

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE _____ PAGE OF PAGES
 2

2. AMENDMENT/MODIFICATION NO. 01	3. EFFECTIVE DATE 12-11-2014	4. REQUISITION/PURCHASE REQ. NO. PR-3809988	5. PROJECT NO. (If applicable)
6. ISSUED BY Contracting Officer U.S. Consulate General Mai Kolachi Road Karachi.	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO. SPK400-15-Q-5001
		9B. DATED (SEE ITEM 11) 11-17-2014
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The RFQ SPK400-15-Q-5001 is hereby amended as per attached revised RFQ document for Building Automation System, installed at U.S Consulate General Karachi Office Building.

The solicitation submission date is extended to December 22, 2014, at 1100 hours.

All other terms & conditions will remain same as mentioned in RFQ documents. Any questions may direct at krcproc@state.gov.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Steven M. Nassar S/650
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)
	16C. DATE SIGNED 17 DEC 2014

Karachi Pakistan

November 17, 2014

To Prospective Offerors:

SUBJECT: Solicitation Number SPK400-15-Q-5001, Services of a contractor is required for Providing Annual Maintenance services of Building Automation System (BAS), installed at U.S Consulate General Karachi as per attached SOW.

If you intend to submit a quotation, you should thoroughly examine all documents contained in the contract solicitation package. The consulate intends to conduct a site visit. All prospective offerors who are interested in this solicitation package are invited to attend. The site visit will be held at U.S Consulate General Mai Kolachi Road, Karachi on November 28, 2014 at 1100 hours. Interested offerors must provide full name (as written on NIC), NIC number by November 25, 2014 at 10:00 hours. This information can be provided on e-mail addresses at krcproc@state.gov. All participants must bring their original NIC at the time of visit at Consulate. No entry will be permitted without original NIC.

Submit any questions you may have concerning the solicitation documents in writing by November 25, 2014. Responses will be sent in writing to all contractors on our list of interested parties.

Your quotation must be submitted in a sealed envelope marked "Quotation Enclosed" to the contracting officer, U.S. Consulate General, Plot No. 3-5, Mai Kolachi Road Karachi on or before December 3, 2014 at 1400 hours. No quotation will be accepted after this time.

Complete the OFFER portion of the Standard Form 1449, including all blank spaces, and have the form signed by an authorized representative of your company, or Quotation may be considered unacceptable and may be rejected.

In order for a quotation to be considered, you must also complete and submit the following:

Section 1, The Schedule
Section 3, Solicitation Provision
Section 5, Representations and Certifications;

The contract will be a firm fixed price contract, with no adjustment for any escalation in costs or prices of labor or materials. Each offeror will be responsible for determining the amount of labor and materials that will be required to complete the project, and for pricing its Quotation accordingly.

Please direct any questions regarding this solicitation to Steven H. Hassan, Contracting Officer at krcproc@state.gov or by letter or telephone 92-21-35275000 during regular business hours.

Sincerely,

Steven H. Hassan
Contracting Officer

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS <i>OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30</i>				1. REQUISITION NUMBER		PAGE 1 OF	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE (mm-dd-yyyy)		4. ORDER NUMBER		5. SOLICITATION NUMBER RFQ-SPK-400-15Q-5001	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME Steven H. Hassan				b. TELEPHONE NUMBER (No collect calls)	
8. OFFER DUE DATE/ LOCAL TIME 12/03/2014 at 2:00pm		9. ISSUED BY Contracting Officer U.S Consulate Gebneral Mai Kolachi Road Karachi		10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR NAICS: SIZE STANDARD:			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING	
15. DELIVERY TO		16. ADMINISTERED BY		14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input type="checkbox"/> RFP			
17a. CONTRACTOR/ OFFEROR		18a. PAYMENT WILL BE MADE BY		17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER <input type="checkbox"/>			
18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM		19. ITEM NO.		20. SCHEDULE OF SUPPLIES/SERVICES		21. QUANTITY	
22. UNIT		23. UNIT PRICE		24. AMOUNT		25. ACCOUNTING AND APPROPRIATION DATA	
26. TOTAL AWARD AMOUNT (For Govt. Use Only) 0.00		27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA		27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA		28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u> 3 </u> COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.	
29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____ (mm-dd-yyyy). YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, AS ACCEPTED AS TO ITEMS:		30a. SIGNATURE OF OFFEROR/CONTRACTOR		31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)		30b. NAME AND TITLE OF SIGNER (Type or print)	
30c. DATE SIGNED (mm-dd-yyyy)		31b. NAME OF CONTRACTING OFFICER (Type or Print)		31c. DATE SIGNED (mm-dd-yyyy)		29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____ (mm-dd-yyyy). YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, AS ACCEPTED AS TO ITEMS:	

