Draft of Statement of Work Proposed for USAID Training and Learning Center

A.1 PURPOSE

The purpose of this statement of work (SOW) is to procure the services of a contractor to provide the United States Agency for International Development (USAID) with a Software House Access Control & Intrusion Detection system (IDS). The new USAID Training and Learning Center will consist of intrusion detection system readers and HID ICLASS readers. New Closed Circuit Television (CCTV) cameras will be installed at strategic locations.

A.2 BACKGROUND

The work to be accomplished for this project shall include the furnishing of all labor, supervision, and equipment for the implementation of the work detailed in this statement of work (SOW). Specific trade responsibilities shall be as designated within this SOW. All associated work required for the completion of the implementation hereinafter defined, at the location indicated in this SOW, inclusive of the drawings provided by DS/FSE/DME, shall be completed.

A.3 DEFINITIONS

Clarification of trades and personnel referenced with in SOW:

1. **Security Contractor (SC)** – The contractor performing installation of security infrastructure requirements referred to in this document shall be known as the Security Contractor.

   NOTE:

   Standard voltage requirements (120VAC/conduit and connections) to mains power supply will be accomplished through the SC with the approval of the Lessor.

A.4 STATEMENT OF WORK

The Contractor shall install ??? iSTAR PRO Access Control hardware units in the telecom closet/s and access control hardware on the interior/exterior of the 5th and 6th floor:

i. Doors # ???? shall have installed 1 HID iCLASS Reader firmly mounted on the exterior wall, 1 DC, and REX and electric strike. (It is recommended that rooms where storage of computers, laptops, equipment, and PII information will be maintained and safeguarded be secured with a card reader and only accessible to authorized personnel)
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ii. Doors # ????? shall have installed a Simplex 1000 cypher lock with key lock. (If decided to install locks on training and hoteling rooms.

iii. The glass-doors/or double-doors (solid wood) adjacent to the elevator bay area leading to the USAID Training Center Lobby and Reception area shall have installed firmly mounted on the exterior wall, 1 DC, and 1 IDMS reader.

iv. All six egress doors (stairwell exit doors) on the 5th and 6th floor shall have installed 1 HID iCLASS Reader and 1 IDMS reader. All doors shall have fire-relay switches in compliance with fire code regulations.

v. The SC shall install fixed camera facing each stairwell door. Three (3) per floor for a total of (6) (PTZ) pan-tilt-zoom cameras strategically placed on the unsecure side of door (interior space) to cover all dead zones on the 5th and 6th floor.

vi. The contractor shall install ??? (How many –probably two) ISTAR PRO Access Control hardware units in the telecom closet/s and access control hardware on the interior/exterior of the 5th/6th floor.

vii. Telecom closets on the 5th and 6th floor shall have installed 1 HID iCLASS Reader firmly mounted on the exterior wall, 1 DC, REX and 1 electric strike.

viii. The Communications Equipment Room (CER) shall have an independent intrusion detection system with a tamper detection device. The IDS system shall be identified separately at USAID's Security Operations Center (SOC). Access to the CER shall be controlled by an HID proximity card reader.

A.5 SECURITY CONTRACTOR RESPONSIBILITY

The Security Contractor (SC) shall be responsible for the proper installation of all technical security system related equipment as specified in this SOW, inclusive of the drawing package provided by the Government and exclusive of standard voltage (120VAC) and communication telephone lines from the Training and Learning Center to the RRB. The SC shall furnish all incidental materials such as conduit (as defined in this SOW), wire mold, electrical wiring and outlets for 110 VAC, mounting hardware, covers, locks, etc., that are necessary to complete the infrastructure of the technical security system, as specified in this SOW, inclusive of the drawing package provided by the SC. The SC shall be responsible for the installation, termination and testing of the Technical Security equipment, exclusive of any sub-contractors. Equipment not installed properly (i.e., to manufacturer's specifications and to the satisfaction of the government) shall be corrected at no additional cost to the Client (USAID).

- The SC shall acquire any low voltage permits required by State or local codes and provide a copy to the Cognizant Technical Representative (COTR).
- The SC shall provide Security Technicians with a minimum of a SECRET CLEARANCE for all work in this statement of work.

SECTION 1

A. GENERAL RESPONSIBILITIES

i. Construction Material Disposal

1. It shall be the responsibility of the SC to remove their debris from the project site and, on a daily basis, dispose of it in a proper, acceptable manner. The debris created from this project shall not be disposed of at the job site property, in government dumpsters, or on government property.

2. In the case of large loads, it shall be the responsibility of the SC to remove their debris from the project site and, on a daily basis, dispose of it in a proper, acceptable manner. The debris created from this project shall not be disposed of at the job site property, in government dumpsters, or on government property.

3. In the case of small loads, it shall be the responsibility of the SC to remove their debris from the project site and, on a daily basis, dispose of it in a proper, acceptable manner. The debris created from this project may be disposed of at the job site, in government dumpsters.

