scheduling and completing training in the project schedule. The Contractor shall provide a draft outline of training outline in sufficient detail to provide a broad indication of the type of scope of training to be given. It shall include but not be limited to; (a) a list of subjects to be presented; (b) estimated amounts of classroom and on-the-equipment instruction for each subject; (c) a list of minimum qualifications for instructors; and (d) discussions concerning the types and amounts of visual aids, reference materials, tools and test equipment, mock-up and other training materials that will be employed during training.

1.17.5 PRELIMINARY PLAN

The Contractor shall submit two (2) copies of an outline of his proposed training plan to the Contracting Officer for review and approval not later than 60 calendar days after award of this contract. The plan will be reviewed and coordinated with the content of the O&M manuals.

1.17.6 PLAN

The Contractor shall submit two (2) copies of his proposed training plan to the Contracting Officer for approval not later than 90 calendar days prior to start of any training. The plan shall include the following; (a) a weekly outline showing overall form and design of training presentation; (b) a day-by-day schedule showing time intervals, the major and subordinate subjects to be covered in each, the name of the instructor(s) and qualification summary of each, and identification of related handouts; (c) summary of the number of hours of classroom and on-the-equipment training; (d) a list of reference materials to be provided by the Contractor to the trainees; and (e) a list and description of the training materials to be used, such as text, visual aids, mock-up, tools, etc. The Contractor shall be responsible for furnishing all training materials except the following: The Government will provide space, chairs, and tables for classroom training, and number of sets of O&M Manuals required by the Contractor per Section 01335, Submittal Procedures For Design-Build of the specifications. Provision of these manuals is solely for reference purposes, and in no way relieves the Contractor from providing all instruction and materials necessary for training personnel designated by the Government. All costs for resubmission of training plans, training materials, etc., as requested by the Contracting Officer shall be borne by the Contractor. Resubmittals shall be made within 20-days of notice from the Contracting Officer.

1.17.7 ATTENDANCE ROSTER/TAC FORM 356

The Contractor shall develop an attendance roster or a similar document indicating each student’s attendance, prior to the start of each class, subject and/or topic. This includes both "Hands-On" and classroom training. It is strongly recommended that each student trained be required to sign this document at the beginning of each class day for each and every class, subject and/or topic taught on that day. The Contractor's failure to have student attendance verified in writing may be cause for the Government to order the Contractor to repeat schooling where evidence of attendance cannot be verified. No part of the time lost due to such repeat instruction shall be made the subject of claim for extension of time or for excess costs or damage by the Contractor. Within 10 working days after completion of Operation and Maintenance Training conducted in accordance with this clause and/or applicable Technical Provision section, the Contractor shall complete and submit TAC Form 356 "Operation and Maintenance Training Validation Certificate". The attendance roster shall be included as an attachment to

TAC Form 356.

1.18 CONTRACTOR FURNISHED EQUIPMENT LISTS

The Contractor shall furnish a list of all items, other than integral construction type items, furnished under the contract. Items such as furniture, drapes, rugs, vehicles, office machines, appliances, etc., shall fall under this category. The Contractor's list shall describe the item; give the unit price and total quantities of each. Model and serial numbers for equipment shall be provided when applicable. The Contractor shall keep an up-to-date register of all covered items and make this information available to the Contracting Officer at all times. Prior to acceptance, the Contractor shall submit the complete register to the Contracting Officer.

1.19 TIME EXTENSIONS

1.19.1 GENERAL

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause 52.249-10 entitled, Default (Fixed-Price Construction) Apr 1984. The listing below defines the anticipated monthly unusually severe weather for the contract period and is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the geographic location of the project. The schedule of anticipated unusually severe weather will constitute the baseline for determining monthly weather time evaluations. Upon award of this contract and continuing throughout the contract each month, actual unusually severe weather days will be recorded on a calendar day basis (including weekends and holidays) and compared to the monthly anticipated unusually severe weather in the schedule below. The term "actual unusually severe weather days" shall include days actually impacted by unusually severe weather. The Contractor's schedule must reflect the anticipated unusually severe weather days on all weather dependent activities.

Kandahar Province - Kandahar

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	14	7	4	6	1	0	1	1	0	1	6	12	53

Nimroz Province – Zaranj

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	13	6	1	1	0	0	0	0	0	1	4	9	35

Oruzgan Province - Tarin Kowt

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	12	3	0	0	0	0	0	0	0	0	1	6	22

Zabul Province – Qalat

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	19	11	3	0	0	0	0	0	0	1	5	12	51

Badghis Province - Qal-i-Naw

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	18	12	5	3	1	0	0	0	0	4	7	12	62

Farah Province – Farah

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

	11	5	3	3	1	0	0	0	0	1	4	12	40
Herat Province – Herat													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	15	11	6	6	1	0	0	0	0	2	9	15	65

1.19.2 WEATHER DELAYS

The number of actual unusually severe weather days shall be calculated chronologically from the first to the last day in each month. Unusually severe weather days must prevent work for 50 percent or more of the Contractor's workday and delay work critical to the timely completion of the project. If the number of actual unusually severe weather days exceeds the number of days anticipated in the paragraph above, the Contracting Officer will determine whether the Contractor is entitled to a time extension. The Contracting Officer will convert any qualifying delays to calendar days and issue a modification in accordance with the Contract Clause 52.249-10 entitled, Default (Fixed-Price Construction) Apr 1984.

1.19.3 OTHER DELAYS

Construction delays due to full or partial base closures due to incidents such as demonstrations, civil unrest and outright attacks will be examined on an individual basis for consideration of time extensions.

1.20 STANDARDIZATION

Where two (2) or more items of the same type or class of product, system or equipment furnished in this project are required, the units shall be products of the same manufacturer and shall be interchangeable when of the same size, capacity, performance characteristics, and rating. The only exception to this requirement is where the items are interchangeable due to conformance with industry standards (valves, fittings, etc.); they need not be by the same manufacturer. This requirement applies to all manufactured items in the project that normally require repair or replacement during the life of the equipment.

1.21 COMPLIANCE WITH HOST COUNTRY RULES & CUSTOMS

The laws of Host Country may prohibit access to certain areas of the country that are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the host country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.21.1 HOST NATION AUTHORIZATIONS, PERMITS & LICENSES

It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his quarry operations, batching operations and haul routes (See Special Clause paragraph, Compliance With Host Country Rules And Customs).

1.21.2 CONTRACTOR'S RESPONSIBILITIES

The following items are the sole responsibility of the Contractor to investigate, estimate as to cost, and assume the risk, as normally encountered by Contractors. The Contractor shall be responsible for determining the effect of the following on his own cost of performance of the contract and for including sufficient amount in the contract price:

a. Official language and type of accounts required to satisfy the officials of the Local Government.

b. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for a regular block of visas will be accepted.

c. Passports, health and immunization certificates, and quarantine clearance.

d. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

e. Strikes, demonstrations and work stoppage.

f. Collection through withholding and payment to local Government, of any Host Country income tax on employees subject to tax.

g. Arranging to perform work in the Host Country, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

h. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, 7th day of rest, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays and ratio of local labor employed in comparison to others.

i. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

j. Compliance with workmen's compensation laws and contributions into funds. Provisions of necessary medical service for Contractor employees.

k. Special license required by the local Government for setting up and operating any manufacturing plant in the Host Country, e.g. concrete batching, precast concrete, concrete blocks, etc.

l. Sales within the host country of Contractor-owned materials, and equipment.

m. Special licenses for physicians, mechanics, tradesmen, drivers, etc.

n. Identification and/or registration with local police of imported personnel.

o. Stamp tax on documents, payments and payrolls.

p. Base passes for permanent staff, day laborers, motor vehicles, etc.

q. Compliance with all customs and import rules, regulations and restrictions, including, but not limited to, local purchase requirements.

1.22 EMPLOYEE ACCESS TO PROJECT SITE

1.22.1 EMPLOYEE IDENTIFICATION

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work, to display identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

1.22.1.1 PREPARATION OF IDENTIFICATION BADGES

The Contractor shall be required to prepare a written application inclusive color photographs and provide all materials and labor necessary to prepare an identification badge, laminated in plastic, containing the employee's name, badge number, color photo, height and weight, the name of the Contractor's organization and for requiring each employee engaged on the work to display this identification as directed by the Contracting Officer. The Contractor shall submit each application and draft badge through the Contracting Officer to the Base Security Office. A minimum of thirty-five workdays shall be allowed for

Government review and certification of badges. The Base Security Office will certify each draft badge by signature, stamp, seal or any combination thereof. Upon certification by the Base Security Office, the badges will be returned to the Contractor for final preparation, lamination, and issuance. Badges shall not be taken out of country during periods of travel or absence. During such periods, the Contractor may be permitted to issue temporary identification badges.

1.22.1.2 EMPLOYEE BACKGROUND & HISTORICAL INFORMATION

The Contractor shall be required to prepare and maintain personal background and historical information forms on each employee. These forms may be reviewed by the Base Security Office. The required information shall include but not necessarily be limited to the following:

a. Full name.

b. Place and date of birth.

c. Three (3) current color photographs.

d. Copy of Citizenship/Nationality identification.

e. Copy of Passport.

f. Copy of drivers license.

g. Police Background Check.

h. Work History.

i. Personal background information.

j. Copy of Work Permit and/or Visa.

k. Permanent home of record and in-country address.

l. Other information mandated by local law, the Base Security Regulations or that may be required to coordinate and process the necessary documentation with the government offices responsible for the approval.

m. Registration, insurance company, policy number and expiration date for each vehicle.

1.22.2 IDENTIFICATION OF CONTRACTOR VEHICLES

The Contractor shall be responsible for requiring each vehicle engaged in the work to display permanent vehicular identification as approved and directed by the Contracting Officer. If acceptable to the Base Security Office and approved by the Contracting Officer, the Contractor may institute a system of non-permanent temporary identification for one-time delivery and transit vehicles. Each Contractor vehicle, machine, piece of equipment, or towed trailers, shall show the Contractor's name such that it is clearly visible on both front doors of the vehicle and both sides of a towed trailer. A valid license plate shall be displayed at all times. Contractor vehicles operated on Government property shall be maintained in a good state of repair, shall be insured, and shall be registered in accordance with Afghan Law.

1.22.3 SECURITY PLAN

The Contractor shall submit to the Contracting Officer a security plan as required in Contract Section 01040.

1.23 RADIO TRANSMITTER RESTRICTIONS

To preclude accidental actuation of sensitive electronic equipment, the Contractor shall not use radio-transmitting equipment without prior approval of the Contracting Officer.

1.24 PUBLIC RELEASE OF INFORMATION

1.24.1 PROHIBITION

There shall be no public release of information or photographs concerning any aspect of the materials or services relating to this bid, contract, purchase order, or other documents resulting therefrom without the prior written approval of the Contracting Officer.