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT

32a. QUANTITY IN COLUMN 21 HAS BEEN

RECEIVED INSPECTED ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: _____

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32c. DATE (mm-dd-yyyy)	32d. PRINT NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE		
32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE		32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE			
		32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE			
33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		37. CHECK NUMBER
38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY			
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT		42a. RECEIVED BY (<i>Print</i>)			
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE (mm-dd-yyyy)	42b. RECEIVED AT (<i>Location</i>)		
			42c. DATE REC'D (mm-dd-yyyy)	42d. TOTAL CONTAINERS	

SECTION 1 - THE SCHEDULE

Continuation/Addendum to SF-1449
RFQ Number SPK-400-15Q-5001
PRICES BLOCK 23

1.0 DESCRIPTION

The U.S. Consulate in Karachi requires services to maintain Building Automation System (BAS) System, in reliable and efficient operating condition. The contract type is a firm fixed price contract for routine maintenance services paid at the per visit rate mentioned below. These rates include all costs associated with providing maintenance services in accordance with manufacturer's warranty including materials, labor, insurance (see FAR 52.228-4 and 52.228-5), overhead, profit and VAT (if applicable). The contract will be for a one-year period, with four one-year optional periods of performance.

2.0 PRICING

2.1 VALUE ADDED TAX

VAT VERSION B

VALUE ADDED TAX. Value Added Tax (VAT) is not applicable to this contract and shall not be included in the CLIN rates or Invoices because the U.S. Embassy has a tax exemption certificate from the host government.

2.2 Base Year - The Contractor shall provide the services shown below for the base period of the contract, starting on the date stated in the Notice to Proceed:

Line Item	Description	Price	U/I	Total Amount
1	Annual maintenance of BAS system as described in attached SOW		4 qtr	
2	Emergency Visit		4 visit	

2.3 Option Year 1 - The Contractor shall provide the services shown below for Option Year 1, starting one year after the date stated in the Notice to Proceed.

Line Item	Description	Price	U/I	Total Amount
1	Annual maintenance of BAS system as described in attached SOW		4 qtr	
2	Emergency Visit		4 visit	

2.4 Option Year 2 - The Contractor shall provide the services shown below for Option Year 2, starting two years after the date stated in the Notice to Proceed.

Line Item	Description	Price	U/I	Total Amount
1	Annual maintenance of BAS system as described in attached SOW		4 qtr	
2	Emergency Visit		4 visit	

2.5 Option Year 3 - The Contractor shall provide the services shown below for Option Year 3, starting three years after the date stated in the Notice to Proceed.

Line Item	Description	Price	U/I	Total Amount
1	Annual maintenance of BAS system as described in attached SOW		4 qtr	
2	Emergency Visit		4 visit	

2.6 Option Year 4 - The Contractor shall provide the services shown below for Option Year 4, starting four years after the date stated in the Notice to Proceed.

Line Item	Description	Price	U/I	Total Amount
1	Annual maintenance of BAS system as described in attached SOW		4 qtr	
2	Emergency Visit		4 visit	

	Base Year Total	
	Option Year 1 Total	
	Option Year 2 Total	
	Option Year 3 Total	
	Option Year 4 Total	
	GRAND TOTAL OF BASE YEAR PLUS ALL OPTION YEARS	

CONTINUATION/ADDENDUM TO SF-1449
RFQ Number SPK400-15-Q-5001
SCHEDULE OF SUPPLIES/SERVICES, BLOCK 20
DESCRIPTION/SPECIFICATION/WORK STATEMENT

- SCOPE OF WORK

- The U.S. Consulate General Karachi Pakistan requires Preventative Maintenance Services for the Building Automation System (BAS) installed at U.S. Consulate General Karachi in safe, reliable and efficient operating condition. The contract type is a firm fixed price contract. The contractor shall provide all necessary managerial, administrative and direct labor personnel, and as well as all necessary transportation, equipment, tools required to perform inspection, maintenance, repair, and component replacement as required to maintain the Building Automation in accordance with the manufacturer's specifications. Under this contract the Contractor shall provide:

- The services of a trained Building Automation Engineer require on per visit basis to check and repair equipment operation and perform scheduled and preventive maintenance;

- HOURS OF PERFORMANCE

- The Contractor shall schedule all routine maintenance and repair work during normal building hours which are defined as 8:00 to 16:30, Monday to Friday, excluding local and U.S. holidays, unless approved in advance by the Contracting Officer's Representative (COR).