4. It shall be the responsibility of the SC to dispose of their construction waste material in accordance with all applicable federal, state and local environmental regulations. The SC shall ensure that all hazardous waste handlers, haulers, and disposal facilities are properly certified or licensed, and shall provide the COTR with appropriate documentation to this effect. Prior to final payment, the SC shall provide a shipping manifest and documentation of their disposal of any substance that is controlled by federal, state and local regulations.

B. SITE PROTECTION

i. The SC shall make every reasonable effort to protect all government property located in and adjacent to the construction site.

C. WORK HOURS

i. The majority of the work shall be accomplished during the hours (0700-1600). However work may be accomplished after normal business hours or on weekends with the approval and coordination of the COTR, and landlord.

D. WORK AND CODE REQUIREMENTS

i. All materials and workmanship provided by the SC shall be in accordance with the best practice of state of the art technical security systems installation trade conventions. Equipment used shall be USAID specified and approved by the COTR.

ii. All materials and workmanship provided by the SC shall be in accordance with Underwriter's Laboratories (UL) standards 2050, National Fire Protection Association (NFPA), National Electrical Code (NEC), BICSI where applicable, and all applicable federal, state and local codes.

E. MANUFACTURE'S SPECIFICATIONS COMPLIANCE

i. It shall be the responsibility of the SC to ensure the equipment is installed to the manufacturer's specifications and the correct power is provided to each device/item.

ii. In the event that the SC damages any equipment, the SC shall replace such equipment.

iii. It shall be the responsibility of the SC to obtain the necessary installation specifications and drawings from the manufacturer. The government shall not furnish any manufacturer's information except that which is included in the contract documents.

F. VERIFICATION OF SITE CONDITIONS

i. The SC as necessary, shall verify all site conditions before commencing any portion of their work under this SOW.

ii. The SC shall advise/notify the COTR in writing of any problems or discrepancies that would affect the project schedule, life safety, or the successful completion of the effort.

iii. The SC shall furnish USAID and Lessor plans, to include construction drawings, design intent drawings, sketches, single line wiring drawings depicting demolition and new work, as appropriate; and Certificate of Insurance from contractor; a signed copy of the building's "Rules for Construction', and copy of permit, including low voltage permit, if applicable.

iv. The SC shall provide the COTR and Lessor with three day advance notice regarding the actual commencement.

G. POWER OUTAGES

i. All power outage requests shall be submitted to the COTR in writing, a minimum of seventy-two (72) hours in advance of the outage. Work should be planned in advance to provide as much time as possible to schedule an outage.

ii. Work shall not commence until the COTR or official approval of the outage request in writing is granted.

iii. On occasion, an outage request may be denied due to insufficient lead time, or because the outage would interfere with ongoing activities. In such a case, the outage shall be rescheduled.

H. CHANGES IN SOW

i. Requests for changes in the SOW shall be addressed verbally and in writing to the COTR.

ii. The SC shall not accept any changes from on-site personnel.

I. AS-BUILT DRAWINGS AND SPECIFICATIONS

i. The SC shall furnish to USAID two (2) complete sets of "as-built" drawings, professionally drawn in AUTOCAD 2007 software or in earlier releases of the AUTOCAD authorized by AutoDesk.

ii. All drawings that depict the security system and the site location shall be considered “Sensitive but Unclassified” (SBU) information. These drawings shall be clearly marked as SBU, and provided the correct level of security for the classification.

J. ACCEPTANCE OF THE INSTALLATION

i. Acceptance of the installation shall be granted only after the following conditions have been met:

1. All work has been completed in a satisfactory manner, in accordance with this SOW.

2. Performance of the total technical security system has been demonstrated in a satisfactory fashion.

3. The system has passed a Quality Assurance Inspection.

4. USAID has received all required documents and as-built drawings.

ii. The SC shall provide a final test document (listing each device) that indicates the system has been tested and is functioning as one complete technical security system, according to manufacturer’s specifications and to the government’s satisfaction.

iii. The SC shall notify the USAID COTR of the date of the final inspection no later than two weeks prior to the completion of the project.

K. INFORMATION AND CONTACTS

i. The SC shall maintain close contact with the COTR throughout the term of this SOW. ***Weekly written updates are to be provided to the COTR delineating the status of the project***.

ii. Any questions concerning the installation of the technical security system shall be addressed to the Cognizant Technical Representative (COTR) at the following address:

United States Agency for International Development
Office of Security/Domestic Security Branch
State Annex 44, Suite 227
400 C Street, SW
Washington, DC 20024

L. OWNERSHIP OF EQUIPMENT AND MATERIALS

i. After job completion and government acceptance, all materials furnished by the SC shall become the sole property of the (USAID) government.

M. INSPECTIONS

i. USAID may conduct progress inspections during any phase of the installation. Open to inspection shall be any aspect of the work, any part of the installation, and the performance of the system.

ii. Before leaving the site, the SC shall notify the COTR or his/her representative that installation work has been completed. At the time of this notification, the SC shall schedule a final inspection with the COTR.

iii. The SC shall be on-site during the final inspection. At this time, the SC shall demonstrate to USAID representative performance of the total system.

