



**STATEMENT OF WORK
FOR S-079
(RESIDENCE)**

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

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

12 JANUARY 2016

TABLE OF CONTENTS

1.0 Project Description 3

2.0 General Conditions..... 4-5

3.0 Bid Form.....6

4.0 Scope of Work 7-20

5.0 Project Schedule..... 21

6.0 Responsibilities & Project Management22-23

1.0 PROJECT DESCRIPTION

1. PROJECT SYNOPSIS

The project is described as “Make Ready of Property Number: S-079 (Residence) 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-079 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: Make Ready – Residence

Building Number; S-079

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	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:

Make Ready of Property Number: S-079 (Residence) "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. Contractor is responsible to extend the width of both sidewalks (west and south sides) to perimeter wall. Remove and discard all grass, soil, trees and excavate/compact the areas before provide the stones. Pour concrete (10cm thick) before install the new tiles.
- b. Provide and install new non-slip floor tiles (ceramic – high quality) for each exterior sidewalk (first floor around the building), balcony, terrace and roof. Tiles shall have non-slip surface. Provide sample and catalog for COR approval. Level exterior floors to drain directions using mortar (thickness of concrete will be determined during the construction work). Provide steel mesh (one layer) before pouring the concrete. COR has to verify the mesh wiring and thickness before the pouring.
- c. Contractor shall provide schedule for pouring the concrete before 48hrs in for COR approval.
- d. Contractor is responsible to clean/polish all existing interior floor tiles. Repair/replace existing tiles as needed.
- e. Contractor is responsible to increase the width of the first floor slab (second floor pad – concrete mortar) to match the height of the second floor bathroom floor. Modify the existing steps to meet the safety requirements. Provide new tiles for landing and last two steps (to the top) to meet the standards. Provide sample for COR approval.

2. Windows

- a. Contractor is responsible to repair/replace all existing window and window frame as needed. Contractor shall provide same color type of existing window. Repair/replace all window handle.
- b. Provide and install new mesh screen (metal) for window openings. Provide sample for COR approval.
- c. Contractor is responsible to remove all silicon between the window frame and wall opening and replace with cement (resealed the space between the wall opening and window opening).
- d. Contractor is responsible to replace all cracked/scratched window glasses. New window glasses shall match the existing.
- e. Contractor is responsible to install MILR (GFE MILR) on all windows. Contractor shall clean all windows before the installation. Replace window glasses as needed/per COR request.
- f. Provide and install new blackout curtains for all windows and zebra blinds for kitchen/landing windows. Provide sample and design for COR approval. Currently there are no curtains/blinds on the windows.

3. Window Grills

- a. Provide and install window grills for all first and second floors windows and openings. Grills shall match the quality of S-072 window grills (spaces between each vertical rebar shall be 8cm and spaces between each horizontal rebar shall be 20cm). Quick release is required for bedrooms windows only (one quick release per bedroom). Provide sample of rebar for COR approval. Quick release design shall match the S-072 property.

4. Doors

- a. Exterior Doors (Three doors):
Remove and discard all existing doors and frames.
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-072 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 3 combination locks (KABA-SIMPLEX L1000), one for each door. Provide catalog for COR approval.
 - l. The height/width of each door shall match the standard (1.98mX0.93m – door opening/inside frame measurements).
 - i. Installation: Cut the wall as needed for the installation. Use cement to fill the gaps between the door frame and door opening. Contractor is ***not*** allowed to use foam to fill any gaps.
 - ii. Contractor is responsible to provide “EXIT” sign one for each exterior door. Check the data sheet for the approved sample. High quality is required. Each sign shall be installed on the top of each exit door from inside. Provide power outlets, wiring and etc.... to have the lights functional.
- b. Interior Doors:
- i. Remove and discard all existing doors and frames.
 - ii. Provide and install wooden doors and frames for all rooms with all required hardware. Doors shall match the doors/doors frame in S-017 and/or S-072. Provide catalog and sample for COR approval.
 - iii. Color: Shall match the doors color in S-017 and/or S-072.
 - iv. Installation: Cut the wall as needed for the installation. Use cement to fill the gaps between the door frame and door opening. Contractor is ***not*** allowed to use foam to fill any gaps.
 - v. Modify the height of the opening to match the standards (2.10height, 110cm width).

