



**STATEMENT OF WORK
FOR S-085
(OFFICE SPACE)**

**GENERAL CONSTRUCTION SERVICES
For
RENOVATION (MAKE READY) OF COMPOUND
HOUSING TO MEET INTERNATIONAL BUILDING
AND SAFETY CODES**

**U.S. CONSULATE
Erbil, IRAQ**

23 APRIL 2016

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1.0 PROJECT DESCRIPTION

1. PROJECT SYNOPSIS

The project is described as “Renovation of Property Number: S-085 (Office Space) at the US Consulate, Erbil, Iraq.

The Contractor should furnish all necessary materials, labor, transportation, equipment, investigation and supervision, etc. Work will performed within in fixed-price contract.

2. BACKGROUND

At present the property S-085 does not meet US life safety, comfort nor security standards. The residence must be upgraded to address various things such as wiring, windows, plumbing, electrical, mechanical and security concerns.

3. SOLUTION

Improve life safety conditions by replacing electrical internal -panel boards and installing Ground Fault Circuit (GFCI) breakers for all areas as required. Confirm, repair and/or replace the ground in all electrical circuits within the building per NEC. Install additional circuits as necessary. Upgrade residence condition by installing a small kitchenette, bathroom surfaces (including lowering of both bathroom floors), and fixtures. Upgrading the electrical system by changing the internal panel boards with a molded case panel; make sure all the power outlets and equipment are grounded. Put all the wires and cables in conduit and using a NEMA water proof cover for all outdoor power outlets. Paint the exterior and interior.

2.0 GENERAL CONDITIONS

1. **Fixed-Price Proposal.** The Contractor shall provide one fixed-priced Proposal for the complete Project that includes every aspect of the Work.
2. **Specifications.** The Work shall be governed by the US Consulate, Erbil, Iraq. International Codes, which includes the National Fire Prevention Association (NFPA), International Building Code, International Mechanical Code, International Plumbing Code, and National Electric Code (NEC), also are applicable. Should there be a discrepancy between the US Consulate Specifications and the applicable Building Code, the more stringent of the two shall govern.

The Contractor is responsible for compliance with all Building Codes; Work not in compliance with the Codes shall be deemed to be unacceptable.

3. **Execution.** The Work shall be executed in a diligent and workmanlike manner in accordance with the negotiated fixed-price, this Scope of Work, the Project Schedule, International Building Codes, and the laws of the City of Erbil where applicable.
4. **Work Hours.** Unless otherwise agreed with COR or the Facility Manager, the Work shall be executed during normal Embassy work hours (0800-1700). Night, weekend or holiday work shall not be permitted except as arranged in advance with Facilities Management and COR. Embassy holiday schedule is available from Facilities Management or COR.
5. **Safety.** The Contractor shall be responsible for conducting the work in a manner that ensures the safety of residents, employees and visitors to the Embassy, and the Contractor's employees.
6. **Workforce.** The contractor shall provide all supervision, skilled and unskilled labor needed to perform the work. The contractor shall comply with embassy security policy by providing embassy approved escorts. Contractor provided escorts shall be in quantity sufficient to comply with RSO escort ratios for number of workers on the project. The contractor shall prepare requests to RSO for vetting of employees to get escort badges. The Contractor or government may request for workers to be badged for unescorted Embassy access by going through RSO vetting process. All vetting forms shall be submitted in 14 calendar days from the date of the award.
7. **Subcontractors.** Contractor shall be responsible for the conduct and workmanship of Subcontractors engaged in the Project, and for Subcontractors compliance with the terms of this Statement of Work. The Contractor is responsible for the behavior and workmanship of Subcontractors while on Consulate property.
8. **Modification to Contract.** The Contractor shall not incur any costs beyond those described in this SOW unless directed otherwise in writing by the Contracting Officer. Any work performed by the Contractor beyond this SOW without written direction from the Contracting Officer will be at the Contractor's own risk and at no cost to the Consulate.
9. **Stop Work.** At any time during the Project, the Contracting Officer reserves the right to Stop Work for protection of employees or visitors, security, or any other reason at his/her discretion.