N. WARRANTY OF WORK EQUIPMENT

i. Materials and equipment furnished and installed by the SC under this SOW shall be provided with a manufacturer's warranty by the SC for a period of one (1) year after the date of final acceptance by USAID. The SC shall warrant their labor for one (1) year after final acceptance by USAID. Should any of the materials or equipment malfunction or fail during normal use while under warranty, the SC shall absorb the cost of repairing or replacing the defective item, to include labor and travel, as necessary. Repair/replacement shall be initiated within twenty-four (24) hours of notification (eight hours for special secure areas). The SC shall not be liable for failures or malfunctions caused by acts of God or as the result of abnormal use of the product.

SECTION 2: SCHEDULE OF WORK

A. TRADE RESPONSIBILITIES

i. The SC shall terminate all cable/wire related to Security Devices.

ii. The SC shall provide an approved lock power supply at the location designated in the drawing.

iii. Connections to the lock power supply and fire alarm interface shall be the responsibility of the SC, in coordination with the Lessor.

iv. The SC shall furnish new cables for the electric door locking hardware, if applicable.

B. GENERAL/BUILDING CONSTRUCTION

i. The SC shall furnish and install ¾" fire resistant plywood, as indicated in this SOW, at the designated location.

ii. The face side, including the edges of the plywood, shall be painted with the same color as the existing wall. The paint used shall be fire resistant.

iii. The SC shall furnish and install all conduit and junction box/pull boxes, as specified.

C. AC POWER REQUIREMENTS

i. The SC and/or Landlord shall install One/Two (1/2) dedicated 120 VAC/20 Amp Power circuits as required. They shall terminate in a quad outlet and a junction/pull box. A 1-inch conduit shall extend from the junction/pull box to the Power Supply enclosure, which will be mounted by the SC technicians.

ii. The circuit shall be labeled with the appropriate controlling circuit breaker room location, panel number and breaker number. Circuits used by the TSS shall be on the facility emergency power or UPS system whenever possible.

iii. All specified AC power wiring and work for 110/120 VAC circuits shall be performed by licensed electricians or approved by licensed electricians. The SC shall furnish and install all conduit, electrical wiring, circuit breakers, outlets, terminations etc., needed to accomplish a complete, functioning AC circuit or system, as required/specified by this SOW.

iv. Power wiring installations shall be installed and routed as to not introduce unwanted signals or currents into the technical security system wiring.

v. All power to the technical security equipment, panels and power supplies shall be hardwired directly to the powered device. The license electrician shall connect the power to the power supply.

D. BACK-UP POWER

i. INTRUSION DETECTION SYSTEM

i. Eight (8) hours of uninterrupted back-up power shall be provided to all alarm panels, alarm annunciating devices, and associated equipment.

ii. If building emergency power (UPS/Generator) does not exist, all security related power supplies shall have sufficient batteries to operate the equipment for eight (8) hours.

iii. If there is building emergency power (UPS/generator), all efforts shall be made to ensure the security equipment is connected to the building system.

iv. If there is generator only ensure the equipment has a small UPS or sufficient batteries to span the time from the loss of power until the generator starts up.

ii. THE FRAME RELAY, NETWORK EQUIPMENT AND ASSOCIATED EQUIPMENT, ROUTER, ENCRYPTION EQUIPMENT, ETC.

i. This equipment shall have an uninterrupted back-up power supply that shall maintain its operation for a minimum of eight (8) hours.

ii. If there is no source of building emergency power (UPS/generator), then a standalone UPS shall be provided to ensure the eight hours of service to be able to report the conditions at the site. This applies to IDS, ACS and CCTV systems.

iii. If there is a source of building emergency power (UPS/ generator), all efforts shall be made to ensure that the communication equipment is connected to the building system.

iii. ACCESS CONTROL SYSTEM

i. Eight (8) hours of uninterrupted back-up power shall be provided to the access control system, card readers, electric strikes, and associated equipment.

ii. If there is no source of building emergency power (UPS/Generator), all power supplies shall have batteries sufficient to operate the equipment.

iii. If there is a source of building emergency power (UPS/ generator), all efforts shall be made to ensure that the security equipment is connected to the building system.

iv. If there is generator only ensure the equipment has a small UPS or sufficient batteries to span the time from the loss of power until the generator starts up.

E. GROUNDING

i. The SC shall terminate from the security equipment to an existing grounding infrastructure (buss bar).

ii. The maximum distortion/resistance on grounding will be no greater than 5 ohms from the final connection and the building grounding system. The conductors and connects shall be sized to meet the above limit.

