

CAIRO I ELEVATOR REPAIR



STATEMENT OF WORK

Date: Dec 10, 2015

1- GENERAL REQUIREMENTS

1.1 General

This statement of work details the work required to repair a passenger elevator motor and drive assembly in the Cairo I building, Embassy Compound, Garden City, Cairo Egypt. The failed elevator is one of three overhead gearless traction units operating in a triplex configuration which have Otis 401 controls and Otis HT131 machine. The maximum load is 3000 pounds, speed 500 fpm, 15 stops.

1.2 Summary of work

1. Work under this order can be summarized as the repair of the elevator # 2 serving the Cairo I tower of the embassy compound. Required work shall include the technical services of qualified traction elevator motor expert(s) to perform repair tasks on site at the elevator mechanical room using Government Furnished (GF) spare parts, and supporting services as detailed herein.
2. The Contractor may be required to perform additional repair services as an (Add/Alternate), if the first repair cannot be completed and the equipment is irreparable with the components on hand.
3. The work shall be “turn-key”, ready for use by the owner. All elevator work and related work shall be completed by the contractor in accordance with regulatory safety requirements and manufacturer’s guidelines prior to approval for passenger use.
4. If applicable, all travel and travel related expenses will be in compliance with the Federal Travel Regulations (FTR) and locale specific per diem rates, and will be listed as a separate line item in the proposal for each service visit.

1.3 Background

On October 15th, 2015 the nearly 5,000 pound elevator motor of elevator #2 failed. This motor lifts one of three passenger elevators serving the Cairo I tower (15 story office building). The Elevator is an “Otis” brand, the motor is original, dates to the mid-1980s, and was installed in 1988 in the mechanical room at the 16th floor of the Cairo I building.

The 3 elevators are currently being maintained by ThyssenKrupp Elevator Company representatives in Cairo, with two fulltime maintenance mechanics onsite. The scope of this repair is outside of the scope of the normal maintenance contract with ThyssenKrupp Elevator Company.

Officials from the Elevator Management Program (EMP), from the US Department of State’s, Bureau of Overseas Building Operations (OBO), visited post for an inspection and assessment of the failed elevator motor. After the assessment, inspection, consulting with elevator and motor repair companies, exploring local possibilities, logistics of the repair work, and the physical size and weight of the motor, OBO/EMP decided that rebuilding the motor onsite using a contractor with expertise with Otis motors and US sourced parts is the most practical

repair option. Accordingly, the required parts were ordered as Government Furnished items, and are expected on site by the end of January 2016.

Pictures showing the existing conditions in the mechanical room are shown as an attachment to this document.

1.4 Contractor provided services

All work services shall be in accordance with the manufacturer's instructions, the best industrial practices and following codes:

- Safety Code for elevators and escalators A17.1, 2010
- International Building Code
- National Electric Code NFPA 70

1.5 Alternates

1. Definition: Alternate is an amount proposed by the bidder on the bid form for certain work defined in the bidding requirement that may be added to or deducted from the base bid amount if the COR decides to accept a corresponding change.
2. Add/Alternate for this contract shall be the additional repair services, if the first repair cannot be completed and the equipment is irreparable with the components on hand, the Contractor shall then:
 - a. (Contractor) Identify any necessary replacement components with the assistance of OBO/EMP and Otis, and provide a summary and list of the needed components.
 - b. (Contractor) Provide a quotation for the full labor, travel and travel related expenses related to returning on site in Cairo, Egypt to complete the repair after the receipt of the additional Government-provided components.
 - c. (U.S. Government) If completion of the repair is technically and financially reasonable, the Government will proceed with purchasing the required components as Government Furnished items to be used for the additional repair services, and will modify the purchase order.
 - d. (Contractor) Provide a summary report of the remediation plan and causation summary to the Contracting Officer's Representative (COR) who will consult with the OBO/EMP for guidance.
 - e. (Contractor) Upon receipt of the modified purchase order, provide the additional repair services as approved by the COR to affect the final repair of the elevator.
 - f. (Contractor) Perform the final survey, evaluation, and testing of the elevator equipment for safety and performance.
3. Exercising the add/alternate will be through the issuance of a purchase order modification.

4. This additional services shall be paid at the hourly rates as specified in the pricing table of this document.

1.6 Work of others

The embassy has contracted with other firms to provide additional specialized services. The contractor shall coordinate with the other service providers.