10. **Submittals.** The contractor is responsible to submit shop drawings prior to fabrication and release of any materials for the Facility Manager and COR Review and approval. The Facility Manager review, however, does not relieve of the contractor's responsibility for the engineering work as to provide a complete working system.
11. **Excavation and Utilities.** The contractor is responsible to locate all existing utility lines prior to any excavation. Prior to disconnecting any existing utility services, the contractor is responsible to provide 48-hour advance notice to the COR.
12. **Close-out.** Prior to final acceptance, the contractor is to submit to the COR marked up drawings (As-Built) reflecting the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.
13. **Housekeeping.** The contractor is responsible to clean up daily after working hours.

3.0 BID FORM

Construction Cost Breakdown: S-085 - Office, Erbil, Iraq
US CONSULATE ERBIL

No	Descriptions	Unit	Qty	Unit Price \$	Total Price \$
1	Administration				
A	Mobilization / Demobilization	LS	1		
B	Submittals - product data & shop drawings	LS	1		
	Administration			Sub-Total	
2	Construction Work				
A	Architectural	LS	1		
B	Mechanical-Plumbing	LS	1		
C	Electrical	LS	1		
D	Voice and Data Cabling	LS	1		
E	Close-out	LS	1		
	Construction			Sub-Total	
3	DBA Insurance				
A	Contractor shall cover each of its workers at the site with DBA Workers' Compensation coverage, and require its subcontractors to do the same. Contractor must furnish certificate evidencing this coverage to Engineer prior to starting work.	LS	1		
	DBA Insurance			Sub-Total	
	Items 1 thru 3			Sub-Total	
				G & A	
				Sub-Total	
				Profit	
4	Basic Bid -			Contract Cost	
A	Bid -			Contract Cost	

4.0 SCOPE OF WORK:

Renovation of Property Number: S-085 (Office) "Make Ready" the contractor shall be providing all materials, tools and equipment, labors, transportation, and supervision.

1. General Requirements

- a. Within 2 days of Notice to Proceed, the contractor shall provide to the COR a project schedule showing start to completion including significant milestones.
- b. Within 3 days of Notice to Proceed "NTP", the Contractor shall provide to the COR details of the proposed installation utilizing written description or sketches or both.
- c. The contractor is responsible to dispose of the construction debris outside of the Consulate Compound. Include, but not limited to soils, rock excavation, packing materials and scrap steel.
- d. The contractor is responsible to properly layout and prepare for the renovation based on locations provided by FAC.
- e. When pursuing the work, the contractor is to take extra care as not to damage existing structure.
- f. All construction work will be in conformance with the following Codes:
 - f1) International Building Code, 2009 Edition plus the 2011 OBO International Code Supplement.
 - f2) International Plumbing Code, 2009 Edition plus the 2011 OBO International Code Supplement.
 - f3) International Mechanical Code, 2009 Edition plus the 2011 OBO International Code Supplement.
 - f4) International Fire Code, 2009 Edition plus the 2011 OBO International Code Supplement.
 - f5) National Electric Code, 2011 Edition plus the 2011 OBO International Code Supplement.
 - F6) International Residential Code 2009 Edition plus the 2011 OBO International Code Supplement.
 - F7) National Fire Protection Association, NFPA 101 & NFPA 58
 - F8) ICC/ANSI A117.1-98 Accessible and Usable Buildings and Facilities
 - F9) NECA 90 Recommended Practice for Commissioning Building Electrical Systems (ANSI)
 - F10) NECA 1-2010 Standard Practice of Good Workmanship in Electrical Construction (ANSI)
 - F11) IEEE C2-2012 National Electrical Safety Code (NESC)

A. ARCHITECTURAL

General Notes for the Building:

1. Floors

- a. Remove and discard all carpets, plastic sheets, and wooden floors.
- b. Polish/clean all floor tiles and replace broken tiles as needed. New tiles shall have non-slip surface. Provide sample for COR approval.
- c. Level exterior floors to drain directions.
- d. Level wet areas floors to drain directions.

2. Windows

- a. Provide and install new PVC watertight windows “missing only” with integral reinforcement stiffeners. Provide sample for COR approval.
 1. Includes all required hardware.
 2. Casement window (Inside opening - swing inward)
 3. Minimum clear opening dimensions of each pane:
 - 12” (300mm) wide
 - 24” (600mm) tall.
 4. Glass:
 - Insulated double glazing.
 - Reflective glass.
 - Tint (bronze) all windows to reduce sunlight.
 - Install MILR on each window. MILR specifications will be provided by RSO office.
 - PVC Color: White.
- b. Provide and install new curtains zebra type for all windows. Provide sample and design for COR approval. Currently there are no curtains/blinds on the windows.
- c. Contractor is responsible to inspect the existing windows and repair as needed. This is not limited to replace broken window handle, broken and/or cracked window glasses
- d. Contractor must re-seal all spaces between window opening and window frame using correct type of materials.