F. CONDUIT

i. Conduit installations in excess of ten (10) feet shall be painted blue or taped with blue tape every 10 feet.

ii. Conduit installations in excess of fifty (50) feet shall have a junction/pull box installed every fifty (50) feet. This may be modified based on site conditions and/or future requirements.

iii. The conduit shall have no more than 180 degree accumulated bends between pull points (junction boxes or condulets).

iv. Conduit between the boxes housing security equipment and the USAID boxes shall be installed by the SC, unless otherwise specified in this SOW.

v. Plastic chafe bushings shall be installed at the end of all conduits, regardless of whether they terminate in a box or into open ceiling.

vi. All conduits shall have pull strings installed and tied at both ends.

vii. Metal flexible conduit shall be used at the discretion of the COTR, in accordance with USAID Building Standards.

viii. Conduit installations and sizes are specified within this SOW and, if applicable, shall be found on the appropriate drawings and details as provided.

ix. The fill rate of all conduit installations shall not exceed NEC recommendations. The maximum fill rate of 40% shall be maintained when two or more cables exist inside any given conduit.

G. WIRING

i. The term “wiring” shall mean the furnishing of all wire, miscellaneous material, and labor as required for the successful installation, mounting, and connection of equipment, unless otherwise specified in this SOW.

ii. All wiring and cables shall be installed in accordance with NEC, local and state codes. Technical security alarm wire and cabling shall be routed in a logical and orderly fashion, with due consideration for the avoidance of physical and electrical interference with other installed wiring.

iii. All technical security systems and access control wiring cable shall be installed within the protected areas (USAID space). When it becomes necessary to install technical security wiring outside the protected area, with direction and approval from the government, the SC shall install the necessary conduit to protect the wiring.

iv. ACS and IDS wiring and cabling for “end of line” devices, interconnections, etc., shall utilize stranded, twisted pair conductors and shall not be smaller than 22 AWG. Low voltage DC power wiring shall not be smaller than 22 AWG stranded twisted pair conductors and not larger than 16 AWG, unless otherwise specified by the equipment requirements or this SOW.

v. The SC shall be required to install any GFE, to include wire and cable, as specified in this SOW.

vi. All new or existing penetrations used shall use fire stop material. The penetrations shall be replaced at the end of each day. All penetrations through firewalls shall be sealed by completion of job.

vii. Cable/fiber shall not be pulled loose across the ceiling tiles, HVAC ductwork or pipes. Cable/fiber installation shall follow NEC code and/or local codes.

viii. All cables/fiber shall be permanently marked and labeled with two (2) markers, at both ends. Markers shall be approximately 6” and 10 feet from the end as feasible.

ix. Wiring shall be aesthetically pleasing to the area where exposed to view, and shall conform to standards set forth by NEC, UL, NFPA, local codes.

x. False ceilings – The wiring may be installed within the secure space, with the provision that it be supported by means other than the ceiling tile or grids. Ties, clamps and approved clips are acceptable. Where practical, the wiring shall be supported at least four (4) inches (10 cm) above the suspended ceiling.

xi. Solid Ceilings – Where the ceiling is of solid construction, with access panels, the requirement for false ceilings shall apply. Where there are no access panels, the wiring shall be installed as close as is practical to the ceiling (where the ceiling and wall join), following the architectural contours of the area using approved clamping devices.

xii. The wiring shall be of approved Teflon or plenum-rated cable, even when the wiring is enclosed in EMT conduit or another approved metallic sheathing. CPVC (ENT) conduit is **not** acceptable in ceilings.

xiii. Cable anchors and cable tie anchors attached to surfaces by means of double-sided adhesive tape shall only be acceptable inside the security enclosures.

xiv. Wiring shall not be tied to or supported by sprinkler pipes, steam lines, water pipes, other conduits, secure communication lines or raceways, nor shall it be installed between the wall and any pipe or object attached to the wall.

xv. Where the wire is to pass over or around a sharp object or corner, it shall be protected by means other than its own insulation. Where the wire passes over expansion joints, it shall have appropriate “slack” to allow for the anticipated expansion of the wall to which it is attached.

xvi. There shall be no splices or connections in cable installations except where required by the equipment manufacturers. No crimped fitting (such as spade lugs) may be added to the ends of any control or power supply wiring unless required by the equipment manufacturers and such connections/fittings are individually soldered to the cable.

xvii. All cable shall have a service loop of at least four (4) to eight (8) feet at both ends. All cable installations shall be installed from point to point. Cable installations shall not be installed in the center of a room. The cable installations shall conform as closely as possible to what is outlined in the technical security plans.

H. CABLE

i. The SC shall furnish and install the required cables from the ground source to the TSS area/security closet. All cables shall be labeled “In Accordance With (IAW)” the cable list found in Attachment B.

ii. The lock power cable shall be labeled “Lock Power” at both ends.

I. TRADE RESPONSIBILITIES

v. The SC shall terminate all cable/wire related to Security Devices.

vi. The SC shall provide an approved lock power supply at the location designated in the drawing.

vii. Connections to the lock power supply and fire alarm interface shall be the responsibility of the SC, in coordination with the Lessor.

viii. The SC shall furnish new cables for the electric door locking hardware, if applicable.

J. GENERAL/BUILDING CONSTRUCTION

i. The SC shall furnish and install ¾" fire resistant plywood, as indicated in this SOW, at the designated location.

ii. The face side, including the edges of the plywood, shall be painted with the same color as the existing wall. The paint used shall be fire resistant.

iii. The SC shall furnish and install all conduit and junction box/pull boxes, as specified.

