

**B.o.Q for Renovation of Residential Houses  
for (UNHABITAT) in (Barttela - Zone B) area Sub-District /Ninevah Governorate /Iraq**

**Notes:**

- 1 Work items to be implemented according to conditions and specifications of the tender and in accordance with supervision engineer instructions.
- 2 Prices should include all necessary materials, equipment's, to complete the items .
- 3 Contractor has responsibility to do all necessary test. Random check will be conducted during the project implementation.
- 4 Provide all samples. Provided samples must be approved by site engineers.
- 5 Provide detailed time schedule.

#	Item Description	Unit	Qty.	Price USD	Amount USD
1	<b>Civil Works:-</b> Provision of materials/ works/ equipment to implement the items described in below, and all that is required to make the job complete in every part and detail as per the instruction of the supervisor engineer, Work items to be implemented according to conditions and specifications of the tender and in accordance with supervision engineer instructions, Prices should include provision, supply, install and all necessary materials, equipment's, to complete the items according to B.o.Q and DWG, Contractor responsibility to do all necessary test In the cases of some works in the drawing or B.o.Q are not mentioned in the bill of quantity the contractor should add this item to the bill of quantity before starting of works otherwise he should execute this work for no extra prices and he doesn't have any right to ask for variations orders. The prices include painting all iron materials (Pipes, angles, frames and .....etc) with antirust paint and oil paint.				
1-1	<b>Earth excavation:</b> Earth excavation in all types of soils after the excavation should be leveled and well compacted before starting any other items.	M3	15		
1-2	<b>Demolish and Remove works:</b> provision materials, labors and equipment and all requirements for good works to demolish walls, roofs, floors ,damage doors windows with the frame and demolish parts of house, removing the old gypsum and false ceiling and all damage part according to the instruction of supervisor engineer. The price includes remove the debris to outside municipality boundary.	House Unit	9		
1-3	<b>Cement Plastering:-</b> Provision materials, labors and equipment and all requirements for plaster the exterior and interior walls and ceilings using cement & sand plastering with ratio of (1:3), making straight and smooth facing, with clear edges and corners, with spacing not more than (1) meter for walls, the work price repairing the damaged wall and all that is required to make the job complete in every part and detail as per the instruction of the supervisor engineer. (The price include removing and repairing all old damaged parts of the exist walls)	M2	195		
1-4	<b>Gypsum Plastering:-</b> Provision materials, labors and equipment and all requirements for plaster the interior walls and ceilings using gypsum material taking into consideration the verticality and alignment according to the technical specification using beads every (70- 80) cm with all that is required to make the job complete in every part and detail as per the instruction of the supervisor engineer. (The price include removing and repairing all old damaged parts of the exist walls and ceilings).	M2	1,600		
1-5	<b>Nylon-Water proofing:-</b> Provision materials, labors to lay one layer of thick polyethylene/plastic sheets (locally called Nylon) on the existing roof or holes, the work includes fixing the plastic sheet properly to prevent any leakage or removal of the plastic sheet.	M2	18		