1.24.2 SUBCONTRACT AND PURCHASE ORDERS

The Contractor agrees to insert the substance of this clause in all purchase orders and subcontract agreements issued under this contract.

1.25 ATTACHMENTS

TAC FORM 61 - Accident Prevention Program Hazard Analysis

TAC FORM 356 - Operation and Maintenance Training Validation Certificate

2. LOCAL CLAUSES

2.1 APPLICATION OF US CRIMINAL JURISDICTION

Reference DODI 5525.11. The Contractor is directed to provide all of its personnel working under this contract, and to require all of its subcontractors to provide their personnel, with written notification that - with the exception of nationals of Afghanistan and those ordinarily resident in Afghanistan - Contractor and subcontractor personnel, and the dependents of Contractor and subcontractor personnel who are residing with such personnel, may be subject to US criminal jurisdiction as provided for in the Military Extraterritorial Jurisdiction Act, 18 USC 3261-3267; see Section 3267(1)(A)(iii)(I) and (2)(A)(iii). A copy of the notice ***shall be furnished to the contracting officer upon award of the contract***, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel.

2.2 ATTACKS FROM HOSTILE ENTITIES

This contract is firm fixed-price. Costs incurred in the performance of project execution that arise from the attacks of hostile entities, such as costs arising from damage to or destruction of Contractor equipment and facilities, and damage to or destruction of the project prior to Government acceptance, are the sole responsibility of the Contractor. The Government makes no guarantee to provide the Contractor with security, and bears no obligation to reimburse the Contractor for costs arising from the attacks of hostile entities. When appropriate, the Contracting Officer may provide the Contractor with an equitable adjustment with respect to time – but not cost – in accordance with clause 52.249-10; see 52.249-10(b)(1)(i) and (2).

2.3 INSTALLATION ACCESS AND BADGING

This contract is firm fixed-price. It is the responsibility of the Contractor to be knowledgeable of and to abide by any and all applicable installation access procedures and requirements, to include any and all badging procedures and requirements, that may be necessary for Contractor access to the project site. Such procedures and requirements may change over the course of contract performance; it is the responsibility of the Contractor to plan accordingly in order to meet its existing obligations under this contract. The US Army Corps of Engineers, Afghanistan Engineer District-South (AES), neither controls nor is responsible for any such installation access procedures, requirements or changes thereto.

2.4 CUSTOMS CLEARANCE

Reference clauses 52.229-6 and 52.225-13. This contract is firm fixed-price. It is the responsibility of the Contractor to be knowledgeable of and to abide by any and all applicable customs clearance procedures and requirements that may be necessary for the transportation of supplies and equipment into Afghanistan. Such procedures and requirements may change over the course of contract performance; it is the responsibility of the Contractor to plan accordingly in order to meet its existing obligations under this contract. The US Army Corps of Engineers, Afghanistan Engineer District-South (AES), neither controls nor is responsible for any such customs clearance procedures, requirements or changes thereto.

2.5 TRAVEL WARNINGS

The Contractor shall provide all personnel working under this contract, and shall require subcontractors to provide their personnel, with a written notification advising such personnel to be aware of US State Department Travel Warnings with respect to Afghanistan, available at http://travel.state.gov, in the event they wish to consider bringing their dependants into Afghanistan. A copy of the notice **shall be furnished to the Contracting Officer upon award of the contract**, along with a certification by an authorized company representative attesting to the provision of the notification to Contractor personnel. At no time, subject to the written approval of the contracting officer, may the Contractor allow such dependants, or any other unauthorized individuals, to be present on the project site grounds, whether in transit or otherwise.

2.6 DRUG-FREE WORKFORCE

Documentation of the Contractor's drug-free workforce program as required by clause 252.223-7004(b) ***shall be furnished to the contracting officer upon award of the contract.***

2.7 COMBATING TRAFFICKING IN PERSONS, COMMERCIAL SEX ACTS, FORCED LABOR

A copy of the employee notification statement as required by clause 252.222-7006(d) **shall be furnished to the Contracting Officer upon award of the contract**, along with a certification by an authorized company representative attesting to the provision of the notification to Contractor personnel.

-- END OF SECTION --

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

1. GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site: the Contractor can obtain the current address from the Government. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

Administration	Submittal Monitoring
Finances	Scheduling
Quality Control	Import/Export of Data

1.1 CORRESPONDENCE AND ELECTRONIC COMMUNICATIONS

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.2 OTHER FACTORS

Particular attention is directed to specifications “Submittal Procedures”, “Contractor Quality Control”, "Project Schedule", and Contract Clause, "Payments", which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.3 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available. It shall be the responsibility of the contractor to maintain the QCS software and install updates as they become available.

1.4 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS. No separate payment shall be made for updating or maintaining the necessary hardware configurations necessary to run QCS:

Hardware:

IBM-compatible PC with 1000 MHz Pentium or higher processor.

256+ MB RAM for workstation / 512+ MB RAM for server.

1 GB hard drive disk space for sole use by the QCS system.

Digital Video Disk (DVD)-Compact Disk (CD) Reader-Writer (RW/ROM).

Monitor with a resolution of AT LEAST 1024x768, 16bit colors.

Mouse or other pointing device.

Windows compatible printer (Laser printer must have 4 MB+ of RAM).

Connection to the Internet, minimum 56k BPS.

Software:

MS Windows 2000 or higher.

QAS-Word Processing software: MS Word 2000 or newer.

Internet browser supporting HTML 4.0 or higher.

Electronic mail (E-mail) MAPI compatible.

Virus protection software regularly upgraded with all issued manufacturer's updates.

1.5 RELATED INFORMATION

1.5.1 QCS USER GUIDE

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.5.2 CONTRACTOR QUALITY CONTROL (CQC) TRAINING

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class. The government will provide QCS training if requested by the contractor.

1.6 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail or via CD-ROM. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.7 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. Data updates to the Government shall be submitted via either E-mail or electronic media with printed/file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer. The QCS database typically shall include current data on the following items:

1.7.1 ADMINISTRATION

1.7.1.1 CONTRACTOR INFORMATION

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.7.1.2 SUBCONTRACTOR INFORMATION

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.7.1.3 CORRESPONDENCE

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.7.1.4 EQUIPMENT

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.7.1.5 MANAGEMENT REPORTING

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.7.2 FINANCES

1.7.2.1 PAY ACTIVITY DATA

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.7.2.2 PAYMENT REQUESTS

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.7.3 QUALITY CONTROL (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report.

1.7.3.1 DAILY CONTRACTOR QUALITY CONTROL (CQC) REPORTS.

QCS includes the means to produce the Daily CQC Report. The Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by specification 01451 “CONTRACTOR QUALITY CONTROL”.

1.7.3.2 DEFICIENCY TRACKING.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.7.3.3 THREE-PHASE CONTROL MEETINGS

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.7.3.4 ACCIDENT/SAFETY TRACKING.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports.

1.7.3.5 FEATURES OF WORK

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.7.3.6 QC REQUIREMENTS

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.7.4 SUBMITTAL MANAGEMENT

The Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file

to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.7.5 SCHEDULE

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Specification Section Project Schedule. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.7.6 REQUESTS FOR INFORMATION (RFI)

The Contractor shall use the two-way RFI system contained in QCS for tracking all RFI's generated during the contract. Hard copies of all RFI's shall be provided to the government, and will govern in the event of a discrepancy between electronic and printed mediums.

1.7.7 IMPORT/EXPORT OF DATA

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.8 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.9 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function.

1.10 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.11 NOTIFICATION OF NONCOMPLIANCE

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 work site, shall be deemed sufficient for the purpose of notification.

-- END OF SECTION --

SECTION 01321

PROJECT SCHEDULE

1. GENERAL

1.1 REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publications are referenced in the text by basic designation only.

U.S. Army Corps Of Engineers (USACE) ER 1-1-11 (1995) Progress, Schedules, and Network Analysis Systems

1.2 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for the preparation of all required project schedule reports.

2. EXECUTION

2.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, Schedule For Construction Contracts, a Project Schedule as described below shall be prepared. The scheduling of Construction design and construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Designers, Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. 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.

2.2 BASIS FOR PAYMENT

The schedule shall be a factor for measuring Contractor progress. Lack of an approved schedule or scheduling personnel will result in an inability of the Contracting Officer to evaluate Contractor's progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes.

In the case where Project Schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the Project Schedule, the Contracting Officer may hold, retain up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

2.3 PROJECT SCHEDULE

The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

2.3.1 USE OF THE CRITICAL PATH METHOD

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in the Precedence Diagram Method (PDM).

2.3.2 LEVEL OF DETAIL REQUIRED

The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

2.3.2.1 ACTIVITY DURATIONS

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods (usually less than two (2) percent of all non-procurement activities' Original Durations are greater than 20 days).

2.3.2.2 DESIGN AND PERMIT ACTIVITIES

Design and permitting activities, including necessary conferences and follow up actions and design package submission dates, shall be integrated into the schedule.

2.3.2.3 PROCUREMENT ACTIVITIES

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.

2.3.2.4 CRITICAL ACTIVITIES

The following activities, as applicable, shall be listed as separate line activities on the Contractor's project schedule:

a. Submission & Approval of Electrical Layout Drawings.

b. Submission & Approval of O & M Manuals.

c. Submission & Approval of As-Built Drawings.

d. Submission & Approval of 1354 Data & Installed Equipment Lists.

e. Submission & Approval of Fire Protection Specialist.

f. Commissioning Plans & Data.

g. Controls Testing Plan.

h. Controls Testing.

i. Performance Verification Testing.

j. Other Systems Testing, If Required.

k. Pre-Final Inspection.

l. Correction of Punch List From Pre-Final Inspection.

m. Final Inspection.

2.3.2.5 GOVERNMENT ACTIVITIES

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: design reviews, environmental permit approvals by State regulators, inspections, utility tie in, and Government Furnished Equipment (GFE).

2.3.2.6 RESPONSIBILITY

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, Contractor work force, or government agency performing a given task. Activities shall not belong to more than one (1) responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

2.3.2.7 WORK AREAS

All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one (1) work area. The work area of each activity shall be identified by the Work Area Code.

2.3.2.8 MODIFICATION OR CLAIM NUMBER

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that changed the activity. Activities shall not belong to more than one (1) modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number. Whenever possible, changes shall be added to the schedule by adding new activities. Existing activities shall not normally be changed to reflect modifications.

2.3.2.9 WORK ITEM

All activities shall be identified in the project schedule by the Work Item to which the activity belongs. An activity shall not contain work in more than one (1) work item. The work item for each appropriate activity shall be identified by the Work Item Code.

2.3.2.10 PHASE OF WORK

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not contain work in more than one (1) phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

2.3.2.11 CATEGORY OF WORK

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as designs, design package submissions design reviews, review conferences, permits, submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

2.3.2.12 FEATURE OF WORK

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

2.3.3 SCHEDULED PROJECT COMPLETION

The schedule interval shall extend from award of contract to the contract completion date.