K. AC POWER REQUIREMENTS

i. All specified AC power wiring and work for 110/120 VAC circuits shall be performed by licensed electricians or approved by licensed electricians. The SC shall furnish and install all conduit, electrical wiring, circuit breakers, outlets, terminations, etc., needed to accomplish a complete, functioning AC circuit or system, as required/specified by this SOW.

ii Power wiring installations shall be installed and routed as to not introduce unwanted signals or currents into the technical security system wiring.

iii All power to the technical security equipment, panels and power supplies shall be hardwired directly to the powered device. The license electrician shall connect the power to the power supply.

Lessor's fire alarm contractor must be utilized for all interface tie-in with the building fire alarm system.

L. BACK-UP POWER

i. INTRUSION DETECTION SYSTEM

i. Eight (8) hours of uninterrupted back-up power shall be provided to all alarm panels, alarm annunciating devices, and associated equipment.

ii. If building emergency power (UPS/Generator) does not exist, all security related power supplies shall have sufficient batteries to operate the equipment for eight (8) hours.

iii. If there is building emergency power (UPS/generator), all efforts shall be made to ensure the security equipment is connected to the building system.

iv. If there is a generator only ensure the equipment has a small UPS or sufficient batteries to span the time from the loss of power until the generator starts up.

ii. THE FRAME RELAY, NETWORK EQUIPMENT AND ASSOCIATED EQUIPMENT, ROUTER, ENCRYPTION EQUIPMENT, ETC.

i. This equipment shall have an uninterrupted back-up power supply that shall maintain its operation for a minimum of eight (8) hours.

ii. If there is no source of building emergency power (UPS/generator), then a standalone UPS shall be provided to ensure the eight hours of service to be able to report the conditions at the site. This applies to IDS, ACS and CCTV systems.

iii. If there is a source of building emergency power (UPS/ generator), all efforts shall be made to ensure that the communication equipment is connected to the building system.

iii. ACCESS CONTROL SYSTEM

i. Eight (8) hours of uninterrupted back-up power shall be provided to the access control system, card readers, electric strikes, and associated equipment.

ii. If there is no source of building emergency power (UPS/Generator), all power supplies shall have batteries sufficient to operate the equipment.

iii. If there is a source of building emergency power (UPS/ generator), all efforts shall be made to ensure that the security equipment is connected to the building system.

iv. If there is generator only ensure the equipment has a small UPS or sufficient batteries to span the time from the loss of power until the generator starts up.

M. GROUNDING

i. The SC shall terminate from the security equipment to an existing grounding infrastructure (buss bar).

ii. The maximum distortion/resistance on grounding will be no greater than 5 ohms from the final connection and the building grounding system. The conductors and connects shall be sized to meet the above limit.

N. CONDUIT

i. Conduit installations in excess of ten (10) feet shall be painted blue or taped with blue tape every 10 feet.

ii. Conduit installations in excess of fifty (50) feet shall have a junction/pull box installed every fifty (50) feet. This may be modified based on site conditions and/or future requirements.

iii. The conduit shall have no more than 180 degree accumulated bends between pull points (junction boxes or condulets).

iv. Conduit between the boxes housing security equipment and the USAID boxes shall be installed by the SC, unless otherwise specified in this SOW.

v. Plastic chafe bushings shall be installed at the end of all conduits, regardless of whether they terminate in a box or into open ceiling.

vi. All conduits shall have pull strings installed and tied at both ends.

vii. Metal flexible conduit shall be used at the discretion of the COTR, in accordance with USAID Building Standards.

viii. Conduit installations and sizes are specified within this SOW and, if applicable, shall be found on the appropriate drawings and details as provided.

ix. The fill rate of all conduit installations shall not exceed NEC recommendations. The maximum fill rate of 40% shall be maintained when two or more cables exist inside any given conduit.

O. WIRING

i. The term “wiring” shall mean the furnishing of all wire, miscellaneous material, and labor as required for the successful installation, mounting, and connection of equipment, unless otherwise specified in this SOW.

ii. All wiring and cables shall be installed in accordance with NEC, local and state codes. Technical security alarm wire and cabling shall be routed in a logical and orderly fashion, with due consideration for the avoidance of physical and electrical interference with other installed wiring.

iii. All wiring and cabling must utilize existing or new wire trough, j-hooks, D-rings affixed to the concrete slab.

iv. All technical security systems and access control wiring cable shall be installed within the protected areas (USAID space). When it becomes necessary to install

technical security wiring outside the protected area, with direction and approval from the government, the SC shall install the necessary conduit to protect the wiring.

v. ACS and IDS wiring and cabling for “end of line” devices, interconnections, etc., shall utilize stranded, twisted pair conductors and shall not be smaller than 22 AWG. Low voltage DC power wiring shall not be smaller than 22 AWG stranded twisted pair conductors and not larger than 16 AWG, unless otherwise specified by the equipment requirements or this SOW.

vi. The SC shall be required to install any GFE, to include wire and cable, as specified in this SOW.