5. Plastering and Painting

- a. Cement Plastering and Painting is required for the following surfaces:
 - i. All exterior walls/ceilings/trims/column. Color: TBD.
 - ii. Perimeter wall. Color: TBD.
 - iii. Balcony/roof parapets Color: TBD.
 - iv. All concrete beams and trims.
 - v. Gibson plastering is required up to the COR instructions with no additional cost to the original contract amount.
 - vi. Storage room and massage room.

- b. Surface preparation:
 - i. Repair and finish all interior walls prior to plastering all interior painting-filling cracks, removing nails, etc. from the walls.
 - ii. All wall penetration shall be sealed with waterproof sealant.
- c. Paint coatings shall be as follows for all surfaces:
 - i. One (1) primer coat
 - ii. Two (2) finish coats
- d. Paint Specification:
 - i. Hi quality paint is required. Color will be determined.

6. Bathrooms – Two bathrooms

- a. Provide and Install in all bathrooms the following new furnishings and fixtures:
 - i. Sink cabinet high quality vitra brand or equivalent Spain brand. Provide sample/catalog for COR approval.
 - ii. Toilet (Western style) high quality vitra brand or equivalent Spain brand. Provide sample/catalog for COR approval.
 - iii. Shower cabinets – tempered glass door with thermeston (cover with tiles) wall partition (like S-072 and S-075 bathrooms). Provide catalog for COR approval. Tempered glass thickness shall match the safety standard (8mm).
 - iv. The following bathroom fixtures shall be vitra brand or equivalent Spain brand: Provide sample for COR approval.
 - 1. Mirror above sink with the soap and tooth brush holder
 - 2. Towel bars (for sink space)
 - 3. Towel bars (for shower space)
 - 4. Towel shelves for shower space
 - 5. Soap and shampoo shelves for shower space
 - 6. Safety bar for shower space
 - 7. Toilet paper holder.
 - 8. Wall mount coat Hanger (enough for 3).
 - 9. Mirror shelves.
 - 10. Sink faucet.
 - 11. Shower faucet.
 - 12. Shower head.
 - 13. Spray hose next to toilet.
 - 14. Electric oil radiator heater. Grounding, 1500W and 220v are required.
- 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. New drainage shall be 3inch in diameter.
- 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 and COR may request two different designs.
- e. Provide and install new wall tiles for all bathrooms. Remove and discard existing tiles, if there is any. Provide sample for COR approval. Tiles shall be high quality and COR may request two different designs.
- f. Provide and install drop ceiling (60x60cm) for each bathroom. Color will be determined by COR after the tiles been selected. Provide sample for COR approval.

- g. Provide and install new water pipes and drain for each sink and toilet from water tanks to each fixture mentioned above. Replace existing manholes with UPVC-T sewage adapters, 4-6inch in diameter. Post will provide more explanation during the construction work.
- h. Contractor is responsible to discard all existing water pipes and replace it with new one. All new exterior water pipes shall mount on the wall and new interior piping shall be installed in the wall just before install the tiles.

7. Railings

- a. Replace all handrails (exterior and interior). New exterior handrail shall be steel railing using circle metal material 2inch in diameter. Height shall match the standard which is (90cm on stairway and 107 on 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. Provide sample of both materials for COR approval. All handrails and railings shall be provided with a clearance of approximately 3 in 7.6cm between the handrail or railing and any other object. More information can be found in building code, EM 385-1-1 US Army Corp of Engineer safety requirements
- b. Contractor is responsible to manufacture new steel stairway from the balcony to the roof. Design of the stairway will be determined during the pre-construction meeting or during the construction work by the COR. All steps shall be 35cm deep and 1meter wide using 6mm non-slip steel sheets and the height or space between each step shall not exceed the standard (18cm). Height of the handrail as mentioned above. Provide drawing/design for COR approval.
- c. Contractor is responsible to provide and install new steel railing for the top roof. The new handrail posts shall be built into the concrete curbs and mount to the roofs/balconies slabs by four 6”screws. Height of the new railing shall be 107cm from the top ground level after the tiles installed. Contractor shall provide steel sides support for the new handrails matching S-072 support railing. More information can be provided by the COR if needed.