2.3.3.1 PROJECT START DATE

The schedule shall start no earlier than the date on which award of contract was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date that the award of task order was acknowledged, and a zero (0) day duration.

2.3.3.2 CONSTRAINT OF LAST ACTIVITY

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero (0) day duration.

2.3.3.3 EARLY PROJECT COMPLETION

In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

2.3.4 INTERIM COMPLETION DATES

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

2.3.4.1 START PHASE

The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date on which the award of task order was acknowledged, and a zero (0) day duration.

2.3.4.2 END PHASE

The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero (0) day duration.

2.3.4.3 PHASE X

The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

2.3.5 DEFAULT PROGRESS DATA DISALLOWED

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control report for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Quality Control reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Program features which calculate one (1) of these parameters from the other shall be disabled.

2.3.6 OUT-OF-SEQUENCE PROGRESS

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

2.3.7 NEGATIVE LAGS

Lag durations contained in the project schedule shall not have a negative value.

2.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph Submission Requirements.

2.4.1 INITIAL PROJECT SCHEDULE SUBMISSION

The Initial Project Schedule shall be submitted for approval within 30 calendar days after award of contract. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail. The baseline schedule shall be reviewed and deemed acceptable prior to the Contractor entering (manually or electronically via SDEF file) in QCS.

2.4.2 PERIODIC SCHEDULE UPDATES

Based on the result of progress meetings, specified in "Periodic Progress Meetings," the Contractor shall submit periodic schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgment of the Contracting Officer or authorized representative is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

2.4.3 STANDARD ACTIVITY CODING DICTIONARY

The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

2.5 SUBMISSION REQUIREMENTS

The following items shall be submitted by the Contractor for the preliminary submission, initial submission, and every periodic project schedule update throughout the life of the project:

2.5.1 DATA DISKS

Two (2) Data Compact Disks containing the project schedule shall be provided. Data on the disks shall adhere to the SDEF format specified in ER 1-1-11, Appendix A.

2.5.1.1 FILE MEDIUM

Required data shall be submitted on Compact Disk, formatted to hold 700 MB of data, under the MS-DOS Version 5. or 6.x, unless otherwise approved by the Contracting Officer.

2.5.1.2 DISK LABEL

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number of person responsible for the schedule, and the MSDOS version used to format the disk.

2.5.1.3 FILE NAME

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique. The Contractor shall submit the file naming convention to the Contracting Officer for approval.

2.5.2 NARRATIVE REPORT

A Narrative Report shall be provided with the preliminary, initial, and each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include: a description of activities along the two (2) most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis.

2.5.3 APPROVED CHANGES VERIFICATION

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

2.5.4 SCHEDULE REPORTS

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

2.5.4.1 ACTIVITY REPORT

A list of all activities sorted according to activity number.

2.5.4.2 LOGIC REPORT

A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

2.5.4.3 TOTAL FLOAT REPORT

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

2.5.4.4 EARNINGS REPORT

A compilation of the Contractor's Total Earnings on the project from award of contract until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by work item and sorted by activity numbers. This report shall: sum all activities in a work item and provide a work item percent; and complete and sum all work items to

provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

2.5.5 NETWORK DIAGRAM

The network diagram shall be required on the initial schedule submission and on monthly schedule update submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

2.5.5.1 CONTINUOUS FLOW

Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity number, description, duration, and estimated earned value shall be shown on the diagram.

2.5.5.2 PROJECT MILESTONE DATES

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

2.5.5.3 CRITICAL PATH

The critical path shall be clearly shown.

2.5.5.4 BANDING

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

2.5.5.5 S-CURVES

Earnings curves showing projected early and late earnings and earnings to date.

2.6 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly onsite meeting or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity by activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project. The Contracting Officer will approve activity progress, proposed revisions, and adjustments as appropriate.

2.6.1 MEETING ATTENDANCE

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

2.6.2 UPDATE SUBMISSION FOLLOWING PROGRESS MEETING

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than four (4) working days after the monthly progress meeting.

2.6.3 PROGRESS MEETING CONTENTS

Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost-to-Date shall be subject to the approval of the Contracting Officer. As a minimum, the Contractor shall address the following items on an activity by activity basis during each progress meeting.

2.6.3.1 START AND FINISH DATES

The Actual Start and Actual Finish dates for each activity currently in progress or completed.

2.6.3.2 TIME COMPLETION

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

2.6.3.3 COST COMPLETION

The earnings for each activity started. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

2.6.3.4 LOGIC CHANGES

All logic changes pertaining to change orders, change orders to be incorporated into the schedule, Contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence

progress, lag durations, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

2.6.3.5 OTHER CHANGES

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

2.7 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

2.7.1 JUSTIFICATION OF DELAY

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date.

2.7.2 SUBMISSION REQUIREMENTS

The Contractor shall submit a justification for each request for a change in the contract completion date of under two (2) weeks based upon the most recent schedule update at the time of the constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

a. A list of affected activities, with their associated project schedule activity number.

b. A brief explanation of the causes of the change.

c. An analysis of the overall impact of the changes proposed.

d. A sub-network of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

2.7.3 ADDITIONAL SUBMISSION REQUIREMENTS

For any requested time extension of over two (2) weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within four (4) days of the Contracting Officer's request.

2.8 DIRECTED CHANGES

If changes are issued prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within two (2) weeks of this task order being issued. The

proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor with suggested revisions to the project schedule. The Contractor shall include these revisions in the project schedule until revisions are submitted, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within two (2) weeks of receipt of the revisions. Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached. If the Contractor fails to submit alternative revisions within two (2) weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then be the basis for an equitable adjustment for performance of the work.

2.9 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

-- End of Section --

SECTION 01335

SUBMITTAL PROCEDURES
FOR
DESIGN-BUILD (DB) PROJECTS

1. REFERENCE

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

National Institute Of Building Sciences (NIBS)

Unified Master Reference List (UMRL)

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

2. SUBMITTAL CLASSIFICATION

Submittals are classified as follows.

2.1 DESIGN CONSTRUCTION SUBMITTALS

Contractor furnished design construction submittals include the various design documents, as applicable, which primarily consist of field investigations, calculations, design analysis (DA), drawings, and specifications.

The Contractor shall clearly label and date all Design Construction Submittals and clearly indicate on the ENG Form 4025 what is being submitted for review 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 Existing Conditions Site Plan and has cleared it 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 construction submittals shall be submitted as follows:

Project Site Surveys & Reports

Design Construction Review

Final Design Construction Re-Submittal

2.1.1 PRELIMINARY PROJECT SITE SURVEYS & REPORTS

The review of this construction submittal shall primarily ensure that the Contractor has, as a minimum, followed ALL the requirements of the contract including the paragraphs in Section 01010. In addition, the review of this submittal is to ensure that the Contractor has taken an inventory of the existing conditions at the proposed site(s) and has established the most desirable functional relationships between the various project elements. **This work shall be completed in less than 180 days from Notice To Proceed (NTP). Failure to do so at the satisfaction of the Government shall constitute grounds for withholding of all progress payments.**

a. Existing Conditions Site Plan(s) ; Existing conditions site plans for the site shall be based on the above referenced Sections.

b. Unexploded Ordnance (UXO)-Mine Removal And Clearance ; UXO-mine removal and clearance for the site shall be based on the above referenced Sections.

2.1.2 DESIGN CONSTRUCTION REVIEWS

The review of this construction submittal shall primarily ensure that the Contractor has, as a minimum, followed ALL the requirements of the contract including the paragraphs in Section 01010 and ensure that the Contractor has correctly understood and adhered to the contract. In addition, the review of this submittal is to ensure that the Contractor 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:

a. Site Electrical Distribution and Power Generation Design : Site electrical distribution and power generation designs shall be based on the above referenced Sections and be compete with, if required, design analysis (DA), plans, and specifications

b. Facility-Specific Designs : Facility-specific designs shall be based on the above referenced Sections and be compete with, if required, design analysis (DA), plans, and specifications.

c. Technical Requirements : Technical requirements for specific items, appendages, and equipment shall be based on the above referenced Sections and be compete with, if required, design analysis (DA), plans, and specifications.

2.2 USE OF DRCHECKS$_{SM}$ FOR DESIGN SUBMITTAL COMMENT AND RESPONSE

2.2.1 DRCHECKS$_{SM}$ 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$_{SM}$". The web link to DrChecks$_{SM}$ is:

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

2.2.2 DRCHECKS$_{SM}$ VENDOR IDENTIFICATION AND TUTORIAL

Upon notification of award, the Contractor shall immediately coordinate with the Chief, Engineering Branch, AED to acquire a vendor identification. Firms with multiple locations need to coordinate with AED the location where Dr. Checks will be used and verify after setup that the access has in fact been provided. The Contractor is responsible for providing their own DrChecks$_{SM}$ Administrator within their own design staff personnel to access and accomplish actions within DrChecks$_{SM}$

2.2.3 NOTIFICATION OF DRCHECKS$_{SM}$ 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$_{SM}$. At completion of the review, a notification will be issued to the Contractor by the Contracting Officer's representative that the particular DrChecks$_{SM}$ 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.

2.2.4 FURTHER CONTRACTOR INFORMATION AFTER DRCHECKS$_{SM}$ REVIEWS

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

2.3 CONSTRUCTION SUBMITTALS

2.3.1 CONTRACTOR FURNISHED GOVERNMENT APPROVED (GA) CONSTRUCTION SUBMITTALS

Government approved construction submittals are primarily related to plans (Security, 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, Variations.

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

a. MECHANICAL FEATURES

EQUIPMENT SUBMITTALS: Manufacturer's standard catalog data showing dimensions, performance data, electrical requirements, drawings indicating location and installation of equipment and materials, 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, and compliance with standards as stated in Section 01010.

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.

b. 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.

2.3.2 FOR INFORMATION ONLY (FIO) CONSTRUCTION SUBMITTALS

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.

2.3.3 VARIATIONS AFTER CONSTRUCTION REVIEW

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 paragraph, Variations.

2.3.4 ADDITIONAL SHOP DRAWINGS AND SUBMITTALS

In accordance with the paragraph, 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.

2.3.5 INCOMPLETE DESIGN

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

2.4 SUBMITTAL CERTIFICATION

The Contractor Quality Control (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.

2.4.1 EFFECTIVE QUALITY CONTROL (CQC) 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.

2.4.2 ORGANIZATIONAL RESPONSIBILITY

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

2.4.3 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.

2.4.4 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.

2.4.5 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.

2.4.6 GOVERNMENT REVIEW

Government review, clearance for construction, or approval of 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.

2.4.7 SUBSTITUTIONS

After 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 herein.

2.4.8 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.

2.4.9 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.