3. Window Grills

- a. Contractor is responsible to patch/repair/paint the existing window grills. Color will be determined during the construction work.
- b. Contractor is responsible to provide and install one egress per room. Egress shall be at least 60cmH X 50cmW. New egress shall match the others in compound.

4. Doors

a. Exterior Doors:

The new doors shall meet the specifications listed below:

- a. One 6mm metal sheet on each side.
 - b. The doors are going to swing outward. The hinges must be made non-removable.
 - c. Doors should not have glass openings.
 - d. The locks (3locks) should be sliding bolt locks: upper part of the frame, middle part below or above the door handle; and lower part of the frame
 - e. The frame of the door should be substantial and secured with screws penetrating 6". One screws every 30cm.
 - f. The doors should be at 4cm thick. Provide sample for COR approval.
 - g. The door frame color should be matching the new door color. Provide one sample metal piece to COR for approval.
 - h. The doors and frames shall be paint hammer paint (like S-023 doors). Install the locks (all) and then paint the door (Locks are not to be painted).
 - i. Provide and install Isolation materials between the sheets of each door to reduce the heat temperature. This is not limited to install 4 inch of metal column every 25cm inside the door.
 - j. Provide and install a high quality Automatic Hydraulic Door closer for each exterior door. Door closer must carry the weight of the door.
 - k. Contractor is responsible to provide and install 9 combination locks (KABA L1000), one for each door. Provide catalog for COR approval.
 - l. The height of each door shall match the standard.
- ##### b. Interior Doors:
- Clean the existing wooden doors. Fill all holes in door frame.
 - Paint the wooden/steel doors. Color shall match the existing.
 - Remove and discard the doors hardware. Provide and install new doors hardware and new key cylinder shall have 5keys spare for each door. Provide sample for COR approval.
 - Replace wooden sheets as needed.

5. Patching and Painting

a. Patching and Painting shall be required for the following surfaces:

- a. All interior walls. Color: TBD.
- b. All interior ceilings. Color: TBD
- c. All exterior walls. Color: TBD.
- d. Perimeter wall. Color: TBD.
- e. Exterior Steel Stairs Color: TBD.
- f. Exterior Steel
Balcony Rails: Color: TBD.
- g. Exterior roof
Perimeter wall Color: TBD.

b. Surface preparation:

- a. Repair and finish all interior and exterior walls prior to painting-filling cracks, removing nails, etc. from the walls.
- b. All wall penetration shall be sealed with waterproof sealant.
- c. Prior to painting and patching pressure wash exterior of building and the perimeter walls.
- d. Re-plaster (cement) all exterior surfaces (walls, columns, lab, etc...).

- c. Paint coatings shall be as follows for all surfaces:
 - a. One (1) primer coat
 - b. Two (2) finish coats
- d. Paint Specification:
 - a. Hi quality paint is required.

6. Bathrooms

- a. Provide and Install in all bathrooms the following new furnishings and fixtures:
 - a. Sink. Provide sample/catalog for COR approval.
 - b. Toilet (Two eastern and the rest shall be western style). Provide sample/catalog for COR approval.
 - c. Shower cabinet using tempered glass. Provide design for COR approval. Design maybe similar to S-067 bathrooms.
 - d. The following bathroom fixtures: Provide sample for COR approval.
 - 1. Mirror above sink with the soap and tooth brush holder
 - 2. Towel bars (for sink and shower space)
 - 3. Toilet paper holder.
 - 4. Coat Hanger (enough for 4).
 - 5. Safety bar in shower space.
 - 6. Mirror shelves.
 - 7. Sink faucet.
 - 8. Tooth brush holder.
 - 9. Spray hose next to toilet.
 - 10. Shower soap holder.
 - 11. Shelves in shower space.
- b. Provide and install in all bathrooms a 25cm exhaust fan with louvers in the wall with switch located next to the light switch. Cut wall for installation, if needed.
- c. Install stainless steel drain cover with vapor barrier “goose neck” designs for all floor drains
- d. Provide and install new non-slip floor tiles for all bathrooms. Remove and discard the existing tiles. Provide sample for COR approval. Tiles shall be high quality material.
- e. Patch and repair the existing wall tiles as needed.
- f. Provide and install drop ceiling (60x60cm) for each bathroom. Color will be determined by COR after the tiles had been selected. Provide sample for COR approval.
- g. Provide and install new water pipes and drain for each sink, toilet and shower. Replace existing manholes with UPVC-T sewage adapters, 4-6inch in diameter. Post will provide more explanation during the construction work.