#	Item Description	Unit	Qty.	Price USD	Amount USD
1-6	<b>Building walls (using Hollow concrete blocks):-</b> Provision materials,labors to build external, internal walls above (D.P.C),fence and parapet by using hollow concrete blocks (20x20x40)cm with ordinary cement mortar (1:3) include fixing the windows, doors. The price includes installing angle steel sections size (2.5"x2.5"x4mm) extended 25cm in each sides for opening (paint with anti-rust) above windows and doors as lintels, with good work requirements and in accordance to the attached drawings and the instructions of the supervisor engineer.	M2	70		
1-7	<b>Cast plain concrete:-</b> Provide materials and cast concrete with ratio of (1:2:4) and strength of (210 kg/cm <sup>2</sup> ), thickness of (10) cm. The work includes laying a thick plastic sheet before casting the concrete. Expansion joints should be made every (3) m filling the groves by fine cement-sand mortar. All in accordance to the instructions of UN-HABITAT's supervisor engineer's.	M2	50		
1-8	<b>Reinforced Concrete for foundation:-</b> Provision of materials and cast reinforced concrete (1:2:4) and strength of (210 kg/cm <sup>2</sup> ), for the foundations according to instructions of the supervisor engineer.	M3	5		
1-9	<b>Reinforced Concrete for slab:-</b> Provision materials,labors and equipment and all requirements for casting reinforced concrete (1:2:4), for roof ,beams,columns,slab,stair and parapets, including form works , and steel reinforcement, with all requirements. Slops should be directed towards the outside with.Work should be done with all good specification, all work done according to instructions of the supervisor engineer.	M3	5		
1-10	<b>Painting with Emulsion paint:-</b> Provision materials,labors and equipment and all requirements for painting walls, ceilings and any other places defined by the engineer with best quality of emulsion paint to be accepted and approved by the supervisor engineer. The price includes any work required before the painting such as walls repairing and cleaning surfaces from nails, removing all old cracked paint and filling the surface all work done according to instructions of the supervisor engineer.	M2	1,780		
1-11	<b>Painting with Oil paint:-</b> Same item 1-10 description but with oil painting	m2	85		
1-12	<b>Install steel door and frame:-</b> Provision materials,labors and equipment and all requirements for Fix single face hinged steel door with angle line frame (1x1) inch. and the frame should manufacture by using of steel sections (T&Z) then plated on one side with steel plat gage 16. All metal surfaces should be painted (primed) with anti-corrosion paint and finished with suitable oil paint. The price includes supplying and fixing of all required locks and slide latch of 0.5 inch., hinges...etc and removal of old doors and frames if exist and repair of any damages that may occur to the wall or finishing due to the replacement process.The dimensions of door openings is varied and all work done according to instructions of the supervisor engineer.	M2	18		
1-13	<b>Install PVC Windows:-</b> Provision materials,labors and equipment and all requirements for install PVC windows with the frame accessories. The price includes supplying and fixing of all required handles, 4mm glass and hinges...etc and build and repairs of any damages that may occur on walls or finishing due to the replacement process and refixing and all work done according to instructions of the supervisor engineer.	M2	110		
1-14	<b>Install PVC Door:-</b> Provision materials,labors and equipment and all requirements for Install PVC hinged doors with frame. The price includes supplying and fixing of all required locks, 4mm glass and hinges...etc and repairs of any damages that may occur to the wall or finishing due to the replacement process or finishing due to the replacement process and refixing ,all work done according to instructions of the supervisor engineer..	No.	28		