2.4.10 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: _____

2.5 ENGLISH LANGUAGE

All specifications, drawings, design analysis, design calculations, shop drawings, catalog data, materials lists, and equipment schedules submitted shall be in the English language. However, the local language of host country shall be added to project As-Built drawings.

2.6 UNITS OF MEASUREMENT

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

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

2.7 DRAWINGS

2.7.1 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 50 and 100 mm.

2.7.2 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.

2.7.3 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.

2.7.4 SPECIFICATIONS

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

2.8 WITHHOLDING OF PAYMENT FOR SUBMITTALS

2.8.1 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.

2.8.2 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.

3. CONTRACT DELIVERABLES

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 sub-contractors, Vendors, Suppliers, etc.

3.1 PROJECT NARRATIVE

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

3.2 DESIGN ANALYSIS (DA)

3.2.1 SUBMITTAL

A design analysis (DA), 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.

3.2.2 FORMAT

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

3.3 DESIGN CALCULATIONS

All design calculations shall be presented such that they are easily understood, correlated with RFP requirements (Section 1010 criteria, codes, and 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.

3.3.1 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, AED Design Requirements Documents, etc.). Within the separable elements of design calculations, the engineer shall cite the specific code or reference paragraph or section as appropriate to indicate conformance to requirements.

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.

3.3.2 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.

3.4 SPECIFICATIONS

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

3.4.1 USE OF UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS)

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

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.

3.4.2 QUALITY CONTROL AND TESTING

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

3.4.3 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.

3.5 INDUSTRY STANDARDS

3.5.1 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 (AFCESA), 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.

3.5.2 AED DESIGN REQUIREMENTS DOCUMENTS

AED Design Requirements (latest version) documents listed in Section 01010, shall be adhered to in this contract. These documents are available from the COR. These documents shall be used as the basis for design and construction, and for selecting options within the United Facilities Guide Specifications (UFGS). It is the Contractor's option to use specifications contained in the AED Design Requirements Documents, when provided, or to adapt the UFGS specifications to match the requirements provided in the AED Design Documents and specifications. Site or project specific data and requirements in the AED Design Requirements documents shall supersede UFGS language where there are perceived conflicts.

3.6 DRAWINGS

3.6.1 COMPUTER ASSISTED DESIGN AND DRAFTING (CADD)

Computer Assisted Design and Drafting (CADD) is required for all work related to this contract. Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare new drawings. 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.

3.6.2 PLANS

Plans 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 construction submittal, 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.

3.6.3 DRAWING BORDER SHEETS

All drawings shall be prepared in size "A1" border sheets (594 mm by 841 mm). 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.

3.6.4 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

3.6.5 DRAWING FOLDER STRUCTURE

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

3.6.6 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.

3.6.7 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 paragraph, Geo-Reference).

3.6.8 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.

3.6.9 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.

3.6.10 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.

3.6.11 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.

3.6.12 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.

TYPICAL DRAWING SCALES	
DRAWING TYPE	**METRIC**
SITE PLAN	1:200
	1:400
	1:500
	1:600
	1:700
	1:1000
	1:2000
	1:5000
	1:6000
	1:10000
	1:20000
FLOOR PLAN	1:50
	1:100
	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

3.6.13 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 maybe downloaded in the following link:

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

3.6.14 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.

3.6.15 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.

3.6.16 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.

3.6.17 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.

3.6.18 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.

3.6.19 SPECIFICATIONS PLACED ON THE DRAWINGS

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

3.6.20 REVISIONS

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

3.6.21 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.

3.6.22 GOVERNMENT PROVIDED FILES

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

4. GENERAL STARTUP

4.1 DESIGN 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.

4.1.1 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, Submittal Procedure. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

4.2 SUBMITTAL REGISTER

4.2.1 DESIGN SUBMITTALS

The Contractor shall submit, as part of this Project Schedule, Design Submittal milestone dates. The Contractor shall post all actual dates of submittal actions (including clearance for construction) as they occur.

4.2.2 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.

4.3 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.

4.4 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.

4.5 SCHEDULING

4.5.1 DESIGN SUBMITTALS

Adequate time (a minimum of 14 full calendar days exclusive of mailing time) shall be allowed for Government review and comment in DrChecks$_{SM}$. 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.

4.5.2 CONSTRUCTION SUBMITTALS

Contractor furnished Government Approved Construction Submittals (GA) for items noted in 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 14 full calendar days exclusive of mailing time) shall be allowed for AED review and comment.

4.5.3 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 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.

4.6 SUBMITTAL PROCEDURE

4.6.1 AFGHANISTAN ENGINEER DISTRICT – SOUTH (AES)

DESIGN SUBMITTAL PROCEDURE

For all submittals the following must be included in the submittal package to be considered acceptable. Submittal package will include one (1) half-size hard copy and two (2) soft copies on CD-ROM (electronic version), ENG Form 4025, submittal cover sheet, ALL design drawings, ALL specifications, design analysis, site analysis, geotechnical report, and water quality report. All hard copies and soft copies should be arranged in identical format (See Section 1335 of contract and attachments). If Submittal is deemed unacceptable at pick up, submittal will be pushed back and a new arrangement for drop off will be coordinated at a future time and date.

POINT OF CONTACT

Arrangement for meeting and drop off must be coordinated 24-hrs prior to drop off. The preferred meeting time is during off peak hours between 11:00 am and 2:00 pm. Individual participating in submittal drop off must speak English or a translator must be present during transaction.

Area and/or Resident Engineer (AE/RE) Contacts:

Donny Davidson – cell 079-467-2733, Herat Area Office
Nabil Abourialy – cell 079-747-4949, Herat Resident Office

Note: Please state your name, company, contract title, and contract number that shall be discussed and received by USACE-AES personnel.

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

4.6.2 RESIDENT/AREA ENGINEER OFFICE

Complete construction submittals shall be provided to the Area and/or Resident Engineer (AE/RE) Office. 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 stated herein. Soft copies are to be properly labeled and checked for viruses by the Contractor prior to delivery.

4.6.3 USE OF THE DESIGN

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 for all requirements associated with submission of editable CADD format As-Builts required as part of this contract.

4.6.4 POST DESIGN CONSTRUCTION SUBMITTALS

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

Nabil Abourial, Resident Engineer Herat Resident Office
U.S. Army Corps of Engineers
Herat, Afghanistan

4.7 SUBMITTAL NUMBERING SYSTEM

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

4.7.1 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	01010	"SOW & Technical Requirements"
Section	01335	“Submittal Procedures For Design-Build Projects”
Section	02831	"Chain-Link Fence"
Section	02710	"Subdrainage System"
Section	03300	"Concrete For Building Construction"
Section	04200	"Masonry"

4.7.2 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 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 Preliminary Project Site Surveys and Reports, 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 Plans

Item No. 5 Outline of Construction Specifications to be used (i.e. Specification list with Section number and title only)

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 Sections included in the Request for Proposal or in the Construction Specifications compiled by the Contractor in the prosecution of work under the RFP.

4.7.3 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 Design Construction Review 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 Design Construction Review 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$_{SM}$. 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.

4.7.4 VARIATION SUBMITTALS

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.

4.7.5 NON-COMPLIANCE NOTICE

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.

4.8 REVIEW OF CONTRACTOR PREPARED DESIGN CONSTRUCTION DOCUMENTS

4.8.1 GENERAL

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

4.8.2 INDEPENDENT DESIGN REVIEW

The Contractor shall have someone other than the Designer or Design Team perform an Independent Technical Review (ITR) 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.

4.8.3 CONTRACTOR'S QUALITY CONTROL (CQC) 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.

4.8.4 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 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$_{SM}$ file is open for viewing and response to AED comments. The Contracting Officer will indicate whether the Design Submittal, or portions thereof, has or has not been cleared for construction using the following action codes:

   A – Cleared for Construction

   B – Cleared for Construction, except as noted in attached comments

C – Cleared for Construction, except as noted in attached comments, Re-submission required

E – NOT Cleared for Construction, see attached comments, Re-submission required

FX – Receipt acknowledged, does not comply as noted with contract requirements.

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.

4.8.5 INCORPORATION OF GOVERNMENT REVIEW COMMENTS

a. The Contractor shall review each comment, furnish a complete response in DrChecks$_{SM}$ 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$_{SM}$, 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$_{SM}$ 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 seven (7) days. Submittal date revisions must be made in writing at least five (5) days prior to the submittal.

4.8.6 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 Area/Resident Engineer (AE/RE) Office. The Contractor shall bring the personnel that developed the design construction submittal to the review conference.

4.9 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.

4.9.1 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.

4.10 PHASED OR "FAST-TRACK" DESIGN

4.10.1 GENERAL PROCEDURES

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.

4.10.2 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.

4.10.3 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.

4.10.4 NOTICE-TO-PROCEED (NTP) FOR LIMITED CONSTRUCTION

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

4.10.5 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.

4.10.6 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.

4.11 CONDUCTION OF WORK

4.11.1 PERFORMANCE

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

4.11.2 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.

4.11.3 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.

4.11.4 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 Section 01420. 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.

4.11.5 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.

4.11.6 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.

4.11.6.1 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.

4.11.6.2 OPERABILITY

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

4.11.6.3 STANDARDIZATION

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

4.11.6.4 WATER SUPPLY & 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.

4.11.6.5 OCCUPATIONAL SAFETY & 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.

4.12 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.

4.12.1 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.

4.12.2 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.

4.13 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--

SECTION 01335B

ELECTRONIC SUBMITTAL DOCUMENT FORMAT

PART 1 - GENERAL: Throughout the design process, the DB Contractor shall submit electronic packages for review at each Design Phase identified in the Request for Proposals. To facilitate reviews, submittal packages shall conform to the following file structure and format.

1.1. File Structure: Submittal packages that can be contained on a single disc shall use the file structure shown in Figure 1.