7. Railings

- a. Modify all handrails (exterior and interior) as needed to match the safety requirements (90cm for stairs and 107cm for landing). Follow the safety code and instructions for handrails (Stairway and Handrails shall meet IBC code in construction and layout along with IBC criteria of 1012, 1013 and 1607.7. Materials shall match the existing.
- b. Remove and discard the existing exterior steel stairway. Fabricate and install new steel stairway matching S-067 exterior according to safety requirements. This is not limited to non-slip paint (sand paint - JOUTEN)

8. Roof Drains
 - a. Provide and install new rain water down-drain pipes from both the roof and the balconies.
 - b. Install stainless steel inlet screens with minimum 100mm vertical screened height to prevent ponding.
 - c. Down –drain pipes shall be minimum 100mm diameter.
 - d. Install concrete splash pad at down-drain discharge. Drown-drain shall have a 90 degree bend at bottom to direct water away from the building.
9. All exterior and interior electrical to be run in panduit that is aesthetic to the building.
10. All exterior plumbing or drain lines shall be mounted that is aesthetic to the building.
11. Repair all broken concrete walkways and driveways. Install tiles, if needed.
12. Remove and properly dispose per local laws and ordinances all debris in/on and around the building to outside the compound. Provide labors and dump truck.

Outside:

1. Refurbish septic system as follows:
 - a. Empty, clean, inspect and repair existing septic tank(s).
 - b. Empty, clean, inspect and repair existing cesspool(s).
 - c. Install vertical 4” ductile iron gas vent with gooseneck top with stainless steel screen on existing septic tank(s), if needed.
 - d. Clean and inspect all existing sewer drain pipes. Ensure that all sewer pipes have a 1% minimum grade. Includes interior and exterior sewer drain pipe.
 - e. Install cleanouts / manholes with cast iron cover at all sewer drain pipe changes in direction, changes in grade, or tees.
2. Redirect the power line from MOE. Provide cable, clamps and all necessary items to complete the connection in accordance with the NEC 2011.
3. Provide and install waterproof lights with covers at the following locations, provide sample for COR approval:
 - a. On building exterior. Total numbers of fixtures are six (6). Location will be determined by the COR.
4. Perimeter Wall Along Street
 - a. Plaster/paint top and sides of block wall for smooth surface and paint to match existing wall.
5. Remove and replace front tiles with non-slip tiles.
6. Remove existing water pump enclosure. Install new pump with check valve and integrate with level switch at roof tanks. This is not limited to new water tanks (2x1200Lt) with automatic pump pressure.

Exterior:

Bathroom

1. Contractor is responsible to patch and paint the walls (outdoor and indoor) using epoxy paint including the ceiling.
2. Contractor is responsible to provide new fixtures, accessories (including pressure hose), and eastern type toilet as mentioned above.
3. Contractor is responsible to provide and install aluminum door and window for the same bathroom. Provide and install all required hardware.
4. Contractor is responsible to provide and install 25cm of exhaust fan with waterproof switch next to the switch light. Panasonic brand is required. Cut wall as needed for the installation.
5. Contractor is responsible to connect the new toilet to existing septic tank. Provide all materials to have the new drainage installed and functional.
6. Contractor is responsible to inspect the ceiling and repair as needed. Isogam materials are approved.
7. Contractor is responsible to provide and install new sink with all accessories to be located outside next to the toilet structural. New sink area shall be covered with sandwich panel shade with steel frame. Size of shade shall be 2.5mX2m. Drainage for the new covering shall be sloped to outside the perimeter.
8. Remove and discard all PVC partitions from the top of the north side of the perimeter wall.