8. Roof Drains

- a. Provide and install new rain water down-drain pipes from both the roof and the balconies. Four drains for each location as minimum.
- 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. Contractor is responsible to install non-slip tiles for all exterior sidewalks, balconies and roofs in each floor. Provide sample for COR approval. A high quality tile is required.

12. Remove and properly dispose per local laws and ordinances all debris in/on and around the building to outside the compound on daily basis. Provide labors and dump truck.

Outside:

- 1. Contractor is responsible to direct all new drainage pipes to the septic tank located outside the perimeter by the sidewalk. Contractor is responsible to provide new piping from each bathroom, kitchen and

exterior sidewalks. New drainage for toilet shall be 4inch in diameter, 3inch for sink/shower and 4inch for exterior sidewalks. Provide clean-out manhole for bathroom and kitchen every six linear meters.

2. Redirect the power line from MOE. Provide new cable (copper cable 4/25mm – UAE or Jordanian brands are acceptable), clamps (copper and aluminum sides) and all necessary stuff to complete the connection in accordance with the NEC 2014.
3. Provide and install waterproof lights with covers at the following locations, provide sample for COR approval (BG brand):
 - a. On building exterior. Total numbers of fixtures are seven (7). Location will be determined by the COR.
4. Perimeter Wall Along Street
 - a. Plaster the sides and top of block wall for smooth surface and paint to match existing wall.
5. Remove existing water pump enclosure. Install new pump with check valve and integrate with level switch at roof tanks and main source (near the gate). This is not limited to new insulated water tanks (3x1200Lt) with automatic pump pressure. New water tanks shall install on the top of a steel structural base frame 40cm in height, 1.80meters wide and 5meters long.
6. Remove and discard the existing frames booth located on the northeast of the property.

First Floor – Interior

Entrance and Open area

1. Remove and discard the exterior doors and door frames (two doors – front entrance and second fire exit).
2. Provide and install new steel doors (two) matching the specifications in page 9, point4.a – Exterior doors.
3. Power outlets are required for this area. Provide and install one outlet in each three meters with 40cm height from ground level to the bottom of outlet box.
4. Provide and install three electronic fluorescent light fixtures (double tubes – 4ft) with cover above the main entrance (ceiling), open area, and above the second fire exit. BG, Philips and HANO brands are acceptable. Provide sample for COR approval. Light switch will be located next to the front entrance, by the open area, and by the second fire exit (120cm from the ground level to the bottom of the switch box). More information will be provided by COR during the installation.
5. Provide and install 24000btu AC unit above the window. Check the specifications, brand name and installation instructions in section (B).
6. Contractor is responsible to remove and discard the existing handrail and replace with steel stairway to meet the safety standards. The height of the handrails shall match the specifications listed in page 9 and 10, point 7 (railing).
7. Remove and discard the existing sink, faucet, pipes, drain and other accessories. No need for new sink.

Kitchen

1. Contractor is responsible to remove and discard the existing electric wiring, Panduit, outlets, lights, door, door frame and any other fixtures.
2. Provide and install electrical outlets (double) along all Interior walls 2 meters apart. Provide sample for COR approval (Adeson is the approved sample). Outlet shall be installed in 40cm height from the ground floor level. Waterproof outlets required if the distance to sink is less than 1meter. Follow safety requirements.