3.0 ACCESS TO GOVERNMENT BUILDINGS AND STANDARDS OF CONDUCT

3.1 General. The Contractor shall designate a representative who shall supervise the Contractor's BAS technician and be the Contractor's liaison with the U.S. Consulate Karachi. The Contractor's employees shall be on-site only for contractual duties and not for any other business or purposes. Contractor employees shall have access to the BAS System ways, lobbies and rooms, with security escorts, only with specific permission by either the Contracting Officer or the COR.

3.2 Personnel Security. The Government reserves the right to deny access to U.S owned and U.S.-operated facilities to any individual. The Contractor shall provide the names, biographic data and police clearance on all Contractor personnel who shall be used on this contract prior to their utilization. The Government shall issue identity cards to approved Contractor personnel, each of whom shall display his/her card(s) on the uniform at all times while on Government property or while on duty at private residences serviced under this contract. These identity cards are the property of the Government. The Contractor shall return all identity cards when the contract is completed, when a Contractor's employee leaves this contract, or at the request of the Government.

3.3 Standards of Conduct

3.3.1 General. The Contractor shall maintain satisfactory standards of employee competency conduct cleanliness, appearance and integrity and shall be responsible for taking such disciplinary action with respect to employees as may be necessary. Each Contractor employee shall adhere to standards of conduct that reflect credit on themselves, their employer, and the United States Government. The Government reserves the right to direct the Contractor to remove an employee from the worksite for failure to comply with the standards of conduct. The Contractor shall immediately replace such an employee to maintain continuity of services at no additional cost to the Government.

3.3.2 Uniforms and Personal Equipment. The Contractor's employees shall wear clean, neat and complete uniforms when on duty. All employees shall wear uniforms approved by the Contracting Officer's Representative (COR). The Contractor shall provide, to each employee and supervisor, uniforms and personal equipment. The Contractor shall be responsible for the cost of purchasing, cleaning, pressing, and repair of the uniforms.

3.3.3 Neglect of duties shall not be condoned. This includes sleeping while on duty, unreasonable delays or failures to carry out assigned tasks, conducting personal affairs during duty hours and refusing to render assistance or cooperate in upholding the integrity of the worksite security.

3.3.4 The Contractor shall not condone disorderly conduct, use of abusive or offensive language, quarreling, and intimidation by words, actions, or fighting. Also included is participation in disruptive activities that interfere with normal and efficient Government operations.

3.3.5 Intoxicants and Narcotics. The Contractor shall not allow its employees while on duty to possess, sell, consume, or be under the influence of intoxicants, drugs or substances which produce similar effects.

3.3.6 Criminal Actions. Contractor employees may be subject to criminal actions as allowed by law in certain circumstances. These circumstances include but are not limited to the following actions: falsification or unlawful concealment, removal, mutilation, or destruction of any official documents or records or concealment of material facts by willful omission from official documents or records; unauthorized use of Government property, theft, vandalism, or immoral conduct; unethical or improper use of official authority or credentials; security violations; organizing or participating in gambling in any form; and misuse of weapons.

3.3.7 Key Control. The Contractor shall receive, secure, issue and account for any keys issued for access to buildings, offices, equipment, gates, or other areas, for the purposes of this contract. Keys shall not be duplicated without the COR's approval. Where the Government determines that the Contractor or its agents have duplicated a key without permission of the COR, the Contractor shall remove the individual(s) responsible from performing work under the contract. If the Contractor has lost any such keys, the Contractor shall immediately notify the COR. In

either event, the Contractor shall reimburse the Government for the cost of rekeying that portion of the system so compromised.

3.4 NOTICE TO PROCEED

After contract award and submission of acceptable insurance certificates and copies of all applicable licenses and permits, the Contracting Officer will issue a Notice to Proceed. The Notice to Proceed will establish a date (a minimum of ten (10) days from date of contract award unless the Contractor agrees to an earlier date) on which performance shall start.

4.0 WORK REQUIREMENTS

4.1 General. The Contractor shall provide full service to meet preventative maintenance requirements. The Contractor shall maintain BAS System so that the BAS System is in a safe and efficient operating condition at all times.