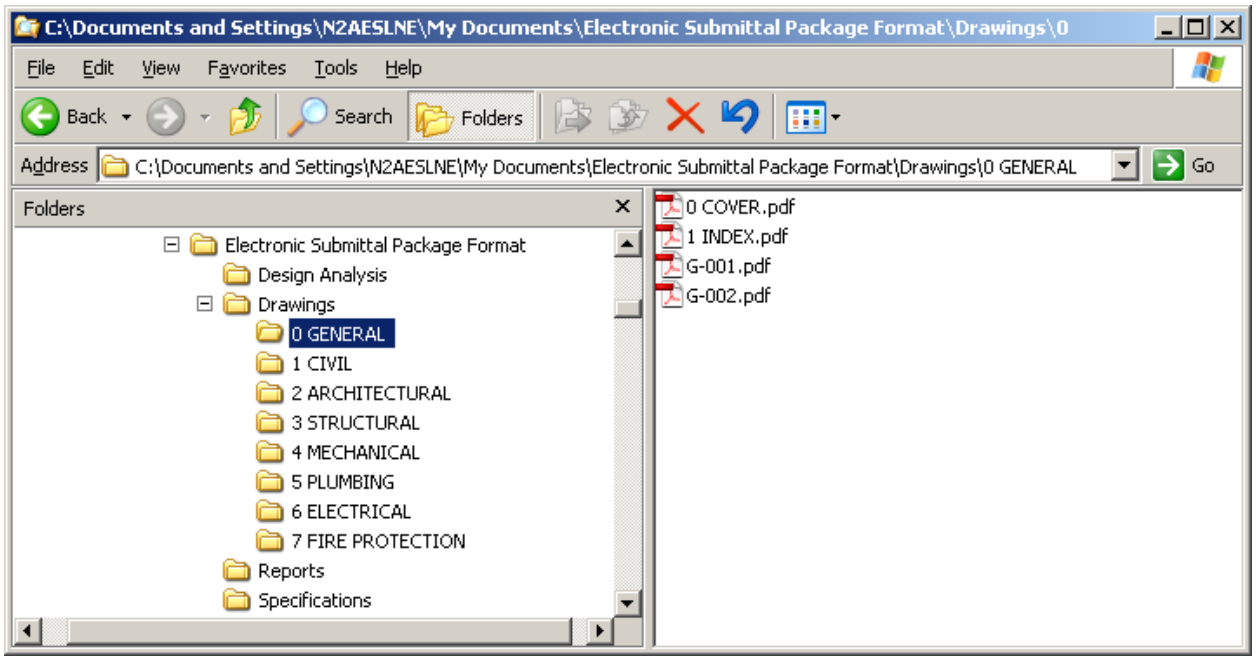

Figure 1: Submittal package file structure

1.2. Design Analysis: The design analysis directory shall contain all design analysis and calculation documents necessary for the current design stage. All design analysis and calculations shall be compiled into a single document containing a table of contents and page numbers. As additional analysis and calculation documents are created in progressive design phases, insert these documents into their appropriate section of the Design Analysis. Avoid lengthy appendices except in the case where numerical output sheets from analysis software are included. All documentation shall be organized by discipline: Civil, Architectural, Structural, Mechanical and Electrical.

1.2.A. Some projects requiring complex plumbing, communications and fire protection systems may require additional sections covering these specific

systems. Note that water supply and sanitary sewer systems beyond 1.5 m (5') of the building envelope are Civil systems, not Plumbing systems.

1.2.B. If the project involves a compound comprised of several structures, clearly identify which building is being analyzed. In these cases, the major divisions of the Design Analysis shall be by discipline with subdivisions by building such that all calculations for a particular discipline will be found in one (1) section of the document. For example, a compound containing three (3) separate buildings would have three (3) separate seismic loading analysis calculations in the structural section.

1.3. Drawings: Drawings shall be arranged by discipline. Subdirectories shall be made corresponding to discipline only. Folders labeled for specific disciplines as shown in Figure 1 shall contain all drawings in the project applicable to that discipline. Note that these discipline specific folders are to contain only drawings and no other type of document. Drawings must be submitted in pdf form at a minimum. Files shall be named by reference number (i.e. C-101). If multiple file types for submittal drawings are provided, place all file types for each discipline in the same folder; do not subdivide the discipline specific folders for separate file types. Also, include a single pdf file containing all drawings in the project in this folder. The sheets in this file should follow the order indicated in the index sheet. This file should be named to indicate the contract number and submittal stage.

1.3.A. GENERAL: A folder labeled “0 GENERAL” shall contain the cover sheet, index sheet, list of legends and abbreviations sheet, project location and vicinity sheet, and site survey sheets.

1.3.B. CIVIL: A folder labeled “1 CIVIL” shall contain all site survey drawings and all civil drawings for the project. Note that the pipe networks for water supply systems, sanitary sewer systems and storm drainage systems are civil drawings, not plumbing drawings. Also note that gates, fences and small site structures are typically part of the civil discipline.

1.3.C. ARCHITECTURAL: A folder labeled “2 ARCHITECTURAL” shall contain all architectural drawings for the project. Note that life safety drawings denote architectural features and belong in this folder.

1.3.D. STRUCTURAL: A folder labeled “3 STRUCTURAL” shall contain all structural drawings for the project.

1.3.E. MECHANICAL: A folder labeled “4 MECHANICAL” shall contain all HVAC drawings for the project.

1.3.F. PLUMBING: A folder labeled “5 PLUMBING” shall contain all indoor plumbing systems (i.e. domestic water, waste & vent, LPG or propane, compressed air, diesel or fuel oil, etc.) for the project. Note that water supply and sanitary sewer systems beyond 1.5 m (5') of the building envelope are Civil systems, not Plumbing systems.

1.3.G. ELECTRICAL: A folder labeled “6 ELECTRICAL” shall contain all electrical drawings for the project. Note that communication and fire alarm systems are electrical systems and belong in this folder for most projects.

1.3.H. FIRE PROTECTION: A folder labeled “7 FIRE PROTECTION” shall contain all indoor fire protection systems (i.e. sprinklers, fire pumps, etc.) for the project.

1.4. Reports: The reports folder shall contain all certified reports required in the contract, including the Geotechnical Report, Water Quality Report and any other reports specifically called for in the contract. No subdirectories shall be created in this folder.

1.5. Specifications: All project specifications shall be contained in this folder. Include the project table of contents and name it so that it is easily identifiable (naming it “00000 Project Table of Contents” should ensure that it is at the top of the list). Specification sections should be named by number only so that they sort in ascending order as indicated on the project table of contents, or all project specifications shall be collated into a single file indexed at each section. No subdirectories shall be created in this folder.

PART 2 - PRODUCTS: (NOT APPLICABLE)

PART 3 - EXECUTION: (NOT APPLICABLE)

- - END SECTION - -

SECTION 01415

METRIC MEASUREMENTS

1. REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM E 621	(1994; R 1999e1) Use of Metric (SI) Units in Building Design and Construction (Committee E-6 Supplement to E380)
ASTM SI 10	(2002) American National Standard for Use of the International System of Units (SI): The Modern Metric System

2. GENERAL

This project includes metric units of 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 the11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric)dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

3. USE OF MEASUREMENTS IN SPECIFICATIONS

Measurements in specifications shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one (1) system of units for another and for the final assembly and performance of the specified work and/or products.

3.1 HARD METRIC

A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value. Hard metric measurements are often used for field data such as distance from one (1) point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

3.2 SOFT METRIC

a. A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P

units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.

b. A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8inches)).

3.3 NEUTRAL

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

3.4 COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

3.5 RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM SI 10 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

-- END OF SECTION --

SECTION 01451

CONTRACTOR QUALITY CONTROL (CQC)

1. GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. Army Corps Of Engineers (USACE)

ER 1110-1-12 (1993)	Quality Management
EM 385-1-1	Safety and Health Requirements Manual

1.2 PAYMENT

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

2. EXECUTION

2.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clauses and this specification section. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

2.2 CONSTRUCTION QUALITY MANAGEMENT (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 (USACE) Construction Quality Management (CQM) course, or equivalent. The CQM course will be offered periodically by the Afghanistan Engineer District-South (AED-S), USACE. Additional approved CQM courses include those offered by the Commercial Technical Training Center (in Jalalabad) and the Champion Technical Training Center (in Kabul). The Quality Assurance Branch (QAB) of the AED-S can provide information related to AED-S offerings of the

CQM course, as well as contact information for training centers. Alternative CQM courses, other than those mentioned above, must be approved by QAB.

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

2.3 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than five (5) days after receipt of Notice-to-Proceed (NTP) the proposed Contractor Quality Control (CQC) Plan. The plan shall identify personnel, procedures, control, instructions, records, and forms to be used.

2.3.1 CONTENT OF THE CQC PLAN

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the 3-phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, consultants, and purchasing agents. These procedures shall be in accordance with Specification 01335, Submittal Procedures.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be

considered as a definable feature of work, there are frequently more than one (1) definable features under a particular section. This list will be agreed upon during the coordination meeting.

2.3.2 ADDITIONAL REQUIREMENTS FOR DESIGN QUALITY CONTROL (DQC) PLAN

The following additional requirements apply to the Design Quality Control (DQC) plan:

a. The Contractor shall provide and maintain a Design Quality Control (DQC) Plan as an effective quality control program which will assure that all services required by this design construction contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents shall be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product shall not perform the independent technical review (ITR). The Contractor shall correct errors and deficiencies in the design documents prior to submitting them to the Government.

b. The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project design tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major design tasks, including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward planning as well as a project monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within 7 calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation. Example checklists can be found in ER 1110-1-12.

c. The DQC Plan shall be implemented by an Design Quality Control Manager who has the responsibility of being cognizant of and assuring that all documents on the project have been coordinated. This individual shall be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Contractor shall notify the Contracting Officer, in writing, of the name of the individual, and the name of an alternate person assigned to the position.

The Contracting Officer will notify the Contractor in writing of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to the acceptance of the Contracting Officer.

2.3.3 ACCEPTANCE OF PLAN

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

2.3.4 NOTIFICATION OF CHANGES

Notification of Changes. After acceptance of the QC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven (7) calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

2.4 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures, which may require corrective action by the Contractor.

2.5 QUALITY CONTROL ORGANIZATION

2.5.1 PERSONNEL REQUIREMENTS

The requirements for the CQC organization are a CQC System Manager, and sufficient number of additional qualified personnel to ensure safety and contract compliance. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

2.5.2 CQC SYSTEM MANAGER

The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of the CQC and have the authority to act in all CQC matters for the Contractor. The CQC system manager shall be a graduate engineer, graduate architect, or a graduate construction manager, with experience on construction projects similar in type to this contract OR a construction person with a minimum of ten (10) years in related work. The CQC System Manager shall be on the site at all times during construction and shall be employed by the Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the CQC system manager's absence. The requirements for the alternate will be the same as for the designated CQC manager.

2.5.3 ADDITIONAL REQUIREMENT

In addition to the above experience and/or education requirements, the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered by the government, and inquiries as to the next course offering may be directed to the local construction field office.

2.5.4 ORGANIZATIONAL CHANGES

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

2.6 SUBMITTALS & DELIVERABLES

Submittals, if needed, shall be made as specified in the STR titled SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

2.7 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three (3) phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

2.7.1 PREPARATORY PHASE.

This phase shall be performed prior to beginning work on each definable feature of work, after all required documents and materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards, in the English language unless specifically approved otherwise by the Contracting Officer, applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. A check to assure that provisions have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to verify that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. Reviews of the appropriate activity hazard analysis to ensure safety requirements are met.

h. Discussion of procedures for constructing the work including repetitive deficiencies, construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the Contracting Officer has accepted the portion of the plan for the work to be performed.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 24-hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC system manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

2.7.2 INITIAL PHASE.

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

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 24-hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

2.7.3 FOLLOW-UP PHASE.

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all noted deficiencies corrected, prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

2.7.4 ADDITIONAL PREPARATORY & INITIAL PHASES

Additional preparatory and initial phases may be required by the Contracting Officer on the same definable features of work if the quality of on-going work is unacceptable; if there are changes in the applicable QC staff or in the on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

2.8 TESTS

2.8.1 TESTING PROCEDURE

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Costs incidental to the transportation of samples or materials shall be borne by the Contractor.