Interior – First Floor

Kitchen Space

1. Provide and install new wall and non-slip floor tiles as needed. Provide sample for COR approval.
2. Remove and discard the existing kitchen cabinets and any other existing accessories.
3. Provide and install the following new furnishing:
 - b. Aluminum kitchen cabinets (lower and upper) with aluminum surface. Design and sample shall be determined by COR. Plywood sheet 1cm thick is required before installing the aluminum counter.
 - c. High quality kitchen sink. Provide sample for approval.
4. Provide and install a new 25cm exhaust fan with louvers in the wall and switch located next to the light switches. Cut wall for installation.
5. Provide and install new water pipes and drain for kitchen sink.
6. Provide and install drop ceiling 60x60cm type. Provide sample for COR approval.

Room#1

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Room#2

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Remove and discard floor carpets from the room.
3. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.

4. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
5. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Room#3

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Laundry Room

1. Remove and discard the existing door and door frame to hallway.
2. Provide and install new non-slip floor tiles and wall tiles. Sloop shall be directed to drain side.
3. Provide and install two separate drainages, one for the washer machine and one for the room.
4. Cut the wall for dryer ventilation. OPO will provide two separate machines (American type).
5. Provide and install two lines of water pipes (hot and cold) for washer.
6. Provide and install 8inch size of exhaust fan. Cut wall for installation.

Bathroom

1. Remove and discard all bathroom fixtures and accessories.
2. Repair/replace all wall and floor tiles as needed or per COR orders. New floor tiles shall be non-slip tiles. Provide sample for COR approval.
3. Remove and discard the existing sink on the hallway.
4. Provide and install new sink cabinet with al accessories. Provide catalog for COR approval. COR may request for sample.
5. Contractor is responsible to provide new water pipes (hot and cold) and drainage for the new sink cabinet. Location of sink may change. Check with COR before the installation.
6. Remove and discard existing door and door frame. Provide and install new aluminum door and door frame matching the others.
7. Provide and install new bathrooms fixtures as listed below:
 - New toilet (western type).
 - New spray hose.
 - New shower cabinet with tempered glass.

This is not limited to all bathroom accessories as listed below:

- Toilet paper holder.
- Shampoo holder.
- Shelves in shower space.
- Mirror above the sink.
- Mirror shelves.
- Soap holder.
- Towel bars (for sink and shower space).
- Tooth brush holder.
- Sink faucet.

- Safety bar in shower space.
- Towel bars (for sink and shower space).

Half Bath (Eastern Toilet)

1. Remove and discard existing eastern toilet and all other accessories
2. Provide and install 8inch size of exhaust fan. Cut for installation. Provide sample for COR approval.
3. Provide and install non-slip floor tiles and wall tiles as needed. Provide sample for COR approval.
4. Provide and install high quality toilet eastern type. Provide catalog for COR approval.
5. Remove and discard the existing door and frame. Increase the height and width if needed to match the safety standard.
6. Provide and install new aluminum door and frame matching the other bathrooms doors.
7. Patch and paint the opening before installing the new door.

Stairway and Landing

1. Contractor is responsible to modify the handrail as needed to match the safety standards.
2. Contractor is responsible to remove and discard all carpets.

Interior – Second Floor

Bathroom

1. Remove and discard all bathroom fixtures and accessories.
2. Repair/replace all wall and floor tiles as needed or per COR orders. New floor tiles shall be non-slip tiles. Provide sample for COR approval.
3. Provide and install new sink cabinet with al accessories. Provide catalog for COR approval. COR may request for sample.
4. Contractor is responsible to provide new water pipes (hot and cold) and drainage for the new sink cabinet. Location of sink may change. Check with COR before the installation.
5. Remove and discard existing door and door frame. Provide and install new aluminum door and door frame matching the others.
6. Provide and install new bathrooms fixtures as listed below:
 - New sink.
 - New toilet (western type).
 - New spray hose.
 - New shower cabinet with tempered glass.

This is not limited to all bathroom accessories as listed below:

- Toilet paper holder.
- Shampoo holder.
- Shelves in shower space.
- Mirror above the sink.
- Mirror shelves.
- Soap holder.
- Towel bars (for sink and shower space).
- Tooth brush holder.
- Sink faucet.
- Safety bar in shower space.
- Towel bars (for sink and shower space).