REVISED STATEMENT OF WORK

GENERAL INFORMATION:

- The U.S. Consulate General Karachi Pakistan requires Preventative Maintenance services for the Building Automation System (BAS) installed at U.S Consulate General Karachi.
- The Contractor shall provide preventive maintenance services for the upkeep of the installed Building Automation System(s) (BAS). The work required shall include, but is not limited to: Preventative maintenance of BAS Systems; Investigation and troubleshooting of BAS related issues; and BAS trend and alarm configuration.
- These PM Services shall result in all systems serviced under this agreement being in good operational condition when the work is completed.
- BAS PM Services shall be performed on BAS installed in the unclassified areas of the Post.
- Frequency of BAS PM Service Visits: BAS PM Services will involve four quarterly and up to four emergency site visits per year to the Post. Refer to section 2 "Pricing" for the number of visits the Contractor is required to make each year.
- Exclusions: This contract does **NOT** include the repair of equipment, the replacement or procurement of parts, the replacement of BAS systems, software upgrades or re-commissioning of the BAS. Such work, if needed, will be accomplished by separate purchase order. This exclusion does not apply if the work (parts and/or services) is to correct damage caused by Contractor negligence.
- Work outside the scope of PM Services, including the repair/replacement/procurement of any parts, must be approved by the COR prior to performance of the work. **Non-PM**

Service work, including procurement and configuration of portable computing equipment that may be required in the performance of PM activities, will be separately priced out by the Contractor for the Government's approval and acceptance as a separate purchase order.

- The Government has the option to accept or reject the Contractor's quote for work outside the PM Services SOW and reserves the right to obtain similar work (parts and/or services) from other competitive sources. If the Contractor proceeds to perform any non-PM Service work (including the repair/replacement of any parts) without COR approval, the Contractor will be performing this work "At-Risk" and The Government will not be obligated to pay for this work or any additional work required to resolve issues arising from this work.
- When allowed by the COR, the Contractor may utilize Government-purchased spare parts that are maintained at Post if awarded repair/replacement work. Check with the COR to find out what parts are available on hand prior to submitting a proposal to the Government for non-PM Service work.
- All work shall be accomplished in a manner which: 1) conforms to the intent of all applicable ANSI/NSF, ASHRAE, AWWA, NFPA/NEC, U.S. EPA environmental and DOS policy, procedures, and directives; 2) causes no contamination to other parts of the building; 3) endangers none of the building occupants or workers during these task; and 4) leaves the areas safe for occupancy.
- **SCOPE OF WORK**
- General: The Contractor shall provide all necessary managerial, administrative and direct labor personnel; as well as all transportation, tools, instrumentation, equipment required; to perform the BAS Preventative Maintenance (PM) Services defined in this Scope of Work (SOW). The Contractor shall provide the services of qualified, trained, manufacturer certified technicians to perform the required BAS PM services.
- Building Automation Systems to be serviced: The Contractor shall maintain the Building Automation Systems in a safe, reliable and efficient operating condition. The following information provides a summary of each BAS that is to be serviced.
- **BAS #1**
- Manufacturer of the BAS: TAC,LLC (SCHNEIDER ELECTRIC)
- BAS System Product Line Name: NIAGARA Build 529
- BAS Software Version: r2.301.529 V1
- BAS Communication Network Type: LON works
- Quantity and Type of Controllers Installed: 30 Building Level Controllers; 110 Application Specific Controllers
- Estimated Quantity of Hardware Points in BAS: 1000 Points
- Equipment Controlled and/or Monitored: The following is a summary of the types and quantities of equipment controlled and/or monitored at Post by BAS:

- Air Handling Units – Quantity 9
 - VAVs – Quantity 612
 - Chilled Water System (Primary/Secondary Type) – Quantities: 2 Air Cooled Chillers, 2 Primary Chilled Water Pumps, 2 Secondary Chilled Water Pumps, 1 Water Treatment Systems
 - Computer Room Air Conditioning Units (Cooling Only) – Quantity 2
 - Domestic Water Filtration System (Monitoring Only) – Quantity 1
 - Fuel Oil System (Monitoring Only) – Quantity 1
 - Domestic Water Treatment System (Monitoring Only) – Quantity 1
- Buildings where BAS are installed: The Post is composed of multiple buildings. The following buildings at Post utilize Building Automation Systems:
- Chancery Building – NIAGARA Build 529
- BAS Preventative Maintenance (PM) Services: The Contractor shall perform BAS Preventative Maintenance services for the Building Automation Systems indicated. Provide the necessary investigative services to ensure BAS controls are working as designed and in accordance with documented operating sequences. The objective of scheduled preventive maintenance is to eliminate system malfunction, breakdown and deterioration when controlled/monitored equipment is activated/running. BAS PM Services shall include, but are not limited, to the following tasks:
 - Generation of an Operational Baseline and Checklists: Prior to contract work commencement, the Contractor shall submit to the COR for approval a schedule of PM Service activities and a description of the PM Service tasks which the Contractor plans to provide. Upon the Contractor's first BAS PM visit, a Baseline for the operation of the Building Automation Systems shall be developed from the existing As-Built Data; Operation & Maintenance Data; Set Point Data and Time Schedule Data found at Post. From this documentation, the Contractor shall develop site specific Checklists for the BAS and associated equipment monitored and controlled by a BAS. These Checklists will be used by the Contractor when Preventative Maintenance is performed to verify the Building Automation Systems are functioning as originally intended. There shall be one checklist for each system controlled and/or monitored by a BAS. These checklists, a revised PM Service activity schedule and PM Service task description list shall be submitted for COR approval.
 - Use of Checklists: The Contractor shall perform BAS PM Services at the frequencies indicated using the site specific checklists developed for the equipment and systems called out in this SOW. The Contractor's technician shall sign off on every item of each checklist and leave a copy of the signed checklists with the COR or the COR's designate after the PM visit. In addition, copies of all completed checklists shall be included and submitted as part of the Trip Report.
 - Periodic PM Activities: At a minimum, the following PM Service activities are required to occur during each site visit.