1. ThyssenKrupp Co. is responsible for the normal preventative maintenance and repair of elevators, ThyssenKrupp shall be responsible for preparing and positioning the elevator for the repair as follows:
 - The elevator counterweights shall be landed on steel supports between the bottom of the counterweight and the pit floor (wood supports shall not be accepted). The elevator cables shall be supported at the car top level to avoid cable damage. The car shall be hung by two certified 6 ton redundant chain falls or chain hoists and the required rated slings or straps.
 - The elevator car top will be accessible from the top landing for ease of suspending the elevator cab.
 - Traction cable hold backs or tie-back devices, shall be installed to keep the traction cables from becoming loose in the hoistway. Loose cables will create a dangerous situation in the hoistway, they can become snagged by the two cars running on either side. This cable hold back allows slack at the traction machine when the elevator cab is suspended so the cables can be removed from the traction sheave for ease of traction machine work.
2. A specialized handling and rigging contractor has been hired to assist the Contractor with dismantling and handling the existing installed parts that will be replaced. The local handling and rigging contractor will provide suitable tools to include, all beams, beam dollies, chain-falls, straps, and clamps in the machine room for the machine repair as well as two 6 ton chain-falls, straps or slings required to support the elevator cab during this repair, in addition to all related equipment needed to complete the rigging, and handling of parts safely without damage to the building or surrounding equipment.

1.7 Submittals

The contractor shall submit **as part of their proposal the following:**

1. Preliminary work schedule detailing the number of contractor provided personnel.
2. A list detailing the specific and specialized tools required for the elevator repair and for the turning and undercutting the commutator motor onsite that the contractor's personnel will bring to site, and a list of handling and rigging equipment required by the aforementioned rigging contractor.
3. Registration of the company to include registered shops, establishment, incorporated or registered partnership, valid service tax registration, and valid insurance policy for their work/service center.

3. Minimum technical qualification of the elevator motor experts are the following:
 - a. Extensive familiarity and experience with troubleshooting and repairing Otis brand equipment, and DC motor repairs/rebuilds. Elevator motor technical expert/technician must be in this business for the past three years and have successfully completed a minimum of three similar projects within the past three years.
 - b. Must have knowledge of A17.1 elevator safety code and testing procedures.
 - c. Knowledge of and the ability to follow the procedures in ANSI/EASA AR100-2010.

1.8 Alteration and amendments

Any change to the terms and condition of the purchase order shall be through an approved purchase order modification.

1.9 Construction work procedure

- 1.9.1 Where new work connects to existing work, dimensions and equipment compatibility must be verified. Any discrepancy shall be referred to the COR prior to taking additional action.
- 1.9.2 The contractor shall be subject to and shall at all times conform to the COR requirements for the protection of the building, equipment, and materials. Welding, burning, and cutting operations in existing areas must be approved in advance by the COR.
- 1.9.3 Field supervision: At all times, during any performance of the work conducted by the contractor, the contractor shall have technically qualified, English speaking representative on site.
- 1.9.4 After completion of all work, the contractor shall remove all remaining materials and any equipment that does not belong to the United States Government (USG), leaving the site neat and clean with all functions operating.

1.10 Special project procedures

- 1.10.1 The embassy's standard working hours are Sunday through Friday from 0800- 1700. Other hours may be approved by the COR with at least 24 hours advance written request.
- 1.10.2 Existing Conditions
 - a. Before beginning site work, investigate and verify the existence and location of mechanical and electrical systems, and other construction affecting the Work.

- b. Acceptance of Conditions: Examine areas and conditions; verify compatibility with GFE supplies and equipment. Proceed with the installation only after unsatisfactory conditions have been corrected.

1.11 Delivery Schedule

- 1.11.1 The Notice to Proceed will not be given until all Government Furnished parts and Contractor Furnished tools and equipment have been received at Embassy facilities. The Contractor shall coordinate and schedule the repair work with the COR within 10 business days from the issuance of a written Notice to Proceed, and If travel to Post is involved, commence traveling to Cairo at the soonest agreed upon date and arriving onsite within 10 business days.
- 1.11.2 If additional replacement components are needed, report to the COR immediately so parts procurement and a delivery schedule can be arranged.
- 1.11.3 On the last day of the final repair, the Contractor shall provide a briefing to the appropriate Post staff along with a written list of safety-related, operational and maintenance issues as well as any appropriate findings.
- 1.11.4 Within (5) five business days after the repair visit and/the second visit, if applicable, the Contractor shall submit the required field reports.

1.12 Government Furnished Items/Equipment

The following items shall be Government Furnished/Contractor installed; Contractor shall submit the price quotation to include installation services only:

ITEM	PART NO	DESCRIPTION	UOM	QTY
1	221BD1	COILS, 131HT	SET	1
2	6134J7	BRUSH HOLDER	EACH	12
3	240P8	BRUSH	EACH	12
4	209AM2	BEARING	EACH	2
5	G0209D1	BEARING	EACH	1
6	255BM3	SHIM,COMM. .003	EACH	4
7	255BM4	SHIM,COMM. END	EACH	4
8	255CG1	SHIM	EACH	4
9	COMM91612A758	PINS	PKG	3

The contractor shall inspect, receive and accept responsibility of the GFE items at project site until the work is completed.

1.13 Security clearance and access to site:

The embassy shall provide a cleared escort. Work shall be in the limited access area, where access is limited to cleared American staff or non-cleared staff under escort of cleared Americans.