Room#1

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Room#2

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Room#3

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Room#4

1. Repair and paint existing door and door frame. Replace all door hardware. New key cylinder shall have four spare keys.
2. Repair all floor tiles. Provide new tile/s if existing is cracked or missing. New tile/s shall match the existing.
3. Contractor is responsible to patch and paint the walls and ceiling. Resealed all spaces between window opening and window frame.
4. Contractor is responsible to provide and install three florescent lights fixtures with cover. More specifications listed below in Electrical section.

Bathroom

1. Remove and discard the existing door and frame. Patch and paint the wall.
2. Contractor is responsible to remove and dispose all kitchen cabinets, toilet, and shower cabinet.
3. Contractor is responsible to construct partition wall using thermeston block to have two separate bathrooms spaces.
4. Contractor is responsible to provide design for the two new bathrooms spaces for COR review.
5. Contractor is responsible to provide and install two aluminum doors for the two bathrooms. Doors shall match the others in house.
6. Provide and install two new exhaust fans (25cm), one for each. Cut wall for installation.

7. Remove and discard the existing window and window frame.
8. Close the window opening using thermeston blocks. Plaster the wall from both sides to match the others.
9. Provide and install wall tiles for the addition walls. New tiles shall match the existing or similar. Provide sample for COR approval.
10. Contractor is responsible to provide and install new bathroom fixtures for each bathroom as listed.
 - New sink.
 - New toilet (western type).
 - New spray hose.
 - New shower cabinet with tempered glass.

This is not limited to all bathroom accessories as listed below:

- Toilet paper holder.
 - Shampoo holder.
 - Shelves in shower space.
 - Mirror above the sink.
 - Mirror shelves.
 - Soap holder.
 - Towel bars (for sink and shower space).
 - Tooth brush holder.
 - Sink faucet.
 - Safety bar in shower space.
 - Towel bars (for sink and shower space).
11. More information will be provided by the COR during the wall through. Contractor is responsible for all measurements.

Exterior – Second Floor

Balcony and Roof

1. Modify/replace existing handrail to match the safety standards as needed. New handrails shall be metal matching the S-081, S-067 railings.
2. Contractor is responsible to provide and install railing for the stairway heading to the top roof. New steel railing shall be 90cm high and match the safety standards mentioned in safety briefing by the safety coordinator.
3. Contractor is responsible to modify the height of the parapets to match the safety standards. More information will be provided by the COR during the walk through.
4. Contractor is responsible to provide and apply isogam materials for both roof and balcony flooring before installing the new tiles. New tiles provided by the contractor shall be non-slip tiles. Provide sample for COR approval.
5. Contractor is responsible to remove and discard all water tanks, water heaters, satellite dish stand, concrete footing above the roof floor, and water pumps from the roof and balcony.
6. Provide and install waterproof light fixtures (4 fixtures – 4ft) double tube each. Location will be determined by the COR during the electrical work.

B. MECHANICAL WORK

1. Provide and install eight (8) new 24,000 Btu split-system direct-expansion heat pump units in eight (8) rooms. Existing equipment shall be removed to a location designated by the Facility Manager. New equipment, including condenser units, shall be installed at locations to match existing. Provide or repair electric service and condensate drains as necessary. Penetrate wall for new tubing and electric service - do not run cable or tubing through windows; seal wall penetrations water-tight. Terminate all condensate drains at grade or nearest drain. Set new condenser units on pads or on existing pavement; do not set condenser units directly on the earth or any roof surface; provide new pads as necessary. Damage and penetrations of the roof shall be sealed and flashed watertight. At the completion of the Work, provide equipment warranties to the Facility Manager.
2. Water Supply
 - a. Provide and install new domestic water pressure pump system at city connection. Pump shall be 3/4 Hp and capable of providing appropriate water pressure to fill four (4x1200Lt) Roof Tanks. Provide/replace piping as needed. Provide warranty and service period for the installed equipment. Includes check valve and isolation valves. New water tanks shall be placed on steel stand.
 - b. Provide and install a pressure pump and pneumatic tank at water tank to provide pressure to the building. Recommended pressure 2.75 – 3.45 bars. Includes level controls and limit switches.
3. Provide and install two new high qualities Electric Water Heater (Bradford) to serve the building (200Lt capacity). Remove and discard existing EWH's.
4. Provide and install P-traps on all drains except toilet.
5. Gas Tank for Kitchen Stove
 - a. Provide and install steel pipe for gas connection from source to flexible tubing (Per safety code) between stove and steel pipe in kitchen. Gas storage cylinder shall be located outside.
 - b. Provide and install new hoses on all propane tanks with metal tubing or metal wrapped hoses and install cut off valves both at the appliance and outside at the tank. (NFPA 10).