3. Provide and install two electronic LED light fixtures (60x60cm). BG and Philips brands are acceptable. Provide sample for COR approval.
4. Provide and install new wooden door and door frame. Wooden doors shall match the specifications listed above in section 6.B.
5. Provide and install 60x60cm of drop ceiling plastic high quality with steel framing. Provide catalog and sample for COR approval. Distance between the ceiling and the new drop ceiling shall be 25cm to have enough space to repair the light fixtures.
6. All electric wiring above the drop ceiling shall be installed in a Panduit ***not*** in flexible Panduit.
7. Provide and install new ceiling fan Panasonic brand is required. Provide catalog for COR approval. Shall be no space between the ceiling fan hook cover and drop ceiling. Ceiling fan regulator shall be installed next to the light switch.
8. Provide and install new wooden kitchen cabinets with counter (granite – black color with 2.5cm thick) matching the quality of S-072 and S-075 kitchen cabinets or better. Design of the kitchen cabinets (upper and lower) and counter will be determined later.
9. Provide and install high quality stove hood (90x60cm) with flex hose. Cut wall for ventilation hose. Exhaust fan is not required. Run the flex hose above the drop ceiling. Provide all hood accessories per COR request.

Living Room

1. Contractor is responsible to remove and discard the existing electric wiring, Panduit, outlets, AC unit, door, door frame, lights and any other fixtures.
2. Provide and install electrical outlets (double) along all Interior walls 2 meters apart. Provide sample for COR approval (Adeson is the approved sample). Outlet shall be installed in 40cm height from the ground floor level.
3. Provide and install three electronic fluorescent light fixtures (double tubes – 4ft) with cover. HANO brand are acceptable. Provide sample for COR approval.
4. Provide and install new wooden door and door frame. Wooden doors shall match the specifications listed above in section 6.B.

Bathroom

1. Remove and discard all wall/floor tiles, window, window frame, sink, toilet, accessories, drop ceiling, door frame and door.
2. Provide and install new and high quality wall tiles and non-slip floor tiles for the bathroom.
3. Contractor is responsible to provide and install new 25cm exhaust fan (Panasonic brand or equivalent) with louvers. Cut wall for installation. Contractor is not allowed to install the fan in a window. Switch shall locate next to the light switches.
10. Provide and install high quality (vitra brand or equivalent) sink cabinet with drawers, mirror, shelve for mirror and all other bathroom accessories. Provide catalog for sink cabinet and provide samples of all accessories for COR approval. Size of sink cabinet is 60cm wide.
11. Provide and install new western type of toilet with hydraulic seat cover. High quality is required (vitra brand or equivalent). Provide catalog for COR approval.
12. Provide and install toilet paper holder, towel racks (one for shower space and one for sink), wall mount coat rack (enough for two), and all bathroom accessories (match S-072 bathroom accessories). High quality is required (German or Spain made). Provide samples for COR approval.
13. Provide and install new aluminum window and window frame within the same specifications for other existing windows.
14. Provide and install new wooden door matching the color of the new window. Design of the door will be determined during the construction work. Contractor is responsible to modify the height and width of the door opening to match the standards.

15. Contractor is responsible to provide and install new drop ceiling (60x60cm). Provide sample for COR approval.
16. Provide and install one waterproof power outlet next to the sink. Provide sample for COR approval.
17. All electric wiring for the lights shall be run in Panduit mounted to the ceiling. Flex panduit is not acceptable.
18. New wall tiles shall be installed all the way to the ceiling.
19. Provide and install 60x60cm of light fixture for the bathroom. Type of light will be determined later after the contractor provides catalog for COR review and approval. Brand of light shall be Philips or BG. Light switch shall be located inside the bathroom next to the door.
20. Contractor is responsible to remove and discard all existing drainage/water pipes, fitting and covers. Contractor is responsible to provide and install new drainage/water pipes meet the COR specifications (3inch for toilet and 2inch for sink UPVC drainage – ¾ inch of water pipes is required).

Bedroom

1. Contractor is responsible to patch and paint the walls and ceiling. Provide catalog for COR approval.
2. Contractor is responsible to repair/replace window and window frame as needed. Replace all cracked or scratched window glasses and repair window handle as well.
3. Contractor is responsible to remove and discard existing wooden door and frame.
4. Contractor is responsible to provide and install new blackout curtains as mentioned in section (A), point#2.
5. Contractor is responsible to provide and install three light fixtures. Type, brand and other specifications are listed in section “C”.
6. Provide and install new AC split unit 24000btu. More information provided in section (B).