#	Item Description	Unit	Qty.	Price USD	Amount USD
1-15	<b>Repair Existing Wooden Doors:-</b> Provision materials,labors and equipment and all requirements for repair the existing wooden doors and its frame from good quality materials and provide it with new key lock best quality, with 3 layer of oil or "Damolog" painting. The work will be done in such a way that each door face shall not be more than two parts, and the final appearance of the door should be like a new door .The price includes removing the old door and frame and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing due to the replacement process and refixing ,all work done according to instructions of the supervisor engineer.	No.	12		
1-16	<b>Door lock:-</b> Fix good quality of door lock approved by the supervisor engineer as the following:				
1-16-1	Exterior door lock.	No.	13		
1-16-2	Interior door lock.	No.	9		
1-17	<b>Install glass for steel frame:-</b> Provision materials,labors and install best quality glass of (4)mm thickness by using approved type of paste by the engineer, the price includes cleaning the broken glasses and the paste the price includes all necessary works.	M2	110		
1-18	<b>Window Handles:-</b> Supply and install new steel handles.the price includes all necessary works. Type of handle should be same material of windows frame material.	No.	10		
1-19	<b>Ceramic Wall Tiles:-</b> Provision materials,labors,supply materials and erect ceramic tiles good quality (approved by the supervisor engineer),with cement sand mortar (1: 2) on layers of cement mortar(Locally called sharbat),the work includes filling the joints between the tiles.The price includes removing the old tiles and mortar and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing due to the replacement process and refixing ,all work done according to instructions of the supervisor engineer	M2	140		
1-20	<b>Ceramic Floor Tiles:-</b> Provision materials,labors,andsupply materials to lay ceramic floor tiles using best quality of tiles (approved by the supervisor engineer), with cement mortar(1:2) and all necessary works, the price includes leveling and compacting the soils and casting plain concrete 5cm thickness under ceramic tiles,the work price includes filling the joints between the tiles .The price includes removing the old tiles and mortar and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing due to the replacement process and refixing ,all work done according to instructions of the supervisor engineer.	M2	130		
1-21	<b>Ceramic Skirting:-</b> Supply materials and erection skirting with Ceramic tile 10cm height (best type) and (light colour) on cement mortar (1: 3) with all necessary works The price includes removing the old tiles and mortar and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing due to the replacement process and refixing ,all work done according to instructions of the supervisor engineer.	M.L	90		
1)	<b>Sub total of Civil Wroks</b>				
2-	<b>Sanitary and Plumbing Works</b> Provision of materials/ works/ equipment to implement the items described in below, and all that is required to make the job complete in every part and detail as per the instruction of the supervisor engineer.The price includes removing the old and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing and refixing ,all work done according to instructions of the supervisor engineer.				
2-1	<b>Replace toilet:-</b> Remove damaged oriental toilet. Supply materials and install new good quality vitreous china 18" size with gully trap. The price includes supply and fixing of a 1/2" tap.	No.	9		

#	Item Description	Unit	Qty.	Price USD	Amount USD
2-2	<b>Hand Wash basin:-</b> Supply materials and install a new vitreous hand wash basin with pedestal, approximately (60X45) cm in size and good quality, with chromium mixing tap, control valves connected with best quality rubber hose then to be connected to water supply system, connected to nearest gully trap with good quality rubber hose properly connected to 2inch. dia. galvanized steel drain.	No.	9		
2-3	<b>Install new PVC manhole:-</b> Supply materials and install a new PVC manhole of size (40 x 40) cm with cover, with filling all the surrounding faces and base with concrete (1:2:4) with connecting to incoming and outgoing pipes. The work includes all required demolishing or excavations according to the instructions of the supervisor engineer.	No.	40		
2-4	<b>Steel Sink:-</b> Supply materials and install a new and good quality stainless steel sink (single basin, one wing or tow wing) properly fixed on galvanized steel pipe stand. Price including supplying of chromium mixing tap to be connected to water supply system .The sink should be connected to nearest gully trap with good quality rubber hose properly connected to 2 inch.dia. galvanized steel drain.with 2 meters aluminum cabinet with all required works.	No.	9		
2-5	<b>Install Water Tank:-</b> Supply materials and install Install a storage water tank, capacity of (1) cubic meter at a level and place that will be decided by the supervisor engineer with proper base using concrete blocks. The tank shall be made of galvanized sheet gauge 18 (new) complete with floated valve, drain, all connecting parts between the tanks, control gate valve, washing tap of 1" dia. the price include Provide (high pressure PPR pipe 3/4" in diameter, Float Valve 3/4,elbow,Socket,...etc) to connect the water source to the water tank(1000L) then to the water point( new constructed toilets)and all required works to finish the connection.	No.	9		
2-6	<b>Install Bath Wash Mixer:-</b> Supply materials and install install and fix a hanged type bath washing mixer (Dosh locally name) with all the necessary incoming and outgoing pipes, fittings, water connections from tanks.	No.	9		
2-7	<b>PPR pipes:-</b> Supply materials and install install ppr pipe (1/2 and 3/4)inch. and (1)inch. PPR pipes from good quality with all necessary fittings needed in a route decided by the supervisor engineer, all pipes should be fitted on the walls by brackets.	M.L	240		
2-8	<b>Install a Chromium tap:-</b> Supply materials and install and fix chromic 1/2 tap with all the necessary according to engineer instruction.	No.	18		
2-9	<b>Outlet Piping:-</b> Supply materials and install PVC pipe of (4)inch. dia. of high pressure resistance, where required, with all its requirements to complete the work such as elbow, T or y connections . . . etc. and all civil works requirements (covering the pipe with 10cm sand ,earth excavation, casting concrete 1:3:6 and backfilling).	M.L	100		
2-10	<b>Electric Water Heater :-</b> Supply materials and install install a Electric water heater 200L (good quality) with ventilation and all accessories needed to connect it with the water point and price including supply electric power(switch plug) with all required works to complete the work.	No.	9		
2)	<b>Sub total of Sanitary and Plumbing Works</b>				