C. ELECTRICAL WORK

1. Provide and install a new Main Circuit Breaker Panel rated 150A, 230/400V (3-Phase 4-wire plus ground) with a main circuit breaker and 24 single pole circuit breaker positions. See the Panel Board Schedule for circuit breaker sizes. Panel Board ampere interrupting capacity (AIC) rating shall be greater than the ampere short circuit available from the utility company at the panel. Provide and locate the SPD at or inside the panel in accordance with OBO specification 16289 Surge Protection Devices.
2. Establish a ground from panel to two ground rods (the ground rods must meet local codes) 3 meters long and spaced not less than 1.8M apart). Connect 35mm sq copper wires to each ground rod and the city water pipe to the main circuit breaker Panel. Impedance of ground path for any electrodes may not exceed 25 ohms. (NEC 250.56)
3. Connect service from MOE grid to new service panel.
4. Exhaust fans to be on separate switch at door next to light switch.
5. All circuits inside the house shall be in EMT conduit or similar.
6. GFCI Receptacles Shall not is used. Outlets designated GFCI protection shall be fed from a GFCI circuit breaker. One GFCI breaker, rated for 10mA or less ground fault trip. 50Hz, 240V (line to ground) shall be installed in an enclosure adjacent to the first receptacles in the branch circuit. The breaker will provide ground fault protection for all receptacles in the circuit. Receptacle circuits in all wet areas are to be protected by the GFCI circuit breakers (kitchen, bathroom, outdoors).
7. Provide and install weatherproof energy-efficient outdoor lights.
8. Remove and dispose of existing lighting fixtures.
9. Remove and dispose all unused wires, cables and panels. Repair any damage caused by work performed. Clean all work areas.
10. Provide and install new copper wiring throughout the building. The wiring to be THHN/THWN insulated, 600Volts rated equal to NEC #12. Remove and dispose of all replaced wiring.
11. Conduits and Protection: All wiring and cabling shall be installed in panduit or Raceway.
12. Provide and install an electrical outlet along all Interior walls 3 meters apart in each room. Provide sample for COR approval. Outlet shall be installed in 40cm height from the ground floor level.
13. Provide and install AC weatherproof outlets on exterior walls near the outdoor condenser units.
14. Provide and install new ceiling fans with Rheostat switches near light switch in all living rooms, dining rooms, bedrooms, and kitchens.

15. Provide and install new Fluorescent lighting fixtures (square down light types) with covers on each interior wall with switches located at the entrances of all rooms. Remove and dispose of all Existing lighting fixtures.
16. At the first landing between the two stairways and at the top landing provide and install fluorescent lights with cover. Provide and install a 2-way switch at the bottom floor and the top floor of the stairway.
17. Provide and install one (1) outdoor weatherproof electrical receptacle on the wall at the service entrance to the building.
18. Provide and install one (1) outdoor weatherproof electrical receptacle on the wall of each balcony.
19. Provide and install electrical outlet in Bathrooms to include one for the newly installed exhaust fan. Exhaust fan to be on separate switch at door next to light switch.
20. Provide and install energy-efficient outdoor lights at each exterior entrance and balcony with switches on interior side of door way.
21. Provide and install new electrical receptacle at the roof top water tank for the new water pressure pump.
22. The contractor will provide a written report/form verifying that each receptacle has been inspected and passes a Ohmmeter AC ground fault loop impedance test along with a ground connection test.
23. All receptacles shall be 2-pole, 3-wire ground type. They must be local type or NEMA type receptacles.
24. Local standard receptacles may be rated 240v, 13A or 16A.

F. Closeout

1. At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.
2. All shipping materials and construction debris are to be disposed of in a legal manner outside of the Compound.
3. Prior to Final Acceptance the Contractor shall submit to the Contracting Officer Representative marked up drawings (As-Built) reflect the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.