Testing includes operation and/or acceptance tests when specified. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the Quality Control report for the date taken. Specification paragraph/item reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

2.9 COMPLETION INSPECTION

2.9.1 PUNCH-OUT INSPECTION

Near the end of the work, or any increment of the work established by a time stated in the Special Contract Requirements Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph, Documentation. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.9.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

2.9.2 FINAL ACCEPTANCE INSPECTION

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14-days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3. DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

g. Offsite surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one (1) copy of these records in report form shall be furnished to the Government daily within 48-hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one (1) report shall be prepared and submitted for every seven (7) days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.1 SAMPLE FORMS

In accordance with Specification 01312, Quality Control System, the contractor shall use the forms produced by and printed from QCS. Samples of any forms required to meet the requirements of this section which are not produced by that system shall be included in the contractors Quality Control Plan.

3.2 NOTIFICATION OF NONCOMPLIANCE

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 work site, 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.

-- END OF SECTION --

SECTION 01525

SAFETY & OCCUPATIONAL HEALTH REQUIREMENTS

1. GENERAL

For Contractor safety on projects associated with this program, compliance with EM 385-1-1 (latest edition) safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.

This specification consists of two (2) parts:

1. Sections 1.1 through 2.10.1, which are the standard safety specifications for work in Afghanistan District and the references listed below:
2. Appendix A, Phasing approach for safety in emerging countries where there is little or no national safety standards.

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE)

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASSE A10.32	Personal Fall Protection - Safety Requirements for Construction and Demolition Operations
ANSI/ASSE Z359.1 (2007)	Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components

ASME INTERNATIONAL (ASME)

ASME B30.3 (2009)	Construction Tower Cranes
ASME B30.22 (2005)	Articulating Boom Cranes
ASME B30.5	Mobile and Locomotive Cranes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2010)	Portable Fire Extinguishers
NFPA 241 (2010)	Safeguarding Construction, Alteration, and Demolition Operations
NFPA 51B (2009)	Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70(2008)	National Electrical Code
NFPA 70E (2009)	Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2008)	Safety and Health Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards (OSHA)
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 FR 1919	Gear Certification
20 FR 1926	Safety and Health Regulations for Construction
29 FR 1926.500	Fall Protection

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with the Section, Submittal Procedures:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, ACC

Activity Hazard Analysis (AHA); G, ACC

SD-06 Test Reports

Reports: Submit reports as their incidence occurs, in accordance with the requirements of the paragraph titled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

SD-07 Certificates

Confined Space Entry Permit

Contractor Safety Self-Evaluation Checklist; G, ACC

Submit one (1) copy of each permit/certificate attached to each Daily Quality Control Report.

1.3 DEFINITIONS

a. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

b. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

c. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

d. Qualified Person for Fall Protection. A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.

e. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

1. Death, regardless of the time between the injury and death, or the length of the illness;
2. Days away from work (any time lost after day of injury/illness onset);
3. Restricted work;
4. Transfer to another job;
5. Medical treatment beyond first aid;
6. Loss of consciousness; or
7. (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

f. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.4 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and sub-contractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.5 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1.

1.6 SITE QUALIFICATIONS, DUTIES & MEETINGS

1.6.1 PERSONNEL QUALIFICATIONS

1.6.1.1 SITE SAFETY & HEALTH OFFICER (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person can only be the SSHO on this project if approved by the Contracting Officer. Any project exceeding one (1) Million US dollars in value shall have a full time SSHO. The SSHO shall meet the following requirements:

1. A minimum of one (1) year safety work on similar projects.
2. 30-hour OSHA construction safety class or equivalent within the last three (3) years.
3. Competent person training as needed.

1.6.1.2 COMPETENT PERSON FOR CONFINED SPACE ENTRY

Provide a competent person meeting the requirements of EM 385-1-1 who is assigned in writing by the Government Designated Authority (GDA) to assess confined spaces and who possesses demonstrated knowledge, skill and ability to:

a. Identify the structure, location, and designation of confined and permit-required confined spaces where work is done.

b. Calibrate and use testing equipment including but not limited to, oxygen indicators, combustible gas indicators, carbon monoxide indicators, and carbon dioxide indicators, and to interpret accurately the test results of that equipment.

c. Perform all required tests and inspections specified in Section 06.I of EM 385-1-1.

d. Assess hazardous conditions including atmospheric hazards in confined space and adjacent spaces and specify the necessary protection and precautions to be taken.

e. Determine ventilation requirements for confined space entries and operations.

f. Assess hazards associated with hot work in confined and adjacent space and determine fire watch requirements.

g. Maintain records required.

1.6.1.3 CRANE OPERATORS

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16, Appendix I.

1.6.2 PERSONNEL DUTIES

1.6.2.1 SITE SAFETY & HEALTH OFFICER (SSHO)

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.

b. Conduct mishap investigations and complete required reports. Maintain an accident/injury log such as the OSHA Form 300 or host nation equivalent, and Daily Production reports for prime and sub-contractors.

c. Maintain applicable safety reference material on the job site.

d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.

e. Implement and enforce accepted APPS and AHAs.

f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.

g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 MEETINGS

1.6.3.1 PRECONSTRUCTION CONFERENCE

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

b. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting.

1.6.3.2 SAFETY MEETINGS

Shall be conducted and documented as required by EM 385-1-1. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.7 TRAINING

1.7.1 NEW EMPLOYEE INDOCTRINATION

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 PERIODIC TRAINING

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 TRAINING ON ACTIVITY HAZARD ANALYSIS (AHA)

Prior to beginning a new phase, training will be provided to all affected

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP in both English and in the host nation language. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and sub-paragraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the sub-contractors. Contractors are responsible for informing their sub-contractors of the safety US Army Corps of Engineers Compound provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one (1) craft from interfering with or creating hazardous working conditions for other crafts, and inspecting sub-contractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the

person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24-hours of discovery. In the interim, all necessary action shall be taken to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/ANSI-34), and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site.

The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 CONTENTS

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

c. Confined Space Entry Plan. Develop a confined space entry plan in accordance with USACE EM 385-1-1, Section 34, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by Contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)

d. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one (1) crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.H, and the following:

    1. For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29CFR 1926.550(g).

    2. For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and

trim. The amount of list and trim shall be within the crane manufacturer's requirements.

e. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6'). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised every six (6) months for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1, and shall be written in both English and the host nation language. Submit the AHA for review at least 15 calendar days prior to the start of each phase. The Contractor shall format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the Contractor, supplier or sub-contractor and provided to the prime Contractor for submittal to the Contracting Officer.

1.10 DISPLAY OF SAFETY INFORMATION

Within one (1) calendar day after commencement of work, erect a safety bulletin board at the job site. The safety bulletin board shall include information and be maintained as required by EM 385-1-1, section 01.A.06.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project. Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. The Government has no responsibility to provide emergency medical treatment. Military medical clinics may provide emergency treatment for serious injuries; the Contractor is responsible for coordination with the local military medical clinic prior to mobilization.

1.13 REPORTS

1.13.1 ACCIDENT REPORTS

For recordable injuries and illnesses and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within five (5) calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 ACCIDENT NOTIFICATION

Notify the Contracting Officer as soon as practical, but not later than four (4) hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than $2,000. Information shall include Contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 MONTHLY EXPOSURE REPORTS

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and sub-contractor. The Contracting Officer will provide copies of any special forms.

1.13.4 CRANE REPORTS

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.14 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be requested from the Installation. **Contractors Are Required To Meet All Criteria Before A Permit Is Issued**. The Contractor will provide at least two (2) 6.0 kg (13 lb) ABC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated **Fire Watch** for any "Hot Work" done at this activity. The Fire Watch shall be trained in fire fighting techniques and remain on-site for a minimum of 120 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency phone numbers. **Any Fire, No Matter How Small, Shall Be Reported To The Responsible Fire Division/Department Immediately**.

2. EXECUTION

2.1 CONSTRUCTION AND/OR OTHER WORK

Before initiation of work at the job site, an accident prevention plan, written by the Contractor for the specific work and hazards of the contract and implementing in detail the pertinent requirements of EM

385-1-1, will be reviewed and found acceptable by designated Government personnel. Specific requirements for development of the accident prevention plan are found in Appendix A of EM 385-1-1.

Before beginning each activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or sub-contractor is to perform the work, activity hazard analysis (AHA) shall be prepared by the Contractor performing the work activity. See paragraph 01.A.13 of EM 385-1-1.

The Contractor shall require sub-contractors to submit their plan of operations showing methods they propose to use in accomplishing major phases of work.

The Contractor shall be prepared to discuss the plans in conferences convened by the Contracting Officer prior to starting work on each major phase of operation. Plans shall include all pertinent information such as layout of haul roads, access roads, storage areas, electrical distribution lines, methods of providing minimum exposure to overhead loads, and methods of access to work areas. The plan for accomplishing the initial work phase shall be submitted within 15 calendar days after award of the contract. Plans for subsequent major phases of work shall be submitted not later than 15 calendar days prior to initiation of work on each major phase.

All areas where construction, demolition, alteration, building, or similarly related activities take place, all workers shall have the following minimum personal protective clothing and equipment:

1. Short sleeve shirt.
2. Long trousers.
3. Steel-toed safety boots.
4. Hard hat.

2.1.1 FALLING OBJECT PROTECTION

All areas must be barricaded to safeguard employees. When working overhead, barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

2.1.2 HAZARDOUS MATERIAL USE

Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

2.1.3 HAZARDOUS MATERIAL EXCLUSIONS

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocynates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

2.1.4 UNFORESEEN HAZARDOUS MATERIAL

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

2.2 FALL HAZARD PROTECTION & PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy, responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.

2.2.1 TRAINING

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.A.16.

2.2.2 FALL PROTECTION EQUIPMENT AND SYSTEMS

The Contractor shall enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Employees shall be protected from fall hazards as specified in EM 385-1-1, section 21. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 21.N through 21.N.04. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with USACE EM 385-1-1 and host nation requirements, whichever is more stringent.

2.2.2.1 PERSONAL FALL ARREST EQUIPMENT

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1 or European Union equivalent. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabineers shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6'). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

2.2.3 FALL PROTECTION FOR ROOFING WORK

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

   (1) For work within 1.8 m (6') of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.

   (2) For work greater than 1.8 m (6') from an edge, warning lines shall be erected and installed in accordance with USACE EM 385-1-1.

b. Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

2.2.4 EXISTING ANCHORAGE

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI/ANSI Z359.1 or European Union equivalent. Exiting horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

2.2.5 HORIZONTAL LIFELINES

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2.