#	Item Description	Unit	Qty.	Price USD	Amount USD
3-	<b>Electrical works</b> Provision of materials/ works/ equipment to implement the items described in below and best materials, all type of wiring, and all that is required to make the job complete in every part and detail as per the instruction of the supervisor engineer. The price includes removing the old and repairing of any damages that may occur to the wall or finishing due to the replacement process or finishing and refixing, all work done according to instructions of the supervisor engineer.				
3-1	<b>Lighting and connections:-</b> Supply materials and install and operate a surface type, wall or ceiling mounted single fluorescent fixture with fluorescent tube of (4) feet, chock and starter of a good quality with all wiring system fixed on the face of the wall, as per the approval of the supervisor engineer the price includes supply, install, and test (13)AMP switch (1 gang or 2 gang, one way switch). .	No.	54		
3-2	<b>Water Proof Light Fitting:-</b> Supply materials and install and operate a surface type, wall or ceiling mounted water proof light, good quality with all wiring system fixed on the face of the wall, as per the approval of the supervisor engineer the price includes supply, install and test (13)AMP switch (1 gang or 2 gang, one way switch). .	No.	45		
3-3	<b>Switch Socket and connections (15A):-</b> Supply materials and install and fix switch socket (15A) of good quality approved by the supervisor engineer. The work includes all requirements for surface type wiring (2x2.5 mm <sup>2</sup> ) from the main board to the point.	No.	20		
3-4	<b>Switch Socket and connections (13A):-</b> Supply materials and install and fix switch socket (13A) of good approved quality by the supervisor engineer. The work includes all requirements with surface type wiring (2x2.5mm <sup>2</sup> ) from the main board to the point.	No.	45		
3-5	<b>Switch Socket and connections (20A):-</b> Supply materials and install and fix switch socket (20A) of good approved quality by the supervisor engineer. The work includes all requirements with surface type wiring (2x4 mm <sup>2</sup> ) from the main board to the point.	No.	25		
3-6	<b>Switch:-</b> Supply materials and install and test switch ( one line,two lines, three lines) includes all required connection and operation.	No.	55		
3-7	<b>Arrange Main Electrical Board:-</b> (Supply materials and install and arrange DB cable with electrical gauge board (locally called Saaty karaba), the work includes install new steel board, new change over, circuits, electrical gauge arrange all wiring in the new board with all accessories according to instruction of supervisor engineer	No.	9		
3-8	<b>Main Circuit Breaker D.B:-</b> Supply materials and install operate and test main circuit breaker of (40) amp. with (6 or 12) circuits of good quality,connect with all needed wiring to be connected to the rooms and connected with main power with (2x16) mm <sup>2</sup> cables according to the instructions of the supervisor engineer.	No.	9		
3-9	<b>Wiring:-</b> Supply materials and install and fix new best wires of (2x2.5)mm <sup>2</sup> and (2x1.5)mm <sup>2</sup> , for connections, with all requirements for secured work.	M.L	500		
3-10	<b>Cable:-</b> Supply materials and install and fix new best cable (2 x4)mm <sup>2</sup> , for connections, with all requirements for secured work.	M.L	450		
3)	<b>Sub total of Electrical Wroks</b>				
1)	Sub total of Civil Works				
2)	Sub total of Sanitary and Plumbing Works				
3)	Sub total of Electrical Works				
	<b>Total Amount in USD</b>				