SAFETY (FAR 52.236-13 Accident Prevention)

1. The Contractor shall provide and maintain work environments and procedures which will:
 - (a) Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities.
 - (b) Avoid interruptions of Government operations and delays in project completion dates.
 - (c) Control costs in the performance of this contract.
2. For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-
 - (a) Provide appropriate safety barricades, signs, and signal lights
 - (b) Comply with the standards issued by the Secretary of Labor at 29 CFR part 1926 and 29 CFR part 1910
 - (c) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.
3. Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.
4. Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action.

This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action.

If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

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

5.0 PROJECT SCHEDULE

1. Approximate dates of pre-award activities

Pre-Bid Site Survey	o/a
Bids Due	o/a
Contract Award	o/a
Notice to Proceed (NTP)	o/a

2. Construction Milestones, from Notice to Proceed

Notice to Proceed (NTP)	0	Days from NTP
Project Schedule to OBO	2	
Project Design Notes / Sketches	3	
FAC Review	20	
Procurement, Shipping	25	
Fabrication	35	
Construction Completion	60	
Project Acceptance	60	

3. Deliverables

Construction Schedule	2	Days from NTP
Project Design Notes / Sketches	3	
Submittals for Major Equipment	10	
Manufacturer's Literature	60	
As-Built, Warranties	60	

4. Commencement, Prosecution, and Completion of Work

The Contractor shall be required to (a) commence work under this contract within two (2) calendar days after the date the Contractor receives the Notice to Proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than sixty (60) calendar days after NTP. The time stated for completion shall include final cleanup of the premises.

6.0 RESPONSIBILITIES AND PROJECT MANAGEMENT

1. **COR.** A Contracting Officers Representative (COR) will be assigned to ensure quality assurance goals are met. The Contractor shall provide the COR access to the site at all times.
2. **Point of Contact.** The COR shall be the main point of contact for this Project. The Contractor shall report to the COR on (a) status of the Project, (b) changes in Schedule, (c) accidents and safety issues, (d) disruptions to elevator or utility services; and all other important information pertaining to the Project
3. **English Speaking Representative.** The Contractor shall provide an English-speaking representative on-site during all working hours with the authority to make all decisions on behalf of the Contractor and subcontractors.
4. **Management Personnel.** The Contractor shall staff the site, full-time, with a competent senior manager who shall perform project management. Remote project management is not an option. This individual shall keep a detailed photographic and written history of the project and shall update the Government weekly.
5. **Site Security.** The Contractor is responsible for on-site security as necessary to ensure no unauthorized access to their work sites. The Contractor is 100% responsible for securing their working materials and equipment. Any damage to facilities or infrastructure, which happens due to a lack of security, will be the responsibility of the Contractor to correct.
6. **Contractor's Temporary Work Center.** The Contractor will be permitted to use a designated area within the contract limits for operation of his construction equipment and office if warranted. If directed by the Contracting Officer, the Contractor shall not receive additional compensation to relocate his operations. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area within 5 days of final acceptance by the Contractor and shall be disposed of in accordance with applicable host government laws and regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade. The Contractor is responsible for maintaining this area in a clear orderly manner.
7. **Health and Safety.** The Contractor shall be solely responsible for risk assessments, managing health, and safety issues associated with this project. The Contractor must provide cold water to all workers at the job sites. Based on hazard assessments, Contractors shall provide or afford each affected employee personal protective equipment (PPE) that will protect the employee from hazards. At a minimum PPE shall consist of eye protection, hard hats, and closed toe shoes. If the workers arrive on-site with sandals or athletic shoes, the Contractor is expected to provide rubber boots to them or send them home. All construction workers and management personnel must wear hard hats at all times on the construction sites. Contractor provided rubber boots and rubber gloves shall be worn when working around concrete placement. Other PPE such as gloves, dust masks, air respirators (sewage work) are also recommended. These items must be provided at the Contractor's expense. Workers may use discretion if they feel unsafe in using the equipment in a hostile environment. Any worker at an elevated location above 4 meters, with the exception of a portable ladder, must be provided and utilize a safety harness.

8. **Progress Payments.** If the contract awarder expects to receive more than one (1) progress payment, the Contractor must submit a broken out Cost Proposal with a Schedule of Values in order to properly calculate the percentage of contract completion.