Second Floor – Interior

Bathroom

1. Remove and discard all wall/floor tiles, window, window frame, sink, toilet, accessories, drop ceiling, door frame and door.
2. Provide and install new and high quality wall tiles and non-slip floor tiles for the bathroom.
3. Contractor is responsible to provide and install new 25cm exhaust fan (Panasonic brand or equivalent) with louvers. Cut wall for installation. Contractor is not allowed to install the fan in a window. Switch shall locate next to the light switches.
4. Provide and install high quality (vitra brand or equivalent) sink cabinet with drawers, mirror, shelve for mirror and all other bathroom accessories. Provide catalog for sink cabinet and provide samples of all accessories for COR approval. Size of sink cabinet is 60cm wide.
5. Provide and install new western type of toilet with hydraulic seat cover. High quality is required (vitra brand or equivalent). Provide catalog for COR approval.
6. Provide and install toilet paper holder, towel racks (one for shower space and one for sink), wall mount coat rack (enough for two), and all bathroom accessories (match S-072 bathroom accessories). High quality is required (German or Spain made). Provide samples for COR approval.
7. Provide and install new aluminum window and window frame within the same specifications for other existing windows.
8. Provide and install new wooden door matching the color of the new window. Design of the door will be determined during the construction work. Contractor is responsible to modify the height and width of the door opening to match the standards.
9. Contractor is responsible to provide and install new drop ceiling (60x60cm). Provide sample for COR approval.
10. Provide and install one waterproof power outlet next to the sink. Provide sample for COR approval.

11. All electric wiring for the lights shall be run in Panduit mounted to the ceiling. Flex panduit is not acceptable.
12. New wall tiles shall be installed all the way to the ceiling.
13. Provide and install 60x60cm of light fixture for the bathroom. Type of light will be determined later after the contractor provides catalog for COR review and approval. Brand of light shall be Philips or BG. Light switch shall be located inside the bathroom next to the door.
14. Contractor is responsible to remove and discard all existing drainage/water pipes, fitting and covers. Contractor is responsible to provide and install new drainage/water pipes meet the COR specifications (3inch for toilet and 2inch for sink UPVC drainage – ¾ inch of water pipes is required).

Hallway and Laundry Area

1. Contractor is responsible to remove and discard the existing roof door.
2. Provide and install new metal door matching the specifications listed above in page 9, point#4 – exterior doors.
3. Contractor is responsible to provide and install two new fluorescent light fixtures with cover including all wiring. All wiring shall be run in a Panduit. Location of each fixture will be determined during the electrical work by the COR. For more information the lights will be mounted on the wall.
4. Provide and install electrical outlets (double) along all Interior walls 2 meters apart. Provide sample for COR approval (Adeson is the approved sample). Outlet shall be installed in 40cm height from the ground floor level.
5. Contractor is responsible to provide and install water pipes for hot and cold water, and drainage for washer machine. This is not limited to provide vent opening for dryer ventilation.
6. Contractor is responsible to provide separate breaker with separate wires for the washer machine and separate wires and switch for dryer machine. Washer machine shall be connected to GFCI breaker. Dryer shall be connected to regular mini breaker not GFCI. Dryer needs 18amps and washer machine needs 8amps.
7. Contractor shall provide and install wall tiles for washer machine space (120cm height X 90cm width).

Bedroom

1. Contractor is responsible to patch and paint the walls and ceiling. Provide catalog for COR approval.
2. Contractor is responsible to repair/replace window and window frame as needed. Replace all cracked or scratched window glasses and repair window handle as well.
3. Contractor is responsible to remove and discard existing wooden door and frame.
4. Contractor is responsible to provide and install new blackout curtains as mentioned in section (A), point#2.
5. Contractor is responsible to provide and install three light fixtures. Type, brand and other specifications are listed in section “C”.
6. Provide and install new AC split unit 24000btu. More information provided in section (B).