vii. All new or existing penetrations used shall use fire stop material. The penetrations shall be replaced at the end of each day. All penetrations through firewalls shall be sealed by completion of job.

viii. Cable/fiber shall not be pulled loose across the ceiling tiles, HVAC ductwork or pipes. Cable/fiber installation shall follow NEC code and/or local codes.

ix. All cables/fiber shall be permanently marked and labeled with two (2) markers, at both ends. Markers shall be approximately 6” and 10 feet from the end as feasible.

x. Wiring shall be aesthetically pleasing to the area where exposed to view, and shall conform to standards set forth by NEC, UL, NFPA, local codes.

xi. <u>False ceilings</u> – The wiring may be installed within the secure space, with the provision that it be supported by means other than the ceiling tile or grids. Ties, clamps and approved clips are acceptable. Where practical, the wiring shall be supported at least four (4) inches (10 cm) above the suspended ceiling.

xii. <u>Solid Ceilings</u> – Where the ceiling is of solid construction, with access panels, the requirement for false ceilings shall apply. Where there are no access panels, the wiring shall be installed as close as is practical to the ceiling (where the ceiling and wall join), following the architectural contours of the area using approved clamping devices.

xiii. The wiring shall be of approved Teflon or plenum-rated cable, even when the wiring is enclosed in EMT conduit or another approved metallic sheathing. CPVC (ENT) conduit is **not** acceptable in ceilings.

xiv. Cable anchors and cable tie anchors attached to surfaces by means of double-sided adhesive tape shall only be acceptable inside the security enclosures.

xv. Wiring shall not be tied to or supported by sprinkler pipes, steam lines, water pipes, other conduits, secure communication lines or raceways, nor shall it be installed between the wall and any pipe or object attached to the wall. Where conduit passes over expansion joints, it shall have appropriate flexible transitions to allow for movement up to 4”. All wiring to utilize wire trough, j-hooks, D-rings affixed to the concrete slab.

xvi. Where the wire is to pass over or around a sharp object or corner, it shall be protected by means other than its own insulation. Where the wire passes over expansion joints, it shall have appropriate “slack” to allow for the anticipated expansion of the wall to which it is attached.

xvii. There shall be no splices or connections in cable installations except where required by the equipment manufacturers. No crimped fitting (such as spade lugs) may be added to the ends of any control or power supply wiring unless required by the equipment manufacturers and such connections/fittings are individually soldered to the cable.

xviii. All cable shall have a service loop of at least four (4) to eight (8) feet at both ends. All cable installations shall be installed from point to point. Cable installations shall not be installed in the center of a room. The cable installations shall conform as closely as possible to what is outlined in the technical security plans.

P. CABLE

i. The SC shall furnish and install the required cables from the ground source to the TSS area/security closet. All cables shall be labeled “In Accordance With (IAW)” the cable list found in Attachment B.

ii. The lock power cable shall be labeled “Lock Power” at both ends.

Cable Type and Specifications

Cable Type	Specification
A	Belden 82723 2-pair 22 AWG Plenum/Shielded
B	Belden 6300FE 2-Conductor 18 AWG Plenum/Shielded
C	Belden 82418 4-Conductor 18 AWG Plenum/Shielded
D	West Penn 6962 14 AWG Stranded Copper Ground Wire
E	Belden 89259 RG-59 23 AWG Center Plenum
F	Belden 82842 2-Pair 24 AWG Plenum/Shielded
G	CAT 5E or 6 (LAN/WAN)
H	Fiber 62.5/125 dual mode strands (Minimum 4 Strands)
I	Belden 9626 25-conductor 18AWG 300V RMS (For distances 0-1000ft)
J	Belden 9622 25 conductor 16AWG 600V RMS (For distances 0-2000ft)
K	Alpha 58119-S001 9-conductor, 22AWG, stranded, Plenum /Shielded
L	Belden 8773 27-pair 22AWG Individual Shields Plenum with Drain

SECTION 2: SCHEDULE OF WORK

A. TRADE ACCESS CONTROL AND INTRUSION DETECTION SYSTEMS

A. GENERAL

i. This is a Software House based system that consists of iStar panels, HSPD-12 compliant card readers (HID)and/or IDS readers, associated input/output (I/O) devices, access control equipment and intrusion detection equipment (IDE).

ii. The panels are IP addressable.

iii. IP addresses will be provided and coordinated with USAID by the SC (see Section 4).

iv. Shall include network equipment (routers and smart switches) and connection to USAID Alarm Net.

v. All devices shall be wired separately for alarm annunciation.

vi. End of line (EOL) resistors shall be installed within the sensor. When a sensor is sealed and the EOL cannot be installed within the unit, the EOL shall be spliced in the line with the leads from the sensor, in accordance with UL standards.

vii. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

viii. The SC shall install all boxes that house security equipment panels, and devices.

ix. The SC shall install all ground wiring from the Ground Buss to the Security Power Supplies and Security Equipment panels.

B. TAMPERS

i. All devices shall have their tampers wired for alarm annunciation.

ii. The circuits shall be line supervised, and shall annunciate for shorts, opens and grounds.