- Check BAS Communication Network: Validate the network connectivity of all BAS controllers, Operator Workstations, Servers, and Network components (repeaters, switches, hubs, etc...). Investigate and remediate any issues found.
- Confirm Time Schedules: Review existing time schedules and validate correct operation based on actual time of day facility occupancy. Adjust time schedules as needed to reflect the actual occupancy patterns of the buildings at Post.
- BAS Investigation and Troubleshooting: The Contractor shall provide investigation and troubleshooting services for issues related to BAS operation as required in this Statement of Work or as requested by the FM at Post during a PM Services site visit.
- The Contractor shall review Facility Maintenance logs since the last visit to Post and determine if there are any operations issues which need to be checked.
- The Contractor shall determine the cause(s) of any problems found with the BAS and identify the repairs/modifications to the BAS that will be needed to correct these problems.
- The Contractor shall clearly document in the Trip Report any BAS problems that are found, the causes of these problems, proposed repairs/modifications to the BAS required to resolve these problems, parts required to correct these problems and a cost estimate for the proposed repairs/modifications to the BAS.
- The Contractor shall submit recommended modifications of the BAS to the COR for approval prior to performing any work. Modifications are changes to the BAS which deviate from the BAS Design or As-Built documents. These types of changes are typically associated with the Sequences of Operation, but could involve the addition or removal of sensors and/or controllers. Typically modifications will be made to resolve building operational issues or to improve/enhance BAS functionality.
- BAS Trend and Alarm Configuration: The Contractor shall review the Alarm History and Trend log files which have accumulated since the previous visit to the site. Any problems noted from this review shall be investigated and reported on.
- The Contractor shall validate the correct reporting of alarms and verify that the correct codes and messages are being reported.
- If no trends or alarms are configured in the BAS, the Contractor shall coordinate with the Facility Manager and configure the trends and alarms desired by the Post.
- The Contractor shall confer with the Facility Manager after reviewing the BAS Operator Workstation graphics and trend logs to determine if any modifications are desired to the presentation of information. Minor changes to improve graphics and reports shall be implemented as needed.
- Archive data as necessary to free up hard drive space on the BAS Operator Workstation / Server for future trend and data storage.
- Evaluate Operator Workstation(s)/Server(s): Validate current application software release, define if there is a need to update the software or computer hardware and provide a migration path for updating software to the new release if needed.
- Backup Retention: The Contractor shall create a current backup of the data, programming, graphics and settings for all of the controllers in the BAS at the BAS

Operator Workstation/Server. This backup shall be burned on to CD or DVD disks along with a backup of the BAS Operator Workstation/Server Software. Two sets of backup disks shall be created for each Building Automation System at Post on which PM is performed. Each backup shall be configured to allow Facility Maintenance staff to recover the BAS in the event of a BAS failure. Both sets of backup disks shall be turned over to the Facility Manager before the Contractor departs Post. The Contractor is not allowed to retain a copy of these backups.

- Password Retention: The Contractor shall create a listing of the BAS usernames and passwords that exist within the BAS Operator Workstation and/or Server that are used to access the BAS. A BAS username/password listing shall be created for each Building Automation System at Post on which PM is performed. These listings shall be turned over to the Facility Manager before the Contractor departs Post. The Contractor is not allowed to retain a copy of these lists.

- Annual PM Activities: At a minimum, the following PM Service activities are required to occur at least once a year. It is the intention of this SOW that tasks noted here, which cannot be realistically completed during a single site visit, shall be broken up to occur over multiple site visits.