2.2.6 GUARDRAILS AND SAFETY NETS

Guardrails and safety nets shall be designed, installed and used in accordance with EM 385-1-1 or Host Nation requirements, whichever is more stringent.

2.2.7 RESCUE AND EVACUATION PROCEDURES

When personal fall arrest systems are used, the Contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the Contractor and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. The Rescue and Evacuation Plan shall be included in the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

2.3 SCAFFOLDING

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Access to scaffold platforms greater than 6 m (20') in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m (20') in height. The use of an adequate gate is required. Contractor shall ensure that employees are qualified to perform scaffold erection and dismantling. Do not use scaffold without the capability of supporting at least four (4) times the maximum intended load or without

appropriate fall protection as delineated in the accepted fall protection and prevention plan. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited. The first tie-in shall be at the height equal to four (4) times the width of the smallest dimension of the scaffold base. Work platforms shall be placed on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than 1.8 m (6'). Delineate fall protection requirements when working above 1.8 m (6') or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

2.4 EQUIPMENT

2.4.1 MATERIAL HANDLING EQUIPMENT

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be trained/licensed in accordance with Host Nation requirements.

2.4.2 WEIGHT HANDLING EQUIPMENT

a. Cranes and derricks shall be equipped as specified in EM-385-1-1 section 16.

b. The Contractor shall notify the Contracting Officer 24-hours in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person. All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. Under no circumstance shall a Contractor make a lift at or above 90 percent of the cranes rated capacity in any configuration.

e. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11.

f. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves to the satisfaction of the Contracting Officer that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

g. Portable fire extinguishers shall be inspected, maintained, and recharged.

h. All employees shall be kept clear of loads about to be lifted and of suspended loads.

i. The Contractor shall use cribbing when performing lifts on outriggers.

j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

k. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

l. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

m. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

n. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two (2) block devices).

o. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations the Contractor shall set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. This maximum wind speed determination shall be included as part of the activity hazard analysis plan for that operation.

2.5 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly.

2.5.1 UTILITY LOCATIONS

Prior to any excavation, all underground utilities in the work area must be positively identified by the Contractor utilizing a) a private utility locating service in addition to any station locating service, and/or b) a metal and/or cable-detecting device along the route of the excavation. All underground utilities discovered will be flagged a distance of 0.5 m (20") on each side of the location, and any markings made during the utility investigation must be maintained throughout the contract.

Damage occurring to existing utilities, when the above procedures are not followed, will be repaired at the Contractor’s expense.

2.5.2 UTILITY LOCATION VERIFICATION

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 1.0 m (40") of the underground system. Digging within 0.6 m (24") of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30 m (100') if parallel within 1.5 m (5') of the excavation.

2.5.3 SHORING SYSTEMS

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

2.5.4 TRENCHING MACHINERY

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the

digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

2.6 UTILITIES WITHIN CONCRETE SLABS

Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the Contractor from meeting this requirement.

2.7 ELECTRICAL

2.7.1 CONDUCT OF ELECTRICAL WORK

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

2.7.2 PORTABLE EXTENSION CORDS

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70 or European Union equivalent.

2.8 WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 34 of USACE EM 385-1-1. Any potential for a hazard in the confined space requires a permit system to be used.

a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.

b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.

c. Ensure the use of rescue and retrieval devices in confined spaces greater than 1.5 m (5') in depth. Conform to 29 CFR 1910-14.

d. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

e. Daily Entry Permit. Post the permit in a conspicuous place close to the confined space entrance.

2.9 CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with USACE EM 385-1-1, Section 06.M. Work Place Evaluation consistent with EM 385-1-1 Section 06.M.02 must be completed and documented in the AHA for the job/task producing airborne crystalline silica. The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

2.10 DEMOLITION

2.10.1 DEMOLITION PLAN

The Contractor shall submit a written demolition plan for all demolition work to be carried on the site. In addition, the demolition plan shall be signed by a Professional Registered Engineer and meet the requirements of the Corps of Engineers Safety and Health Manual, EM 385-1-1, section 23. The demolition plan shall be submitted to the COR at least one (1) week before the beginning of the work, including structural calculations for the demolition, if necessary. The demolition work shall not begin before the Contractor has received a written approval from the COR.

2.10.2 PROTECTION OF PERSONNEL

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workers remove debris or perform other work in the immediate area.

2.10.3 PROTECTION OF STRUCTURES

Floors, roofs, walls, columns, pilasters, and other structural components that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the COR. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

Interior concrete or masonry walls shall be demolished from the top down unless a Registered Engineer can demonstrate that an alternate method poses no additional safety hazards

2.11 HOUSEKEEPING

2.11.1 CLEAN-UP

The Contractor shall be responsible for cleaning up. The Contractor shall require his personnel to keep the immediate work site clean of all dirt and debris resulting from work under this contract. Accumulated

dirt and debris shall be hauled off and disposed of in accordance with local law and at least once a week by the Contractor. Additionally, all debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location; however garbage accumulation must be removed each day.

Stairwells used by the Contractor during execution of work shall be cleaned daily. Cloths, mops, and brushes containing combustible materials shall be disposed of or stored outside of the buildings in tight covered metal containers. Paints and thinners shall not be poured into inlets of the interior or exterior sewage system. Paint, stains, and other residues on adjacent surfaces or fixtures caused by the Contractor shall be carefully removed and cleaned to original finish. Upon completion of the work, the Contractor shall remove all construction equipment, materials and debris resulting from the work. The entire work site and the area used by Contractor personnel shall be left clean.

---END OF SECTION---

SECTION 01780

CLOSEOUT PROCEDURES
&
SUBMITTALS

1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01335, Submittal Procedures:

D-02 Shop Drawings

Drawings G

Drawings showing final as-built conditions of the project. The local language of Afghanistan, Pashto or Dari shall be added to project As-Built drawings. The final CADD as-built drawings shall consist of three (3) sets of electronic CADD drawing files in the specified format, and one (1) set of full size and one (1) set of half size paper copies of the approved as-built drawings. One electronic copy of the As-Built drawings and the paper copies of the As-Built drawings shall be delivered to the O&M Regional Site manager at the Resident Office or Area Office responsible for contract administration. Two electronic copies of the As-Built drawings shall be mailed or delivered to the KAF O&M Branch.

Drawings shall provide adequate detail to demonstrate compliance with contract requirements, as specified.

The final CADD and paper Shop Drawings shall be turned over to the Government as follows:

a. Approved electronic CADD drawing file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF and two (2) sets for the O&M Regional Site manager office shall be delivered.

b. Approved full-size and half-size paper drawing sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) full-size sets and two (2) half-size sets for the O&M Regional Site manager office shall be delivered.

SD-03 Product Data

Record of Equipment and Materials G

Two (2) copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Record of Equipment and Materials submissions shall be turned over to the Government as follows:

a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e.

CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

Warranty Management Plan G

One (1) set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Management Plan submission shall be turned over to the Government as follows:

a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

Warranty Tags G

Two (2) record copies of the Warranty Tags showing the layout and design.

Warranty Tag submission shall be turned over to the Government as follows:

a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

Final Cleaning

Two (2) copies of the listing of completed Final Clean-up items.

Final Cleaning submission shall be turned over to the Government as follows:

a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Office responsible for contract administration and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Office responsible for contract administration and one (1) set for the O&M Regional Site manager office shall be delivered.

SD-10 Operation and Maintenance Data

Operation and Maintenance Manuals; G

Submit Data Package in accordance with Section 01781.

Operation and Maintenance Manual submissions shall be turned over to the Government as follows:

a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

SD-11 Closeout Submittals

As-Built Drawings; G

Drawings showing final as-built conditions of the project. The local language of Afghanistan, Pashto or Dari shall be added to project As-Built drawings. The final CADD as-built drawings shall consist of three (3) sets of electronic CADD drawing files in the specified format, and one (1) set of full size and one (1) set of half size paper copies of the approved as-built drawings. One electronic copy of the As-Built drawings and the paper copies of the As-Built drawings shall be delivered to the O&M Regional Site manager at the Resident Office or Area Office responsible for contract administration. Two (2) electronic copies of the As-Built drawings shall be mailed or delivered to the KAF O&M Branch.

Drawings showing final as-built conditions of the project. The final CADD and paper As-Built Drawings shall be turned over to the Government as follows:

a. Approved electronic CADD drawing file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.

b. Approved full-size and half-size paper drawing sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) full-size sets and two (2) half-size sets for the O&M Regional Site manager office shall be delivered.

Record of Equipment and Materials; G

Warranty Management Plan; G

Product Warranty Tags; G

1.2 AS-BUILT DRAWING RECORDS

This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

1.2.1 GOVERNMENT FURNISHED MATERIALS

One (1) set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file as-built drawings.

1.2.2 WORKING AS-BUILT & FINAL AS-BUILT DRAWINGS

a. The Contractor shall revise two (2) sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one (1) set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

b. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two (2) permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

c. The location and dimensions of any changes within the building structure.

d. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

f. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

g. Changes or modifications which result from the final inspection.

h. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

i. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

k. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

1. Directions in the modification for posting descriptive changes shall be followed.
2. A Modification Circle shall be placed at the location of each deletion.
3. For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.
4. For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).
5. For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.
6. For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.
7. The Modification Circle size shall be 13 mm (1/2") diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.3 DRAWING PREPARATION

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.4 COMPUTER AIDED DESIGN & DRAFTING (CADD) DRAWINGS

a. Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The Contractor will be furnished "as-designed" drawings in AutoCAD Release 2007 or Microstation VM format compatible with a Windows XP operating system. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings.

b. Prior to submittal of the first design submittal involving CADD drawings, the Contractor shall prepare one (1) typical CADD drawing for the project and furnish, via ENG Form 4025, the electronic CADD drawing file for review and approval by the Contracting Officer. All Government comments involving changes to this single drawing shall be accomplished and resubmittal(s) made until the Government is satisfied that all CADD Standards are being followed and all subsequent drawings will also be in compliance with these Standards.

c. When final revisions have been completed, the cover sheet drawing shall show the wording "Record Drawing As-Built" followed by the name of the Contractor in letters at

least 5 mm (3/16") high. All other contract drawings shall be marked either "As-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

d. After Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two (2) sets of full-size paper copy prints of these drawings for Government review, comparison with approved red-line marked up drawings, and approval. The Government will promptly return one (1) set of prints annotated with any necessary corrections to the CADD file(s) if corrections are required prior to approval. Within 20 days of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of one (1) set of electronic files on compact disc, read-only memory (CD-ROM), one (1) set of full-size paper prints and one (1) set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the CADD system. Upon approval by the Government of the final as-built drawing package for the entire project, the Contractor shall provide the number of as-built copies noted in paragraph, Submittals, of this Section.

e. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.5 PAYMENT

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be considered a subsidiary obligation of the Contractor.