C. ACCESS CONTROL SYSTEM

i. The access control readers shall be HSPD-12 compliant.

ii. 12X14 Box (Softwarehouse part number RM-DCM2). The SC shall fabricate the contents of the 12X14 boxes to include all the necessary equipment prior to installation at the site. The fabrication is to include the necessary RM4E, I-8 module, MOM 5 power distribution module and HID Reader with pin, Weidmeuller cross connect strip to interface between the individual devices and wire color/size.

iii. Card Readers

The HID card readers installed on doors utilize an optical tamper. The high assurance Xtec keypads will utilize mechanical tamper switchers installed in the box to monitor the removal of the keypad.

iv. Door contacts

1. The resistor for the door contact(s) shall be installed in proximity to the device.

2. The pry tamper and the magnetic tamper shall be wired in series where applicable.

3. In the case of dual door contacts (i.e., double door), the contacts shall be wired as a single point of alarm.

4. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

v. Request to Exit (REX)

1. The resistor for the REX shall be installed inside the device where applicable.

2. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

vi. HID Access Control Readers, control boxes (12X14), Request to Exit Devices, Door Contacts. (This includes door control equipment such as L boxes housing RM4E boards, I-8 boards, and power distribution modules.)

Portal Equipment

(Tables 3 - 12 will be filled in by USAID after award)

Device Type	Device Number	Suite Portal Location	Model Number
Reader Control			
Card reader			
Door Contact			
REX			

Table 3

D. ISTAR CONTROL PANELS

Device Type	Device Number	Security Closet/CER Location	Model Number

IStar Pro			
IStar Pro			
IStar Pro			
IStar Pro			
IStar Pro			
IStar Pro			

Table 4

E. INTRUSION DETECTION SYSTEM

i. The SC shall fabricate the contents of the 12X14 boxes to include all the necessary equipment prior to installation at the site. The fabrication shall include the necessary I-8 modules and the MOM 5 power distribution module, along with the Weidmeuller cross connect strip to interface between the individual devices and wire (See DME Standards) as applicable

F. MOTION SENSORS

i. The SC shall provide for minor deviations or relocation of sensors as required. When changes require only a minimal amount of work (1 hour labor) and/or materials, there shall be no additional cost to the client.

ii. Motion sensors shall be installed and adjusted to initiate an alarm condition when a person walks three (3) consecutive steps at a rate of one step per second within the area of coverage. A final inspection shall verify the adjustment utilizing this walk test.

iii. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

G. DOOR CONTACTS

i. The resistor for the door contact(s) shall be installed in proximity to the device.

ii. The pry tamper and the magnetic tamper shall be wired in series.

iii. In the case of dual door contacts (i.e., double door), the contacts shall be wired as a single point of alarm.

iv. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

H. TAMPERS

i. See the general requirements for additional information.

ii. All IDS keypad mounting shall have a tamper device either optical or mechanical. (A tamper alarm shall be generated if the box is removed from the wall and/or the keypad cover is removed.) If two separate switches are utilized, both tampers shall be installed in series as one circuit.

I. GLASS BREAKS

i. The SC shall provide for minor deviations or relocation of sensors as required. When changes require only a minimal amount of work (1 hour labor) and/or materials, there shall be no additional cost to the Client.

ii. Glass Breaks shall be installed and adjusted to initiate an alarm condition when a window is broken within the area of coverage.

iii. The circuits shall be line supervised and shall annunciate for shorts, opens and grounds.

J. IDS KEYPADS

Device Type	Device Number	Suite/Portal Location	Model Number
Keypad			
Keypad			
Keypad			
Keypad			

Table 5

K. ALARM DEVICES (MOTION SENSORS)

Device Type	Device Number	Location	Model Number
PIR			
PIR			
PIR			

Table 6

L. ISTAR POWER SUPPLIES

Device Type	Device Number	Security Closet/CER Location	Model Number
Power Supply			

Table 7

M. CLOSED CIRCUIT TELEVISION SYSTEM

i. The SC shall install a new DVR and new cameras to cover the required areas.

SECTION 3: PROGRAMMING REQUIREMENTS

A. ACS PROGRAMING

i. USAID shall provide the SC with naming conventions for all applicable access control points.

B. IDS PROGRAMMING

i. All programming shall be performed by the SC.

SECTION 4: COMMUNICATIONS

A. INSTALLATION

i. The SC shall install two I-Star panels on the 5th and 6th floors, as specified in the Bill of Merchandise (BOM):

ii. The SC shall install one (1) copper to fiber transmitter and receiver modulator on the ???? floor (CER), utilizing the existing 3" conduit???.

B. NETWORK SWITCH

i. A remote switch shall be located on the ?? floor in the Communication Equipment Room (CER) and placed on pre-existing shelf.

ii. A remote switch shall be located on the ??? floor in CER and placed on pre-existing shelf.

iii. A remote DVR switch shall be located in the TelCom Closet Operations Center and placed on pre-existing shelf.