- Panel, Controller and Wiring Inspection:
 - Physically inspect all field panels and controllers for damage, excessive dirt or moisture and clean/vacuum as necessary.
 - Verify proper voltage at all control transformers.
 - Inspect all connections, wire raceways in panels and wire arrangements. Remove any abandoned devices and wiring and update panel diagrams as may be necessary to reflect current arrangements and configurations.
 - Verify condition of local battery/UPS that may be connected to the panel power source. Recommend replacement as may be necessary.

- Point-to-Point Checkout: Hardware points in the BAS shall be verified against actual field conditions. This checkout shall verify that each point indicated in the BAS is the actual physical point connected to the controller and the point is functioning properly. Any discrepancies shall be investigated and adjustments made as necessary so that all sensors monitored and devices controlled by the BAS match the associated points indicated in the BAS and provide the desired functionality.

- Sensor/End Device Calibration Verification: The calibration of hardware points in the BAS shall be verified against actual field conditions. Where sensors, operators and other end devices are capable of being adjusted, the Contractor shall perform the calibration. Sensors shall be calibrated to within the accuracy range stated in the associated manufacturer's literature. Operators and other end devices shall be adjusted so that the BAS output signal corresponds to operator's or end device's full control range. Where sensors, operators and other end devices are not capable of being adjusted, the Contractor shall note the deviation between actual and measured value for sensors and between actual output function and commanded signal.

- Sensors, operators and other end devices which are not within manufacturers' recommended tolerances at the end of the calibration verification process shall be designated as failed and documented for submission to the COR.
- The contractor shall use calibrated instrumentation with a higher accuracy than the sensor, end device or operator being calibrated. Calibrated instrumentation used shall have been certified by an independent calibration agency within a year of the dates used. Certificates of calibration shall be submitted to the COR for each test instrument prior to use at Post.
- Confirmation of Sequences: Review the operation of BAS controlled equipment against the As-Built Sequences of Operation. Where functionality does not follow the Sequences of Operation, document the deviation for submission to the COR. Based on consultations with Facility Maintenance personnel and the COR appropriate action shall be determined and adjustments made if deemed necessary. Provide updated documentation (As-Built documents and Operation & Maintenance Manuals) for any adjustments made to the Sequences of Operation including operating schedules and trend reporting.
- Replacement of Failed Sensors, Operators and End Devices: When sensors, operators or other end devices are determined to have failed, the Contractor shall provide a proposal which lists the failed parts along with the associated costs to procure and replace the failed part(s) to the COR for approval. If the part that failed is available in the Post's Spare Part Inventory and the COR permits the use of spare parts, the Contractor shall modify the proposal to utilize the spare part now and procure a replacement part to replenish the Spare Part Inventory later. If a Post's Spare Part Inventory does not include the appropriate part or the COR will not allow the use of Post's spare parts, the Contractor's proposal shall include procurement of the part needed and replacement of the failed part during the next PM visit to the Post. If the Post chooses to procure the parts on their own, the contractor's proposal shall include only the costs to replace the failed part(s).
- Replacement of Expendable Sensors: Sensors for which product data indicates there is a defined operating life expectancy shall be tracked and replaced at the time intervals recommended by the manufacturer. For HVAC applications these would typically be Humidity Sensors, Carbon Monoxide Sensors and Carbon Dioxide Sensors. There are other specialty sensors that can fall under this category and the Contractor shall make note of all expendable sensors installed when the initial Baseline for the BAS is developed. When called for by the replacement schedule, the contractor shall provide a proposal which lists the expiring parts along with the associated costs to procure and replace the part(s) to the COR for approval. **These parts after procurement shall be replaced at the next PM visit to Post.**
- Evaluate BAS End of Life Cycle: For each BAS review the system and provide direction with regard to the obsolescence of all or any portion of the system.
- Review Post's Spare Part Inventory: Review the BAS spare parts inventory at Post and determine what parts need to be added to the inventory and update the list. Develop a recommended stock of spare parts if one does not already exist and provide it to the COR.

- **Manufacturers' Recommended PM:** It is the responsibility of the Contractor to perform all manufacturers' recommended preventive maintenance. This shall be completed in addition to the tasks listed above if there are any discrepancies.

CODES AND REGULATIONS

- U.S. Government codes and regulations, the applicable laws, codes, and standards of foreign countries, and industry standards apply and are incorporated herein by reference and made part of the contract documents.
- Contractor shall adhere to work practices and procedures set forth in applicable codes, regulations, and standards, including obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.
- Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable U.S. EPA and U.S. OSHA codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.
- The Contractor shall assume full responsibility and liability for the compliance with all applicable U.S. EPA and U.S. OSHA regulations and shall hold the U.S. Government and its representatives harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulations on the part of the Contractor, their employees, or subcontractors.