1.2.6 FINAL AS-BUILT DRAWINGS

The Contractor shall furnish final approved as-built drawings 30 days after transfer of the completed facility.

1.3 AS-BUILT RECORD OF EQUIPMENT & MATERIALS

The Contractor shall furnish one (1) copy of preliminary As-Built Record Of Equipment And Materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned two (2) days after final inspection with Government comments. Two (2) sets of final As-Built Record Of Equipment And Materials shall be submitted 10 days after final inspection.

1.3.1 AS-BUILT RECORD OF EQUIPMENT & MATERIALS PLAN

Contractor shall furnish a Record of Equipment and Materials when several manufacturers' brands, types, or classes of the item listed have been used in the project, designate specific areas where each item was used. Approved information shall be assembled in an electronic file and in a binder form. Designations shall be keyed to the areas and spaces depicted on the contract as-built drawings. Record of Equipment and Materials shall list the following data:

Equipment or Materials Designation	Specification	Manufacturer	Equipment or Materials Used (Manufacturer's	Where Used

			Designation)	

1.3.2

1.3.3 FINAL APPROVED SHOP DRAWINGS

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.3.4 CONSTRUCTION CONTRACT SPECIFICATIONS

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.3.5 REAL PROPERTY EQUIPMENT

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "Equipment-In-Place List" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.4 WARRANTY MANAGEMENT RECORDS

1.4.1 WARRANTY MANAGEMENT PLAN

The Contractor shall develop a Warranty Management Plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the Warranty Management Plan for Government approval. The Warranty Management Plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in an electronic file and in a binder form. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint fourth (4th) month and ninth (9th) month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

c. A list for each warranted equipment, item, feature of construction or system indicating:

1. Name of item.
2. Model and serial numbers.
3. Location where installed.
4. Names, email addresses, and phone numbers of manufacturers or suppliers.
5. Names, email addresses, and addresses and telephone numbers of sources of spare parts.
6. Warranties and terms of warranty. This shall include 1-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
7. Cross-reference to warranty certificates as applicable.
8. Starting point and duration of warranty period.
9. Summary of maintenance procedures required to continue the warranty in force.
10. Cross-reference to specific pertinent Operation and Maintenance manuals.
11. Organization, names and phone numbers of persons to call for warranty service.
12. Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the fourth (4th) and ninth (9th) month post-construction warranty inspections conducted by the Government.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.4.2 PERFORMANCE OF WARRANTY WORK

In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.4.3 CONTRACTOR'S RESPONSE TO CONSTRUCTION WARRANTY SERVICE REQUIREMENTS

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three (3) categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the timeframes specified, the Government will perform the work and backcharge the construction warranty payment item established.

a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within four (4) hours, initiate work within six (6) hours and work continuously to completion or relief.

b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within eight (8) hours, initiate work within 24-hours and work continuously to completion or relief.

c. Third Priority Code 3. All other work to be initiated within three (3) work days and work continuously to completion or relief.

d. The "Construction Warranty Service Priority List" is as follows:

Code 1-Air Conditioning Systems

1. Recreational support.
2. Air conditioning leak in part of building, if causing damage.
3. Air conditioning system not cooling properly.

Code 1-Doors

1. Overhead doors not operational, causing a security, fire, or safety problem.
2. Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors

1. Overhead doors not operational.
2. Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical

1. Power failure (entire area or any building operational after 1600 hours).
2. Security lights
3. Smoke detectors

Code 2-Electrical

1. Power failure (no power to a room or part of building).
2. Receptacle and lights (in a room or part of building).

Code 3- Electrical
1. Street lights.

Code 1-Gas

1. Leaks and breaks.
2. No gas to family housing unit or cantonment area.

Code 1-Heat

1. Area power failure affecting heat.
2. Heater in unit not working.

Code 2-Kitchen Equipment

1. Dishwasher not operating properly.
2. All other equipment hampering preparation of a meal.

Code 1-Plumbing

1. Hot water heater failure.
2. Leaking water supply pipes.

Code 2-Plumbing

1. Flush valves not operating properly.
2. Fixture drain, supply line to commode, or any water pipe leaking.
3. Commode leaking at base.

Code 3 –Plumbing

1. Leaky faucets.

Code 3-Interior

1. Floors damaged.
2. Paint chipping or peeling.
3. Casework.

Code 1-Roof Leaks

1. Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks

1. Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)

1. No water to facility.

Code 2-Water (Hot)

1. No hot water in portion of building listed.

Code 3-All other work not listed above.

1.4.4 PRE-WARRANTY CONFERENCE

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.4.5 WARRANTY TAGS

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

a. Type Of Product/Material _____

b. Model Number_____

c. Serial Number _____

d. Contract Number_____

e. Warranty Period _____ From _____ To _____

f. Inspector's Signature _____

g. Construction Contractor _____

Address _____

Telephone Number _____

Email Address _____

h. Warranty Contact _____

Address _____

Telephone Number _____

Email Address _____

i. Warranty Response Time Priority Code _____

j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.5 OPERATION & MAINTENANCE MANUALS

Operation and Maintenance (O&M) Manuals shall be submitted in accordance with Section 01781 and in binders showing operation manuals and maintenance manuals in a common volume that is complete, clearly differentiated, and separately indexed.

1.6 MECHANICAL TESTING & BALANCING

All contract requirements for testing/adjusting/balancing shall be fully completed, including all testing, prior to contract completion date. The time required to complete all testing/adjusting/balancing is included in the allotted calendar days for completion.

1.7 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

-- END OF SECTION --

SECTION 01781

OPERATION
&
MAINTENANCE DATA

1. GENERAL

1.1 SUBMISSION OF OPERATION & MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data specifically applicable to this contract and a complete and concise depiction of the provided equipment, product, or system. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 01335, Submittal Procedures.

1.1.1 PACKAGE QUALITY

Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.

1.1.2 PACKAGE CONTENT

Data package content shall be as shown in the paragraph titled "Schedule of Operation and Maintenance Data Packages." Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission.

1.1.3 CHANGES TO SUBMITTALS

Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data, shall be submitted by the Contractor within 30 calendar days of the notification of this change requirement.

1.2 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

1.2.1 OPERATING INSTRUCTIONS

Include specific instructions, procedures, and illustrations for the following phases of operation:

1.2.1.1 SAFETY PRECAUTIONS

List personnel hazards and equipment or product safety precautions for all operating conditions.

1.2.1.2 OPERATOR PRESTART

Include procedures required to set up and prepare each system for use.

1.2.1.3 STARTUP, SHUTDOWN, AND POST-SHUTDOWN PROCEDURES

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.2.1.4 NORMAL OPERATIONS

Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.

1.2.1.5 EMERGENCY OPERATIONS

Include Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of all utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.2.1.6 OPERATOR SERVICE REQUIREMENTS

Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

1.2.1.7 ENVIRONMENTAL CONDITIONS

Include a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

1.2.2 PREVENTIVE MAINTENANCE

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair.

1.2.2.1 LUBRICATION DATA

Include preventative maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":

a. A table showing recommended lubricants for specific temperature ranges and applications.

b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

c. A Lubrication Schedule showing service interval frequency.

1.2.2.2 PREVENTIVE MAINTENANCE PLAN & SCHEDULE

Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

1.2.3 CORRECTIVE MAINTENANCE (REPAIR)

Include manufacturer's recommended procedures and instructions for correcting problems and making repairs.

1.2.3.1 TROUBLESHOOTING GUIDES & DIAGNOSTIC TECHNIQUES

Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.2.3.2 WIRING DIAGRAMS & CONTROL DIAGRAMS

Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

1.2.3.3 MAINTENANCE & REPAIR PROCEDURES

Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

1.2.3.4 REMOVAL AND REPLACEMENT INSTRUCTIONS

Include step-by-step procedures and a list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

1.2.3.5 SPARE PARTS & SUPPLY LISTS

Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

1.2.4 CORRECTIVE MAINTENANCE WORK-HOURS

Include manufacturer's projection of corrective maintenance work-hours including requirements by type of craft. Corrective maintenance that requires completion or participation of the equipment manufacturer shall be identified and tabulated separately.

1.2.5 APPENDICES

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.2.6 PARTS IDENTIFICATION

Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one (1) model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog

1.2.6.1 WARRANTY INFORMATION

List and explain the various warranties and include the servicing and technical precautions prescribed by the manufacturers or contract documents in order to keep warranties in force. Include warranty information for primary components such as the compressor of air conditioning system.

1.2.6.2 PERSONNEL TRAINING REQUIREMENTS

Provide information available from the manufacturers that is needed for use in training designated personnel to properly operate and maintain the equipment and systems.

1.2.6.3 TESTING EQUIPMENT & SPECIAL TOOL INFORMATION

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.

1.2.6.4 CONTRACTOR INFORMATION

Provide a list that includes the name, address, email, and telephone number of the General Contractor and each subcontractor who installed the product or equipment, or system. For each item, also provide

the name address, email, and telephone number of the manufacturer's representative and service organization most convenient to the project site. Provide the name, address, email, and telephone number of the product, equipment, and system manufacturers.[The list shall show the following information:

a. Type Of Product/Material _____

b. Manufacturer _____

c. Model Number_____

d. Serial Number _____

e. Warranty Period _____ From _____ To _____

f. Contractor _____

Address _____

Telephone Number _____

Email Address_____

g. Subcontractor _____

Address _____

Telephone Number _____

Email Address_____

h. Manufacturer's Representative_____

Address _____

Telephone Number _____

Email Address_____

i. Service Organization_____

Address _____

Telephone Number _____

Email Address_____]

2. EXECUTION

2.1 TRAINING

Unless provided for elsewhere, the Contractor shall provide operational and maintenance training for all systems furnished under this contract in accordance with this section. The training shall not take place until the operation and maintenance manuals are submitted and approved.

Training will be given to personnel responsible for the operation and maintenance of the system at the installation. Orient training to the specific system being installed under this contract. Use operation and maintenance manual as the primary instructional aid in Contractor provided activity personnel training. Manuals shall be delivered for each trainee with two (2) additional sets delivered for archiving at the project site. Submit a training course schedule, syllabus, and training materials 14 days prior to the start of training. Obtain approval of the training course before beginning that phase of training. Furnish a qualified instructor approved by the system manufacturer to conduct training for the specific system.

Training manuals shall include an agenda, defined objectives and a detailed description of the subject matter for each lesson. Furnish audio-visual equipment and all other training materials and supplies. A training day is defined as 8-hours of classroom or lab instruction, including two (2) 15-minute breaks and excluding lunch time, Monday through Friday, during the daytime shift in effect at the training facility. For guidance, the Contractor should assume the attendees will have a high school education.

The Contractor shall videotape the training session on CDs and provide the CDs to the Government.

-- END OF SECTION --