1.14 Safety regulations

The contractor must comply to the following:

1. DOSAR Accident Prevention Clause 652-236-70
2. SAFETY AND HEALTH REQUIREMENTS of the US Army Corps of Engineers - EM385-1-1.
<http://www.usace.army.mil/SafetyandOccupationalHealth/SafetyandHealthRequirementsManual.aspx>
3. Safety requirements that are specific to the job will be addressed and documented during the pre-construction meeting.

1.15 Warranty

The work shall include a one year warranty on the workmanship of the repair. The warranty period shall begin at the project completion date, by the COR's issuance of the notification of acceptance. Project completion is established by a successful completion of a final acceptance test and resolution of all punch-list items. Notification of acceptance is at the discretion of the COR and will be issued in writing.

2 DESCRIPTION OF WORK

The contractor shall provide the following services for the elevator #2:

- 2.1. Provide a minimum of two qualified elevator motor mechanics with extensive familiarity and experience troubleshooting and repairing the Otis brand equipment.
- 2.2 Provide all specific tools and equipment to perform the described repair, if not included in the list of the rigging and handling contractor.
- 2.3 The other two elevators (one on each side) may need to be shut down for safety reasons during the repair, this must be coordinated with the Embassy staff in advance.
- 2.4 The elevator will be positioned at next to the top floor with the counterweights landed on steel supports, the traction cables will be removed from the traction sheave and positioned carefully to avoid damage at the machine room level (service provided by the maintenance service provider, ThyssenKrupp).
- 2.5 Inspect the Government furnished OEM supplied parts and check the compatibility before starting the disassembly of the machine. If the parts are correct and no additional parts are required, start the repair process. *(Note: If the parts are not correct, or are incomplete, or if additional damage is noted during the initial inspection, or at any point during the repair process, notify the COR immediately. After consultation with the COR, and with COR approval, proceed to disassemble the existing HT131 machine so that a full analysis of any additional motor problems can be detected and the full scope of work and cost estimate for the Add / Alternate repair can be made. After the inspection and assessment is complete, reassemble the machine to the point where the elevator*

system can be safely stabilized until final repairs can be completed. In addition, stabilize and secure any components that are not re-assembled to prevent damage.)

- 2.6 Disassemble the existing HT131 machine and inspect for any hidden or previously undetected damage. *(See note included in section 2.5.)*
- 2.7 Replace all the Government Furnished items in accordance with the manufacturer's instructions and according to the applicable industry best practice standards.
- 2.8 The existing traction machine has an obstruction on the commutator side of the machine which makes removing the end bell to repair the motor a difficulty. The metal raceway located on the commutator side of the machine will need to be modified to remove the end bell or the possibility of unbolting the machine and sliding it to the side on the existing machine beams to avoid the metal wireway obstruction while performing the repair.
- 2.9 If the repair is completed, the contractor shall survey, evaluate and test the elevator equipment for safety and performance, provide a summary report of all components used, the remediation path and a causation summary.
- 2.10 If the equipment is not fully and completely repaired with the components on hand, the COR shall report to the Contracting Officer, who will evaluate the contractor provided quotes and authorize the exercise of the Add/Alternate (item 1.5 of this document), and the additional repair visit. The actual service (hours and other related expenses) shall be reviewed and approved by the COR.
- 2.11 Once the additional and final repair is completed, the contractor shall survey, evaluate and test the elevator equipment for safety and performance, and provide a final summary report.

End of specifications

Pricing:

CLIN #1 First repair service US \$ -----

CLIN #2 Special tools US \$ -----
 (Includes door to door shipment to and from Egypt.
 The Embassy will assist with customs clearance in
 Egypt for both the incoming and outgoing shipment.
 The tools would remain on-site throughout
 the duration of the repair and subsequent Add/ Alternate
 return visit if required.)

CLIN #3 Travel and per diem for first repair service US \$ -----
 (Includes full travel, lodging, and per-diem.)

Total for base bid, CLIN #1 + CLIN #2 + CLIN #3 = US \$ -----

Add/ Alternate

Hourly rates for Additional Services

Job Classification	Hourly Rate US\$	Hours	Total Amount US\$
Elevator motor technician/expert		40*	*
Elevator motor technician		40*	*
Elevator motor technician helper		TBD	TBD
List other specific disciplines as needed.		TBD	TBD
Total for Additional Services	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	*

Travel and Per Diem for Add/ Alternate

Item	Cost per person US\$	# of persons	Number of Days	Total Amount US\$
Travel Cost		2*	XXXXXXXXXX	*
Lodging & per-diem per person per day		2*	7*	*
Total Travel and Per Diem for Add/ Alternate	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	*

***Estimated figures for Add/Alternate cost planning purposes**

The Embassy shall have the right to add or exclude the Add /Alternate item as required.

Attachment #1--- Picture for existing conditions



OTIS		MOT.	
NO.	9026		
UNIT NO.	43NE1681		
TYPE	131HT		
kW.	24		
S5	50	%	
Hz.	St/h.		
	135	V.	
		Vo	
	115	VE	
A	177	COS. ϕ	
	141	/min	
INSUL. CL.	A	60 °C	
IP.	10		
MATL. LISTS.			

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