C. CABLING AND TERMINATIONS

Category 5E UTP cable is required and shall be installed in the following manner:

Switches

I. PANELS

a. iStar panels on the ??? floors shall have UTP connectivity ran to the remote switch located on the ???? floor.

b. The UTP cables shall be in ¾ inch EMT conduit or panduit. The existing pathway may be used.

c. The cables shall be terminated with RJ-45 connectors on both ends. All terminations shall be in the TIA/EIA 568B standard, unless otherwise noted. Power will need to be provided for core and remote locations.

Note: All unused cables will be labeled “Spare”;

The SC shall install the following telecommunications equipment as specified in the BOM:

a. The SC shall coordinate with the network personnel to activate port switcher.

b. The SC shall provide the IP and MAC address of the panel to the programming Security Contractor group.

D. ISTAR COMMUNICATIONS ROUTERS

Router	IP Address	Subnet

Table 8

E. NETWORK IP SWITCHES

Location	Device	IP Address	Subnet	Gateway

Table 9

F. ISTAR WORKSTATION

Workstation	Location	IP Address	SUBNET Mask	Gateway

Table 10

G. DIGITAL VIDEO RECORDERS

Name	**Location**	**IP Address**	**Subnet Mask**	**Gateway**
DVR 1				

Table 11

H. ISTAR IP ADDRESSES

I. USAID ENCRYPTION DEVICE

Device	IP Address	Subnet
Encryption Device (Internal Address)		

Table 12

SECTION 5: ELECTRIC LOCKING DEVICES

i. All Lock hardware installation shall be the responsibility of the SC.

ii. All repairs not under warranty shall be the responsibility of USAID.

iii. The SC shall use existing cable for electric door hardware operation.

iv. The SC's technicians shall connect the cables in the "L" box to the electromechanical door hardware (door strikes), as specified. They shall tag the pair of wires connected to the relay as such for the lock contractor to use.

v. The SC shall confirm that the programming of the electric strike has provided an operating ACS (Access Control System).

SECTION 6: SYSTEM ACCEPTANCE TEST

A. ACCESS CONTROL SYSTEM

i. USAID acceptance of the installation shall be provided after satisfactory completion of all work, in accordance with this SOW. A satisfactory demonstration of the performance of the total technical security system shall include:

a. A Quality Assurance Inspection utilizing QAL Check List.

b. Receipt by the SC of all required documents.

c. As-built drawing package shall be provided within 30 working days of USAID Acceptance of the system.

ii. The SC shall provide a final test document, listing each device, indicating that the system has been tested and is functioning as one complete technical security system.

iii. A print of the system test shall be provided.

iv. Supervisory alarms shall be corrected prior to acceptance.

v. The Technical Security Systems Test & Acceptance document shall be used for the acceptance of the system.

B. INTRUSION DETECTION SYSTEM

i. USAID acceptance of the installation shall be provided after satisfactory completion of all work, in accordance with this SOW. A satisfactory demonstration of the performance of the total technical security system shall include:

a. A Quality Assurance inspection

b. Receipt by the SC of all required documents

c. As-built drawing package shall be provided within 30 working days of government acceptance of the system.

ii. The SC shall provide a final test document, listing each device, indicating that the system has been tested and is functioning as one complete technical security system, according to manufacturer's specifications and to the government's satisfaction.

iii. A print of the system test shall be provided, to include tamper activations.

iv. Supervisory Alarms shall be corrected prior to acceptance.

v. The Technical Security Systems Test & Acceptance document shall be used for the acceptance of the system.

C. CAMERAS

i. Contractor shall provide connectivity to USAID. One (1) DVR control shall be installed in the ??? floor closet connected to the DVR for camera control. The viewing and recording for cameras are to be integrated from the Training and Learning Center to the Ronald Reagan Building (RRB) existing CCTV System via T-1 to the control room located at the RRB. Camera locations can be found at 2.1.27.

A.6 PERIOD OF PERFORMANCE

The SC must complete this project and all security counter-meassures must be fully tested and accepted within 60 days of disbursement of funds.

A.7 PLACE OF PERFORMANCE

Performance of the services required will be at the United States Agency for Internatioal Development (USAID) Training and Learning Center, Crystal City, VA

A.8 SECURITY AND PRIVACY REQUIREMENTS

A.7 GOVERNMENT FACILITY ENTRANCE

All contractor personnel or any representative of the contractor entering the USAID Training and Learning Center shall abide by all security regulations as appropriate.

A.8 CONTRACTING OFFICER AUTHORITY

A.9 CONTRACTING OFFICER TECHNICAL REPRESENTATIVE

A.10 AUTHORIZED GEOGRAPHIC CODE

A.11 ACCOUNTING AND APPROPRIATION DATA

A.12 PAYING OFFICE

A.13 HOMELAND SECURITY PRSIDENTIAL DIRECTIVE-12 (HSPD-12) (SEPT 2006)

A.14 EXECUTIVE ORDER ON TERRORISM FINANCING

A.15 GSA CONTRACT CLAUSES

All relevant GSA clauses are hereby incorporated by reference.

APPENDIX LIST