CONTRACTOR AND PERSONNEL QUALIFICATIONS

- The Contractor shall comply with ANSI/NSF, ASHRAE, HUD, NFPA/NEC, U.S. EPA, and U.S. OSHA laws, ordinances, regulations, requirements and DOS policy, procedures, and directives applicable to the Building Automation System and HVAC work efforts hereunder.
- The Contractor shall employ a competent supervisor or foreman, satisfactory to the Government, to work at all times with the authority to act for the Contractor.
- The Contractor shall employ competent technicians, programmers, etc..., satisfactory to the Government, to perform the work and services required. Technicians, programmers, etc... shall have a minimum of 5 years of experience performing the type of work described within this SOW and shall be trained and certified by the manufacturer of the BAS they are tasked to work on.
- Contractor's employees not trained and certified by the manufacturer of the BAS will not be permitted to work on the BAS.

- Biographical data (a resume) and Proof of certification from the BAS hardware and software manufacturer shall be submitted for personnel providing on site BAS PM Services under this SOW.
- **SUBMITTAL AND DELIVERABLE REQUIREMENTS**
- General Submission / Documentation Requirements:
 - Unless indicated otherwise, each Contractor submission shall include three (3) sets of the documentation required in this Statement of Work. The documentation shall be delivered to the Contracting Officer Representative (COR). Three (3) Electronic Copies of these documents will also be submitted to the Contracting Officer Representative (COR) on suitable media. Two (2) sets of documents and electronic copies shall remain at Post. One (1) set of documents and electronic copies shall be provided to OBO for record keeping purposes.
 - Electronic documentation shall be submitted in the form of searchable PDF files. Documents shall also be submitted in a Microsoft Word 2007 compatible file format. Any drawings included in the documentation provided shall also be submitted in the form of AutoCAD 2010 *.dwg files. All electronic documentation shall be provided on either CD or DVD media. Thumb drives or other forms of portable media are not allowed.
 - Initial Submittal: Prior to performing any BAS PM Services at Post the Contractor shall submit the following information for review and approval. Submittals will be reviewed by both Post and OBO.
 - A draft / tentative schedule and description of preventive maintenance tasks which the Contractor plans to provide.
 - Certificates of calibration for each test instrument showing certified calibration within a year from date of intended use.
 - Biographical data (resumes) for personnel providing on site BAS PM Services.
 - Proof of certification, from the BAS hardware and software manufacturer, for personnel providing on site BAS PM Services.
 - Checklist Submittal: After the initial BAS PM Service visit at Post has been completed, in addition to submitting an official Trip Report, the Contractor shall also submit the following information for review and approval. Submittals will be reviewed by both Post and OBO.
 - An updated / finalized schedule and task description list of preventive maintenance tasks which the Contractor will provide as part of the regular PM Services. This will be based on actual conditions and system configurations noted by Contractor.

- The checklist forms developed for each system controlled and monitored by the BAS, based on actual condition and system configurations noted by the Contractor.
- Trip Reports: The Contractor shall be responsible for providing a trip report within 14 calendar days after returning from each site visit which clearly documents the BAS PM Service activities undertaken at Post. The Contractor shall be responsible for documenting all work and activities performed while on site. Each Trip Report shall include, at a minimum, the following information:
 - A list, with descriptions, of the tasks that were performed, the issues that were found, the cause of these issues and the corrective measures that were taken to resolve these issues;
 - A list, with descriptions, of all modifications made to the BAS system software and hardware;
 - A list, with descriptions, of the deficiencies found that resulted in a need for future corrective action, the Contractor's recommendations to correct these deficiencies and the Contractor's suggestions for improvements to the BAS. This section shall include providing a proposal for the work that must be performed; a list of any parts required and a cost estimate for the work proposed.
- Copies of all checklists completed while on site. Include a scanned PDF of the checklists completed while performing PM Services on the BAS.
- A list of all expendable sensors installed and a replacement schedule. This section shall include providing a proposal which lists the expiring parts along with the associated costs to procure and replace the parts.
- A list of recommended spare parts required to sustain operations and a cost estimate for the proposed spare parts.
- Updated BAS As-Built Documents & Operation & Maintenance Manuals: When work is performed which modifies the existing BAS configuration or programming, the Contractor will be responsible for providing updated As-Built documents and Operation & Maintenance Manuals to accurately reflect the current configuration and programming of the BAS.
- Data Backup Retention: Two (2) BAS data backup disks shall be turned over to the Post Facility Manager for each BAS. One disk will be for storage within a secure safe at post before departing Post. The second disk shall be sent by the Facility Manager to OBO for centralized backup. The Contractor is not allowed to retain a copy of these backups.
- Password Retention: One (1) BAS username/password listing for each BAS shall be turned over to the Post Facility Manager for storage within a secure safe at the Post. The Contractor is not allowed to retain a copy of these lists.