Balcony

1. Contractor is responsible to provide new non-slip tiles (matching the tiles for other exterior areas) for balcony floor.
2. Contractor is responsible to plaster all trims, and roof parapets with smooth/clean surface.
3. Contractor is responsible to provide and install two waterproof light fixtures and three waterproof outlets. All exterior outlets shall be connected to GFCI breakers.
4. Contractor is responsible to provide and install isogam sheets before install the new tiles to avoid any future leaks.

Roof

1. Contractor is responsible to provide and install isogam sheets for the top roof all the way to the edge of the trims.
2. Contractor is responsible to provide all equipment and tools to have the sheets installed.

B. MECHANICAL WORK

1. Provide and install eight (8) new 24,000 Btu split-system (LG brand is required – with reset option) direct-expansion heat pump units in five (7) rooms. Existing equipment shall be removed to a location designated by the FAC specialist. New equipment, including condenser units, shall be installed at locations approved by the COR. 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 steel pads or mount on the wall – COR has to approve the way of the installation; 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 COR.
2. Provide and install three (3) new ceiling fans (kitchen, living room, and 1st floor bedroom). Install rheostat near light switch. Panasonic brand is required.
3. 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 three (3x) Roof Tanks. Provide/replace piping as mentioned above. Provide warranty and service period for the installed equipment. Includes check valve and isolation valves.
 - b. Provide and install three isolation water tanks (3 x 1200lt). All new water tanks shall be installed on steel stand structure matching S-075 and S-072 steel stand.
 - c. 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.
4. Provide and install one new Electric Water Heater to serve the building (200Lt capacity). Remove and discard existing EWH's. Bradford brand is required with two heater elements.
5. Provide and install P-traps on all drains except toilet.

D. ELECTRICAL WORK

1. Provide and install a new Main Circuit Breaker Panel rated 100A, 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 three ground rods (the ground rods must meet local codes) 2.45 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 20 ohms. (NEC 250.56)
3. Contractor is responsible to connect service from MOE grid to new service panel. Provide cable, clamps, fitting, poles to be installed on the roof/balcony as needed (3inch pole), basket crane, electricians, tools, safety, cons, caution tape, etc... to have the work completed. Size of the cable shall be up to the NEC 2015 code. More information will be provided during the pre-construction cable – Aluminum cable is required with straight wire).
4. Exhaust fans to be on separate switch at door next to light switch.
5. All circuits inside the house shall be in Panduit. Provide sample for COR approval. All Panduits shall be one color and no spaces are allowed between the panduits.
6. GFCI Receptacles Shall use. 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 nine (9) weatherproof outdoor lights (double tube – BG brand is required). Location will be determined by the COR during the work. Provide sample for COR approval.
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 (double – Adeson brand is required as mentioned above) along all Interior walls 2 meters apart in each room/hallway. Provide sample for COR approval. Outlet shall be installed in 40cm height from the ground floor level.

13. Provide and install AC weatherproof switch on exterior walls near the outdoor condenser units.
14. Provide and install two new ceiling fans with Rheostat switches near light switch in all hallways.
15. Provide and install new Fluorescent lighting fixtures 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. This is including all stairways and landing.
17. Provide and install six (6) outdoor weatherproof electrical receptacles (first floor) on the wall. Locations will be determined by the COR during the work.
18. Provide and install three (3) outdoor weatherproof electrical receptacles on the wall of each balcony. And five (5) waterproof outlets for each roof.
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 indoor lights at each exterior entrance and balcony with switches on interior side of door way. Akko brand is required (Automatic LED emergency lamp) Model#HK5600A – 59LED's. Provide sample for COR approval.
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	45	
Project Acceptance	45	

3. Deliverables

Construction Schedule	2	Days from NTP
Project Design Notes / Sketches	3	
Submittals for Major Equipment	10	
Manufacturer's Literature	45	
As-Built, Warranties	45	

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 forty five (45) 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.