[End of Section]

5.0 SCHEDULED ROUTINE MAINTENANCE

5.1 General

5.1.1 The objective of scheduled routine maintenance is to eliminate or minimize BAS System malfunction, breakdown and deterioration. Contract maintenance of the BAS System must assure continuous, safe, and satisfactory operation of BAS System, their parts and components. The Contractor shall schedule routine maintenance to include all tasks herein described, in addition to routine lubrication and adjustments.

5.1.2 The Contractor shall repair and replace all parts that have become unsafe due to wear and tear. The Contractor shall use genuine manufacturer's parts or approved or equal (to be approved by COR) for all replacements. The Contractor shall maintain an easily accessible supply of spare parts sufficient for normal maintenance and expedient emergency repairs.

5.2 Checklist Approval - The Contractor shall submit to the COR a schedule and description of the scheduled routine maintenance tasks which the Contractor plans to provide. The Contractor shall prepare this schedule and task description in a checklist format similar to the one provided in Attachment 2. The Contracting Officer or COR must approve the proposed "Scheduled Routine Maintenance Task Checklist" prior to contract work commencement.

5.3 Minimum Requirements - The Contractor shall provide a trained technician to inspect and service BAS each year. The BAS technician shall sign off on every item of the checklist. This Annual inspection and servicing shall include, but not be limited:

5.4 PERSONNEL, TOOLS, REPAIR PARTS, MATERIALS AND SUPPLIES

The Contractor shall provide trained BAS technician with the appropriate tools and testing equipment for scheduled maintenance, unscheduled repairs, emergency repairs/assistance, safety inspection, and safety testing as required by this contract.

6.0 INSURANCE REQUIREMENTS

6.1 Personal Injury, Property Loss or Damage (Liability). The Contractor assumes absolute responsibility and liability for any and all personal injuries or death and property damage or losses suffered due to negligence of the Contractor's personnel in the performance of this contract

The Contractor's assumption of absolute liability is independent of any insurance policies.

6.2 Insurance. The Contractor, at its own expense, shall provide and maintain during the entire period of performance of this contract, whatever insurance is legally necessary. The Contractor shall carry the following minimum insurance:

Comprehensive General Liability

Bodily Injury	* \$1000
Property Damage	* \$10000
Workers' Compensation and Employer's Liability	
Workers' Compensation and Occupational Disease	* \$1000
Statutory, as required by host country law	
Employer's Liability	* \$10000

6.3 Worker's Compensation Insurance. The Contractor agrees to provide all employees with worker's compensation benefits as required by the laws of either the country in which the employees are working or the employee's native country, whichever offers greater benefits, following FAR 52.228-4 "Worker's Compensation and War-Hazard Insurance Overseas".

7.0 PERMITS

The Contractor shall maintain in full force and affect all permits, licenses, and appointments required for the prosecution of work under this contract at no additional cost to the Government. The Contractor shall obtain these permits, licenses, and appointments in compliance with host country laws.

7.1 LOCAL LAW REGISTRATION

If the local law or decree requires that one or both parties to the contract register the contract with the designated authorities to insure compliance with this law or decree, the entire burden of this registration shall rest upon the Contractor. Any local or other taxes which may be assessed against the contract shall be payable by the Contractor without Government reimbursement.

8.0 GOVERNMENT FURNISHED PROPERTY/EQUIPMENT

The Contractor shall physically inventory all Government furnished property in its possession. Physical inventories consist of sighting, tagging or marking, describing, recording, reporting, and reconciling the property with written records. The Contractor shall conduct these physical inventories during the contract and at the completion or termination of the contract, as directed by the COR. Unless approved in advance by the Contracting Officer, personnel other than those who maintain the property records or who have custody of the property shall conduct the inventory.

9.0 QUALITY ASSURANCE AND SURVEILLANCE PLAN (QASP)

9.1 This plan provides an effective method to promote satisfactory contractor performance. The QASP provides a method for the Contracting Officer's Representative (COR) to monitor Contractor performance, advise the Contractor of unsatisfactory performance, and notify the Contracting Officer of continued unsatisfactory performance. The Contractor, not the